Institutionalism and Liberalism

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INTRODUCTION

I wrote my doctoral thesis under the guidance of a most prestigious institutionalist – Kenneth Boulding; and, years later, I did research on capital theory with the world-renowned Nobel prize, neoclassical economist, Paul Samuelson. Both were extraordinarily good economists, with an excellent background, and solid and well-known contributions to economics; yet they disagreed profoundly with one another. Kenneth was the book reviewer of Paul's famous *Foundations of Economic Analysis*, and he commented that it was an extraordinary work that clearly deserved publication, but that he did not believe that mathematics was the future of economics as a science. And Paul, in the foreword of the last edition of the mentioned book, after many years, wrote that Kenneth Boulding, "master of all social science and his old friend", had been proven wrong due to the fast development of scientific-mathematical economics. Paul was certainly right about the success of mathematics in economics, but is it true that Kenneth was wrong? Not really. As strange as it may seem, both Paul and Kenneth were right. In this book, we will argue that their vision of economics as a science was very different, because they were trying to solve distinct problems. Kenneth was concerned with the broad development of human societies in an evolutionary-historical context; he was within the paradigm of institutionalism. Paul, on the other hand, was interested in understanding the workings of free markets in Western economies. Paul was under a liberal-neoclassical paradigm, yet he acknowledged the need of government (a key institution) for a liberal economy to operate properly.

How should the contributions of both Boulding and Samuelson be reconciled? We need to go back to Adam Smith and recall that the problem of *The Wealth of Nations* was precisely to understand how free markets have contributed to the fastest economic growth in human history. But for Smith, free markets were understood as a historical, social institution adopted by England, and he was analyzing why this specific social institution explained England's faster economic growth, compared with Spain's and Portugal's. For Smith, the rational human operating in free economic markets did not describe human behavior in its entirety, there

was a broader relationship between the individual and the society that he describes in detail in *The Theory of Moral Sentiments*. Paul Samuelson and neoclassical economics are concerned with developing Smith's dictum that free markets generate economic growth and social wellbeing; while Kenneth Boulding and institutional economics were concerned with the institutional arrangement that gave rise to Western capitalism, and explaining how it differs from other institutional arrangements (whether they are part of the West's previous history or have happened in non-Western societies). Both problems are relevant for economics as a science. Understanding the evolutionary background of human societies in general, and the diverse historical institutional arrangements developed in Western and non-Western societies is key to 1) understanding the institutional singularities under which free markets operate in Western societies; and 2) evaluating the role that free markets could play within alternative institutional arrangements. But it is also extremely relevant to describe with detail how free markets operate, and why and how they contribute to economic growth and social wellbeing. From a scientific-pragmatic point of view, institutionalism and liberalism can and should be reconciled, because after all the Western growth model includes both free markets and institutions, and other societies with alternative institutional arrangements, aiming to promote faster economic growth, must be interested in how free markets operate and how they can be used within alternative institutional arrangements to stimulate such growth.

We have emphasized that institutionalism and liberalism can be reconciled from a scientific-pragmatic point of view (as was the one held by Kenneth Boulding and Paul Samuelson – and that is why. although they disagreed, they liked and respected each other), because there are also radical versions of liberalism and institutionalism that cannot be reconciled. As we will argue, these radical versions are guided by ideologically preconceived assumptions that do not have any scientific support. These radical versions are responsible for most failed policies in the real world. Radical liberalism (RL) is responsible for defending a misunderstood homeostasis of the private markets, that is partially responsible for the lack of proper institutions – which is a cause of major global economic crises[1]. It is also responsible for the misguided polices recommended, by what

[1] For example, I have documented that the Federal Reserve did not solve the subprime problem in the US because it thought the homeostasis of the market was going to solve it, See Obregon, C., 2018. *Globalization Misguided Views*. Amazon.com. Also available at Research Gate.com.

has been called The Washington Consensus, to developing economies[2]; the mistaken policy suggestions made to the USRR in its economic integration to the West in the 90's[3]; and it is behind the erroneous attack to global institutions[4]. Radical institutionalism, on the other hand (RI) – Marxism - is responsible for the economic crisis that led to the dismantling of the USSR at the end of the decade of the 80's[5]. It is responsible for the failure of the economic policies recommended by the import-substitution model[6]; and it is also responsible for the very low economic growth of many leftist distributional programs in developing economies[7]. Radical liberalism erroneously claims that a political and economically free individual will solve the global problems of justice and peace[8]. And radical institutionalism mistakenly sustains that communism and socialism can emulate the economic growth that has characterized capitalism, and that distributional programs will generate fast economic growth[9]. RI and RL are together responsible both the Cold War, and nowadays of the Russia- Ukraine war[10].

In social sciences there has been a long debate between the defenders of institutionalism and those of liberalism. The debate has centered around the relationship that exists between the individual (agent) and the social institutions (social structure). In general, liberalism defends that the individual's (agent's) preferences, choices, and behavior define the social institutions (social structure); while institutionalism argues that the social institutions define the individual's preferences, choices, and behavior. Some authors have attempted to solve the debate by proposing a dual feedback loop between the individual and the social institution, in which both mutually define each other. But the solution is not as simple as that. In this manuscript, it is argued that liberalism is fully compatible

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[2] Ibid

[3] Ibid

[4] Ibid

[5] Ibid

[6] Ibid

[7] Ibid

[8] See Obregon, C., 2022. *The Economics of Global Peace*. Amazon.com. Also available at Research Gate.com.

[9] *Globalization Misguided Views,* op. cit.

[10] *The Economics of Global Peace,* op. cit.

with institutionalism, although only by following a pragmatic-scientific conception of both. It is ascertained that liberalism is an institution itself, that was born in a particular historical period of the Western societies. Therefore, since liberalism itself is an institution, it follows that liberalism is compatible with institutionalism. And although it is in general true that institutionalism argues that individual preferences, choices, and behaviors are defined by social institutions; once the society grants the individuals political and economic freedom, these individual preferences, choices, and behaviors become critical in defining the dynamics of the institutional arrangement in question – as liberalism has pointed out.

Individual freedom must be understood for what it is: a social historical institution designed to allow the individuals to exercise their political and economic freedoms - as they are defined by the Western societies. However, liberalism is not just one institution more – it is as an institution that has been in the epicenter of the greatest economic expansion in human history. Thus, it is extremely important to fully understand it. Neoclassical economics as a science has resulted extraordinarily powerful to understand the virtues of pragmatic liberalism as an institution, and its role in promoting economic growth and social wellbeing. But the scientific contributions of neoclassical economics do not support the ideology of radical liberalism. Neoclassical economics failed to show that a liberal economy can have a unique, stable, optimal equilibrium that maximizes social-economic welfare. Instead, scientific economics has shown the existence of multiple equilibriums, some of which despite being Pareto optimal[11] may exhibit underemployment and underdevelopment, and many of which are not Pareto optimal; Nash equilibriums are a subset of those non-Paretian equilibriums. It is not true that liberalism generates economic stability in developed economies; it is not true that liberalism will generate economic growth in developing economies; and it is not true that a world composed of democratic nations that respect free markets will generate global justice and peace. The three proposals result from ideological preconceptions with no scientific basis. Thus, radical liberalism as an ideology does not have any scientific support.

Liberalism, we argue, is a gradient that goes all the way from pragmatic liberalism, based on science and devoid of ideological preconceptions, to ideological, radical liberalism, based on preconceived philosophical assumptions that lack scientific support. Economics has scientifically

[11] Pareto optimal means that there are no trades left between the participants in which one of them can benefit without reducing the welfare of the others.

shown that free markets, communicating the rapidly changing preferences of the enlarged middle class, have been the cornerstone of Western capitalism's phantastic historical success in terms of economic growth. Therefore, understanding the general characteristics of the institutional arrangement that pragmatic historical liberalism represents is of paramount importance. But pragmatic liberalism should not be confused with the ideological proposals of radical liberalism, which does not have any scientific basis. Today it is a clearly established scientific fact that a liberal model of private economic markets does not define by itself its equilibrium, it needs institutions.

Contemporary social science recognizes the need of institutions. Only those social scientists strongly dominated by radical liberalism have denied their importance. There is a lively debate as to the role of institutions. A debate that, to some extent, still happens along ideological dimensions. In one extreme, the ideology of radical liberalism has succeeded in presenting the human being as inherently free. Thus, the agency that characterizes the individual in the Western societies – which from now on we will refer to as individualism – is preconceived as a natural, inherent characteristic of the human individual. Thus, although it is accepted that institutions are required, they are seen simply as a required element to close the liberal model, so that the inherent free agency of individualism (individual creativity) can operate properly; such is the case of radical choice institutionalism (RCI) and neo-institutionalist economics (NIE). In the other extreme, the social structure (the institutional arrangement) is seen as the determinant of individual preferences and behavior. Institutions as a determinant of social life are overrated and the critical role of individualism in the rapid progress of the Western societies is downplayed, such is the case of sociological institutionalism (SI), historical institutionalism (HI), and evolutionary institutionalism (EI).

The defenders of radical choice institutionalism argue that economic science must remain closely linked to physics and mathematics to obtain positive, objective conclusions. While the proponents of evolutionary institutionalism favor the need to use evolutionary biology, and historical institutionalism defends the need to use history. We will argue that the debate is inconclusive because it still takes place along irreconcilable ideological dimensions.

From a scientific point of view, it is undeniable that the individual, since the earliest evolutionary beginnings of humankind, is a social being and that the relationship between the individual and the society takes

place along evolutionary dimensions, historically defined in distinct ways by different societies. An evolutionary understanding of humans is required, and it is necessary to understand how the histories of diverse societies do define different paths to forge the relationship between the individual and the society. Western individualism is only one of these historical paths. Moreover, it is also true that even within individualism the behavior of the individual is influenced by the society, and that it obeys psychobiological patterns; therefore, even within individualism the relationship between the individual and the society goes well beyond a selfish economic relationship. So, evolutionary biology, sociology, history, neurobiology, psychology, and anthropology, are critical to understand individual behavior, even within Western individualism.

But from a scientific point of view, it is also true that free markets have played a decisive role in the rapid economic growth of capitalism. Institutions are incapable to substitute free markets. Thus, understanding the characteristics of a free market is of paramount social importance. And it is undeniable that neoclassical economics, by getting closer to physics and mathematics, has been extremely successful in understanding how free markets operate.

Pragmatic liberalism and pragmatic institutionalism can operate along each other - they are clearly reconcilable in scientific terms. Liberalism, from a pragmatic perspective, is a critical institutional characteristic of a particular specific historical society, one that has had undeniable success in terms of economic growth. Liberalism is an institution that operates within a given specific institutional arrangement. Therefore, liberalism and institutionalism are in fact reconciled in Western economic history. But liberalism is not a feature of alternative institutional arrangements that characterize other societies, and it cannot be easily exported to those societies. New institutional arrangements must be designed. An example of success in the design of new and different institutional arrangements, is the Asian growth model and its adaptation to the ICTR (Information, Communications and Technology Revolution). An example of a misled attempt to directly export liberalism to other societies is the failure of the neoclassical growth model in developing economies, particularly Latin America. During 1990-2021 Latin America's & the Caribbean's annual rate of GDP per capita economic growth was only 1.3 %, below the world average of 1.8%, while the one of East Asia & Pacific was 4.2% [12].

[12] GDP per capita, PPP (constant 2017 international $). World Development Indicators. 09/16/22.

The discussion as to institutionalism and liberalism goes well beyond economic theory, it is critical for economic and social policy, and for the wellbeing of human societies in general. Today the world is living again, like during the Cold War, an ideological confrontation between radical institutionalism and radical liberalism. The consequences for the world's economy and for the wellbeing of the involved societies are disastrous. While the world is experiencing one of the most important technological revolutions of all times – the ICTR - that could offer substantial productivity increases, better lives for everybody, and drastic reductions in the level of poverty in key countries, unwarranted ideological confrontations are preventing the world from fully enjoying its benefits.

Since the whole discussion in this manuscript gyrates around the distinction between pragmatic-scientific liberalism and pragmatic-scientific institutionalism on one side, versus ideological, radical institutionalism and ideological, radical liberalism on the other side, this book opens with a preamble that discusses, using contemporary neurobiology, psychology and the philosophy of science, the difference between science and ideology. It is shown that the human mind, whether by itself, or aided by science, does not have access to universal truths. Ideologies, therefore, do not have any scientific support, and only are based on what Derrida has called philosophical preconceptions, which are *ad-hoc* assumptions made from the start.

Chapter one shows that most modern social thinkers based their social analysis on essential philosophical preconceptions, assumed to be true and capable to be known by the human mind. We argue that the ideologies that gave rise both to radical liberalism and radical institutionalism are very much alive, and still have enormous relevance in today's social and economic policies. It defends that it is necessary to strip radical liberalism and radical institutionalism from their ideological preconceptions, to be able to understand what their standing scientific contributions are. We have coined the terms of pragmatic liberalism and pragmatic institutionalism to denote the scientific contributions of both. This chapter concludes that pragmatic liberalism and pragmatic institutionalism are compatible.

Chapter two presents the contributions of American institutionalism. It presents Thorstein Veblen's criticism of the main tradition, and argues that his two key contributions, namely, the notion that individualism is an outgrowth of a particular historical period of the Western societies, and that the future of any society cannot be foreseen, have been underrated and have not been recovered by neo-institutionalist economics. This

chapter explains why Commons, Knight and others criticized Veblen for not prioritizing individual freedom and creativity as a key element in social dynamics; and why they were so influential in the development of neo-institutionalist economics. It argues that neo-institutionalist economics is correct in attributing importance to willful social creativity in social dynamics, but it did not have to do so at the expense of maintaining its preconception of an essential a-historical creative individual, that resembles so much the neoclassical individual. Finally, chapter two explains why American institutionalism was replaced by Keynes' institutionalism.

Chapter three presents Keynes' thought and explains why this thinker was so successful. Keynes' institutionalism is restricted to the institutions required - mainly the government - to get an economy out of a major crisis; and to the discussion of the global institutions required for the economies to be stable and to allow the private markets to work efficiently. Consequently, Veblen's view of institutions as the outcome of a long historical process would be left aside by economics for decades; it would only come back until neo-institutionalist economics emerged, and then only partially. Keynes' thought was incorporated into the neoclassical synthesis, and consequently, after several decades gave rise to a rebirth of radical liberalism. Therefore, institutions were again seen as superfluous and unneeded; and the harmony of the private markets was reestablished in partial equilibrium models of the school of rational expectations. And it is not until the 2008 Great Financial Crisis (GFC), that radical liberalism is again questioned, and Keynes is back. This chapter reviews the reasons why Keynes was incorporated into the neoclassical synthesis, which became the main theoretical paradigm from 1950 until 1980. It discusses why the neoclassical synthesis gave rise to the triumph of monetarism and the school of rational expectations, which implied a full revival of the neoclassical thought in the 80's. It points out why the neoclassical preeminence was again questioned after the 2008 GFC. It presents the version of Keynes presented by behavioral economics and its weaknesses. And it introduces our comprehensive institutionalism theory of why major economic crises happen.

Chapter four is about the theoretical debacle of radical liberalism. Despite the success of the partial equilibrium models of the school of rational expectations in the 1980's, neoclassical theorists continued their long search for the characteristics of a private market in general equilibrium models. Radical liberalism was hoping to show the existence of a unique, stable, full employment equilibrium that maximizes social economic wel-

fare. However, both welfare economics and general equilibrium failed to find the result that radical liberalism had hoped for. Instead, the search ended with solid theoretical results that proved that there are multi-equilibriums. Information theory showed that there are many Pareto efficient general equilibriums that may show unemployment and underdevelopment. And game theory showed, additionally, that there are also many non-Paretian inefficient equilibriums, of which Nash equilibriums are a subset. These results meant the theoretical debacle of radical liberalism, and left no doubt that institutions were required to define the economic equilibrium in a private market.

Chapter five describes how other schools, outside economics, continued exploring the role of institutions in society. Sociological institutionalism, in sociology, argued that institutions define the individuals' behavior. And historical institutionalism, in political science, emphasized the path dependence of institutional choices that precondition the choices open both to institutions and to individuals. In economics, evolutionary institutionalism tried unsuccessfully to revive Veblen's old argument that economics should be an evolutionary science; but it did not revive the key contributions of Veblen that we mentioned previously. Evolutionary institutionalism focuses on what economics can learn from evolutionary biology, and paradoxically discusses the agent-structure relationship without ever bringing back Veblen's view that individual agency was a specific historical characteristic of the Western societies. Given the theoretical debacle of radical liberalism, radical choice institutionalism in economics recognizes the existence of multi-equilibriums but conceptualizes institutions only as a requirement for private markets to work efficiently. Under the influence of information economics, neoclassical theory, and the old American institutionalism of Commons and Knight, neo-institutionalism was developed in economics, and the need of institutions was explicitly acknowledged given the bounded rationality of the individual agent. The individual agent was conceived by neo-institutionalism in economics as an individual maximizer, but with bounded rationality (due to the lack of full information), opportunistic not only *ex-ante* a transaction, but also *ex-post*. Institutions, then, are seen as what provides stability to the contractual economy and allows for an economic equilibrium to be obtained. It follows that there are multiple equilibria corresponding to diverse institutional arrangements.

Chapter six presents North's contributions to neo-institutionalist economics. North brings back the relevance of conceptualizing institutions

as the outcome of a long historical process. However, under the influence of other neo-institutionalist authors, North defines the individual as an opportunistic maximizer with bounded rationality. And he adds one more characteristic to the individual, with which this author explains social historical dynamics: the individual in North is a creative individual. Economic progress for North happens when the institutions of private property stimulate the natural creativity of North's preconceived individual, and underdevelopment will occur when the institutions repress this individual's natural creativity. Thus North, just like the neoclassical school, and like Marx, is subject to Veblen's criticism of the inadequate use of a fixed, a-historical human nature. North distinguishes between the formal and the informal systems. He argues that in the West, formal and informal institutions correspond to each other. But that in developing economies, the informal system does not correspond to a formal, imported Western system, and therefore the informal system impedes the Western institutions to work properly. North's contribution on the resilience of informal institutions makes it possible to explain why in certain cases the export of Western institutions to underdeveloped countries does not work well. This is the historical example of India, Latin America, and the ex-USSR 1990-2000, and this was a great contribution. But what North does not explain are the strengths of these informal institutions that, mixed with heterodox formal institutions, can give rise to economic success stories like those of China, other countries in Asia, and even recently India itself. Understanding why these Asian countries have been successful requires the construction of a novel understanding of institutionalism, that we have called comprehensive institutionalism (CI). The discussion of the characteristics of comprehensive institutionalism, and how it relates to Veblen's and neo-institutionalist economic proposals, is presented in chapters eight to twelve.

Before we develop comprehensive institutionalism, in chapter seven we discuss institutionalism and economic growth, to be able to understand how institutions have influenced distinct models of economic growth. We discuss the Western model, the Asian model, the communist model, the import-substitution model, and the neoclassical model. Of these growth models, only the first two have been successful, and the last three have been failed models. What successful models have in common are relatively high savings and the use of frontier global technology. What the unsuccessful models have in common are either the use of obsolete technology (the communist and the import-substitution models),

or insufficient savings (the neoclassical model). The main lesson of this chapter is that the institutional arrangement at the national level must adapt to the global institutional arrangement. The communist model and the import-substitution model had enough savings and tried to replicate the West's success. But with the West already being developed, the global institutional arrangement has changed, because the frontier technology is defined by the West. Therefore, both the communist model and the import-substitution models, by isolating themselves from the West, were producing with obsolete technology that was unable to compete with the one of the West. The neoclassical model was open to the West, but it did not have high enough savings. The neoclassical model predicted that savings were going to be provided by foreign investment; but this did not happen because of both institutional barriers and the ICTR. Under the ICTR, foreign investment has gone to the countries that offered the best conditions for the segments of production exported by the developed countries. It has gone to China, and not enough to the countries that followed the neoclassical model, like Mexico. Therefore Mexico, despite being a very open economy, did not grow because of low savings. The only other successful economic growth model, besides the Western model, is the Asian model. The Asian growth model exported to the West, and thus developed with frontier technology. But in addition, it had high internal savings, and a disguised import-substitution policy to support its own industrial development, through dissimulated import barriers and exchange rate management. Understanding the success of the Asian growth model, and the failure of the neoclassical model, requires a new growth theory which is discussed in this chapter seven, and which becomes part of the novel institutional theory that we have called comprehensive institutionalism.

Chapter eight presents comprehensive institutionalism and evolutionary theory. Instead of evolutionary institutionalism's proposal that economics must learn from evolutionary biology, comprehensive institutionalism argues that the scientific contributions of the diverse schools in economics must be related to the scientific contributions of other fields like evolutionary biology, neurobiology, contemporary psychology, and other social and hard sciences. This comprehensive perspective allows us to place the relation between the individual and the society within a general framework, that transcends the economic relationship, and can be used for distinct cultures in diverse points in time. Comprehensive institutionalism does not pretend to create a new evolutionary econom-

ics capable to substitute neoclassical economics, radical choice institutionalism, neo-institutionalist economics, behavioral economics, or Sen's economics. It does not pretend either to borrow new terms or theories from evolutionary theory and transplant them into economics. Comprehensive institutionalism is evolutionary because it uses the knowledge of evolutionary biology and evolutionary linguistics; but comprehensive institutionalism uses this knowledge together with the knowledge from other scientific disciplines such as neurobiology and psychology. Comprehensive institutionalism uses contemporary psychology, but not to create a new economics based upon psychological knowledge - as behavioral economic attempted -, but to explore other social relations in the integrative and power systems that may be of interest in defining whether a particular finding in economics is relevant or not in a specific given institutional environment. The purpose of comprehensive institutionalism, using other sciences, is to provide a more general institutional theory that allows us to place each one of these scientific contributions in its right place. Comprehensive institutionalism does not, should not, and will not, enter the discussion of choosing one scientific model over the other based on whether it describes better the "true" human social nature. There is no such a true human social nature, that we can apprehend with our minds, or with our scientific methods.

Chapter nine discusses comprehensive institutionalism and contemporary psychology and neurobiology. Since the most recent attempt to integrate economics and psychology has been made by behavioral economics, the first section presents the contributions of this field. But, while for certain specific problems the contributions of behavioral economics are undeniable, it is far from being a general framework to understand a psychological human being, in a broad sense that can be used to build comprehensive institutionalism. The main limitation of behavioral economics is that it does not have a theory of society and of the way institutions evolve, and therefore it cannot describe the different responses of individuals in diverse institutional environments. While it is true that under laboratory settings (like e.g., in the dictator's game), and in certain conditions in real life, individuals may behave irrational, altruistic, and cooperative, it is also true that in other circumstances, like in large economic markets, they clearly behave rational and selfish. The extremely low international aid from Western nations to poor countries clearly does not show the altruistic cooperative individual of the dictator game, but a selfish individual. Therefore, to be able to explain the changing behaviors

of individuals in distinct institutional settings, comprehensive institutionalism needs to look for a broader view of the psychological human than the one that behavioral economics presents. This broader view is offered by belonging psychology, which uses the most recent advances in cognitive psychology. Belonging psychology has the virtue of relating to the evolutionary nature of humans. Contemporary psychology and neurobiology do not show us the irrational, altruistic individual of behavioral economics, nor the rational, selfish individual of neoclassical economics, and neither Sen's rational, ethical individual. Instead, it presents us with an individual with a very flexible mind, capable to display distinct behaviors and to adapt to diverse social and environmental circumstances. We will argue that the psychological individual is capable of behaving like any one of the three beforementioned individuals, depending on the circumstances. Under certain conditions, the psychology behind the individual's behavior may be fully defined by external stimuli, but under most circumstances there is an active ego that differentiates one individual from other, and therefore their responses to external stimuli. Individuals are biologically different from one another, a requirement of evolutionary diversification; therefore, biological differences influence responses to the same external stimulus. Individual existence and individual differences have always been present and are real in any given culture, not only due to individual biological differences, but also to the distinct exposure to external stimuli that constitute the specific learning path of each individual. Differences among individuals, however, are manifested in very diverse manners in distinct cultures. Because individuals always operate as social beings, the social conceptual system and institutional arrangement influence decisively how individual differences are socially manifested. The freedom of individuality is a precondition for proper brain development and therefore it must be satisfied for most individuals in any culture. But we should not confuse the freedom of individuality with Western individualism. The freedom of individuality does not provide any specific social concession to the individual; but Western individualism does, specifically, by granting the freedom to vote, to be active politically and by expression; as well as the freedom to own property and to exchange goods and services. Freedom of individuality is a neurobiological evolutionary characteristic of individual humans; Western individualism is a social concession to the individual, consequence of a specific social differentiation that happened in Western history. The development of the individual's ego necessarily obeys a rational relation with the outside en-

vironment that allows his/her survival – thus, the ego is capable of rational learning. But rational learning is always emotionally guided. The individual is tied to others through emotions. And since the individual has always been a social being, the way he thinks, and acts has social origins. Abstract thought is linked to a language of social origin. The differential characteristic of humans is that they have a higher abstract capacity, and already before the Homo sapiens' burial rituals already clearly show that a conceptual social system existed always along the institutional arrangement that allowed the survival of the group. Social learning must direct individual behavior because it is a survival condition of the group. Social psychology has extensively documented the influence of the group on individual behavior, even within the West's institutional arrangement. The individual has survival instincts, but they are guided by a belonging instinct required for upbringing the child and allowing group survival. Belonging is a given evolutionary potential to relate to the outside world. The upbringing of the child requires both love and social significance, the first and second ways of belonging, and the environmental survival of the group requires the third – existential significance. Under distinct belonging conditions the individual's evolutionary adaptative survival capacity generates different responses. It is not possible to define the individual responses unless we identify the relationship between the individual and the society in diverse cultures and in different circumstances.

Chapter ten discusses a general theory, under the framework of comprehensive institutionalism, of the relationship between the individual and the society, that pays particular attention to the belonging aspects of this relation. Based on the scientific knowledge presented in the previous chapters, the first section of this chapter presents comprehensive institutionalism's general framework of the relationship between the individual and the society, that is relevant for diverse cultures and distinct historical times. Using this general framework, the second section discusses social order as an outcome of belonging; and it discusses how social order is established in distinct ways in different cultures and societies. The critical conclusion is that diversity is the characteristic of human societies, and that the Western route of differentiation – individualism – is only one of several main routes that have emerged. Moreover, in the Western societies, as in the large traditional societies included in the other routes of differentiation, there are many different variations. Thus, real societies differ among them for three main reasons: 1) they may belong to a distinct cultural differentiation route; 2) they have their own specific

particularities within the differentiation route to which they belong; and 3) many large societies are composed of populations that belong to distinct differentiation routes. Finally, in the third section this chapter presents several theories of social change and emphasizes that: 1) although it occurs, as North argues, at any place in the social system, its main determinant is technological development, and 2) that by its very nature social change is slow, particularly due to the opposition of the old institutions. Social change, however, happens in different ways in distinct societies at diverse historical times. In China, for example, after being very slow for centuries, and although there is still resistance from the old institutions, social change has accelerated significantly in recent decades.

Chapter eleven present comprehensive institutionalism's theory of conflict and its institutional resolution. Social conflict is endemic to human societies, it is consequence of its evolutionary origin. It is needed for proper social change, and therefore it is required for the society to adapt efficiently to endogenous and exogenous shocks. Yet, if it is not well managed, it may cause unlimited social destruction. There are only two ways that can be proposed to manage social conflict: ideologies and institutions. Ideologies assume that there are universal values that are shared by all human beings, that the role of the ideology is to make humans aware of them, and that awareness of these universal values will lead to a proper social behavior that will end the social conflict. Examples of ideologies are Christianism, radical institutionalism (Marxism), and radical liberalism. As we have seen, however, neurobiologically and scientifically it is not possible for humans to have access to such universal values. Thus, ideologies differ among them, because their universal values are philosophical preconceptions assumed from the start (in Derrida's sense). Therefore, ideologies become one additional source of potential conflict – the preconceived philosophical proposals of the "ideal" human life confront each other. So, the only way left to solve social conflicts are institutions. Institutions, however, do not, as ideologies, offer a general solution. The process is a never ending one: conflict, change, institutionalization of the social life. The first section of chapter eleven discusses social conflict and presents a simplified general framework for analyzing conflict. Conflict may arise in any of the three belonging ways. And in social significance, it can start in any of the three social systems, the integrative, the power and the economic. Economic conflicts always require for their solution either one or both other social systems. Integrative system conflicts may or not have a resolution within the same system, and when

they do not, the power system is required. Power conflicts never have a solution of their own, and always require at least of the integrative system, but the economic system may also be required. Power conflicts may end up in the construction of a new, positive integrative system – which may be better or worse than the previous one in several dimensions. But the risk is that the result is never known beforehand, and it may involve substantial social destruction. In the second section of this chapter, we discuss theories of conflict resolution. We show why neither radical liberalism, nor radical institutionalism (Marxism) work. We introduce other theories of conflict resolution and conclude that a multifactorial theory is required. Social conflict may be due to personal, economic, political, ideological, religious, racial, sexual, conceptual, or power-strategic differences. It happens at the individual level, between groups within a society, or between societies. Therefore, social conflict resolution requires a multifactorial institutional response like the one proposed by comprehensive institutionalism[13].

Chapter twelve presents a synthesis of comprehensive institutionalism, and its explanation of today's world problems. Comprehensive institutionalism represents a new synthesis of institutionalism, liberalism, and other schools. In the first section, this chapter discusses the main characteristics of comprehensive institutionalism, and how by synthesizing it provides a new point of view. Comprehensive institutionalism distinguishes ideological preconceptions from scientific discoveries, and integrates the scientific discoveries of diverse schools, thereby contributing to a new perspective that particularly focuses on the quality of the institutional arrangement associated with the socio-economic phenomenon under study. Comprehensive institutionalism is a novel institutional theory which, without denying the contribution of other theories, provides a comprehensive perspective of scientific discoveries in social sciences, neurobiology, evolutionary biology, psychology, and other sciences that provides a general framework of reference between the individual and the society, which is relevant for diverse cultures and distinct historical times. This general framework allows to put the contributions of other schools in the right perspective. It allows the distinction between ideological proposals and scientific discoveries. Comprehensive institutionalism argues that since the quality of the social-economic equilibrium obtained de-

[13] In other works, I have applied comprehensive institutionalism to the resolution of the Russian-Ukraine war. See, Obregon C., 2022. *Conflict and Resolution: Includes Comments on the Russian-Ukraine War*. Amazon.com. Also available at Research Gate.com.

pends crucially in the quality of the institutional arrangement, it is always necessary to perform an institutional analysis in any social problem. But at the same time, since comprehensive institutionalism recognizes the scientific contributions of other schools, it defends that institutions cannot substitute the efficiency of the markets in transmitting information. Large markets and free trade are key elements of the fast economic growth of capitalism that must be incorporated in any theory of economic growth, and in any economic activity that requires a high degree of efficiency. Comprehensive institutionalism incorporates from other schools their scientific discoveries, but it has several distinct features of its own: 1) it incorporates knowledge from evolutionary biology, neurobiology, psychology and other sciences; 2) it deconstructs other schools' social proposals into their ideological preconceptions and their scientific contributions; 3) it incorporates other schools' scientific contributions which, once they are detached from their ideological preconceptions, become compatible; 4) it focuses on analyzing the quality of the institutional arrangement and its consequences; 5) it maintains an evolutionary-historical perspective that allows the understanding of the distinct diversification paths taken by diverse cultures in diverse historical times; 6) it pays attention to the relevance of Western individualism in both the Western growth model and the Asian growth model; 7) it pays attention to the understanding of the world economy as a particular institutional arrangement that differs from the Western model; 8) it insists in decomposing diverse social problems that stand on their own, like economic stability, economic growth, social justice, income distribution, economic development, poverty, the world economy, and so forth – because each one of these problems requires specific, proper institutions that must be incorporated in the overall institutional arrangement; 9) due to its comprehensive perspective, and its special focus on the quality of the institutional arrangement, comprehensive institutionalism generates conclusions of its own in key economic and social problems. In the second section, this chapter reviews the contributions of comprehensive institutionalism to our understanding of the most pressing problems of the world today. The world is at a critical crossroads because the ICTR is rapidly globalizing the international life. And this globalization is happening within the historical reality of a global arrangement based on nations with strong interests, that belong to diverse cultures with distinct ideologies. The world's conceptual system and institutional arrangement is ill prepared for the technological revolution brought about by the ICTR. Proper international relations are more

critical than ever, but they cannot be guided by an essentialist-universalist ideology that pretends to unify the world's ideologies, the diverse conceptions of humanism and the distinct lifestyles in different cultures. Therefore, radical liberalism cannot be the guide for international relations. Ideological diversity is a historical reality; and therefore, any pragmatic guide for international relations must include ideological tolerance. The world's ICTR is not yet fully understood by the dominant ideologies. On the one hand, due to the ICTR, the West's productive alliance is with China. On the other hand, China's political regime is condemned as authoritarian and illegitimate. On one side, freedom reflected in free trade is praised, on the other, the World Trade Organization (WTO) is dismantled, and nationalistic and protectionist policies are on the rise in the West. On one side, Europe first increases trade with Russia, on the other rejects Russia from becoming part of the European Union and of NATO. All these inconsistencies can be explained by the fact that the global conceptual systems and their corresponding institutional arrangements are lagging the technological reality imposed by the ICTR. Global progress does not necessarily bring about global peace, nor is it necessarily self-sustainable. We must not forget that the first wave of globalization resulted in the First World War. Thus, as we learnt then, whenever global institutions do not rise to the challenge of the new global technological changes, progress may be followed by dark ages. We already have had three major crises in the last decade and a half: the 2008 GFC, the 2020 Great Pandemic (GP) and the Russian-Ukraine 2022 war – which is the largest one since the Second World War. It is not fortuitous, the ICTR started in 1990 and rapidly accelerated globalization, and the global institutions are not up to the task. In the 2008 GFC the globe's financial leaders thought that the sub-prime crisis in the US was a local crisis, that would be solved by the local markets – this was, for three years, the official statement of the Economic Report of the President and the belief of the European financial authorities. They never understood the profound globalization of the financial flows brought about by the ICTR, and their potential to generalize the crisis to the entire developed world14. The 2020 GP was consequence of the interconnectedness between China and the rest of the world, and was confronted by a WHO, with a budget equal to the one of a large US hospital, which was just not up to the task. A local war, consequence of Russia's invasion of Ukraine, has been internationalized, and has risen to a global dimension that creates for the first

[14] *Globalization Misguided Views,* op. cit.

time the risks of a nuclear war. It is true that the risk is still low, but it is no longer near to zero as it used to be, and this is very worrisome. Despite all its virtues, the ICTR creates risks that the world needs to confront such as: the changes in the global climate, the exploitation of natural resources in developing countries with polluting industries, or the rapid growth of international crime due to the ease of global communication and transportation. However, instead of witnessing the emergence of strong global institutions to confront the challenges of the ICTR, we have seen an international rise of populist nationalism that explains the Brexit movement in the UK, Trump's influence in the US, Brazil oscillating between the right populism of Bolsonaro and the left populism of Lula, López Obrador winning the elections in Mexico, Le Pen's recently renewed popularity in France, Italy's recent elections won by the extreme right, and Biden's policy that the US will only buy "made in America". These are no good news for the world. At best, a populist nationalism will endanger progress, and hinder the world of reaping the benefits of economic growth that the ICTR could produce. It will reduce global trade and worldwide economic interdependence, and delay substantially the growth possibilities of a large global middle class. At worst, a populist nationalism will seriously endanger global peace. If we don't act decisively, the globalization brought about by the ICTR will likely continue exacerbating all kind of global problems. And new, serious global crises will occur, which will foster new waves of populist nationalisms, and may create the negative vicious cycle that brought about the world's dark age between 1914 and 1945. Given the globalization brought about by the ICTR, both liberalism and realism are ill suited as guides for international relations. Strengthening the global institutions, as comprehensive institutionalism proposes, is not an option, it is a must – it is the pragmatic way for the world to face the ICTR. Comprehensive institutionalism is a third viable option to guide international relations. But it is not a panacea either, there are no ideal solutions. Strong global institutions are likely the best possible replacement for the lack of a truly global political system (like for example, the impossible dream of a worldwide democracy). But they never will work in an optimal way; they will always be challenged by the interests of the powerful countries. Comprehensive institutionalism's proposal is not an ideal, nor an optimal solution. It will not end military conflicts around the world, and global progress will continue to be challenged by populist nationalisms. But it is a call for a change of direction. It is a call to leave aside ideological proposals that only serve,

at best, to guide us to wrong global policies, and at worst to disguise national imperialistic interests. It is a call to be congruent with the globalization brought about by the ICTR. The world is facing a gigantic technological opportunity, and it must reap as much as possible its benefits. Comprehensive institutionalism's proposal is a call to free us from rigid ideologies, and to promote ideological tolerance.

PREAMBLE: SCIENCE AND IDEOLOGY

Due to contemporary advances in neurobiology, we now know significantly better how the human mind works: in a similar way than the mind of many animals. It receives information through the senses and forms neural maps - images of reality – which it recalls when needed. Therefore, the reality that humans know is limited to their sensorial capacity, and it is an image of such reality. Thus, imagination and reality are to large extent the same; because we never get to know reality itself, only an image of it. Science of course has been able to extend humans' sensorial capacity to perceive reality, but science itself is based upon models of reality which are a product of the human imagination. Humans are simply animals with a more sophisticated language than other animals, that allows them for a more complex imagination, and due to this larger capacity for abstract thoughts they possess a unique image of an extended time. But although their imagination is more complex than the one of other animals, it is still imagination, and images are never the true reality. Therefore, neither the human mind by itself, nor aided by science, can get to know reality as it is. Humans cannot ever have access to universal truths, just because the human mind neurobiologically is not prepared for it. The main difference between science and ideology is that science is based on models of reality which can be proven false, while ideology is based on preconceived essences that cannot be proven false. Ideologies deduce a philosophy of reality from the initial preconceived essences assumed to be true from the start. Thus, distinct ideologies are incompatible with one another because they have different initial essential assumptions. In science, however, there can be more than one model of the same reality that "works", in the sense that it cannot be proven false. For example, the absolute time of Newtonian physics is very different from the relative time of general relativity, yet work very well to explain more than ninety five percent of the macrophysical real events. Scientific models are sophisticated images of reality, while ideologies claim to be derived from the true essence of reality. But neurobiologically we know that the human mind can never get know those so-called true essences of reality.

HOW DO WE GET TO KNOW REALITY?

How does the mind know? To clarify how the mind works, and how it gets to know reality, we must understand humans' evolutionary background. Life is defined by a process that takes energy from the environment, which it uses, and then discards. Thus, life always implies a response to the environment, which establishes a positive feedback loop that allows for subsistence. The response mechanisms of the most simple organisms are inherited by reptiles in the form of surviving instincts, among which the two predominant ones are aggression and attachment. Both were studied at length by Konrad Lorenz. He showed that birds and other animals are genetically prepared to follow whatever they see first at birth – they attach. And aggression is a necessary instinct for individual survival. In more advanced animals, like many mammals, emotions are a sophisticated survival mechanism of response, inherited from less sophisticated ways of life. Emotions in humans are the foremost survival connection with external reality. Emotions allow us to differentiate - from the infinite information in the environment - those cues that are necessary for subsistence. Emotions guide our senses to search with our senses for the relevant survival information. With this information the mind forms neural maps -images of reality - which then are decomposed and codified and stored. And they can be recomposed whenever they are needed. In this process both the right and the left-brain hemispheres collaborate. The right one represents reality through images, like a camera, and the left codifies the images, like a computer. The right one works more closely with the areas of the brain related to the production of emotions – like the amygdala and the hippocampus; and the left brain with the areas involved with reason, like the cortical areas. Many animals' brains work in a similar way to ours; they also perceive reality through their senses directed by inherited survival patterns of response – which in mammals are emotions – and form mental images with this sensorial information.

It has been shown in the laboratory that rats, for example, are able to differentiate not only among objects but also between abstract images; they learn for example the difference between a square, and a rectangle[15].

[15] Rats also have some ability to perceive abstract categories such as rectangularity. In one experiment, if the rats selected to push a rectangle they were rewarded by a piece of cheese, but if they selected to push a square there was no reward. The rats soon learned to push the rectangle. The very same rats were exposed to a second experiment, where they had the choice to push the same rectangle which provided food before, or a new rectangle that had a more pronounced rectangularity. Paradoxically, the rats did not select the first rectangle

So, what is the difference between other animals and human beings? To answer this question, we need to remember how humans evolved. Our closest animal relative is the chimpanzee, with whom we had a common ancestor around seven million years ago. Among others, two things distinguish the chimpanzee from us in the laboratory: 1) they can learn a protolanguage, but not a synthetic language. 2) They can learn rock technology, found in Egypt, that corresponds to 3.4 million years ago; but they cannot learn rock technology, also found in Egypt, that relates to 2.6 million years ago.

The process by which we became humans most likely started with advances in the rock technology, that allowed an enlargement of the social group. A larger group created the need for more social communication, which slowly produced a more sophisticated language. A proto human language possibly began 1.8 million years ago, with the second technological revolution that characterized the *Homo erectus*. Expanding social life also meant the need for more cooperation, increasing the ability to understand and imitate other minds, and learning to regulate one's emotions. The usage of hands in the new technology further created the required physical development that produced bipedalism, which freed the hands for other activities, and created an erect human with more phonological physical capacity. A greater technical skill was used in hunting, gathering and rituals. Higher technological and social requirements produced greater cognitive capacity, leading to more sophisticated thoughts, which in turn fostered a higher brain size that sustained a more sophisticated language. The third technological revolution, 500,000 years ago, gives a decisive impetus to language, and started a slow transition to syntactic language. However, syntactic language only seems to have developed substantially during the fourth technological revolution, with the *Homo sapiens,* 100,000 years ago. So, what we call human reason is basically an evolutionary development, characterized by a synthetic language that reflects a higher cognitive capacity that allows a much higher combination of images, which in turn foster a quite more sophisticated abstract thought that allows for the vision of an extended time, and our conscious awareness of our future death. This more sophisticated abstract thought,

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but the second; indicating that in the first experiment they did not learn the difference between two unique objects, but the abstract difference between a square and a rectangle. They chose the second rectangle (even if they had not received cheese previously from this figure, but from the other) because of its more pronounced rectangularity, which seemed to indicate that it would contain more food than the first (Ramachandran, 2011, pp. 206-207). Ramachandran, V.S. (2011). The Tell-Tale Brain. New York. W.W. Norton.

both produced and was the result of brain developments linked to what we call human reason. Human abstract thought much later will allow the development of mathematics, and, still much later, of a scientific process.

A more sophisticated abstract thought does characterize human beings; but the mind process by which the mind gets to know reality is still the same as the one of other evolved animals: through neural maps, which are images of reality, based upon sensorial information, emotionally preselected. Reason works with previously stored images; it does not have any other input. Thus, using reason, it is impossible to know the essence of the universe, or reality as it is.

Cognitive psychology has provided many experiments which show that different people perceive reality in a distinct way[16]. None of the presumed rigid connection of humans with reality has been empirically successful. Freud's conception of the Self/Ego - as defined by the conflict between the instincts of aggression and sex- in the Id with the social repression of the society- the Super Ego - was empirically shown to be wrong[17]. The ego learns from the environment, as Piaget taught us; an event that post Freudians not only recognized, but further developed in their own research[18]. But this learning of the ego is not in fixed, defined stages as Piaget thought, either. The neo-Piagetian school showed that it is flexible and depends upon emotional contexts and genetic backgrounds[19].

The determinism of external environmental stimuli in human behavior presumed by Skinner was shown empirically incorrect by Bandura and others[20]. What emerges from all the cognitive empirical research, is a self which is defined through early emotional contact with the caregiver[21]. Whose emotions and instincts serve as a guide to be able to build images of reality defined by positive feedback loops with the external world. Images that have a high psychological content, that diverges between individuals.

The unconscious plays a key role in behavior[22], but it is not the one rigidly defined by Freud's conflict between the Id and the Super Ego.

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[16] *Globalization Misguided Views,* op. cit.

[17] Ibid.

[18] Ibid.

[19] Ibid.

[20] Ibid.

[21] Ibid.

[22] Ibid.

The unconscious is consequence of the individual's psychological background, which has an emotional content[23].

Therefore, not only is reality perceived distinctly by different animals; but it is also perceived differently even between diverse individuals. Why is it that evolution made us perceive reality through images? Why does perception depend upon emotions? Why does the perception of reality have a psychological content? The general principle governing biological evolution is survival value. Imagination is just the capacity to combine images, and imagination is key for survival. It allows us to plan future actions, which as a BBC documentary shows is part of the surviving kit even of the sharks[24].

Imagination also allows us to have a psychological buffer, when confronted with very menacing real situations. Imagination permits flexible responses, guided not only by conscious decisions, but by the previous emotional learning stored in the unconscious. Diversity in the responses of different individuals to a given reality is an evolutionary strength for the survival of the species. The whole purpose of the neurons in the brain is to coordinate other cells to allow for motion, and to develop a better surviving connection with the environment25. Images are nothing else that neural maps of the external world, of our own body, of our psychological self (including our emotions), and of our present and past relationships with the out-there. These neural maps, by being flexible, maximize our surviving capacity, and make us substantially more adaptable creatures. Imagination allows us to produce adequate mental states, that reduce stress, and improve our capacity to fight illness and other adverse circumstances. Kabat Zinn at the MIT, and many others, have shown empirically that psoriasis, a skin disease, is cured significantly faster using meditation26. Meditating changes the physical characteristics of our brain, and has all kind of benefits27. Thus, there are all sort of evolutionary reasons for which we were designed not to know reality as it is.

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[23] Ibid.

[24] See Obregon, C., 2014. *Existence and Time*. Amazon.com. Research Gate.com

[25] Obregon, C., 2013. *El camino a la libertad*. Amazon.com. Research Gate.com

[26] *El camino a la libertad,* op. cit.

[27] *El camino a la libertad,* op. cit.

How do we Know Through Science?

The conclusion of the previous section is that the mind, using reason, cannot know the essence of the universe, or reality as it is. The question that arises then is: can it do so, aided by science? There is a long tradition in the philosophy of science that argues that it does. This argument initially was based on the naïve idea of positivism that empirical reality was reality as it is. Positivism today is largely rejected. However, following the positivist tradition, the school denominated Analytical Philosophy, represented by Bertrand Russell, John Searle, and others, is still widely accepted.

Russell has argued that language and reality have the same common structure; and therefore, that mathematical logic and language are equivalents. From an evolutionary standpoint, Russell's argument cannot be maintained; because, since the structure of language changes through time, it is easy to see that it does not correspond to reality. Moreover, since the structure of language relates to the mind's capacity to combine images, it follows that human vision of reality depends upon the structure of language. And since the structure of language changes, human vision of reality is not unique, it changes through evolutionary time. Mathematical logic and language are not equivalents, either, because language changes through time. Moreover, a protolanguage was already well developed five hundred thousand years ago, a syntactic language was already there one hundred thousand years ago, mathematics is only a few thousand years old, and scientific knowledge has only really expanded rapidly in the last five hundred years. There is clearly not the correspondence that Russell has argued.

Assuming a correspondence between language, mathematics, and reality, is of course equivalent to saying that the human mind can know reality as it is. That is why Russell defends what is called neutral monism, the notion that the world is made of a substance that it is not exclusively mental not physical, and logical atomism, the notion that the world consists of a plurality of independent things, their qualities, and the relationships among them. The consequence is that reductionism is possible. John Searle assumes that knowledge can integrate everything; from the quantic atom to brain neurobiology, to consciousness, to freedom to choose, to mutual agreements, to institutions, to the ethics of what we should do. But in science, while reductionism is a fruitful research strategy, nothing indicates that we can achieve knowledge of this presumed integrated existence of reality as it is. We have not only been unable to integrate diverse

natural sciences, but even the integration only within physics has not been fully achieved. It has not been possible to integrate quantum physics with general relativity, and we do not know if we will ever be able to do it.

The idea of integrating all the natural and social sciences today does not have any true scientific content. We must not confuse reductionism as a valid scientific strategy, which has already provided great achievements[28], with the ontological metaphysical assumption that there exists a unique, integrated reality which we have the capacity to know as it is. Philosophical realism is defined by the metaphysical belief that there is a unique reality out there, which is orthogonal - independent – of how we get to know it. Analytical philosophy, in addition to the metaphysical assumption of realism, assumes that we can get to know it: by knowing, through language and mathematics, the independent elements of reality, and then their relationships. None of these assumptions can be corroborated scientifically, they are essential assumptions, in Derrida's sense; made at the start – with no scientific backup.

Post-positivism, represented mainly by Popper and Kuhn, maintains that there is a reality out there, but that we cannot get to know it as it is. The scientific paradigm, previous theories, scientific antecedents, the knowledge and values of the researcher, all can influence what is observed. Popper refuses the positivist proposal, that it is possible to induce true reality out of the study of individual particularities. He introduces the notion of falsiability, which argues that a theory can never be empirically verified, but that it can be shown to be false. Critical scientific thinking consists of eliminating false theories. Kuhn answers two questions that Popper left unanswered: how it is that scientific knowledge grows[29], and how a particular scientific analysis is linked to a broader research program[30].

Both Popper and Kuhn have been subject to criticisms, but what is relevant of their insights for our present argumentation, is that they clearly established that science cannot know reality as it is[31].

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[28] Maxwell integrated the electromagnetic forces; Einstein and Kaluza integrated the electromagnetism of Maxwell with the gravitatory forces; and Salam, Weinsberg and Glashow integrated electromagnetism with the weak nuclear force.

[29] Which was Putnam's (1974) and others criticism of Popper. Putnam, H. (1974), "The corroboration of theories", in Schilpp (ed.).

[30] Lakatos' (1978) critique of Popper. Lakatos, I. (1978), *The Methodology of Scientific Research Programmes*., J. Worrall & G. Currie (eds.), Cambridge.

[31] Kuhn has been criticized in several fronts, but a particularly relevant critique is that he does not pay attention to the importance of revisionism within the same paradigm, which had produced for example the discovery of ADN.

Based upon our discussion in the previous section, post-positivism is right in the assertion that we cannot know reality as it is. We only know reality though images formed on the basis of sensorial information guided by emotions, therefore scientific models must be the result of imagination. Scientific models are a preconception of reality based upon imagination, which are subject to empirical verification, which in a Popperian sense means that they have the possibility to be shown to be false. Which model of reality is the correct one, Newton's or Einstein's? Is time absolute, like Newton assumed, or it is a geometrical dimension of reality, like Einstein thought? The answer is that none of the two models is false; and that both concepts of time explain rather well 95% or more of the macrophysical events of the universe. But reality cannot be both. Scientific models are imagined preconceptions that are empirically shown to establish a positive feedback loop with reality – that do not fail. But the mind aided by science cannot know the essence of reality, cannot know reality as it is.

The question of course is how it is that science accumulates knowledge. And to answer it we need to discuss: what is reality? As suggested by Derrida, reality is made of particulars that show a *Différance* between them. *Différance* implies a dual concept that implies both to differentiate and to differ. It indicates both a difference among particulars at a given time, and a difference even of the same particular through time. *Différance* by itself indicates that the essence does not exist. But what is left out of Derrida's concept of *différance* is that particulars exist in a universe that is interrelated. An existence is defined to some extent by the existence of other particulars. That is the great philosophical discovery of physics. I could not be sitting in here, if there was no gravity and if there was no order in the atoms, that constitute the cells, that form the tissue of my organs. I, as a particular, in some sense represent the whole equilibrium and order of everything from the atom to the whole universe. Einstein substituted gravity by the curvature of the universe, but this curvature is defined by the physical mass of the particulars contained in the universe. The universe of particulars is interrelated, and has an order based on principles; and time is part of this order. Scientific knowledge is an imagined preconception of the principles and order of the macro and micro universe, which can slowly increase the quality of the positive feedback loop we have with such a reality.

Everything that exists meets two fundamental conditions: the first is that it has a feature that defines its existence, and that distinguishes it from everything else that exists. The second is that everything that exists

has a relation with anything else that exists. The first condition, the particularity of what exists, involves a process of differentiation of the particular, which necessarily involves an irreversible and directional time. The direction is given by the development of what exists from conception until its demise; and it is defined by the irreversible temporal process of the development of its existence, in which what exists is different today from yesterday and will be different tomorrow from today. The second condition implies that what exists is only definable in relation to other existing entities. Without such relationships the particular is not definable. Therefore, when referring to the existence of any particular, we are required to tell its relationships with everything else that exists, since those relations are an intrinsic part of the existence of the particular. These two conditions are valid for the material universe, as well as for the biological, the social, and the individual. For example: the earth meets the first condition, since we now know that the earth has not always existed, it is about 4500 million years old, and we also know that someday it will disappear; and it also meets the second condition, since the existence of the earth is only conceivable within a material universe, that is related in physical terms as explained by Newton's gravity or Einstein's general relativity. In the biological universe, species also meet the two conditions. The first condition is satisfied because species arise and disappear; the second condition is satisfied because the species' survival is always defined by their relationship with the environment. In the social universe, societies and individuals fulfill the first condition, because they have a beginning, a history, and an end; and they satisfy the second, because their survival is always related to the survival of what surrounds them.

What is a particular? It is something that has both diachronic and synchronic existence. Any particular can in principle be defined synchronically based on its relationships with other particulars, whether internal or external to the particular in question. For example, the atom is constituted by neutrons, protons, and electrons, and these, in turn, by smaller particles called quarks. The atom is defined by its particles' interaction. And the atom, in turn, interacts with other atoms. But when we speak of the existence of something, it is that it has already, in addition to synchronic features, diachronic characteristics that distinguish it as a particular – so that we can speak of such a "something".

A great epistemological and metaphysical discussion has been whether the explanation of the existence of any particular is reducible or not to the interactions of the most elemental particular known. The Greeks

argued that the most elemental particular was what they called atoms, today we think that any possible particular should have a dimension bigger than the Planck scale dimension. String theory proposes cords as this most elemental particular, however today this theory still lacks empirical support. But whether we will ever (or can) understand which is the most elemental particular, or not, the epistemological question is whether diverse interactions of this most elemental particular will lead us to understand the fundamental characteristics of all the existent particulars. The metaphysics of extreme reductionism would say yes, the metaphysics of the Gestalt school would say no. The Gestalt school of psychology argues that there is something that emerges at different levels, and that creates the existence of new particulars. So, they would say that any particular is more than the sum of the interactions of the particulars that compose it.

Who is right? While we must recognize that metaphysical questions can never be demonstrated, nor can they be proven false; we can provide some thoughts related to this controversy. Scientifically, we know the following two facts: 1) we can only describe the scientific reality at different levels of its particularity, and we have failed to fully bind them together. Chemistry is not explicable only based on quantum physics, and biology is neither only based on chemistry and physics, and psychology cannot be understood solely on a biological basis, and societies are not only the sum of the psychological phenomena of all the individuals who compose them; however, 2) there is an important and undeniable scientific progress as the result of linking knowledge from different scientific disciplines. Point 2 seems to contradict the metaphysics of Gestalt, while point 1 suggests that the metaphysics of extreme reductionism is wrong.

It is necessary to distinguish reductionism as a research program, which sponsors the interrelation of knowledge in distinct scientific disciplines, and reductionism as a metaphysical proposition, which says that the reality of each particular is but the sum of the relational reality of those other particulars that compose it. Reductionism as a research program should be accepted because it has shown in practice relevant results. However, reductionism as a metaphysical proposition must be rejected because the success of compartmentalized science so indicates. Based on what we know scientifically, there is no basis for believing in extreme reductionism. However, it is necessary to add, that the metaphysics of the Gestalt school must also be rejected, because we have achieved significant progress relating knowledge of different disciplines: so that there is no scientific basis to justify the metaphysics of Gestalt.

What is all this telling us? It suggests that particulars are related, and we may advance in our understanding of their relations; but that particulars, however, do not always seem reducible to relations between other particulars. The extreme reductionism of Searle and others must be rejected, simply because it is not based on what we know scientifically.

Extreme reductionism is only based on pre-assumed conceptions of what, according to its proponents, we will come to know. But we must also reject Derrida's philosophy of the independent existence of particulars because particulars always exist in a synchronous relation to everything around them. The scientific method is based precisely on the synchronic knowledge of the relationships between particulars, and it has been very successful; our scientific knowledge has grown significantly through time. Therefore, on one hand, given the success of science, we must recognize that there are synchronic relations between all that exists, and that a particular is not definable without the understanding of these relationships, which leads us to reject Derrida's philosophy. And, on the other hand, particulars exist in their own diachronic time, and cannot be explained only as a synchronous function of other particulars, whether external or internal; it is necessary to understand them in their existential specificity, as argued by Derrida; thus, we must reject the extreme reductionism of Searle, and others.

To conclude this section: science, like any human thought, is the outcome of imagination. Like all other human knowledge, it is based on images which are based on information that is emotionally preselected. Mathematical modeling is just human imagination. Scientific models can never be verified. There is no scientific basis to uphold metaphysical reductionism. The mind aided by science cannot get to know the true essence of the universe; reality as it is can never be known by humans. Science, however, provides a systematic way to interact with reality that allows for increasingly perfecting the positive feedback loop with it; and it is safe to conclude that science is the best-known way to establish such a positive feedback loop.

WHY AND HOW DO IDEOLOGIES DEVELOP

Ideologies are much older that science and they are consequence of the human need to gain psychological certainty in relationship to the highly

uncertain environment. Ideologies replace this uncertainty with a preconceived certainty, given by immutable or essential truths assumed to be known by humans through reason, rituals, mysticism, or any other route. Ideologies can be traced back to what we have called "magic" in previous writings. Magic is the conceptual system of the primary societies, and it has been studied intensively by anthropologists[32].

From an evolutionary point of view, the goal of life is survival. Therefore, any living thing must accommodate its existence in such a way that it can survive. Humans are not the exception. They develop an institutional arrangement that accumulates pragmatic knowledge, to be able to survive in their environment. But, with the advent of language such an institutional arrangement has as a counterpart a conceptual system, which contains the set of beliefs and values that are functional for the institutional arrangement to operate properly. Whenever surviving conditions are tough, the conceptual system will reinforce known and conservative behavior, because there is no room to take additional risk. On the other side, if a large material economic surplus exists, and survival is more than guaranteed, there is room for new ideas to be proposed. In primary societies, the conceptual system was Magic, which was very conservative, and penalized any deviant behavior. At the other extreme, in contemporary Western societies the conceptual system is Harmony, which allows for individual creativity. In the middle of the road, we find the traditional societies whose conceptual system is Rationality, in which creativity happened most of the time at the social level, and individual creativity was still heavily penalized, like, for example, the case of Copernicus illustrates.

In here we will review a set of abstract categories that reflect the main conceptual systems that humans have historically had. But these abstract categories are only used for discussion, they never existed as such. There were many primary societies, with diverse characteristics; just as there were also many traditional societies; and today we have many distinct Western societies. And the boundaries between primary societies, traditional societies, and Western societies are not well established. But abstract categories are useful for thinking and analyzing human history; and that is why they are being used in here, in the understanding that several other different schemes of abstract categories could also result helpful. The definitions of magic, rationality, harmony, primary society, traditional society, and Western society are provided in table P1.

[32] *Existence and Time.,* op. cit.

TABLE P1 THE PRIMARY, THE TRADITIONAL, AND THE WESTERN SOCIETIES

Primary Society: the individual is not differentiated from the society. The society, in turn, is not differentiated from the existential universe.
Traditional Society: the individual is differentiated from society in terms of his responsibilities, but not in terms of his rights. The society may or may not be differentiated from the existential universe.
The Western Society: the individual is differentiated, in addition to his responsibilities, by his rights. The individual exercise his rights of free expression, political participation, free vote, to own property, to pursue his individual economic interests, and to freely exchange goods and services. The society is differentiated from the existential universe.
Magic is the conceptual system corresponding to the primary society. In magic the universe is conceived as having a cosmological order that includes all the existential universe – which is defined as composed both by the living and the death. The universe is accessible to humans through pragmatic rituals that include both what today we call technological knowledge and what today we call magic.
Rationality is the conceptual system of the traditional society. The universe is conceived as being composed of stable essences (an inheritance from magic) which are accessible to humans either through reason (Greeks, Confucius), through illumination (Buddhism), or through a mystical union with God (traditional Catholicism, Islamism).
Harmony is the conceptual system of the Western society. The universe is conceived as in rationality by stable essences. However, within those stable essences we find God's moral law that provides human rights. Therefore, humans get political freedom and therefore the social universe is no longer accessible by reason as in rationality, but it is the consequence of the aggregate results of individual voting. The universe in general is accessible to humans the same ways that in rationality, but the social universe becomes irrational and defined only through democratic means. In Protestantism, the individual establishes connection with God directly by working in the benefit of the community.

The anxiety brought about by the consciousness of his insignificance and his death in a primary human, whose technology to dominate the environment was incipient, created the psychological need for certitude. Primary societies developed a preconceived cosmogonic vision of an integrated universe, to which humans were assumed to belong, that I have called in other works Magic. Magic integrates humans to the universe; and made them eternal through reincarnation. The cosmogonic connection was established through emotional rituals which integrated with certitude the society, nature, and the whole universe. In such rituals everybody participated and knew each other, allowing for limbic connections among all the participants.

Magic's basic function was to solve the third way of belonging – that to the biological and material universe[33]. Given the uncertain and uncontrollable primary universe, Magic's main task was to gestate a conservative attitude toward the external world. Such a conservative attitude, as Rappaport argues, was necessary for survival. This explains why in the primary society, the notion of individual freedom, that characterizes present-day individualism, did not exist; and in many cases, individual innovation was penalized with death. The main goal in the primary society was the group's survival against a difficult, changing, challenging, and threatening environment, over which it had almost no control.

Primary humans had an autobiographical consciousness, and were aware of individual death, as it is revealed in the burial rituals which are as old as 400 thousand years. But their anguish was not centered on the individual death, but on the survival of the social group.

Individual freedom is not differentiated in the primary society. As noted by Lévi-Strauss, everyone does what he has to do, and there is an unquestionable and certain, preconceived universal cosmogonic order, establishing the relationship between all the existing entities[34]. A cosmogonic order which defines with accurate precision the conduct that must be followed by each individual. Magic is a universal cosmogony, that integrates humans to everything surrounding them, and gives certainty to their environment. Thus, it solves the evolutionary belonging necessity of humans. The primary focus of the cosmogony, as Kupper demonstrated, is the relationship with nature[35].

We have called Magic a pseudo-essentialism. Although in Magic there is still not a clear distinction between essence and existence, since these categories correspond to a subsequent philosophical thought, if we use these later categories to describe Magic, it is clearly a pseudo-essentialist thought - because it uses fixed preconceptions to create certainty in the human relationship with nature.

In Magic, as Lévi-Strauss beautifully shows in *The Savage Mind,* technological praxis and ritual are the same[36]. Magic in the primary society was not unrelated, like magic today, to science and technology. Unlike

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[33] Ibid.

[34] Lévi-Strauss, Claude (1964), *The Savage Mind,* Mexico, Fondo de Cultura Economica, Breviarios.

[35] Kuper, A. (2005), *The Reinvention of Primitive Society,* 2a. ed. Routledge, London.

[36] *The Savage Mind,* op. cit.

the present societies, in which rituals are important, but not considered essentially needed in all activities, in primary Magic, rituals are inseparable from technological maneuvering. Rituals gave humans an emotional connection with the outside world and reinforced the conservative nature of both social and individual actions. Primary magic is a universal cosmogony that defines the three ways of belonging. It delineates existential belonging, the relationship of humans with the universe. It specifies social belonging, the activities to be carried out by everyone in the community. And it also defines the first way of belonging, love; because, as Karen Robert points out, in these societies children grow in a natural environment and without problems of belonging[37].

It is true that we may find similarities between many primary societies and the Western society. For example, the unicellular family may exist in both, as Malinowski has pointed out[38]. It is also true that there are great differences between diverse primary societies. But despite all of this, as evidenced by Kupper, the characteristic that appears in all primary societies, and that makes them different both from the Western society and from the traditional society, is that there is a primary preconceived cosmogony. And because of such a preconceived cosmogony, individual causation is thought of as an expression of the universal force, that explains everything, including the origin and the total order of the cosmos. Lévi-Strauss shows that this universal cosmogony is a general way of thinking about nature and its relationship with society, which has nothing to do with religion[39].

In the primary society the individual is not differentiated from the social group; and there is no individual freedom, in the sense that we understand it today. In the primary society, humans believed in reincarnation - that death and life are an indistinguishable continuum. Magic integrates humans with the existential universe, and defines a relational order between geographical space, animal lineage, social group, and individuals[40].

The social order reproduces the planetary and biological orders.

In the context of Magic, the directional and irreversible time that characterizes individual life and death is an event of little significance, because

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[37] Karen, Robert (1994), *Becoming Attached,* New York, Oxford University Press.

[38] Malinowski, Bronislaw (1913), *The Family Among the Australian Aborigines,* London, University of London Press.

[39] *The Savage Mind,* op. cit.

[40] Ibid.

it is understood and expressed in the context of an overall integrative conceptual preconceived cosmogony system in which time is cyclical and / or repeatable. The social group is part of nature, and everything that dies, resurfaces. Since they believed in reincarnation, it is not unusual for individual human sacrifices to occur; because what really matters is the energy of the universal order, and not individual life or death.

Primitive humans had little control of their environment, and one of the keys for survival was to observe regularities, which could be used to anchor the events in the outside world. For example, observing at what time during the day animals go to drink water in the lagoon, was important for hunting and survival. But it implied understanding the passage of time during the day and identifying the moment by the position of the sun. It is only by observing regularities that humans can slowly gain some control over their environment.

These regularities imply in some sense a cyclical time because events repeat themselves. Regularities observed in the movement of the planets in the sky, in the biological world, and in animal behavior, were key in the preconceived development of Magic as a cosmogony in which the universe is ordered, and to which humans belong. The notion of cyclical time is key for the preconceived conceptualization of reincarnation. The preconceived established order in primary cosmogony was the element which most influenced later thinkers in their ideological conception of an essential world.

Rationality

The discovery of copper, bronze, and subsequently iron, expanded urban life, and favored the formation of larger population groups; in which individuals necessarily became differentiated in their tasks[41]. As societies grew larger, the limbic connection between all the members of society was no longer possible; therefore, social belonging had to become more conceptual. Larger societies promote a conceptual-rational way to justify social life, to the expense of individual emotions. The differentiation of the individual in these traditional societies, collapses the old, preconceived primary, universally undifferentiated cosmogony, and creates the need for a new conceptual system.

[41] Childe, G. (1942, reprinted 1976), *What Happened in History,* Penguin Books, New York.

Such a new conceptual system, while considering the differentiated individual, had to do the task previously done by the primary cosmogony, it had to define the three ways of human belonging. The solution was philosophical essentialism: in which it is preconceived that the immutable essences are knowable by humans either through reason, the religious praxis, or contemplative meditation.

Essentialism thus establishes the required certain link of humans with the outside universe, and the link between the individual and society. This explains the rise of non-rational essentialism in India, and in general of Buddhism in the East; as well as the success of Confucius's rational essentialism in China; and the triumph of Greek rational essentialism in Rome and the West.

In earlier religions influenced by Magic, nature plays an important role, and the gods were not omnipresent and all powerful; humans battled them and could win, on occasions. For example, Hercules chose to be human instead of a god. In later religions like Christianity, God became all powerful and humans became God's sons; nature is conceived as having been created for human's benefit, and becomes secondary in relevance; and individual emotions not oriented to loving God are either suppressed or considered of secondary relevance.

In these traditional societies freedom is conceived as the realization of our true human nature, our essential nature. We are only truly free if we do what we must do to satisfy what we really are in essence. The fundamental dilemma of the individual is not his future, as Heidegger would later argue, but to understand and exercise his true essence. According to this view of freedom in traditional societies, the freedom to decide exists only to be used in the decision to do what must be done based on our essential nature. The emphasis is to integrate the individuals into the society, through a careful specification of their duties. Often the individual who decided not to do the right thing was severely punished. As examples we have the Inquisition, the punishment of nonbelievers in Islam, and the fact that in Buddhist monasteries the monks who failed to become illuminated were whipped.

The social future of the individual in traditional societies is given by his social role - which is strictly defined by the society. And the faith in human immortality is maintained, either accepting the reincarnation of the primary society, or through the introduction of the new belief that humans are capable to achieve the eternal life.

The main characteristic of Rationality is the preconceived belief that there are essences - permanent truths about the real nature of things –

which can be known by the human mind. In some cases, reason itself has access to such essences, like with Plato, Aristotle, Confucius, and St. Thomas; in other cases, reason is used in a non-conceptual, mystical way like with Buddhism or St. Agustin; and in the case of Protestantism, the only essential thing is God whose free will is unquestionable, but still humans can understand God's revelations through their mystical reason. In Rationality, both the natural universe, and the social universe have essences capable to be known by the human mind.

Philosophical thought is the formalization of certain aspects of a conceptual system. Philosophical thought starts in the traditional society when an economic surplus already arises. Philosophical thought reflects a society in which some degree of creativity and dissent is allowed.

A conceptual system includes a set of philosophies, in addition to other forms of thought like religion, mysticism, science, art conceptions, and others. A philosophy, as Derrida has shown, always starts with defined preconceptions, from which the rest of the philosophy is deduced. Preconceptions which are assumed at the start, and which are not subject to philosophical inquiry nor to be shown false. That is why contradictory philosophies are possible, even within the same conceptual system. This variety of philosophies is useful because they illuminate distinct aspects of the conceptual life of human beings. But none of them is true, they all are deductive thoughts that emerge of a set of defined initial preconceptions. Thus, there is no method to discriminate among diverse philosophies.

Harmony

With the new growing burgos – cities, individuals became differentiated not only based on their traditional-like obligations to the society, but also based on their rights as citizens, including political freedom. Individualism sponsored individual creativity, which among other reasons, was the cause of the success of the scientific method. Individualism gives rise to the emergence of a new conceptual system: Harmony. Harmony is a new form of Rationality in which: 1) the biological and material universe are still preconceived as being knowable by reason, but through a new scientific method: the experiment accompanied by mathematical modeling which imposes limitations as to how much can be known. 2) Reason is preconceived as being able to have access to universal moral truths. As

many of these thinkers were religious, under the influence of St. Thomas, they conceived humans as having access to ethical principles in the mind of God. And on these principles, they based the notion of human rights, which justified the rising political and economic freedoms; and 3) given political freedom, the social universe is no longer understood by reason; it surges because of the social will, expressed through individual voting.

Modern philosophical thought parallels the great historical events that led to a new era. It reflects the influence of Greek and St. Thomas's preconceived essential Rationality; but considers the emergence of the citizen, and the success of experimental science. Both in the thought of Locke[42], who is credited with being the father of empiricism, and in the one of Kant[43], there is a duality in relation as to how humans know the universe. The duality sets aside the scientific knowledge of external reality (based on the perception of the sensory and the empirical and mathematical knowledge of the phenomena) and the moral knowledge (via a purely rational understanding of the moral principles underpinning human rights). On one hand, the new scientific method made it clear that to know the outside world the experiment is required. Thus, Locke argued that our knowledge comes from sensitive perception; and Kant, that the knowledge of phenomena or reality is based on the *a priori* forms of knowledge, characteristic of the human being. But in both cases, the outside world is never fully known. The "thing in itself", in Kant is not knowable, and "real substances" are not knowable to Locke. The knowledge of the outside world is through experiments and mathematical modeling; and that is how we may approach and slowly understand God's design of reality, which is written in mathematical language. But that knowledge is never fully complete; reality is only known partially. On the other hand, ethical principles (which, besides other purposes, are needed to justify human rights) residing in the mind of God, are knowable, for both Locke and Kant, through reason. Locke and Kant argue that humans have access to God's moral law; and that this law, according to them, supports the human rights which justify the political and economic freedoms of modernity.

The method to know time is different in Locke and in Kant. In Locke it comes directly from knowledge of the sensible, while for Kant it involves *a priori* categories. Locke sees time as the result of the duration of movement, his notion is like the absolute time of Newton. Kant insists

[42] 1632-1704.

[43] 1724-1804.

that the notion of time is the result of subjective *a priori* conditions under which we experience reality. But despite their differences, in both authors time is knowable by the same method by which we know in general the outer reality: sense perception in Locke, and *a priori* categories in Kant. But there is another notion of time that permeates the thinking of Locke and Kant, God's eternal time. Since both were believers, they conceived true freedom as the one in which humans satisfy their true nature – that of being children of God. For both, humans are truly free when, as argued by Christianity, they adjust their behavior to the moral divine precepts that come from the mind of God, and which are accessible through human reason. According to Kant, by nature we form an *a priori* judgment according to which it has a purpose, which connects the world of nature with freedom. God gives the world a final order; and humans, through their reason, have a vision of the ultimate goal, and act in this world with consciousness of duty. For Locke, our moral ideas are derived from sensation and reflection; so that we discover or infer the divine law, the essence of good and evil, through experience, using our reason. Social order, according to Locke, is not based on the coercive power of the state, but on the existence of the divine law - a law that humans naturally can capture, through experience, using their reason. Therefore, preconceived essentialism remains as a central element in the thought of Locke and Kant.

Hume[44] was an atheist or agnostic, and he was not very familiar with the natural sciences. Hume rejected Locke's proposal that humans can know the divine law, since for him all thoughts must come from first impressions; and instead, he provides humans with an innate moral transcendental instinct. The preconceived innate moral instinct of humans is essential, and thus provides unquestionable stability to the social universe. Smith[45] uses Hume's notion of an innate moral instinct, but he judges it insufficient to establish social order, and therefore he also uses the divine law of Locke. The great innovation of Smith would be to introduce his historical analysis of the consequences of economic freedom in the creation of social wealth. The social system of Smith uses both the immutable laws of God, and the innate essence of a moral instinct of Hume. And in addition, Smith also was concerned with the establishment of positive economic relations between the individual and the community, which enabled him to establish economics as a science. Subsequently, the

[44] 1711-1776

[45] 1723-1790.

aim of neoclassical thought would be to demonstrate that economic freedom necessarily –essentially – optimizes social welfare, which however, they failed to do[46].

Hegel[47] eliminates Kant's idea of nature as opposed to self, and he introduces the notion of the Absolute. History is the process by which the Absolute learns about itself. Freedom in Hegel has a preconceived essential character; the individual is free when he achieves his identification with the Absolute. Hegel's thinking would be of great importance for the later work of Marx[48], in which humans are preconceived to be free when they exercise their true nature of being a species, which happens when they appropriate the means of production communally and establish a true collective human society. The essentialism of Hegel and Marx is reminiscent of the Christian one, the true nature of humans develops through history; and the final destination of the temporal process is known, humans must return to their true essence. The individual's future is bound together with everybody else's and is defined by the acting forces of history, working toward the teleological goal: humans finally, necessarily, meet their preconceived true essential nature.

The thinkers of modernity inherited the preconceived essential vision of freedom of traditional Rationality; and defined true freedom as that which is achieved when humans realize their essential nature. Such is the case of Locke, Hume, Smith, Kant, Hegel, and Marx, among others.

CONCLUSION

Ideologies are a consequence of humans' quest for certitude in a highly unpredictable environment, but they are built at the cost of introducing preconceived essential truths that are not compatible among distinct ideologies. Thus, ideologies always stand in potential conflict with each other. With the advent of science, and particularly of contemporary neurobiology, it is now clear that the human mind neither by itself nor aided by science has access to such essential universal truths. And although

[46] Obregon, 2008, 2014. Nothing in Hume or Smith, would even remotely relate to the individual existential anxiety introduced later by Heidegger. Obregon, C., 2008. *Teorias del desarrollo economico*. Amazon.com. Research Gate.com. 2014, *Existence and Time.,* op. cit.

[47] 1770-1831.

[48] 1818-1883.

ideologies - as belief systems - will continue to be a fundamental part of human societies, it is necessary to understand them for what they are, which: 1) necessarily creates more social tolerance towards some else's ideologies, and 2) allows to clearly distinguish a scientific result from an ideological proposal. In contrast, science is based on models subject to empirical verification which can be shown to be false, and therefore it offers the possibility to slowly build our capacity to interact productively with the reality out there.

This explains why radical liberalism and radical institutionalism are not compatible with each other – because they represent distinct ideologies. However, pragmatic liberalism and pragmatic institutionalism can be used together to explain, understand, and built the same social reality because they are scientifically based.

CHAPTER ONE: LIBERALISM AND INSTITUTIONALISM

Science starts within the conceptual system of harmony, which inherited the essentialism of rationality. Therefore, early natural scientists conceived themselves as searching in nature for God's rationality – which for them was written in a mathematical language. Early social scientists were also heavily influenced by Christian rationality, thus for many of them the social order had its foundation in God's moral law, to which the human mind had access. Today we know that natural science works with different models of reality, and that two models can be used to explain the same reality (as we saw, Newtonian physics and general relativity are a good example). So scientific models interact with reality, but they do not reproduce reality itself, because reality cannot be two models at once. We also know, because of contemporary neurobiology, that the human mind does not have access to universal moral laws. But historically, social scientists built their thought heavily influenced by rationality. Radical liberalism (RL) directly used the moral law of God as a social organizer. Radical institutionalism (RI) started without a God but resembling the essential vision of a predictable history that Christianity implied. In this chapter we will discuss the background of both liberalism and institutionalism, with particular emphasis on distinguishing which propositions are directly deducted from initial ideological preconceptions - not scientifically verifiable - and which ones are based upon a social scientific analysis.

In the first part, we discuss the classical and neoclassical economists as a background of both liberalism and institutionalism; in the second part, we present the distinctions between radical liberalism (based on ideology) and pragmatic liberalism (based on science); and in the third part, we introduce the differences between radical institutionalism (based on ideology) and pragmatic institutionalism (based on science).

CLASSICAL AND NEOCLASSICAL ECONOMICS

Adam Smith is recognized as the founder of economics. He usually is seen as a liberal, yet we will argue that he was also an institutionalist. Smith

was a philosopher, a professor of ethics and in his major ethical contribution, *The Theory of Moral Sentiments,* he saw the relationship between the individual and the society as complex, but dominated by ethical considerations. He inherited from Locke the vision of a social order based on an ethical individual who had access to God's moral law, and he inherited from Hume the notion that individuals develop moral sentiments towards others; ethics, then, defines the fundamental relationship between the individual and the society. But he also inherited from Locke the understanding that the individual can be biased by his self-interest, therefore a social contract was needed. In Smith there is a double ethical check done both by the individual and the society. If an individual considers an action unethical, he should not do it, and if he considers it ethical, he should do it. Yet, since the individual may be biased by his self-interest, the society also needs to evaluate the action in question. If the society finds it unethical, then it should sanction the individual not to do it. Thus, the only actions allowed to the individual are those that both the individual and the society consider ethical. *The Wealth of Nations* should be read in the light of the *Theory of Moral Sentiments;* the purpose of the *Wealth of Nations* was to show that free markets created social wealth, and therefore were good for the society – were ethical, and therefore economic freedom should be allowed. In here there is already an important lesson: any economic relationship happens within a broader ethical relationship between the individual and the society. Economic freedom should be allowed, because it generates progress and well-being for the society as a whole – but the judgment as to any economic relation is still ethical. Smith's social order, like previously Locke's, is highly sophisticated. On one side, God's moral law, to which the individual has access, protects the individual from the tyranny of the majority. The society must justify on ethical grounds its decisions, and the individual has the right to argue with the society on ethical grounds. On the other side, the social contract protects the society from the personal bias that self-interest may create in the individual. *The Wealth of Nations* is a pragmatic institutional analysis of the social consequences of allowing individual economic freedom. Smith asks himself why England is growing much faster than Spain and Portugal, despite the gold trade of the first and the rich species trade of the latter. He finds the answer in manufacturing production and technological development, both consequence of free trade. By enlarging the markets, free trade makes technological development and massive manufacturing production possible, which is the secret of England's faster economic growth.

Smith's thought contains already: 1) pragmatic liberalism – the scientific discovery of the role of the individual's economic freedom in promoting economic growth; 2) pragmatic institutionalism – the scientific analysis of socio-historical institutions and their social impact; 3) radical liberalism - the belief that humans have access to God's ethics both through their reason (as in Locke), and through their practical actions which develop in their moral sentiments (a version of Hume but including God).

Together with the question of why economic growth happens, Smith was concerned with the question of economic value. For him the economic value of anything comes from its capacity to command the labor of others. When Ricardo wrote, England's fast economic growth was an undeniable reality, and Ricardo was a defender of free trade through his comparative advantage theory; but he was also concerned with the question of economic value. Ricardo developed his theory of incorporated labor, which only works in a static economy, and requires a numeraire that he never found, and that Sraffa finds one hundred years later in *The Production of Commodities by Means of Commodities*. But even with Sraffa's solution, the incorporated labor value theory cannot be rescued, because real economies are not static, but dynamic, and subject to all kind of shocks, like technological changes, financial crisis, unemployment, and so on.

When the early neoclassical thinkers and Marx wrote, economic growth was very fast by historical standards, and it was widely accepted that the contribution of capitalism was precisely this fast economic growth. Thus, the question of economic growth is left aside, and the question of economic value became central. Marx would solve the question through his social necessary labor value theory, and the neoclassicals through their marginal price theory. In what follows we will briefly discuss both.

Marx was highly critical of the incorporated labor value theory, he criticized Proudhon and others by not understanding that value is created in the market. Marx then introduces his social necessary labor value theory, which is a tautological proposal that says that labor only provides value when it is revalidated by the markets final demand for the goods or services produced. Which means that you need prices for finding labor value. Why is it then that Marx did not go in the direction of the neoclassical thinkers to develop a price theory? And why was Marx not concerned with the tautological character of his labor value theory? Because of an ideological preconception introduced by him – that the true nature of humans was to be a "species being". Why did he introduce this preconception? Because of another ideological preconception that he inherited

from Hegel - that the human mind, by studying history, can understand the essence of human history and of the human being. For Marx, the interrelated nature of capitalism's production revealed the essential nature of humans as "species being". Accepting these ideological preconceptions, the rest of Marx' thought can be deduced (in Derrida's sense). Since everything is produced as a species, then value is created by the labor of the species. Thus, the labor value theory is a philosophical statement; and the fact that labor value must be defined by prices becomes a minor consideration. Marx is not concerned with a price theory; he is concerned with a theory of justice, which also is derived from his philosophical, ideological preconceptions. Because if everything is produced by the species then, he concludes, everything must be owned by the species. Capitalist profits are illegitimate, they are exploitation because capitalists should not own capital - which is produced by the species and should be owned by the species. Since the human mind is assumed to have access to the essence of human history, Marx argues that history is defined by the evolution towards the true essence of the human being (as in Christianity – but in Christianity, the true essence of humans is to be God's children and history is the process to evolve to this true essence). Thus, the laws of history will work with iron necessity and capitalism will fall. Proletariats aware of their exploitation will rise in an international revolution that will create the communist society in which the means of production are owned by the species as a whole. The communist society is the first step towards the humane society, in which everyone's individual freedom is satisfied by realizing their true nature as a "species being".

Marx' thought contains both pragmatic institutionalism – an analysis of the role of technology in transforming human societies, the study of how societies change through history, the analysis of economic crisis, and the study of why capitalism can be an unjust social system; and radical institutionalism - the substitution of the Cristian essence of God's children for the essence of "species being", the preconception that the human mind can understand the essence of humans and of human history, and the preconception that history is defined by the evolution of humans' true essence.

Neoclassical economists worked under a different philosophical preconception: the assumption that there is a direct relationship of any individual with God. That, since humans are God's children, they can understand the moral rules in God's mind, and that these grant human rights to all the individuals. Among those human rights we find the democratic right to vote, freedom of expression, association, and communica-

tion with others; and the economic right to private property and to produce and demand freely goods and services. Protestant ethics reinforced these beliefs, because since the relationship of any individual with God is through his/her labor it follows that he/she has the right to enjoy as private property whatever is the consequence of his/her own effort.

Neoclassical thinkers did not have Marx's preconception of humans as a "species being"[49]. Therefore, what was needed in their understanding was a price theory that studied demand and supply in the markets. This was the aim of the introduction of the marginal theory by Walras, Menger and Jevons.

Neoclassical economics includes both: 1) liberal pragmatism – the analysis of the workings of a private market through the general equilibrium price theory. A theoretical model which is a very useful yardstick to evaluate many economic questions, such as economic growth, free trade, public finances and so on. In fact, liberal pragmatism has given rise to information theory, game theory and neo-institutional economics, that have shown that in a private economy there is not a unique optimum stable equilibrium as assumed initially by radical liberalism; And 2) radical liberalism- human rights are universal because they are Gods' design. Democracy and capitalism satisfy the true nature of human beings as children of God.

The critical thing to point out in this section is that RL and RI are based upon ideological preconceptions that do not have any scientific validity. The human mind cannot understand universal essences. It impossible to get to know the true essence of humans or of human history. Neither do a liberal democracy in each country on earth, nor a Marxist communist humane society, satisfy the true nature of humans, simply because there is no such a thing as a true nature of humans.

What we have is a historical evolution without pre-designed end, which is different in different societies. In fact, the preference for RI in some writers of the German tradition reflects the historically intensive role of the institutions in the society put together by Bismarck, under his military vision; while the preference for RL in the English tradition reflects the early production of manufactures in independent burgos - that gave rise to the more individualistic English version.

However, neither RL nor RI have ever had any historical counterpart. Communism was never global, and it did not happen in advanced econo-

[49] Without which the social necessary labor value theory is just a tautology, that reflects the futility of the labor value theory, and reveals at once that value is defined in the market.

mies as Marx forecasted. Instead, it was a national phenomenon occurring in a few developing economies – obeying specific circumstances, more than an international tendency. And a liberal world with a very restricted role for institutions has never materialized historically either; in Western economies institutions have gained substantially more power. Western governments went from accounting for only ten percent of GDP at the beginning of the twentieth century to around forty percent at the end. However, both RL and RI continue having a strong impact on social and economic policies around the world, which is unjustified from a scientific perspective.

RADICAL LIBERALISM VS PRAGMATIC LIBERALISM

Liberalism has been a critical influence in promoting the economic growth of the whole world, defining the democracies in advanced Western nations, promoting humanism, and contributing to the political discussion in many countries around the world. Liberalism is part of the historical reality of a particular group of advanced Western nations, and it has always existed within a specific historical institutional arrangement. At the global level, liberalism has been influential, and today it is a critical part of the political discussion in many countries around the world. However, we should be aware that only 13% of the world's population lives in liberal democracies[50]. Therefore, if we look at the whole world as a political entity, the influence of liberalism has been limited; and it has also been limited in many developing countries. While, in contrast, in advanced Western countries its influence has been decisive. Liberalism has been an important element of the Western historical reality, which however, even in the West, has always occurred within a defined institutional arrangement.

To be a liberal has many meanings. In one extreme there is RL, which sustains that free markets plus democracy in all the countries would create global and national progress, justice, and peace. RL is incompatible with institutionalism. RL is an ideology, that in fact can be proven wrong both theoretically and empirically. In the other extreme, there is pragmatic liberalism (PL), a term that we have coined to reflect what has truly happened in the real world, in which liberalism and institutionalism always existed next to each other.

[50] *The Economics of Global Peace.,* op. cit.

Liberalism is a very evasive term. To begin understanding it, we should distinguish several levels of what liberalism is. It is an ideology, a theoretical proposal, a policy recommendation, and an empirical-historical reality. As an ideology, RL proposes that political freedom and economic freedom guarantee progress, justice, and peace both at the national and at the global level. As a theoretical proposal, radical liberalism is the presumption that it is possible to show that both democracy and free markets generate stable optimal sustainable equilibriums. As a policy, radical liberalism is the recommendation that governments must be as small as possible, that international institutions are not really needed, that developing countries must adopt free markets and that it is the West's duty to promote, defend and protect democracies and free markets all over the world. As an empirical-historical reality, RL has never existed.

In historical reality, liberalism and institutionalism have always coexisted together; and therefore, there has always been a lively discussion between both conceptions. The arguments, however, have been complicated because of several reasons. 1) The existence of diverse "liberalisms": as we argue, liberalism is a gradient which in one extreme has RL and in the other a pragmatic liberalism, see table 1.1. 2) The diversity of definitions of what an institution is. 3) From the beginning, liberalism was sustained by a theoretical-analytical framework, while institutionalism was not. It is only recently that institutionalism has been more formalized, and mostly because of advances in the formalisms proposed before by liberalism. 4) The discussion happened within diverse disciplines such as philosophy, history, social sciences and most recently neurobiology – and each one of these disciplines has its own framework of analysis.

THE GRADIENT OF LIBERALISM

Table 1.1 presents the liberal gradient. As it can be appreciated level IV - RL - presumes that human rights reside in God's mind, and that they can be grasped by the human mind. And therefore, it is the God given duty of the Western countries to promote democracies and free markets. It is believed that free markets + democracy in few countries + democratic promotion = global economic progress + democracy in each country + global peace + global justice. Level III liberalism believes that God's morality is learnt by practicing social virtues and recognizes the need of

large governments, large social expenditures, and global institutions; but despite these differences, in terms of consequences it is like RL. Level II liberalism is like level III liberalism, but in addition it accepts that the origin of the notion of human rights is unclear; but still, it defends that they are an unquestionable human value and that they are universal. In terms of consequences, level II liberalism is like both level III, and RL. Level I – pragmatic (scientific) liberalism is a term coined by us and sustains scientifically that human rights are a specific historical differentiation of the Western society; and therefore, they are not universally valid. Thus, the West has the right to promote its values, as other societies have also the right to promote theirs. In terms of consequences, pragmatic liberalism is very different from the other three. It recognizes the scientifically proven importance of free markets for economic growth at the global level. And it documents theoretically and empirically why large governments and social expenditures are required, and that there is a need for strong global institutions. It explains why the only route to global peace is for global institutions to promote ideological tolerance. It also shows why global social justice will only be achieved if it is promoted by strong global institutions. The consequences of pragmatic liberalism would be global economic progress + future larger economic middle class + unknown future but one with likely better chances of: 1) global and national respect of certain individual freedoms; 2) global peace; and 3) social justice.

TABLE 1.1 THE LIBERAL GRADIENT

A) Types of Liberalism by Its Consequences:
Level IV – radical liberalism: Free markets + democracy in few countries + democratic promotion = global economic progress + democracy in each country + global peace + global justice
Level III: Free markets + democracy in few countries + democratic promotion + large governments + large social expenditures + global institutions = global economic progress + democracy in each country + global peace + global justice
Level II: Free markets + democracy in few countries + democratic promotion + large governments + large social expenditures + global institutions = global economic progress + democracy in each country + global peace + global justice
Level I – pragmatic liberalism : Economic interdependence based on free markets + democracy in few countries + large governments + large social expenditures (social justice) + worldwide inclusive global institutions promoting ideological tolerance and global social justice + democratic promotion + promotion of other ideologies = global economic progress + future larger middle economic class + unknown future but one with likely better chances of: 1) global and national respect of certain individual freedoms; 2) better chances of global peace, and 3) better global justice

B) Types of Liberalism by Origin

Level IV – radical liberalism: Human rights residing in God's mind, which can be grasped by the human mind.

Level III: Human rights are implanted by God in the human heart, and they are learnt through life by practicing social virtues.

Level II: Human rights' origin is unclear; but still, they are an unquestionable human value – they are universal.

Level I – pragmatic liberalism: Human rights are a specific historical differentiation of the Western society; therefore, they are not universally valid. The West however has the right to promote them, as other societies have also the right to promote their own different values.

The key difference between RL and pragmatic liberalism is that the first is an ideology, while the second is a scientific proposition. As we saw in the preamble, contemporary neurobiology has shown that there is no way for the human mind to access universal truths – therefore there is no way for humans to get to know God' s moral rules neither through reason nor through the practice of a virtuous behavior. Scientifically, human rights are not universal – they are a cultural outcome of the Western culture. Moreover, in a world in which only 13% of the population lives in liberal democracies, despite democratic promotion, there is no reason to believe that there is a future in which all the world will be constituted by liberal democracies. Moreover, there is no reason to assume that such a world of 100% liberal democracies, if it ever were to happen, would be peaceful and just. Promoting democracies is the right of the West, but it must also understand that other cultures also have also the right to promote their own values, and that they in fact do it[51].

Today, RL still has critical influence on national and international economic and political polices. Therefore, the discussion in this manuscript about institutionalism and liberalism not only has deep philosophical and theoretical implications, but also very practical political ones. Today the world lives one of the most decisive technological revolutions in history – the Information, Communications and Technology Revolution (ICTR). The ICTR offers a significant increase in global productivity which, however, has been jeopardized by nationalisms defending national interests in the name of ideologies. For example, the Russia-Ukraine war has been called by the West "the war of the defense of democracy" and by Russia "the war of the defense of communism". Instead of the global free trade that the ICTR requires, what we have had are confrontations between

[51] Ibid.

the West and Russia; and even more worrying, commercial confrontations between the EU and China - which are wrapped within the overall ideological confrontation between democracies and totalitarian states.

Today the world, under the guidance of RL, is promoting democracy at the expense of free trade, and this is a mistake. There is no scientific basis to know where the promotion of democracy will take us; instead, there is plenty of scientific evidence showing that free trade will definitively create faster economic growth. For the West, fighting China about human rights and democratic values at the expense of reducing trade is a mistake. And it was a mistake to isolate Russia in the past. Integrating Russia efficiently into the global economy in the past (the 90's was a lost opportunity), could have prevented the Russia-Ukraine war[52].

Scientifically, we have learnt that global free trade increases economic growth, and it is particularly true with today's presence of the ICTR. The way to the future should be a faster global economic growth, that will reduce poverty, and create a larger economic global middle class, which may or not end up constituting a political middle class (one that explicitly fights for its political rights), but which in any case will improve the quality of living of the world's population. However, it has also been scientifically shown that free trade cannot exist in a vacuum – it needs proper institutions. Thus, global institutions are required.

The historical success of the Western growth model has not only been the consequence of free trade, but also of a specific institutional arrangement that fostered the enlargement of the market through the rapid growth of the middle class. The middle class created the conditions for larger social expenditures, larger governments, and stronger institutions, which defined the boom of the West after the Second World War. Free trade by itself is not enough to produce neither peace, nor justice, nor perdurable progress. Before the First World War free trade generated an economic boom which, due to the lack of a proper international institutional arrangement, ended up in the war, the 1920's hyperinflation, the 1930's Great Depression and the worst years of economic growth of the 20th century. Instead, an appropriate global institutional arrangement, coupled with the growth of free trade after the Second World War, produced a sustainable economic boom.

There is evidence in contemporary economic theory to be able to show that private markets by themselves do not generate a stable, unique optimal equilibrium. Information theory has formally shown that there

[52] *Conflict and Resolution.,* op. cit.

are multi-equilibriums which may exhibit unemployment or underdevelopment. Game theory has shown that there are many likely non-Pareto equilibriums. Neo-institutional economics has shown that, without institutions, private markets do not generate a satisfactory solution.

Moreover, after Arrow's impossibility theorem, social choice theory has shown the difficulties to aggregate individual social and political choices into a logical-rational social choice[53]. The only way out are interpersonal comparisons, which involve an external judgment that needs to have one of two sources: exogenous, generally accepted universal social values, or an exogenous institutional arrangement. Exogenous, generally accepted values go back to the notion of a universal ethics (which must have at least a minimum set of generally accepted values); but, as mentioned before, contemporary neurobiology has shown that the human mind does not have access to such universal values. Therefore, any rational aggregated political social choice, besides individual agents' preferences, requires institutions.

Thus, at the theoretical level both free private markets and democracy require an adequate institutional arrangement to operate properly. And in the historical reality of human societies, individuals have always operated within an institutional arrangement. Free markets by themselves do no guarantee neither progress nor justice; and democracy does not guarantee peace, and neither does a political solution that is consequence of the individual preferences of the majority. Thus, RL can be proven wrong both from a theoretical and an empirical – historical point of view. RL is an ideology, the policy recommendations of which, both in economics and in politics, have been misguided because they do not consider the role of institutions in the life of human societies.

However, liberalism has had many relevant contributions both in theory and in policy. That is why we have coined the term of pragmatic liberalism which, while recognizing the importance of free trade in the fast economic growth of capitalism, understands the crucial role of that institutions, both nationally and internationally, have played. Nationally, institutions such as governments and social expenditures. Internationally, institutions such as the WTO (World Trade Organization), the IMF (International Monetary Fund), the WB (World Bank) and others. Pragmatic liberalism is compatible both with historical reality and contemporary economic and political theory.

Table 1.2 presents the gradient of institutionalism. Level IV is RI (Marxism). It assumes that the human mind can grasp both the true es-

[53] https://plato.stanford.edu/entries/social-choice/*published Wed Dec 18, 2013*

sence of humans and of human history. It believes that capitalism's injustices + internationalization of the production process + proletariat consciousness = international revolution + communism in all countries + progress + peace + justice + the individual realization of its true freedom as "species being" in the communist humane society. The fall of capitalism is for RI a historical certainty. But there is no scientific basis for RI's proposals. Empirically they have not happened, and economic theory does not support them. Level III institutionalism is like IV in its acceptance of Marxist essentialism, but it is more gradual. It also assumes that the human mind can grasp both the true essence of humans and of human history. It believes that capitalism's injustices + internationalization of the production process + proletariat consciousness in a few countries + communist promotion = initially communism in a few countries and continued exploitation not only of proletariats but of whole countries. Communism however will spread because capitalism's fall is unquestionable. Level II institutionalism departs from the Marxist dictum of the inevitable fall of capitalism and becomes more pragmatic. It argues, however, that capitalism's injustices are evident, and that the only possible solution is the social distribution of wealth. The ideal society is one that is significantly more egalitarian than the Western societies are today. It proposes that capitalism's injustices + internationalization of the production process = social consciousness + recognition of the relevance of institutions + growth of governments and social expenditures + an increasing role of the middle class + international institutions. Widespread socialistic policies, but communism will remain an issue of few developing economies and eventually will collapse due to its incapacity to generate proper economic growth. Economic growth depends upon the establishment of institutions that promote individual freedom. Level I is pragmatic institutionalism, it is based on accumulated scientific knowledge, and recognizes that universal essences cannot be grasped. Therefore, global tolerance should be promoted. Global free trade promotes growth, particularly given the ICTR, but proper global institutions are a must. The study of history shows the importance of institutions, and theoretically we know they are required. Institutions diverge in distinct societies. Because of their success in economic growth, the scientific analysis of Western institutions is necessary. But the Western growth model cannot be exported. The study of other models like the Asian growth model is also required. It states that institutions are required for any social life to happen. Institutions however differ between diverse societies. There is no way to

forecast the future. Western institutions cannot be exported. The right institutions for economic growth depend upon the historical conditions of each country. However, Western economic success has been undeniable. Institutions cannot substitute markets. Free market's critical role in Western and global economic growth is undeniable, but the role of the middle class has also been crucial in expanding the size of the Western markets. As it can be seen pragmatic institutionalism, in table 1.2, is quite compatible with the proposals of pragmatic liberalism in table 1.1.

TABLE 1.2 THE GRADIENT OF INSTITUTIONALISM

A Types of Institutionalism by Its Consequences

Level IV – Radical Institutionalism (Marxism): Capitalism injustices + internalization of the production process + proletariat consciousness = international revolution + communism in all countries + progress + peace + justice + the individual realization of its true freedom as "species being" in the communist humane society.

Level III – Capitalism injustices + internalization of the production process + proletariat consciousness in few countries + communist promotion = initially communism in few countries and continue exploitation nor only of proletariats but of whole countries. Communism however will spread because capitalism fall is unquestionable.

Level II – Capitalism injustices + internalization of the production process = social consciousness + recognition of the relevance of institutions + growth of governments and social expenditures + an increasing role of the middle class + international institutions. Widespread socialistic policies, but communism will remain an issue of few developing economies and eventually will collapse for its incapacity to generate proper economic growth. Economic growth depends upon the establishment of institutions that promote individual freedom.

Level I – Pragmatic Institutionalism – institutions are required for any social life to happened. Institutions however differ between diverse societies. There is no way to forecast the future. Western institutions cannot be exported. The right institutions for economic growth depend upon the historical conditions of each country. However, western economic success has been undeniable. Institutions cannot substitute markets. Free market's critical role in Western and global economic growth is undeniable, but the role of the middle class has also been crucial in expanding the size of the Western markets.

B – Types of institutionalism by its origin

Level IV – Radical institutionalism (Marxism): the human mind can grasp both the true essence of humans and of human history.

Level III – the human mind can grasp both the true essence of humans and of human history.

Level II – The capacity of the human mind to grasp both the true essence of humans and of human history is questionable. Yet capitalism injustices are evident, and the only possible solution is the social distribution of wealth, the ideal society is a more significantly more egalitarian that the western societies today.

Level I – Pragmatic Institutionalism – universal essence cannot be grasped.

Therefore, global tolerance should be promoted. Global free trade promotes growth particularly given the ICTR, but proper global institutions are a must. The study of history show the importance of institutions, and theoretically we know they are required. Institutions diverge in distinct societies. The scientific analysis of Western institutions are necessary because their success in economic growth. But the Western growth model cannot be exported. Study of other models like the Asian growth model is also required. Pragmatic institutionalism and pragmatic liberalism are compatible.

Liberalism and institutionalism not only have coexisted together historically, both economic and political theory have shown that they belong together. But it is not enough just to coin terms like pragmatic liberalism and pragmatic institutionalism to put them together; it is necessary to create a true theoretical synthesis between both, which social sciences have not achieved yet. The first formal attempt was the neoclassical synthesis in economics (discussed in chapter six), which failed. The second attempt is neo-institutionalism (discussed in chapters five and six), that is still in the making, and involves several social disciplines; but that has not been able to integrate a common frame of analysis, accepted by the diverse participating scholars. Chapter eight to twelve discuss a third attempt, which is a novel institutionalism that we call comprehensive institutionalism (CI).

Pragmatic liberalism and pragmatic institutionalism are compatible with one another because none of them is based on ideological preconceptions. They focus on distinct problems, and both are needed. The importance of free markets for economic growth is a scientifically established reality; but, in addition to free markets, to obtain economic growth, an adequate institutional arrangement is required. Moreover, free markets+ democracy do not generate stability, peace, development, justice, or peace; therefore, the need of institutions is unquestionable. But institutions alone cannot produce proper economic growth, moreover they may be inefficient; they cannot substitute markets.

CONCLUSION

Social science started within the conceptual system of harmony in which still many of the essential preconceptions of the old rationality prevailed. Therefore, most modern social thinkers built their social analysis on the

basis of philosophical essential preconceptions assumed to be true and capable to be known by the human mind. Today we know that the human mind neither alone, nor aided by science, has access to such eternal universal truths. Yet the ideologies that gave rise both to RL and RI are alive, and they still have enormous relevance in today's social and economic policies. In what follows we will present the discussion in depth between both schools of thought, pointing out which of their proposals remain when we strip them bare from their ideological preconceptions.

CHAPTER TWO: AMERICAN INSTITUTIONALISM VERSUS THE MAIN TRADITION

The discussion about institutions is as old as the formation of early societies. For example, already in Aristotle there is a discussion of regime types (*politeia*). More recently however, in the second half of the nineteenth century, we can trace back institutionalism to the school of German Historical Economics (GHE) - which was also known as institutional economics. The GHE developed chiefly in Germany, but it influenced other countries. GHE sought to understand the economic situation of a nation in the context of its total historical experience. GHE rejected deductive economic laws. Economic motives and decisions were seen as one component of the social order. GHE viewed government intervention in the economy as positive and necessary; and was concerned with social reform and improved conditions for the common man. The GHE was influential, later on, in the work of major scholars, such as Karl Polanyi, Max Weber, and Joseph Schumpeter.

Polanyi, an anthropologist, questions the validity of self-regulating markets. For him economics is always embedded in society[54]. The social background, and institutions in particular, integrate the economy. Historically, the market system is a relatively recent innovation and only one of several institutional solutions to the problem of economic integration.

Weber, a founding father of sociology, describes a political realm that is autonomous from economics and ideas[55]. He proposes a macro-sociological theory of institutions that describe the State and the bureaucracy. In his study of authority, he argues that a charismatic authority always is transformed into a traditional or rational-legal authority – it is institutionalized. Weber relates ideas and beliefs to the actual economic life of societies[56].

Schumpeter argues that technological innovation is the critical force behind economic development and argues that capitalism, due to its own success, will decay into some form of sociological corporativism. Schumpeter introduced a broad social-evolutionary theory centered on technology, or-

[54] Polanyi's best known work is *The Great Transformation*.

[55] See Obregon, C. 2022. *Social Power*. Amazon.com. Research Gate.com

[56] See the *Protestant Ethics and the Spirit of Capitalism*.

ganizations, and institutions. He was influenced by Marx, the micro-based approach of the neoclassical school, and the necessity to include historical analysis of the GHE. Innovation is described as the consequence of the struggle between innovating individuals and an inertial social environment – that resists change - characterized by old ideas, beliefs, and routines[57].

VEBLEN[58]

The GHE was an important antecedent of the institutional American school. However, in 1898 Veblen wrote *Why economics is not an evolutionary science?*[59], in which he is highly critical of the GHE. Veblen writes "no economics is farther from being an evolutionary science that the received economics of the historical school"[60]. Understanding why he is so critical of GHE is a good way to introduce ourselves to Veblen' contributions. He is critical of the GHE because of its emphasis on the impact of real institutions in a particular historical situation, which missed the point of the genesis of institutions contemplated as the outcome of an evolutionary process of habits of thought and of life. One of the critical contributions of Veblen was to understand institutions as the consequence of long cultural process – and to contemplate them as representing both values and beliefs (habits of thought) and actual pragmatic institutions and ways of living (habits of life). To understand institutions only in their pragmatic present existence, and to study them empirically, as the GHE proposed, was for Veblen quite unsatisfactory, because it missed the fundamental issue of the social evolution (dynamics) of the society.

Another good way to begin our discussion of Veblen, now considering recent contributions in the social sciences, is by pointing out that in North's (2005) entire book there is only one reference to Veblen, and that is when he refers to the theory of evolution[61]. North acknowledges

[57] Fagerberg, J.- 2003 Schumpeter, and the Revival of Evolutionary Economics: An Appraisal of the Literature. *Journal of Evolutionary Economics,* p373-397.

[58] Veblen wrote his two most influential books in 1899 *(The Theory of the Leisure Class)* and 1914 *(The Instinct of Workmanship and the State of Industrial Arts)*.

[59] *Quarterly Journal of Economics,* p 373-397.

[60] Ibid. P.375.

[61] North, DC (2005), *Understanding the Process of Economic Change,* Princeton University Press, Princeton.

that his book has been inspired by the idea of evolution, but notes that selection mechanisms in evolutionary theory are not informed by beliefs about their eventual consequences, as they are in economic evolution. He argues that it is the intentionality of the participants, expressed through the institutions they create, that determines their behavior[62].

North accepts Knight's and Commons' criticism of Veblen and reinstates the element of intentionality in the decisions of economic agents. This criticism is only partially justified. It is valid in the sense that Veblen did not carefully explore human's ability to design intentionally its social institutions. Thus, in Veblen one gets the impression that the habits of thought and the instincts dominate history; and therefore, the conscious will of humans is marginalized. However, Veblen cannot be criticized for failing to recognize that human activity is teleological - in the sense that it involves a rational analysis of the future consequences of an action. Veblen's thesis, and one of his contributions, is that there is a historical genesis of such teleological activity, so its causality must be explained – how it was generated–, which does not mean denying its existence.

Reinstating Knight and Commons, North puts intentionality in the forefront of history; but he unnecessarily pays the huge price of discarding an element of enormous relevance in Veblen's thought: the argument that the economic agent with intentionality (the free and creative economic agent) has a historical genesis. In Veblen, this individual (the economic agent represented by the Western individual) is a historical social institution whose genesis must be explained.

To understand Veblen's position on the previous issue, it is convenient to review his criticism of the neoclassical model. This author explicitly recognizes the teleological character of human behavior (the relation of the future to the present) as an essential characteristic of human nature, which in his terminology he calls "sufficient reason". He writes: "It is the case that the relation of sufficient reason is a very substantial part of human conduct", but he adds: "at the same time it is no less certain that economic or other human conduct is subject to the succession of cause-effect by consequences such as habituation and conventional requirements"[63]. Thus, Veblen does not criticize the neoclassicals for their vision of a teleological human behavior –with which Veblen agreed; but for establishing a historically fixed – given -human nature (an ideological preconception), via the conception of "economic

[62] Ibid, p. 66.

[63] Veblen quoted in Obregon, C.,1981, pp. 715 and 716. El pensamiento de Veblen, *El trimestre economico,* vol. xlviii (3), no. 191, Mexico, July-September 1981, pp. 711-742.

man". Veblen's work is not a criticism of the volitional capacity of the modern individual, but of those who see the nature of the individual as fixed and predetermined. Veblen criticizes the neoclassical school for introducing the idealistic (ideological) element of a fixed human nature; and criticizes Marx for the same thing. He points out that the neoclassicals use a fixed human nature to understand the social optimum, independent of institutions and history; and that Marx also uses a fixed human nature (although one distinct from the one assumed by the neoclassicals – for Marx the nature of humans is to be a "species being") to give a preconceived teleology to history.

In the neoclassicals human nature does not change with history. In Marx, humans do change with history, but towards the preconceived realization of their true nature as a "species-being". Veblen's main criticism is directed at the metaphysical, preconceived character of the distinct "human natures" introduced by both schools. Neo-institutionalist economics (NIE), including North, does not escape Veblen's criticism (although it was made before NIE's economists started writing). North's theory of history is built on a preconceived human nature – an individual that closely resembles the Western individual. In this way, the history of the world in North becomes the history of how the institutions were transformed over time to achieve a better satisfaction of the preconceived creative individual economic agent. North's is ultimately an idealistic view of history; but instead of Marx's "species-being" as the end of history, in North the end of history happens when the institutions properly satisfy the free pseudo-neoclassical rational human (it is pseudo - because his/her rationality is bounded).

Because of his dissatisfaction with both neoclassical and Marxist theories, Veblen introduces his own theory of social change, which despite its contributions has many shortcomings. However, it should be noted that the need to explain the historical genesis of the Western individual as a social institution stands as a contribution, which is independent of whether Veblen was or not successful in his attempt to describe said genesis. The shortcomings of Veblen's theory of social change do not invalidate his claim that the free individual has a historical genesis and that there is not a fixed human nature.

Veblen's theory of social change is based on population growth and improvements in human's technological knowledge (to dominate the natural environment)[64]. New habits, that result from a new lifestyle, consequence of new technology, necessarily enter in confrontation with the old habits of life related to the old technology (the old habits of life define the leisure class). The result is unpredictable; it can lead to the adoption of new habits

[64] For a more detailed analysis of Veblen's thought, see El pensamiento de Veblen., op. cit.

or not, in many cases the old habits of thought last for very long periods.

For Veblen, human behavior responds to habits that are developed based on innate instincts such as: 1) parental inclination (the need to live in community); 2) the workmanship instinct (which creates technology); and 3) the idle curiosity (which creates science). Instincts exercise control over habits and institutions, but it is a control that is "neither too rigid nor too insistent"[65]. In turn, the instincts are becoming more defined from the habits of life and thought. Institutions give historical ubiquity to the natural instincts. In fact, a good part of Veblen's work consists in giving historical content to the instincts.

Veblen's theory of history distinguishes four historical stages: the age of savagery, the age of barbarism, the age of arts and crafts, and the age of machines.

In the age of savagery, idle curiosity gives animistic explanations to observed behavior and retards technological advance.

In the barbarian age, the institution of property arises, either because of war or from the social power obtained by controlling "the management of the spiritual". The institution of the leisure class is a product of this predatory age.

In the age of arts and crafts, the craftsman maintains a cause-effect relationship with his/her product; here the individual (the free economic agent) is gestated, science is properly developed, and the natural rights of the individual are established. Pecuniary gain becomes the incentive of industry.

In the age of machines, companies grow, and the leisure class almost disappears. However, pecuniary traits prevail and are characteristic of the upper classes, while the lower classes are determined by the needs of the industry. This last age, which is the current one, is characterized by a serious pecuniary contamination of the idle curiosity and the scientific production, which does not make Veblen harbor optimism in relation to the future.

Veblen's Three Key Contributions

In Veblen's theory there are three important interrelated contributions that deserve to be highlighted. The first contribution is the acknowledgment that there is not a fixed essence of the human nature, which is not incorporated by NIE. The second one, which is interrelated to the first, is

[65] Veblen quoted in El pensamiento de Veblen., op. cit. p. 722.

that human history does not have a "*telos*" – a specific direction or goal, which is not fully incorporated by NIE. And the third one is that an institution is an evolutionary-historical entity that include habits of life and of thought (implies the need to see thought and action as intertwined), which is incorporated by NIE but only in North's version. With the first two contributions, Veblen antecedes the contemporary philosophical work of Derrida and others, and the most recent discoveries of neurobiology; and with the third contribution he precedes North's vision of institutions.

The most important limitation that Veblen finds in both the neoclassical and the Marxist schools is the fact that both conceptions of human nature were the specific result of a given historical age (with its own given conception of humans and of their social and natural environment). And we argue in here that this is also a limitation of NIE's reasoning. Williamson explains the rise of the corporation but, surprisingly enough, maintains a creative and independent individual as the foundation of the economic system. North analyzes the historical development of institutions and their influence on the individual, but only to conclude that the optimal institutional arrangement is the one that unleashes the individual's natural creativity. The individual of NIE, although he possesses a bounded rationality, remains very similar to the neoclassical individual.

The problem is that the idea of any fixed human essence has the consequence that it nullifies an evolutionary perspective of humans as species and of their history. With Marx, the fixed essence of humans as "species being" provides a historical telos – history is seen as the process by which humans recover their true essence once they (necessarily) get to live in the humane communist society. In neoclassical economics there is not a specific vision of history, but the neoclassical nature of humans is satisfied in a free society, that is why Fukuyama was able to call capitalism the "end of history". In NIE, the right institutions are those that satisfy the creative nature of humans – the ones that implement individual freedom, in short, the Western institutions.

Ideologies based on the assumption of a fixed human essence necessarily confront themselves, because behind a fixed description of the true nature of humans there is an implicit ethics – which commands to create the society that satisfies that pre-assumed true human nature. In Marx this social ethics is seen as the guide that commands the global revolutionary action of the proletariat – and the humane communist society will necessarily happen because it is the consequence of the unfolding of the

true nature of humans as "species being". For NIE, the right institutions will not necessarily be implemented, but there is no doubt that the right institutions are the ones of the West, because they liberated the true nature of humans as creative individual beings.

If one reflects on recent historical events, it seems clear that neither Marx, nor the neoclassical economists, nor NIE are correct. As for Marx, the USSR collapsed and Russia is today an underdeveloped economy, and any dream of a global proletariat revolution seems to be gone. As for the neoclassicals, the presumed stability of the private markets in the advanced economies did not happen. The 1930 GD (Great Depression), the 2008 GFC (Global Financial Crisis), and the 2020 GP (Global Pandemic) have shown the need of government intervention. Moreover, the developing countries that followed the liberal model failed to grow. As for NIE, a selected group of Asian countries that followed the Asian growth model were the ones that grew rapidly– and they did it with institutions that are different from the Western ones.

The attempt of liberal capitalist countries to impose liberalism in the rest of the world has not been as successful as expected. As we have already mentioned, only 13% of the global population lives in liberal democracies. Moreover, after the 2008 GFC, in many countries around the world, including advanced liberal countries, a nationalistic populism is on the rise. The West has a commercial confrontation with communist China, and a pseudo-war with communist Russia. And in many electoral democracies, leftist leaders are winning and attempting to bring Marx' ideas back – particularly in Latin America.

Veblen was right: there is not a *telos* in history and the future is not forecastable. There is not a true fixed human nature, and we cannot define which are the "ideal" or "right" institutions that any society should have.

Under the influence of Commons and Knight, the intentionality of the individual's behavior is reinstated by NIE. But unfortunately, and unnecessarily, at the same time the need to establish a historical genesis of the individual's "freedom to decide" is left aside. Acknowledging man's ability to intentionally design his social environment, and the fact that all individual behavior is volitional and purposeful, does not imply failing to recognize that this "free individual," is a social institution that has its historical genesis.

Ignoring the historical genesis of individual freedom is a serious problem in social sciences because it allows the introduction of a fixed,

a-historical human nature. It allows the introduction of the Western individual as the essential individual that "supposedly" corresponds to all historical ages and to all non-Western cultures. The discussions between Lévi-Strauss and Sartre made it clear that Sartre's preconceived fully free individual is not universal – he/she did not exist in primary societies, as Lévi-Strauss demonstrates; and therefore, the free intentionality preconceived by Commons, Knight, and NIE is not universal.

When North (2005) refers to the fact that in ancient times institutions were oriented to the control of the physical environment, and that in modernity they are oriented to the control of the social environment; he clearly has the intuition that something is different in these two historical periods. But he fails to properly articulate such a difference. What is different is the social differentiation of the "free individual" in modernity. The free and volitional Western individual, concerned with rationally structuring his human environment, is a reality of the Western world, that does not correspond to the reality of the primary societies. In the primary societies, as Lévi-Strauss has forcefully shown, tradition and the community's institutional arrangement were the determining factors defining human behavior, as it still is the case in many non-Western traditional cultures today. Thus, Veblen, Marx, and Lévi-Strauss are correct in appreciating the prevalence of the community, when one refers to pre-modern Western societies and to most contemporary non-Western societies. And Commons, Knight, NIE, and Sartre are right about the importance of the individual's free will (and of human intentionality in creating the institutional environment) in modern Western societies - or in societies under substantial Western influence.

To fully appreciate the importance of Veblen's contributions we should realize, as we mentioned before, that he anticipated contemporary neurobiological and scientific results which indicate that the human mind is incapable to grasp universal truths – which means that, as Veblen argued, the human mind does not have the capacity to understand the "true nature of humans". Moreover, since humans are an evolutionary outcome, there is not any fixed human nature. The main tradition, including NIE, has not been able to incorporate Veblen's contribution that individualism starts in a specific point in time in Western history, and that it is not a universal phenomenon. The reason is that RL is an ideology in which individualism is a preconceived assumption, in Derrida's sense – an assumption that cannot be corroborated by science, and has still enormous influence in the main tradition – including NIE.

The Problems with Veblen's Thought

The main reason why Veblen's thought was not recovered by NIE is the influence of neoclassical thinking on this school. However, there are other five reasons why his thinking has not been adopted by the main tradition: 1) the evolutionary language that he used was not successful in other disciplines; 2) Veblen's imprecise definition of many of the categories of analysis used.; 2) Veblen's deficiency in recognizing explicitly humans' capacity to build intentionally the social environment; 3) he failed to realize the fundamental role of individualism in the history of capitalism; 4) his evolutionary theory was too much influenced by Western history.

Veblen's Evolutionary Institutionalism

Veblen was under the influence of the philosophical pragmatism of Dewey and others. Under Kant's ascendancy, pragmatism argues that pragmatic concepts (habits constructed based on action) guide the construction of ideas. For Dewey, the habits predispose certain types of behavior. Habits intermediate between the stimulus and the response. In psychology, William James argued that the truth depends upon the beliefs through which facts are seen. He accepts the realist's position that there is real (factual) world out there, but argues however, that it always must be appreciated through beliefs. A meaningful conception must be judged by its pragmatic value to manipulate reality – its value for concrete life. James, influenced by Darwin, wrote that humans had many instincts, but these instincts may be overridden by experience, mostly because many of these instincts conflicted with each other.

Thus, in his reliance on the notions of habits and instincts, Veblen was incorporating philosophical and psychological knowledge of his time. Philosophical pragmatism however soon came under the attack of the analytical philosophy of Bertrand Russell and others, and psychological pragmatism was replaced by behaviorism; both of which discredited Veblen's contributions and opened the door for the later success of the neoclassical synthesis in economics. Is there a possibility of reconstructing Veblen's ideas with contemporary philosophy and psychology? Hodgson

and others have argued that it is possible; we do not believe so but refrain our discussion on this topic for later chapters[66].

Veblen's basic insight that economics should become an evolutionary science, in the sense of understanding the transformations that the habits of life and of thought suffered through time, was basically in the right direction. But he not only used concepts from other disciplines that ended up being discarded, as mentioned in the previous paragraph, but also Veblen's own usage of the evolutionary language was imprecise. Instinct and habits were described by Veblen in his own creative terms, without empirical support. For example, the parental inclination instinct, the workmanship instinct, and instinct of the idle curiosity, are not empirically documented. Thus, the connection with evolutionary theory, biology and psychology is not well established. Veblen was building an evolutionary view to back up his critique on neoclassical economics and Marxist usage of a preconceived essence of the human nature – what he did with his description of the role of habits of thought and of life. But unfortunately to do this, Veblen uses biological concepts such as instincts, and psychological concepts such as habits to which he gave a particular meaning of his own. Due to his undeniable creativity, Veblen can transmit an important message; but his very personal and imprecise use of biological and psychological concepts was one of the reasons why Veblen's thought was not adopted by the main tradition in economics. Evolutionary institutionalism was much later developed with the presumption that economics could learn from biology, but this attempt was dissociated from Veblen's original explanations of the evolutionary sources of the free individual assumed by neoclassical economics. We will further discuss evolutionary institutionalism in chapter five[67].

Social Engineering

There are many sources of social change (see chapter ten), but a critical one is the permanent, conscious social effort to improve society, which in Veblen does not have any specific role. This conscious effort may happen through

[66] See chapter five. See also Obregon, C. 2008., *Institucionalismo y desarrollo*. Amazon.com. Research Gate.com.

[67] We will discuss contemporary evolutionary institutionalism until chapter five, where we will distinguish it from rational choice institutionalism, historical institutionalism, sociological institutionalism, and NIE.

democracy and its institutions, or through other means as the Roman senate or the tribal meetings. In Veblen, although social creativity is never denied, there seems to be an excessive dependence on the habits of thought corresponding to earlier habits of life, consequence of old technologies.

In Veblen there is not technological determinism, because the old habits of thought may or not be changed by the new habits of life that result from the new technology; thus, he avoids a view of evolution alike Spencer's process of improvement from bad to best. But there is no role for social engineering either, because the old habits of thought are consequence of old technologies, and not of a conscious effort to change the society.

Even though in many different paragraphs Veblen recognizes the volitional and intentional character of human behavior, he maintains at the same time a vision of history based on technological development. Even though technology is not definitive in Veblen, as it conflicts with old habits, the truth is that this author does not leave a clear role for the intentionality of humans in building their social environment[68].This is the characteristic of Veblen's thought that provoked the criticism of Commons and Knight, two thinkers with great influence on the subsequent development of NIE.

Individualism and The History of Capitalism

Veblen explained the historical genesis of individualism, but he did not pay enough attention to its historical relevance. For Veblen, economics is a category of thought that belongs to the age of arts and crafts. Economic science observes humans from a specific social system, one that is characterized by the belief in natural rights. But in the age of machines, in which the West lives today, he argues, it is clearly impossible for a worker to dispose of his own labor. Veblen explains both the Western individual's genesis as a social institution in the age of arts and crafts, and how it rapidly begins to reduce its relevance in the age of machines. That the creative and independent individual begins to succumb in modern societies to the corporation and the state, so that the community begins to prevail again is an interesting contribution from Veblen – although the ICTR is beginning to somewhat reverse this process. Moreover, to the extent that capitalism requires democracy for its subsistence, the individual's economic creative selfishness is not the main motor that drives capitalism; we have argued that the main driver of capitalism is the rapid

[68] *Institucionalismo y desarrollo.,* op. cit.

changing preferences of a growing middle class, that decisively enlarges the market and causes rapid technological change

What Veblen fails to understand is the relationship between the free economic human (free markets) and economic growth. The age of the machines has only accelerated the relevance of free markets due to the ICTR. And it is true that free markets by themselves do not explain the fast economic growth of the Western economies, and that a key factor in the enlargement of the Western markets was the rapid growth of the middle class. But the rapidly changing preferences of the middle class – which are the main guide of the fast changing technological development of the Western economies - must be expressed through free markets. Veblen's misappreciation of the role of individual economic freedom (free markets) in the contemporary history of capitalism, was one of the key reasons for which his thought was forgotten by the main tradition and by NIE.

Non-Western Cultures

An element missing in Veblen's thought is an adequate description of the distinct evolution of non-Western cultures; although one could argue that, in principle, such an analysis is compatible with Veblen's institutionalism, while it is not so with the main tradition and NIE.

COMMONS[69]

Veblen's conception of an institution as a cultural duality containing both beliefs and actions, the dynamics of which mainly depends upon technological change, did not have the acceptance of many of the early institutionalists. For Commons, institutions are a consequence of the rational will of individuals; and are primarily legal. Commons did recognize the existence of other types of institutions, but he certainly favors the legal ones. For Commons, a social organization is fundamentally different from a physical or a biological organization. For him, social institutions are based on the coercive sanctions intrinsic to private property, which is the social expression of self-awareness, and the origin of social institutions[70].

[69] Commons starts writing in 1893 but his influential book *Institutional Economics* appears in 1934.

[70] Commons cited in Hodgson, p. 302. Hodgson, G.M. 2004. *The Evolution of Institutional Economics*. Routledge, London/New York.

Commons influenced NIE basically through 1) his concept of institution, which he defined as collective action in control of individual action (Commons, 1934a, p. 69); 2) his emphasis on the study of the transaction as a transfer of property, and 3) his vision of institutions as a consequence of the exercise of the will. Commons, whose work is more descriptive than theoretical, produced and directed studies on labor and industrial relations in the United States. Without ignoring the existence of other relations, he focused on the formal legal relations of society, which led him to write his renowned work *The Legal Foundations of Capitalism*.

Commons dismisses Veblen's view of habits and instincts. In Commons' vocabulary, instincts disappear, and habits of thought are replaced by the notion of customs. For this author, "custom is similar behavior that can be expected to continue almost unchanged in the future"[71]. He does not adhere to the psychology of habits and instincts; and instead, he accepts behaviorism. However, he finds behaviorism insufficient to explain the human will (desire).

Customs persist because individuals form their habits under conditions imposed by earlier customs, but they are not habits of thought like in Veblen—the product of a long cultural development determined by fundamental propensities of behavior—but individual habits of life arising from customs. To explain behavior, Commons uses the will and, in opposition to Veblen —and detecting Veblen's shortcomings on this point— he emphasizes that institutions, and even customs, are products of the human will.

Therefore, in contrast to natural selection, Commons speaks of artificial selection. He accepts the idea that some behavior can be unconsciously motivated and admits the possibility that human actions can produce unexpected results, but he wishes to highlight the primary role of coercive social institutions linked to private property, because of an expression of self-awareness. For this author, common law is a combination of undesigned customs and legal legitimization, and it is of primary importance to point out the conscious legitimization of customs. This process of legitimization requires interpretation, judgment, and choice. Law is never just a spontaneous mechanism. Commons does not carefully analyze neither: 1) the spontaneous phenomena of social coordination, such as the market, or 2) other institutions of extreme social importance

[71] Commons, 1950, p. 110. Commons, J.R. (1950): *The Economics of Collective Action,* Macmillan, New York; ed.: K.H. Parsons.

that are not of legal origin, such as language. There is no counterpart in this thinker to what North calls informal institutions.

Commons refuses natural Darwinism. In Commons the individual is influenced by his/her environment, but the environment is reflected in the notion of custom, which Commons makes compatible with both behaviorism and functionalism. Institutionalism, then, is restricted to the conscious action of the will, a phenomenon not explained by the previously mentioned disciplines. The contract agent, like in Hobbes, is the basis of law and social order. This contractual individual is inherited by NIE; but NIE adds Knight's uncertainty, and therefore, the individual has bounded rationality. Commons' influence is particularly clear in Williamson, even though the latter author adds the important dimension of non-legal contractual relations. North adds to Commons a theory of history and a vision of the social role of informal institutions, but maintains Commons' contractual human and his/her volitional character.

MITCHELL[72]

Mitchell inherited from Veblen the conception of economic cycles as a consequence of irrational and excessive speculation promoted by financial institutions. Mitchell, following Veblen, conceived money as an institution; and visualized business cycles as a result of institutional arrangements that produced specific interactions, not explained by individual actions. Mitchell decided to build the statistical infrastructure to carry out the macroeconomic analysis, which he accomplished from his privileged position at the US National Bureau of Statistics. Mitchell can be credited, to a large extent, for the creation of the national accounts – particularly through the work of his student Simon Kuznets. However, he lacked an alternative theoretical framework to that of Keynes. And therefore, the latter author was the one that decisively influenced the future direction of economic thought; particularly after Hicks's interpretation made Keynes compatible with the neoclassical school. Koopmans, who would later win the Nobel Prize, criticized Mitchell, and anticipated the microeconomic arguments of the post war economists.

[72] Mitchell, who was a student of Veblen, became very influential in the NBER and writes on business cycles from 1913 to 1951. See for example. Mitchell, W.C. (1927): *Business Cycles: The Problem and its Setting,* National Bureau of Economic Research, New York.

KNIGHT[73]

Knight favored a synthesis between the neoclassical school and institutionalism; he sought to reconcile the freedom of individual desire with the notion of institutional influence on behavior. According to Knight, it was necessary for the economist to examine the role of institutions and to explore the terrain of values and of ethics. However, he argues that the free will of the individual cannot be reduced to notions of cause-effect, neither through Veblenian-Darwinism, nor through psychological behaviorism. Knight asserts that consciousness and intentionality are an integral part of social science; but maintains that social science has nothing to say about individual free will, beyond acknowledging its existence[74].

Knight's thinking significantly influenced NIE. Knight's concept of uncertainty allowed him to identify moral hazard as a problem endemic to every economic organization and was basic for the introduction of the bounded rationality assumption[75]. Knight's thought was a mixture of neoclassical (particularly Austrian) and institutionalist ideas. For Knight, the world is uncertain, and preferences and technology are changing; therefore, the concept of equilibrium has serious limitations, and must be complemented with historical and institutional analysis. Knight favored a critical integration between the neoclassical school and institutionalism.

In this way, Knight recognizes the importance of institutions; Knight's free individual is a product of the economic system, which is a fundamental part of the "cultural environment that has shaped his desires and needs"[76]. But, for this author, individuals are aware and exercise action with defined purposes; society is an association of individuals, so individual action is the basic unit of analysis: "the individual is logically a priority in relation to society"[77]. For Knight, as for Commons, the individual will is a reality and does not have to be explained in terms of its historical gen-

[73] Knight *Risk, Uncertainty and Profit* was published for the first time in 1913, but he kept writing until 1960.

[74] Hodgson, 2004, p. 335., op. cit.

[75] Knight, F.H. (1922): *Risk, Uncertainty, and Profit,* Harper & Row, New York.

[76] Knight, 1923, p. 132. Knight, F.H. (1923): "The Ethics of Competition", in *Quarterly Journal of Economics* 37, pp. 579-624. Reprinted in *The Ethics of Competition,* Harper, New York, 1935; Transaction Publishers, New Brunswick (NJ), 1997.

[77] Knight, 1941, p. 132. Knight, F.H. (1941): "Social Science", Ethics 51-2, pp. 127-143. Reprinted in Knight, F.H.: *On the History and Methods of Economics: Selected essays,* University of Chicago Press, Chicago, 1956.

esis. Knight does not deny the influence of customs on individual behavior, but distinguishes it from the individual will, which is related to future choices. Social institutions, for Knight and Commons, are the product of social choice based on social knowledge of future consequences.

Knight, with a more rigorous thought than the one of Commons, points out the contradiction between individual free will (which requires an individual conscience) and behaviorism (a contradiction which Commons fails to understand). Knight believes that individual choice is linked to values and, therefore, individual freedom implies the possibility of reacting differently to a given stimulus. In addition, Knight's uncertainty implies the need to evaluate the environment and explains both the possible disconnection between motives and intentions, on the one hand, and behavior and results on the other. Since the relationship with the environment is a function of the knowledge one has of it, and this knowledge is a function of variables independent of the stimulus, it follows that the level of knowledge affects the response to a given stimulus; thus, Knight insists that the recognition of individual conscience is necessary.

However, Knight falls into a contradiction (different from that of Commons, but equally insurmountable) because, by recognizing individual consciousness and the role of knowledge, he implicitly recognizes that there is a possible evolution or transformation of said knowledge (that becomes determinant in the possibilities of exercising the individual will). But if this is the case, if there is a genesis of human knowledge, of himself/herself and of his/her social and natural environment, then necessarily there must be a genesis of individual freedom (a genesis that Knight denies, note that North falls into a similar contradiction). In other words, it is to be expected that a more informed and knowledgeable individual conceives of himself/herself as freer and exercises his/her freedom to a greater extent.

Knight was highly critical of Ayres' introduction of an internal force of progress fully defined by technology, which also determines other processes of social change[78]. Knight does not deny historical specificity, but for him the ultimate causality of social change is individual choice. Knight's thinking is theoretically sophisticated, and his criticism of Ayres focuses on the weaknesses of Veblen's thought; but unfortunately, he failed to appreciate the basic contribution of Veblen. And therefore, Knight, like Commons, dismisses the need to explain the historical and institutional genesis of individual freedom.

[78] Both writing post-Second World War.

Knight was a very influential professor; among his doctoral students we find Milton Friedmann. And an interesting anecdote is that Knight was the one that made Kenneth Boulding famous. When Kenneth was a doctoral student at Oxford, he wrote a paper on capital theory, that Frank Knight read and liked a lot, so Knight – the already very famous professor from Chicago - wrote an article titled "Mr. Boulding and the Classics" that was the beginning of Boulding's prestige. Thus, paradoxically Knight inspired both the institutionalism of Boulding and the monetarism of Friedmann. Knight was also very influential in the study of uncertainty in economics.

AYRES[79]

In Veblen's thought, as in Knight's, the possible contradiction between behaviorism and free will is resolved through the introduction of individual conscience. However, Veblen, in contrast to Knight, does seek to explain the institutional and historical genesis of individual freedom, thereby avoiding the contradiction (mentioned before) into which Knight falls. However, as we pointed out, Veblen does not fully acknowledge the historical relevance of individual freedom in the economic development of the Western culture, which was particularly unjustified when it comes to explaining modern capitalism in the age of arts and crafts and in the age of machines. In contrast to Veblen, Ayres resolves Commons' contradiction between behaviorism and free will, basically denying the existence of the latter. In Ayres's thought, once the teleology of human behavior has been sacrificed, technology becomes the explanatory factor of social change. Ayres takes the shortcomings and limitations of Veblen's thought to their ultimate consequences. However, Ayres' open denial of individual creativity, and his denial of the relevance of social knowledge and of social choice in general, was nor only theoretically inappropriate, but was particularly ill suited to the environment of the post- Second World War economic reality, in which countries were in search of new institutions.

Ayres, like Commons, rejects Veblen's theory based on instincts and habits, and accepts behaviorism. And in addition, he rejects individu-

[79] Ayres started writing in 1917 and he wrote his *Theory of Economic Progress* in 1944, he continues writing until 1961. See Ayres, C.E. (1961): *Towards a Reasonable Society: The Values of Industrial Civilization,* University of Texas Press, Austin.

al freedom to the point of stating that: "There is no such thing as an individual"[80]. Ayres is partly responsible for the rise of the functionalist sociology of Parsons —who was his student— and the latter denial of the individual. Ayres, like Commons and Knight, distances himself from Darwinism but, in contrast to these two authors, he does not explain social change as a consequence of individual freedom, but as the result of the development of scientific and technological knowledge. For Ayres, institutions (from the definition of which, in his later thinking, he excludes democracy and private property) do nothing but retard economic progress.

Ayres writes: "the technological process is inherently developmental, while the institutional structure of all societies is inherently static and resistant to change"[81]. Ayres underestimated the fact that technology is not always as dynamic as he suggests[82]. And, furthermore, he did not understand that some institutions accelerated technological development, i.e., patents[83]. By decoupling technology from institutions, Ayres loses sight of the impact of the entire culture and social structure on technology, and instead of analyzing it, he simply condemns it. Ayres' decoupling of technology from rituals and social institutions contradicts large branches of social knowledge, from the discoveries of anthropologists [84]to empirical studies in developed societies[85]. The radicalization of Ayres's thought accelerated the unpopularity of American institutionalism.

Veblen recognized the importance of the institution of individual freedom, and the need to explain it in terms of its historical genesis; but he underestimated its importance in the development of the West. This

[80] Ayres, 1961, p. 175., op. cit.

[81] Ayres, 1961, p. 233., op. cit.

[82] Kindleberger 1983; Katz and Shapiro 1985. Kindleberger, C.P. (1983): "Standards as Public, Collective, and Private Goods", *Kyklos* 36, pp. 377-396. Katz, M.L., y Shapiro, C. (1985): "Network Externalities, Competition, and Compatibility", *American Economic Review* 75-3, pp. 424-440.

[83] North, D.C., y Thomas, R.P. (1973): *The Rise of the Western World. A New Economic History,* Cambridge University Press, Cam-bridge

[84] *The Savage Mind.,* op. cit.

[85] Nelson and Winter, 1982; Polanyi, 1967; Rosenberg and Vincenti, 1985; Vincenti, 1990. Nelson, R.R., y Winter, S.G. (1982): *An Evolutionary Theory of Economic Change,* Harvard University Press, Cambridge. Polanyi, M. (1967): *The Tacit Dimension,* Routledge/Kegan, London/Doubleday, New York. Rosenberg, N., y Vincenti, W. (1985): *The Britannia Bridge, the Generation and Diffusion of Technological Knowledge,* MIT Press, Cambridge. Vincenti, W. (1990): *What Engineers Know and How They Know it: Analytical Studies from Aeronautical History,* Johns Hopkins University Press, Baltimore.

had two negative consequences: 1) it gave rise to the strong criticisms of Commons and Knight (both thinkers rescue the relevance of individual freedom and rule out the need to explain it based on its historical genesis); and 2) it sponsored the interpretation of Ayres (who, in contrast to Veblen, openly rejects individual freedom and, of course, by denying its existence, avoids the problem of its genesis). And Ayres's position further radicalized Knight's and others' defense of individual freedom and, therefore, the need to explain its institutional and historical genesis was lost.

Ayres' radicalism is to some extent responsible for the abrupt decline in interest in institutionalism in economics. Yet, paradoxically, he was influential in sociology trough one of his students, Talcott Parsons, who was a decisive thinker in the development of sociological functionalism.

CONCLUSION

When one looks at today's world there is no doubt that Veblen's institutionalism was in many ways in the right direction. We have not seen the global advances in democracy and free markets that the neoclassical school expected, neither the international revolution of the proletariat announced by Marx. We live in a world in which institutions have played a key role. Governments expenditures in Western countries, in the twentieth century, went from around 10% of GDP to around 40%, which means that they gained control of almost an additional one third of the economy. Social expenditures in the same group of countries went from around 3% to around 25%, showing the political power of the rising middle class. International institutions were created after the Second War. There are many diverse political systems around the globe, with liberal democracies representing only 13%[86] of the global population and communism only 19.6%[87], which means that around 67% of the population lives in hybrid political systems that respond to specific historical institutions of each country. Moreover, liberal democracies, as mentioned before, have very large governments, and differ among them substantially; and of the 19.6% of the population living in communist countries, 17.8% lives in China which has become largely integrated into capitalism

[86] *The Economics of Global Peace.,* op. cit.

[87] Only China, Viet Nam, North Korea, Cuba, and Laos are today considered strictly communist.

due to the ICTR. The political systems of the world have become so hybrid, that it is very difficult to classify them. Russia is no longer listed as a communist country, while China still is, however China in many dimensions is less communist than Russia. Anyway, what is clear is that neither liberalism nor Marxism have become dominant in the real world. Thus, Veblen was right as to the importance of institutions; yet in terms of guiding policy today, RL and RI (Marxism) are more influential than American institutionalism. Understanding why is one of the tasks of this manuscript.

RI's (Marxism's) influence, despite the USSR's fall, is particularly intriguing. There is no doubt that the communist model of growth has been a failure, then why is Marxism still influential? The main reason is that what survives is Marx's claim that capitalism is an unjust system. Theoretically, we know today that there are many economic equilibriums possible, some of which exhibit underemployment and underdevelopment and many of which could be non-Pareto optimal[88]. These many equilibriums may also exhibit all sorts of income distributions. Neoclassical marginalism does work well within an equilibrium, the Sraffa's challenged as to the theory of capital can be proven wrong[89]. However, there are many possible equilibriums presenting all sort of income distributions, and marginal neoclassical theory does not hold in the comparisons between equilibriums. Whether one equilibrium or the other is chosen depends upon the institutional arrangement, and not upon the neoclassical theory of income distribution. Thus, although is not true that capitalism necessarily concentrates income, it not true either that it generates a fair income distribution[90]. Any equilibrium may happen, and it is the task of institutions to define an equilibrium that satisfies social justice. In liberal democracies, the middle class has forced the rapid growth of governments and social expenditures; but in many developing countries this has not happened, and in a significant number of cases the claim for justice is wrapped within ideological RI (Marxism).

RL's contemporary influence is also intriguing; because in the real world, liberal democracies have a very high governmental participation, and the world clearly is not radical liberal. The main reason of the influence of RL is that it has been right in the importance of free markets for

[88] See chapter four.

[89] Obregon, C. 2018. *The Reconstruction of Capital Theory: The True Meaning of Capital in a Production Function*. Amazon.com. Research gate.com.

[90] Obregon, C. 2015. *Piketty is Wrong*. Amazon.com. Research gate.com

economic growth. However, theoretically we know that neoclassical theory only holds within an equilibrium, and that the equilibrium that will finally occur depends upon the institutional arrangement chosen. Thus, economic growth is not uniquely defined by free markets. Moreover, we know that free markets by themselves do not provide a stable equilibrium, institutions are required. But even though RL has never become an economic reality, and that it is theoretically impossible, RL has become an ideological representant of those defending individual freedom.

Why do radical ideologies have such a powerful influence? Why are freedom and justice so powerful images, capable to move political masses? These are broader questions that we will not answer until the final chapters. Suffice to say now, that ideologies are consequence of philosophical preconceptions without scientific support; and that they necessarily create conflict because they represent distinct visions not only of how the social world is, but of how it should be.

As we will discuss in future chapters, evolutionarily speaking, we (as human beings) were born in a social community, from the very beginning; therefore, the isolated creative individual has never existed in the history of humanity. Individuals always live within an institutional arrangement. But individualism, although it is a social institution as Veblen argued, has been extremely powerful to promote economic growth; and therefore, it must be understood an analyzed carefully. Once we get rid of ideological preconceptions; from a scientific point of view, it seems clear that there are significant advantages to integrate pragmatic institutionalism with pragmatic liberalism. However, the American institutionalism, although it had significant contributions, was not successful in providing such an integration.

Why was American institutionalism successful before 1950, and ended up losing its influence afterwards?

Due to the lack of a proper institutional arrangement, at the national and international level, despite a long wave of free trade expansion and successful economic growth, the world entered a dark economic period that started with the First World War, followed by the 20's hyperinflation the 1930 GD, and the Second World War. The neoclassical thinking of free markets had failed and policy makers before 1950 were in search of new solutions. For a while, American institutionalism seemed like a good promise. It claimed to be more scientific than the main tradition because it was more empirically oriented, and more in line with the recent discoveries in other disciplines. And, as we have seen, American

institutionalism had several important contributions in economics such as: the creation of the national accounts, the empirical study of business cycles, the empirical study of the relevance of law in economics. And it was highly influential in other disciplines like sociology.

There are, however, several reasons why American institutionalism lost its influence after 1950: 1) it did not have an integrated theory. 2) Veblen's basis in psychology became questionable, due to the success of behaviorism. 3) Ayres' technological radicalism contributed significantly to finish with the popularity of American institutionalism. 4) Commons' and Knight's revival of the individual will seemed to support the main neoclassical tradition. And 5) Mitchell's business cycle theory was not appropriate to understand the 1930 GD. This last reason was the most decisive one.

Let us briefly discuss each one of them.

1) The lack of an integrated theory. The vision of the distinct American institutionalists was never put together into an accepted theoretical framework. Moreover, the empirical work did not have an adequate theoretical counterpart, a shortcoming that became more and more unacceptable after 1950 due to the influence of hard sciences in social sciences.
2) The pragmatism of William James lost its privileged position in psychology, due to the theoretical and empirical success of behaviorism. This left Veblen's broad cultural view without the support of his notion of habits, that was central in his thinking.
3) The success of the West was associated with the political and economic freedoms enjoyed by the individual, and Ayres' blunt dismissal of any role for the individual in the process of social change became highly unacceptable.
4) The defense of individualism of Commons and Knight was well accepted by the main tradition, but no alternative paradigm was offered by these authors – thus, to some extent their work reinforced the need to rescue the neoclassical thinking (which has never disappeared from the intellectual circles).
5) American institutionalism's influence was clearly felt at the NBER. The idea of having data to evaluate institutions gave a decisive impulse to the creation of national accounts. American institutionalism created the data needed for macroanalysis, but it did not have an adequate macro-theory. In the 1930 GD unemployment was the key problem and government expen-

ditures seemed the solution, but American institutionalism did not have an adequate theory to explain these phenomena, while Keynes did. Mitchell's business cycle theory did not offer a clear answer as to how modify the institutions to get out of the problem, Keynes' theory did. The notion of repeated business cycles was of little help for understanding the 1930 GD, while Keynes had an answer. Thus, American institutionalism created the data that were going to be used with Keynes' theory. Moreover, due to Hicks' IS-LM it became possible to reconcile neoclassical thinking with Keynes, and after 1950 the neoclassical synthesis became the accepted paradigm. Moreover, because of its mathematical nature the neoclassical synthesis propitiated the rise of econometric work and empirical verification. Econometrics and empirical verification, based on a theoretical mathematical model, was a substantially better claim to a "scientific work" than the empirical analysis of American institutionalism - which lacked a sound theoretical paradigm. Keynes' success, the transformation of his ideas into the IS-LM framework, the consolidation of the neoclassical synthesis and why it gave rise to a comeback of the neoclassical school in the 80's will be the topic of the next chapter. Unfortunately, the lack of an American institutionalist theory as to the 1930 GD, and Keynes' success, meant that institutions understood as a long historical cultural outcome were out of economic thinking for decades. They only came back in NIE, with North's contributions, which, however, as we have discussed, maintains the Western individual as an isolated, fixed, ahistorical datum.

CHAPTER THREE: KEYNES' INSTITUTIONALISM VERSUS THE MAIN TRADITION

The First World War and the ensuing hyperinflation of the 20's were clear evidence that something was wrong with the neoclassical proposal that free markets and free trade would bring progress and peace. National protectionism however brought about the 1930 GD. In the midst of so many crises, continental Europe was discussing along nationalistic ideologies, Marxism and even fascism. Institutions had to do something – and governments started spending a lot, to support the economic recovery. Even before any theoretical justification was proposed Roosevelt's New Deal was an accomplished reality. But economics needed to explain what was happening, and American institutionalism - as we mentioned - only offered a business cycle theory that did not help very much.

Keynes, who was already well known because of his book *The Economic Consequence of the Peace* in which he forecasted to some extent the crises that followed, came along, and offered a solution in his *General Theory* (GT). The GT was an unfinished work with many limitations and some incongruities that we will mention shortly, but above all it was a great innovation that suited the economic problems of the times.

American institutionalism was no match for Keynes' theory, which soon became the focus of discussion in economic theory. Keynes paradoxically however, as we will see, due to his unfinished proposal, opened a door for reincorporating the neoclassical theory, which almost 50 years later would come back to preeminence in the 80's. This preeminence, in turn, would again be questioned after the 2008 GFC.

Economic theory owes a lot the old neoclassical economics, to Keynes, to the neoclassical synthesis and to rational expectations; however, Keynes' success, unfortunately, turned the direction of the discussion in economics away from the critical questions raised by American institutional economics. Therefore, some of these questions remain unanswered even today, while others would not become part of the main discussion until the emergence of NIE.

With Keynes, the view of institutions changes from representing the outcome of a long cultural history to a pragmatic view of what a specific institution - the government - must do to make the markets work efficiently. And paradoxically, in Keynes, while institutions may get the economy out of the crisis, the crisis is not produced by the institutions (as it happened in Mitchell's business cycle theory), but by volatile investors' expectations. This, as we will see, is a weakness in Keynes' thought, that has been inherited by behavioral economics.

In this chapter we will present Keynes' thought and explain why he was so successful. We will review the reasons why Keynes was incorporated into the neoclassical synthesis, which became the main theoretical paradigm from 1950 until 1980. We will discuss why the neoclassical synthesis gave rise to the triumph of monetarism and the school of rational expectations, which implied a full revival of the neoclassical thought in the 80's. We will point out why the neoclassical preeminence was again questioned after the 2008 GFC. We will present the version of Keynes that is presented by behavioral economics and its weaknesses. And we will introduce our comprehensive institutionalism (CI) theory of why major economic crises happen.

WHY WAS KEYNES SO SUCCESSFUL?

There have been literally thousands of papers and many books discussing which were the main contributions of the GT that made it so successful. But after decades of discussion, it now seems clear that Keynes had three key contributions that allowed him to explain why increasing the government's expenditures was needed. The first contribution is his theory of the consumption function that allowed him to depart from the main tradition, and from his previous works, by proposing that distinct economic equilibriums may exist. Keynes showed that it is possible that an economic equilibrium can be compatible with unemployment. His second contribution was his liquidity preference theory (LP) aimed at explaining why monetary policy cannot be successful in a major economic crisis, and the third contribution was his theory of the marginal efficiency of capital (MEC) which explains why government expenditures increases may contribute in the economic recovery towards full employ-

ment[91]. Keynes opened a theoretical route to explain what the institutions (particularly the governments) must do to allow free markets to operate properly. It had several advantages: 1) it offered a possibility for free markets to continue to operate, thus it was in principle compatible with the main tradition; 2) it recognized the need of institutions for markets to operate properly; and 3) it justified the New Deal. In sum, it presented a concrete theory to put together institutions and markets, and offered a solution to the critical problem of the 1930 GD.

WHY WAS KEYNES INCORPORATED INTO THE NEOCLASSICAL SYNTHESIS?

Together with the three previously mentioned key contributions, Keynes had two unwarranted propositions which caused the incorporation of Keynes into the neoclassical synthesis.

The first unwarranted proposal was that the dynamics of the real economy were mainly defined by the volatility in the investors' expectations, derived from uncertainty about the future. In other words, he implied that his concept of the MEC was relevant at any point in time in any given economy. However, if he had been right, we should have seen many more major crises in history. The uncertainty of the future is always there, yet major crises only occur infrequently. The MEC is relevant in a major crisis; this is why we listed it as significant contribution. However, economies are usually close to full employment equilibrium because markets are efficient, and flexible prices make the economy quite homeostatic. The MEC does not explain the normal functioning of the economy, that is why it was replaced by Hicks by his investment theory (IT).

A similar argument applies to LPT. In normal times, the balance sheets of most economic agents are sound and therefore, central bank policy rate movements define movements in the banks' lending rate – in line with Tobin's Liquidity Theory (LT), which explains rather well the economic mechanisms at play. That is why Tobin's LT replaced Keynes' LPT in the neoclassical synthesis.

Once a major crisis occurs, the balance sheets of most economic agents seriously deteriorate, and Keynes' LPT becomes relevant. But, because

[91] A precise definition of Keynes LPT and MEC is given in Obregon C. 2021. *Keynes Today*. Amazon.com. Research gate.com

both LPT and MEC are only relevant in major crises and not during the regular operation of the economy, these concepts were removed from the IS-LM analysis, and substituted by LT and IT, both of which explain better the functioning of the economy in normal business cycles – as those that occurred in the post Second World War economy.

The second unwarranted proposal in Keynes is found in the chapter in the *General Theory* titled *Sundry Observations on the Nature of Capital,* where he argues that the interest rate is a purely nominal phenomenon. This chapter reflects Sraffa's influence – the latter had mounted a critique of neoclassical capital theory which he would many years later precise in his book *Production of Commodities by Means of Commodities*.

As I have argued elsewhere, Sraffa's was wrong[92], but under his influence, Keynes mistakenly abandons the neoclassical capital theory, and makes the economy hang on purely nominal categories. This approach is what explains Mrs. Robinson's volatile *animal spirits*. With this proposition, Keynes dissociates his theory from the real economy and from the problems of economic growth. However, a view of nominal quantities dominated by the uncertainty of the future was clearly a poor substitute to the neoclassical capital theory, where the real interest rate was a function of savings and investment. LT and IT had the virtue that they were compatible with a vision of a real interest rate, as defined by the neoclassical capital theory. Years later, Solow's theory of economic growth would be compatible with the IS-LM frame, and therefore with LT and IT.

It should now be quite clear why the main tradition in economics refused to incorporate LPT and MEC: they were not useful to explain the regular or normal operation of an economy; they were not useful to explain the stable Western economies observed after 1950.

Once a major crisis happens, LPT and MEC become relevant concepts. The first one, to explain the inefficacy of the traditional monetary policy after a major crisis occurs. And the second one, to explain the deterioration in the economic agent's expectations as to the capacity of the institutions to manage the crisis. But none of them explain the normal workings of the economy.

Not only did Keynes not have an explanation of the regular workings of an economy but, as we mentioned, his explanation of why a major crisis starts was based on volatile investors' expectations, which are a mysterious magical element that does not have any scientific support. As we said, the MEC cannot be as volatile as Keynes argued because the econo-

[92] *Globalization Misguided Views.,* op. cit.

mies are most of the time near equilibrium, and although they present business cycles, they are reasonably stable. Major crises only happen occasionally. Thus, why they do happen occasionally is not well explained by Keynes. And notice that it is neither explained by the neoclassical synthesis. As we already mentioned, Hicks and Tobin left out Keynes' MEC and LPT, and with these changes the neoclassical synthesis was able to understand an economy working near the full employment equilibrium in regular times. But unfortunately, as the Keynesian-Monetarist controversy would later show, the neoclassical synthesis was also unable to explain why major crises happen.

WHY THE NEOCLASSICAL SYNTHESIS GIVES RISE TO THE TRIUMPH OF MONETARISM AND THE SCHOOL OF RATIONAL EXPECTATIONS

Keynesians were doomed from the start because, without Keynes' MEC and LPT, they had to mount their defense on rigidity assumptions and monetary illusions that were both theoretically and empirically indefensible (prices are almost always quite flexible, and markets disseminate information efficiently) such as: 1)Wage rigidity, to explain unemployment; 2) Monetary illusion, to explain movements in the full employment level; 3) An inelastic investment function and the Liquidity Trap, to explain the inefficacy of monetary policy.

Moreover, the Keynesians versus monetarists debate happened with econometric models that collected empirical data from the post Second World War economies in the Western world, which were quite stable and near full employment equilibrium. Therefore, unsurprisingly, the controversy concluded with the triumph of the monetarists, later reinforced by the success of the school of rational expectations in explaining stagflation.

There were three critical conclusions of the debate. The first one was that the Keynesian policies directed towards managing aggregate demand showed to be less useful than what Keynesians initially suggested. In turn, this was due to: (a) external shocks, uncertain expectations, and unknown response lags, that made it difficult to forecast and understand the results of a specific aggregate demand policy; (b) the fact that if the economy is near full employment, aggregate demand policies will only produce inflation; c) inflationary expectations which seriously restrict the possibilities of

aggregate demand policies. These results did not fully eliminate active aggregate demand policies, but seriously restricted their scope. The second conclusion was that the instability of the money demand function makes it impossible to fully abandon monetary policy and to substitute it by fixed rules. And the third conclusion was that the microeconomic foundations of the IS-LM model were very poor and needed to be addressed, which was done by the rational expectations school. Under the assumption that all the economic agents have all the available information, and that they process it according to the best available economic model, the rational expectations school was able to explain the stagflation phenomenon of the late seventies. Despite its enormous success, however, this school was unable to convince the profession that a policy of aggregate demand was not needed at all. Short term, Keynesian-like rigidities were introduced in models of rational expectations, that became the accepted justification of minor interventions on aggregate demand. The vision of the economic world was mostly back to the NMT. It was argued that the central bank must avoid creating unnecessary monetary disturbances, and active monetary policy is needed to attend the minor disequilibria produced in the real economy by small and short-lived rigidities.

The reason why economic theory was back to the NMT in the 80's is twofold: 1) the economies were very stable from 1950 to 1980, no major crises occurred; and 2) the Keynesians rigidities and money illusion proposals were theoretically and empirically unsustainable. The NMT was the state of mind in the economics profession when the GFC arrived in 2008.

WHY THE NEOCLASSICAL PREEMINENCE WAS AGAIN QUESTIONED AFTER THE 2008 GFC

As I have argued elsewhere, the GFC was not inevitable – it was rather caused by untimely and misguided intervention of economic institutions such as the Fed and US Treasury[93]. Intervention, when it finally came, was based on the incorrect theoretical framework, i.e., NMT. This framework works very well when economies are in the vicinity of full employment equilibrium. But it is ill-suited to explain economies far away from it, as was the case during the 1930 GD, the 2008 GFC and the 2020 GP.

[93] See Obregon 2011, and *Globalization Misguided Views.,* op. cit. Obregon, C. 2011, *La crisis financiera mundial: Perspectivas para México y América Latina*. Siglo XXI, México.

For these extreme cases, something else is needed to understand the role of monetary policy. This was understood by Keynes who provided some highly useful insights in this area, although he was unable to provide a full answer of what is needed to be done. Keynes argued that monetary policy was inefficient in these cases because of his LPT, and he was right. He, however, did not develop an alternative proposal for a new monetary theory, nor concrete policy ideas. We have argued elsewhere that an extended and modified Quantitative easing (QE) could provide such new monetary theory[94] - see the last section in this chapter.

KEYNES AS PRESENTED BY BEHAVIORAL ECONOMICS, AND ITS WEAKNESS

The triumph of monetarism and rational expectations meant that the old monetarist-Keynesian controversy was substituted by a debate between the rational expectations models of real cycles, and rational expectation models with Keynesian rigidities. Both of which were used to explain short-term cyclical fluctuations near full employment equilibrium. This explains Lucas' dictum that Keynes was dead, and that the 1930 GD would never happen again with the tools at hand that contemporary economics offered. But 2008 happened, and the NMT had no explanation, because it was not supposed to have happened.

When human beings cannot explain something, they often turn to irrational explanations. The official explanation of the 2008 GFC by the economics profession, which we have argued is wrong95, resorted to the irrationality of economic agents in the US real estate market. The crash of this market was presented as the cause of the crisis.

It is interesting to note here the revival of Keynes' irrational expectations using behavioral economics. However, as we have said, if the reason for a major crisis like 2008 is that the economic agents are irrational, then: why do we not have major crises more often? The volatility in "animal spirits" that only happens on rare occasions must be explained by causes different from the irrationality of the economic agents, because

[94] See Obregon C. 2021. *Keynes Today.,* op. cit. And Obregon, C. 2020 *New Economics*. At Amazon.com. Research gate.com

[95] Akerlof, G.A., Shiller, R.J. (2009). *Animal Spirits: How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism*. Princeton University Press. Princeton, New Jersey.

economic agents are not on and off irrational/rational. The intrinsic irrationality of economic agents cannot explain rare cases of crisis, that move the economy so far away from equilibrium.

In *Animal Spirits,* first published in 2009, Akerlof and Shiller argue that *"declining animal spirits are the principal reason for the recent economic crisis"*[96]. For them, the understanding of the main drivers of the economy *"lie somewhat outside the traditional boundaries of economic research, in the realm of psychology… "*[97]. They identify five psychological factors: confidence, fairness, corruption and bad faith, money illusion, and stories. They defend that the invisible hand story *"although right in a fundamental way, is wrong at the level of detail and approximation that is necessary to explain what we need to know about macroeconomics"*[98]. The 2008 banking and housing crisis *"was caused precisely by our changing confidence, temptations, envy, resentment, and illusions – and especially by changing stories about the nature of the economy"*[99]. But we ask again, what produces all the changes that they allude to?

For them, confidence is more than just prediction, it means trust and *"the very meaning of trust is that we go beyond the rational. Indeed, the trusting person often discards or discounts certain information. She may nor even process the information that is available to her rationally, even if she has processed it rationally, she still may not act on it rationally. She acts according to what she trusts to be true."*[100]. *"Confidence – implying behavior that goes beyond a rational approach to decision making – indicates why it plays a major role in macroeconomics"*[101]. For these authors *"confidence comes and goes. Sometimes it is justified. Sometimes it is not. It is not just a rational prediction. It is the first and most crucial of our animal spirits"*[102]. And again, it is never explained why confidence comes and goes. Especially, how is it that it only goes on certain rare occasions such as 1930, 2008, and 2020, and not at other times?

They quote the experiments of fairness of Kahneman and others. And unemployment according to these authors, is the consequence that employees ask for a fair wage, and employers give it to them because

[96] Ibid. p. vii

[97] Ibid. *p. viii.*

[98] Ibid. *p. xi*

[99] Ibid. *p. 4*

[100] Ibid. p. 12

[101] Ibid. p. 13

[102] Ibid. p. 14

employees then respond with more productivity. However, since the fair wage is above the clearance level, there is unemployment. Their proposal will explain permanent unemployment, but not cyclical unemployment; and much less huge levels of unemployment in far-away equilibria.

They discuss the corruption in corporate America before the 2008 crisis and argue that it was one of the elements that caused the crisis. Recessions, they argued, always involve corruption scandals. They describe Milken's junk bonds, Enron, and the irregularities with subprime loans. They argue that the business cycle is connected to fluctuations in the level of corruption, which are related to *"cultural changes over time to facilitate or to hinder aggressively competitive or predatory activities"*[103]. There are several problems with introducing corruption as an element producing economic crisis. First: Japan, Korea and China have grown quite efficiently with corruption. Of these countries, only Japan entered a major crisis. If corruption produces major economic crises, Korea and China should have had one already. Second: the major corruption events happened after the banking crisis in 2008 had already started, not before it. As we have argued elsewhere, the 2008 crisis was not a real estate crisis, but a banking and credit crisis[104]. Therefore, the corruption that could have happened in real estate before was irrelevant. Third, most non-performing mortgages happened after the beginning of the banking crisis, and because of the rise in interest rates and were related to ALT A loans and not to subprime loans[105]. Fourth, there was no corruption in rating agencies. Fifth: Banks held 75% of the MBS (Mortgage Backed Securities) that were in private hands; clearly, they were not corrupt when they were structuring the securities that they finally held. Banks did not – nobody would willingly - shoot themselves in the foot. Akerlof's and Shiller's argument that corruption causes major economic crises is just not theoretically, or factually, defensible.

They argue that at low levels of inflation there should be some degree of money illusion.

The argument of money illusion was already discarded in the Keynesian-monetarist controversy many years ago. Moreover, to explain stagflation in the real world requires rational expectations, which imply that

[103] Ibid. p. 39

[104] See Obregon 2011 and 2018. 2011, *La crisis financiera mundial.,* op. cit. 2018 *Globalization Misguided Views.,* op. cit.

[105] ALT A loans have higher credit quality than subprime loans, but less than the prime loans.

there is no money illusion. Even if we were to accept the arguments of behavioral economists, they would only explain minor fluctuations around full employment equilibrium. Moreover, when countercyclical monetary policy is used and it works, it is not because there is money illusion, but because economic agents anticipate that there is margin in the economy for a real recovery. This means that they trust that the central bank and the treasury are doing their job correctly. Finally, in deep depressions, Keynes' argument that the monetary policy would not work has nothing to do with money illusion; but with the real fact that the balance sheets of the economic agents have deteriorated, and banks do not find healthy customers to lend to.

For these authors *"confidence is not just the emotional state of an individual. It is a view of other people's confidence, and other people's perceptions of other people's confidence"*[106]. So, they argue that there are "new age" stories that spread like an epidemic. Confidence is as contagious as any disease. It is true that any institutional arrangement does have a corresponding story, a conceptual system that binds the institutions together. Therefore, any economic situation does have a story attached, which is reflected in the actual institutions that exist. But these stories are not just imagination, nor are they the outcome of irrationality. They are built as part of the true, real history of the economy in question, and they are part of the survival characteristics of such society. Stories found in conceptual systems are not irrational and do not exhibit whimsical abrupt changes. They have a rational survival relatedness with reality, which is required for evolutionary and economic subsistence. Stories may eventually end up being wrong, *ex-post*. But *ex-ante,* at the time they are formed they are always rational, and compatible with all available real facts. Such facts may be read in an optimistic or negativist mood. But the mood is not just irrational either. It depends on real events that are changing the economic agents' confidence in the institutional arrangement in question. A gold-mining boom at first sight may seem irrational; but it happens only because someone in fact did find gold. It is true however, that there can be "Manias, Panic and Crashes"; but they can only explain regular financial crisis, which produce short term fluctuations around the full employment equilibrium. Something else is needed to justify a truly major global economic crisis. Finally, the key thing to focus on is that stories are there all the time, and therefore major economic crisis that occur sporadically cannot be explained just by stories.

[106] *Animal Spirits,* op. cit. p. 55

The best way to understand the consequences of using behavioral economics for macro problems is to review Akerlof's and Shiller's explanation of the 2008 crisis. Basically, for them *animal spirits* produced a real estate boom which eventually had to crash, and it did. And *"in its wake it has left the biggest real estate crisis since the 1930s, the so-called subprime crisis, as well as a global financial crisis whose full dimensions have yet to be grasped"*[107]. Due to *animal spirits "it appears that people had acquired a strong intuitive feeling that home prices everywhere can only go up"*[108]. The story did spread mouth to mouth and created cycles of feedback. *"Money illusion appears to explain some of the impressions that homes are spectacular investments"*[109]. This housing boom was greater than ever before because of the political purpose to provide housing to the most disadvantageous population. *"The feedback that produced the epidemic of home-price increases had institutional, as well as cultural and psychological correlates"*[110]. And *"In this atmosphere it was easy for mortgage lenders to justify losing their own lending standards"*[111].

The problem with these authors' argument is that major economic crises appear almost out of nowhere, from *animal spirits* whose dynamics are mysterious and unpredictable. There is no doubt that markets do have herding behavior, in the sense that people are trying to guess what others will do. But booms do not start out of nowhere. Neither do crashes. They start with stories and in this behavioral economics has a point. However, two arguments must be stressed: (1) these stories always have a rational component. And (2) they must be institutionally supported by financial authorities. The critical point is not whether there are or not psychological influences when investing at the individual level, because there are. The important discussion is whether these psychological influences at the individual level define market prices.

Keynes' and Knight's uncertainty concept means that the future is not known, and investors must build stories about what is going to happen and doing so they can be optimistic or pessimistic, but there is always real basis for their views. In *Irrational Exuberance,* Shiller argued that the stock market boom in the mid-1990s was fueled by *"the story"* of the advent and explosion of the internet. We can argue *ex-post* how optimistic

[107] *Animal Spirits,* p. 149., op. cit.

[108] Ibid. p. 150

[109] Ibid. p. 152

[110] Ibid. p. 155

[111] Ibid. p. 155

or pessimistic the story ultimately proved to be, but the phenomenon of the commercial expansion of the internet was a real story. People that believed in this story chose to invest in companies that benefited from the so-called ICTR (Information, Communications and Technology Revolution), and some made a fortune. Today the largest companies in the US stock market are those who best exploited the ICTR[112].

Given real world uncertainty people must create stories, but they do it based on the best information available to them. This information is always incomplete and requires intuition and risk taking. Manias do extend market prices away from what pure fundamentals can justify, but not irrationally - people do their best guess, using both their emotions and their reason. Manias are not due to irrationality, but to uncertainty.

In the 2000's prices in real estate in US increased partially due to a long economic boom, which had improved substantially the consumer's wealth, and partially due to the fact that stock prices had become expensive while real estate was still reasonably priced[113]. Thus, relative to other assets, fundamentals correctly indicated buying real estate. However, the 2008 crisis was not the consequence of the crash in real estate. Two facts back up this view: (1) in that decade, real estate prices increased much more in Europe than in the US, but the crisis did not originate in Europe[114]. And (2) a careful analysis of real estate indices reveals that real estate prices in the US only started to fall after the banking crisis had dramatically increased interest rates. The causality is the inverse of the conventional narrative: the real estate crash did not produce the banking crisis; rather, the banking crisis produced the real estate crash. The only crash that took place before the banking crisis was in the adjustable-rate subprime real estate market, due mostly to the rapid increase in the policy rate by the Fed during 2005-2007. There is a clear reason that explains why the early boom happened in the adjustable-rate subprime real estate market in US, and why the crash occurred: the rapid downward and upward swings in the Federal Funds Rate. But the collapse of sub-prime did not imply a major crisis. Contagion to the broader system occurred because sub-prime loans were packaged into derivative securities that included mortgage loans of higher quality, the so-called Mortgage-Backed Securities, or MBS. These derivative products were engineered to get

[112] Obregon, C. 2022. *Technology versus Nationalism,* Amazon.com. Also available at Research gate.com

[113] Obregon 2011 *La Crisis Financiera.,* op. cit. and 2018, *Globalization Misguided Views* op. cit.

[114] Ibid.

an optimal mix of risk and return. MBS became exceedingly popular because they provided a higher yield at a time interest rates were very low. MBS were so attractive, that banks kept 75% of them in their books. With the collapse of the sub-prime real estate market, it became very difficult to value the MBS containing these loans; and because banks held MBS in such large amounts, they began to distrust each other's financial health. The result was a pullback in interbank credit lines and an increase in the LIBOR rate (the rate at which banks lend to each other). The consequence was an across the board increase in interest rates, that eventually caused both the generalized real estate and the stock market crashes. Thus, there are clear fundamental causes of the 2008 crisis. It is not necessary to resort to irrationality to explain it. These reasons also explain why it did happen initially in the US, and not in Europe[115].

The crisis was further not contained in time, because inadequate institutional policies were implemented. These were mostly justified based on a free market ideology of limited intervention. Financial authorities believed that risk was probabilistic, and that markets could manage it well. They thought markets could take care of the sub-prime segment and would be able to discriminate amongst viable financial institutions. Authorities were wrong - the amounts involved were too high, relative to the banks' capital.

The lack of proper policy intervention added a level of uncertainty with regards to the financial system, that could not be managed with probabilistic risk. Confidence in a credit economy is essential for economic transactions. The only way for confidence to be restored was for the Fed and/or the government to extract sub-prime loans and the "toxic asset" (MBS) from the banking system. If done early in the crisis the cost would have been much lower, the implementation easier and the policy more effective. Because authorities waited too long, confidence in the banks suffered, breaking the spinal cord of a normal credit economy. Importantly, trust in the ability of the Fed and the US government to manage such crises took a major blow. The economy entered a credit crisis.

For our purposes, it is crucial to understand that the deterioration of confidence was not the result of whimsical irrational shifts but was based in two real facts: the balance sheets of the banks had deteriorated, and regulatory and oversight institutions were not showing themselves able to solve the problem. Given these two facts, it is rational to forecast future

[115] For a more detailed explanation of the 2008 crisis, see Obregon 2018, *Globalization: Misguided Views,* op. cit chapter three.

problems. What allows economic agents to invest in an uncertain future is the assumption that institutions will be able to cope with future internal or external shocks of the economy of a systemic nature, and therefore that the future will resemble the past. This is the assumption under which all the assets are priced in an economy. Only under this assumption does Tobin's probabilistic risk work. When institutions make a major mistake in coping with an internal or external shock of large magnitude, people will rationally extrapolate that there will be future trouble – a concern that can become widespread.

In such an environment, economic agents turn more conservative, as it happened in 2008. These rational adjustments of expectations drove the severity of the crisis and the muted recovery that followed. By looking carefully at what happened in 2008 we get a first clue about the importance of the credibility of institutions in the determination of Uncertainty - U in Minsky's model, and MEC in Keynes's model[116].

The 2008 crisis was not a psychological crisis of generalized mistrust because the boom in real estate had been overextended. Booms do relate to stories about the uncertain future, and when they are wrong, they correct themselves. And yes, there are manias and contagious effects in these processes. Market volatility is in fact explained by uncertainty about the future. However, this happens all the time in economies hovering within the corridor near full employment equilibrium. But a major collapse like the 2008 GFC is typically accompanied by serious and fundamental institutional mistakes The recovery was slow because the economic agents' confidence was shaken. This causes an increase in uncertainty (, with a corresponding higher spread between the policy rate and the interbank rate. The loss of confidence also increases MECTo belabor the point, the shift in confidence is not due to a whimsical or irrational deterioration of confidence. Rather, it stems from the realization of institutional failure. Under these conditions, it would rather be irrational for confidence not to be shaken.

During the duration of the 2008 crisis there is no evidence of money illusion. Buyers read the newspapers and consulted specialists, and they knew houses had become expensive, This, however, did not help them predict when the boom was going to end, which is why they continued buying. While some corruption did happen, it was not the cause of the crisis as it happened later – in the middle of the banking crisis. Some observers have argued that the credit agencies were either irresponsible

[116] See models in *Keynes Today.,* op. cit.

or corrupt, and that the banks were greedy and abusive; but that story cannot be sustained, since banks kept in their books 75% of the MBS. And as we have said, nobody deliberately shoots himself in the foot[117].

It was also argued that mortgages were sold with irresponsible schemes to consumers of questionable economic means. This happened to some extent, but it happened also with higher quality ALT-A loans, and after the sub-prime adjustable-rate real estate loans crisis had already started. In fact, the rise in interest rates explains the growth in flexible rate mortgage schemes.

In summary, it is difficult to explain the 2008 GFC as the result of irrational mistrust, money illusion, corruption, or stories, or consumer fairness. It was not produced by irrational animal spirits, but by institutional mistakes that improperly managed the shock. These fundamental mistakes and errors explain the dimensions of the crisis. They made future uncertainty unmanageable with probability models. The only rational alternative left was to be very conservative.

The view of strong proponents of free markets was shown to be wrong in the 2008 crisis. For risk to be managed effectively on the basis of probabilities the institutional arrangement must be working properly, so that internal and external shocks do not change much the actual normal course of the economy. If there is a huge institutional mistake, future uncertainty cannot longer be managed, economic agents become conservative (and economic agents reduce drastically their transactions related to the future, and the economy enters a major crisis. Markets manage well risk probability; but they cannot manage uncertainty by themselves, when the institutional arrangement makes a huge mistake.

What explains frequent fluctuations in asset prices, is not that the economic agents are irrational, but the presence of uncertainty about the future which they are continuously assessing because whoever gets it right reaps huge profits. Economic agents may not be as rational as rational expectations assumes; but neither are they as irrational as Akerlof and Shiller have argued.

In the postscript of *The Nudge*, Thaler argues that the 2008 crisis was partially due to: (1) extreme complexity in products offered to investors, and in the extreme diversity and complexity of mortgages offered; (2) lack of self-control by refinancing the mortgage instead of paying it; (3) the social contagion in the real estate bubble – he cites Shiller. Nudges, he argues, if implemented would make a crisis like this less likely to occur.

[117] Obregon, C. 2011, Crisis financiera., op. cit. and 2018, *Globalization Misguided Views.,* op. cit.

Is he right? As we have seen, he is not correct; none of the elements he mentions caused the crisis. Nudges would not have helped.

As we have seen, Keynes' LPT neutralizes conventional monetary policy in an acute credit crisis. That is the reason why the Federal Reserve had, for the first time in history, to enter the credit markets directly; implementing QE – buying huge amounts of private assets. This wise move from the Federal Reserve, single-handedly prevented the global economy from entering a depression like the one in 1929.

For markets to operate, they require a proper institutional arrangement that is normally evolving and learning; and prone to minor mistakes which create volatility around full employment equilibrium. However, when institutional mistakes are unusually large and/or of a systemic nature, they lead to a serious deterioration of the balance sheets of key economic agents in large numbers and shake the confidence of economic agents. Markets alone cannot solve this situation and major economic crises occur.

WHY DO MAJOR ECONOMIC CRISES HAPPEN? A COMPREHENSIVE INSTITUTIONALIST EXPLANATION

Markets usually operate within a given institutional arrangement, which normally works well, creating only minor, acceptable business cycles. But when there is a serious institutional mistake, the economy may move from near full employment equilibrium to a faraway suboptimal one, in the form of a major crisis. When this happens, the confidence of economic agents in financial institutions worsens drastically, and MEC becomes relevant. Mitchell's business cycle theory, despite its proper understanding of the role of institutions in a business cycle, was unable to explain this phenomenon, because it did not have Keynes' consumption function theory; and therefore, it could not explain the possible existence of several economic equilibriums, of which one or several can be characterized by unemployment. However, Mitchell was right: institutions play a key role in the macroeconomy; but they are not only one of the causes of business cycles, as Mitchell argued; but they also are the main cause of major economic crises.

An institutional explanation of this sort is the only alternative to explain with one theory both the regular workings of an economy near full employment equilibrium and the presence of major crises on rare occasions. The neoclassical synthesis plus rational expectations may ex-

plain the normal case, while large and/or systematic institutional mistakes explain major economic crises. Institutions must be included because otherwise we are left with a rational economic agent that maintains the economy always in the full employment equilibrium (with minor fluctuations), or with an irrational agent that explains major crises but cannot explain why they do not happen more frequently and that cannot explain the normal workings of the economy.

As we will see in the next chapter, from a micro-theoretical standpoint, it is not sustainable to explain the economic equilibrium only based upon the characteristics of the economic agent (whether he is rational or irrational), the economic equilibrium depends fundamentally also on the institutional arrangement.

COMPREHENSIVE INSTITUTIONALISM AND THE GLOBAL ECONOMY

At the global level, Keynes was always concerned with institutional design. Since he wrote *The Economic Consequences of the Peace,* Keynes saw in the inadequate global economic design a major cause of world economic crises. His concerns culminated in the design of the Bretton Woods agreements, in which his ideas were influential.

In the Gold Standard the main idea was to control inflation due to irresponsible government spending. It was thought that gold, given its restricted supply, could provide an anchor to global prices, which allowed financial and commercial transactions to happen with a degree of certainty - as to the negotiated prices. Beyond that, the functioning of the global economy was left to the markets. However, the Gold Standard in its best years was closely supervised by the Central Bank of England. Therefore, the Gold Standard ceased to work properly when the UK lost its leadership due to the First World War; thus, it had to be replaced; this was done in Bretton Woods where global institutions were designed to provide stability and good functioning to the global economy. However, Bretton Woods ended in 1971. And today's Free Floating Exchange Regime and the ICTR have created new global financial problems, that require new global institutions that we have not built.

The 2008 GFC was mainly consequence of inadequate institutions, both nationally and globally. Under the influence of the school of rational expectations, markets were conceived as stable by themselves, and

the US financial authorities argued for three years that the market was going to solve the problem of the crash in the adjustable-rate sub-prime mortgages. It did not. And the European financial authorities, on their part, insisted that the sub-prime crash problem was a US problem, that did not concern them. They were also wrong. We just did not have the proper institutions, both nationally and globally, to understand what was really happening.

Turning to another crisis, the 2020 Global Pandemic (GP) has been a consequence of an inadequate global health system. We knew it could happen. In fact, years earlier Bill Gates had warned the world of the possibility of a global pandemic. President Obama created a special US health office dedicated to observing pandemics worldwide, which was dismantled by President Trump. However, even Obama's US health office was insufficient; what was needed was a strong WHO (World Health Organization) – which we did not have. And Trump's decision to dismantle the US' office was just unbelievably mistaken. Not only have we managed the pandemic badly, in addition, the macroeconomic responses were based on poorly understood Keynesian policies and using old, inadequate institutions. We need to think fresh ideas, create new theories, and build new institutions; this will be the topic of the last chapters. But for now, it is important to understand why Bretton Woods ended up with the creation of new powerful financial institutions and why they have been insufficient recently.

A country can decide between the following options, in three areas: 1) Fixed or floating exchange rate; 2) Restricted or free capital flows; and 3) to have or not autonomous monetary policy. The Gold Standard was based on fixed exchange rates and free capital flows, therefore there was no autonomous monetary policy (today's examples are the Euro Zone, Hong Kong, and Panama). Bretton Woods chose autonomous monetary policy and fixed exchange rates, therefore capital flows had to be restricted (an example today is China). And the present- day floating exchange rate regime choose floating exchange rates and autonomous monetary policy; therefore capital flows must be free[118]. Table 3.1 presents the options.

[118] In practice at the country level, there are intermediate variants between the fixed exchange rate and the floating exchange rate that are a combination of the two. The International Monetary Fund has classified various types of exchange rates, such as: 1) Dollarization: a foreign currency is adopted, usually the dollar - therefore it is known as dollarization. 2) Currency Board: the country is legally obliged to change the domestic currency by the foreign currency at a fixed exchange rate. 3) Fixed parity: like the previous one but with a less strict legal commitment. 4) Crawling Peg: The fixed rate changes over time. 5) Mov-

TABLE 3.1

1 Autonomous Monetary Policy	
1a Yes	1b No
2 Capital Flows	
2a Free	*2b Controlled*
1a+2a= Floating exchange rates	Today's system
1a+2b= Fix exchange rates	Bretton Woods
1b+2a= Fix exchange rates	Gold Standard

Since in both Bretton Woods and the present-day floating exchange rates regime the countries have an autonomous monetary policy, this implies that these regimes privileged employment over inflation. Employment is stimulated through the printing of money which generates an inflationary bias. In contrast, the Gold Standard privileged inflation control, which is obtained due to the limited supply of gold. One of the central objectives of the Gold Standard was to avoid the frequent degradation of the currencies of previous periods. If we compare the Gold Standard with the post-World War II era (which includes both Bretton Woods and the contemporary system) we find that the first had a deflationary trend, while the second has an inflationary one due to a higher annual growth rate of the money supply. The Gold Standard is associated with higher unemployment and greater volatility in per capita output, prices, and money supply (this result has been known for many years, see for example: Bordo1981, 2001; and Cooper 1982). The record of long-term growth favors Bretton Woods and the present regime in relation to the Gold Standard; but between the first two systems there is no significant difference; see Table 3.2.

able exchange rates with horizontal bands: in addition to sliding, the exchange rate moves within certain bands that are specified. 6) Floating exchange rate: freely determined by the market. 7) Floating exchange rate managed: occasionally the government intervenes to systematically influence the exchange rate. Exchange rates 1 and 2 are fixed parities since the countries that adopt them cannot really print dollars and therefore their reserves, for their balance of payments outflows, depend on other countries. Exchange rates 4 and 5 are semi-fixed parities, but also susceptible to be attacked by speculators. The exchange rate 6 always has some elements of 7. Developed countries discuss between them and, even if they do not announce it, if necessary, from time to time intervene in the exchange rate markets. Japan and China do so frequently; and the United States argues with them on a regular basis, especially if it considers these interventions to be excessive.

TABLE 3.2. THE THREE GREAT MONETARY, TRADE AND FINANCIAL REGIMES (HISTORICAL RECORD)

World's GDP average real growth in 1990 dollars		
Gold Standard	*Bretton Woods*	*Floating exchange rates and free capital flows*
43 years	31 years	37 years
1870-1913	1940-1971	1971-2008
2.12	3.81	3.49

Source: Years adjusted for availability in Maddison's database. Bretton Woods was really 1944-1971. The GDP growth in 1913-1940 was 1.87%, this period does not correspond to any of the three great regimes.

The two basic elements of adjustment to a negative exogenous shock: a monetary supply expansion and the devaluation of the exchange rate, are absent in the Gold Standard. In the absence of these two elements, adjustments are made via income and employment. Therefore, imports must fall via a reduction in national income, generating large unemployment, and promoting exports requires substantial declines in nominal wages.

As already noted, both Bretton Woods and the current regime allow countries to have an autonomous monetary policy; but they differ in that Bretton Woods had fixed exchange rates and capital controls while today's system has free capital flows and floating exchange rates. Bretton Woods allowed devaluation adjustments, but only occasionally and with the help of international institutions; the International Monetary Fund was created initially with this objective in mind (even though later it modified its objectives). The advantage of the contemporary system is that the floating exchange rate allows an adjustment to an exogenous shock also via the price of the currency. If, as exemplified, exports fall, this implies that the demand for the local currency falls and then its price falls in relation to other currencies. The new lower exchange rate stimulates exports again and discourages imports. The fluctuation in the exchange rate reduces fluctuations in employment and income resulting from real external shocks in the balance of payments. This is the main advantage of the current system over Bretton Woods. The present-day regime has three additional advantages: it produces efficiency in capital flows, it avoids the problems associated with exchange rate controls, and it does not present the asymmetry that existed in Bretton Woods between the dollar as reserve currency and other currencies. However, today's regime also has two main drawbacks. The first is that, due to fluctuations in

the price of the currency, uncertainty is produced as to the level of exchange rate in commercial transactions. Excessive fluctuations make international trade operations very difficult. The second disadvantage is that the free flow of capital favors financial instability (see Table 3.3). The first disadvantage had the consequence that floating exchange rates were replaced in many of the underdeveloped countries by fixed or semi-fixed exchange rates. The contradiction between free capital flows and the semi-fixed or fixed exchange rates in the underdeveloped countries led to a greater frequency of financial crises in these countries[119]. The outcome has been the recent trend to very high reserves in these countries. The advantages and disadvantages of the three systems are presented in table 3.3.

TABLE 3.3. ADVANTAGES AND DISADVANTAGES OF THE THREE GREAT REGIMES (PRIORITY GIVEN TO EACH GOAL)

	Gold Standard	*Bretton Woods*	*Today's system*
Inflation control	high	low	low
Full employment	low	high	high
Defending employment against external shocks	low	medium	high
Certainty of commercial prices	high	high	low
Efficient allocation of resources	high	low	high
Financial stability	low	high	low

Source by author.

[119] There is a clear relationship between the world trade, monetary and financial regime, and financial crises in developing countries. The 1971 dollar's crisis was a major antecedent of the financial crises in underdeveloped countries in the 1980's and the 90's. The dollar's crisis produced the oil price increase in the 70's - because the oil producers were selling in dollars and were buying from Europe in other currencies, therefore they had to increase the dollar price of oil. The oil shock was mistakenly received with accommodative policies by the developed economies - producing the 70's inflation, which ended with Volcker's highly restrictive monetary policy and the rapid rise of interest rates to unimaginable levels. The high interest rates were the major reason of the financial crisis in developing countries in the 80's – mainly in Latin America. Because the floating exchange rates of the underdeveloped countries were too volatile against the hard currencies of developed countries, the underdeveloped countries opted for semi-fixed and fixed exchange rates. But this made them vulnerable to financial speculation. The current system showed one of its great weaknesses: on the one hand the volatility of exchange rates is excessive, on the other, the semi-fixed or fixed exchange rates are easy prey to speculation. In the 90's, the Asian crisis because of speculative reasons, involved countries with solid economic basis. The lesson learnt was that the underdeveloped countries had to protect themselves against speculative attacks. Therefore, they have recently opted for large international reserves.

Each one of the three regimes we have described respond to the specific needs of its historical epoch. The Gold Standard emphasized the control of inflation due to the frequent degradations of the currency in previous times. Bretton Woods privileged employment because the antecedent was the Great Depression. And the present system arose because the asymmetry between the reserve currency and the other currencies became unacceptable –once the European and Japanese economic recovery had taken place.

The Gold Standard taught us that an international economic order requires the decisive leadership of the most powerful country (or countries). We also learnt that adjustments to external shocks through GDP were extremely expensive, therefore an autonomous monetary policy at the country level is necessary. At the global level, both Bretton Woods and the current system learned this lesson[120]. Bretton Woods taught us that a proper institutional arrangement can be very effective in promoting both economic growth and financial stability. Today's floating exchange rate regime has taught us that free capital flows, together with the ICTR, globalized finances to the point that the national regulators could not understand what was going on any longer. And therefore, that there is a need for national regulators to be much closer to the markets and to be in touch with other national regulators to understand the whole worldwide financial market. It also taught us that the exchange rate volatility was too high for developing economies, and that - as theoretically expected - semifixed or fixed exchange rates were not the solution because of two reasons: 1) they left the country without a proper autonomous monetary policy; and 2) created the capital flows speculation that caused the financial crisis.

The era of the Gold Standard was concerned with preventing inflation; and it used and developed neoclassical economics. The era of the 1930's was advocated to avoid depressions, under Keynes' economics. The 50's to the late 70's era was guided by the desired to manage properly the business cycle, and its corresponding theory was the IS-LM model. The era that started in the 80's had the goal to prevent stagflation from occurring; and the theoretical framework that was applied was monetarism and rational expectations. The challenge of this new era, starting in 2020, is to get out of the crisis without a renewed long inflationary period. It will not be easy.

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[120] As strange as it may seem, the Euro Zone has returned to an arrangement in which countries do not have an autonomous monetary policy – a position which, theoretically, does not make much sense.

The world has never had a true international economic order, only few of the potential goals of such an order have been historically addressed. National interests have always prevailed over worldwide considerations. The ICTR, however, has brought the world together as never before, and it has increased substantially the cost of not addressing properly the global venues for worldwide improvement. Bretton Woods was the explicit recognition that, to work properly, the markets need an adequate institutional arrangement. The UN, the IMF, the World Bank, the GATT (which later would become the WTO) and the OTAN were created under this vision. The success of Bretton Woods was appreciated in the rapid reconstruction of Europe and Japan's westernization and rapid economic growth. But this same success would be going to produce later on the dismantling of the institutional arrangement, which was considered as no longer needed. The IMF and the World Bank changed from institutions oriented towards Europe's recovery and its proper financial management to its present role: mainly related to developing economies. But in this process their goals also have changed, they are no longer concerned with economic development - but mainly with economic stability and very concrete and minor development goals. The vision has changed from the previous one: "that markets to work properly need an institutional arrangement" to the current neoclassical one: "that markets work well if left by themselves". The neoclassical revival was the response to the demise of the Bretton Woods system in 1971, due to the incapacity of the USA to maintain gold convertibility. Under this new conception the countries' autonomous monetary policy is maintained; but otherwise, Bretton Woods is turned upside down: instead of fixed exchange rates – floating rates, and instead of capital controls, free capital flows.

The grand scheme of the contemporary system, consequence of the neoclassical revival, was conceived up to 2008 as follows: 1) Markets operate well by themselves (neoclassical school). 2) The Great Depression was a policy mistake, but we have learned the lesson, it will not happen again (Lucas). 3) The developed countries do not need the support of global institutions; they maintain themselves close to equilibrium (rational expectations school). 4) Developing countries do no develop because they have the improper institutional arrangement; here we find three versions: a) Washington consensus: They need free prices, open borders, and reduced governments. b) North: They need institutions like the West's, which allow individual creativity. c) Sen: If minimum capacities are guaranteed development will occur. 5) A world made of national

democracies will be peaceful and will have economic progress due to the markets' efficiency and individual creativity.

Today's system however, as we mentioned before, was unable to: A) Provide financial stability to the developed world – we had the 2008 GFC and the 2020 GP. B) Provide financial stability to the developing economies. The floating exchange rates resulted to be too volatile in developing economies and were incompatible with commercial transactions, therefore developing countries had to recur to semi fixed or fixed exchange rates, that were subject of speculation from the free capital flows. The Latin American financial crisis in the 80's and the Asian financial crisis of the 90's convinced the developing countries that they needed to protect themselves – in the absence of a proper global institutional arrangement – by building huge monetary reserves. C) Foster development in underdeveloped countries. The countries that followed the neoclassical recommendations did not develop, and the ones that did develop followed a nationalistic development model oriented towards exports to the developed countries – the Asian growth model. D) Eradicate poverty. It went down mostly because of the ICTR and the Asian growth model.

In today's world criminal activities of all sorts have been globalized: narcotraffic, human trafficking, corruption, and so on. Even terrorism has globalized. Fiscal paradises have grown significantly and therefore there is a free movement of financial flows – with inadequate control by the national states - which means: a) Governments are losing the capacity to implement aggressive fiscal policies; because, if they increase taxes to capital too much, it goes away to other locations – through the fiscal paradises; b) Governments are also losing their supervising capability of corrupt activities; because, the financial flows cannot be properly followed; c) The world cannot control the financial flows of criminal or terrorism activities; which makes it much more difficult to stop them, and to get hold of their illegal wealth.

The ICTR has brough the world together and has made it evident that the market without a proper institutional arrangement does not work properly. The 2008 crisis has produced a revival of nationalism, protectionism and anti-immigration sentiments and policies, which are a threat for the future well-being of the global community. It is time to think out of the box and propose modifications to the actual international economic order. To do that we need to start by recognizing that: 1) There has never existed a true international economic order, nor will there be one soon because the world is dominated by national interests. 2) Any

proposal must confront the previous fact. 3) The ICT is a technological revolution that has a dynamic of its own and cannot and should not be stopped. It can bring enormous progress to humans if faced properly by an adequate institutional arrangement. Attempts to stop it will fail, and can rather derail the process and become very expensive for humanity. 4) The ICTR allows the globalization of all activities; among them criminal ones and terrorism, and to be able to control them properly an institutional arrangement that supervises closely fiscal paradises and financial flows must be built. 5) That means that the global legal institutional arrangement must be scaled up. 6) The ICTR will increase global trade and the WTO must be strengthened. Multilateral agreements are the best way to go. However, given the predominance of national interests, regional trade agreements will subsist. 7) National interests always entail the possibility of armed confrontations, a risk that can be diminished recurring to international economic agreements and institutional global arrangements. 8) Economic development as a goal has never been properly addressed, it is time to do it. 9) Monetary and financial stability is not guaranteed by today's regime; improvements should be made.

CONCLUSION

From 1950 to 1970 the world economy was growing fast, the middle class consolidated its political power, governments increased substantially their size and international institutions had considerable influence on the economic recovery of Europe and Japan under the Marshall Plan. Thus, up to 1970 Keynes' institutionalism seemed to have succeeded in the real world. Large governments and strong international institutions made the world look very different from the way it looked before the First World War. There were however unresolved problems.

Keynes' theory had abandoned any connection with the real economy by making the interest rate a purely monetary phenomenon, therefore questions like economic growth and the whole microeconomics behind the macroeconomic model were left aside. The IS-LM model partially remedied this problem but led to the triumph of rational expectations and the view of an economy basically in equilibrium, which meant a return to the neoclassical monetary theory (NMT). This view became highly influential in the real world after 1980.

NMT has been extremely successful. The development of the endogenous microeconomic foundations strengthened the view of an economy always near equilibrium, in which risk is viewed in terms of historical probabilities. Tobin's LT became the cornerstone of future key developments in finances and in portfolio theory. An economy in equilibrium, and a concept of probabilistic risk, are the theoretical basis for: (1) Black and Scholes' options theory which had a huge impact on the growth of the derivatives markets. (2) Modern portfolio theory developed by Tobin, Markowitz, Sharpe, and others, which is the theoretical basis of today's professional asset management practice and has been decisive in convincing large pension funds of the benefits of index investing. (3) The Modigliani-Miller theorem which is the foundation of contemporary financial thinking about the capital structure of a company. The actual functioning of the world's global finances would not have happened without the vision of an endogenous economy, in which risk is perceived in terms of probabilities. NMT explains not only the behavior of central banks before QE, but also the functioning of the financial markets in the global economy, and how individual consumers and investors make their economic choices. Its success is undeniable.

There are, however, key problems that remain unresolved with NMT. The main one is why the economies move drastically away from equilibrium like in the 1930 GD, the 2008 GFC, and the 2020 GP. And why in all these cases governments used a highly expansionary fiscal policy supported by a rapid growth in the balance of the central banks. And why QE was introduced in 2008 and again in 2020. What theory justifies these actions? Were they correct or wrong? What else could have been done? Moreover, the neoclassical models of economic growth were insufficient to explain the failure of the neoclassical model and the success of the Asian growth model.

From an institutional point of view, in Keynes institutions were limited to those needed to establish the financial stability required for private markets to operate well. NIE, many years later, reopened the discussion of institutions with a historical perspective; but because its insistence on the optimality of Western institutions, it failed to properly discuss the institutions that made the Asian growth model a success, as well as to discuss the global institutional arrangement. Thus, problems like the 2020 GP or the Russia-Ukraine war and its economic implications cannot be understood with NIE. Institutions seen as Veblen did open a broader view that allows for the discussion of these problems, but it has not yet happened in the main tradition.

Behavioral macroeconomics tried to rescue Keynes' original thought to explain major economic crises, but it encountered the problem that irrational animal spirits cannot explain these crises, because animal spirits are always there, and major crises happen rarely. Economic agents are assumed to be always irrational, yet major crisis only have happened on rare occasions. A better understanding of what happened in the 2008 GFC helps us to understand why major crises occur: they are the consequence of huge institutional mistakes in coping with an internal or external shock. Markets operate within an institutional arrangement, which usually functions well and guarantees the continuity needed to be able to estimate future uncertainty through probability risk. Large institutional mistakes, however, make it rational to expect more problems in the future, due to the loss of credibility in the institutional arrangement. When this happens, the economic agents' confidence deteriorates[121]and the economic agents drastically reduce their transactions related to future consumption and investment plans, and a major economic crisis occurs.

Keynes' economics moved the discussion away, from the conception of institutions as the consequence of a long historical cultural process, to the view of institutions as what was needed to get the system out of a major economic crisis, so that the markets and neoclassical economics can continue operating normally. Keynes however, as well as neoclassical economics, was unable to explain the source of major economic crises. We have been arguing that they start with the loss of confidence of the economic agents in the capacity of the institutions to manage the crisis. But the discussion about institutions needs to go beyond what causes a major economic crisis. Once Keynes' irrational animal spirits are eradicated, the interest rate has also a real component and the question of economic growth must also be discussed; and as we will see, economic growth also depends upon the institutional arrangement. In particular, the success of certain Asian countries in applying what we have been calling the Asian growth model, based on non-Western institutions, makes it unavoidable to open again the question of institutions as the outcome of a long historical cultural process. A question however, that even today, NIE refuses to raise.

Moreover, Bretton Woods and the institutional arrangement that followed were conceived during the Cold War; and consequently, except for the UN, the other institutions were fully controlled by the Western countries. Thus, the need of a truly global institutional arrangement has

[121] Aand

never really been discussed. And with the triumph of the NMT, and the partial dismantling of the international organizations, like the WTO, there is not any hope in the direction of discussing the need of an efficient global institutional arrangement. Yet the costs of not doing so are becoming ever more evident due to the globalization process produced by the ICTR.

Keynes' success moved the discussion in economics away from microeconomics to macroeconomics; the neoclassical synthesis was mainly conceived around the IS-LM model, which had poor microeconomic foundations. The rational expectations school brought back neoclassical microeconomic foundations, and by arguing economic agents' efficient use of all available information it was able to show, in partial equilibrium models, why the economy remains always near full employment equilibrium. However, the 2008 GFC and the 2020 GP have shown that major crises are not only a theoretical curiosum of the past, but that they do happen in real economies even today. To fully explain why major crises do happen we will need to explore in the next chapter the contemporary developments in general equilibrium models in welfare economics, information economics, and game theory. As we will see, new microeconomic theory has formally proven that RL does not have scientific basis, private markets by themselves do not define a unique, stable, optimal equilibrium. There are many potential Pareto equilibriums exhibiting unemployment and underdevelopment, and there are many inefficient non-Paretian economic equilibriums. To define the actual equilibrium in a private market, institutions are required. Our theory of CI, as we have seen, holds that what moves the economy from one equilibrium to the other, in the case of major economic crises, are large institutional mistakes that create the mistrust of the economic agents as to the capacity of the institutions to manage the situation.

CHAPTER FOUR: THE THEORETICAL DEBACLE OF RADICAL LIBERALISM

Keynes' success was soon incorporated into the neoclassical synthesis, which as we have seen ended up in the partial equilibrium models of the school of rational expectations. However, independently of the literature in macroeconomics, the neoclassical literature in microeconomics continued to be developed, and focused on two topics: Welfare Economics and General Equilibrium Theory. And paradoxically, this literature ended up in Information Economics and Game Theory; both of which formally demonstrated that the radical liberal proposal that private markets by themselves obtain a unique, optimal, stable equilibrium that maximizes the economic welfare of the agents participating in the market exchange, does not have any scientific support. There are many potential economic equilibriums showing unemployment and underdevelopment, some of which may be Pareto optimal (but lack full information), and many of which are not Pareto optimal (such as for example, Nash equilibriums in game theory. What defines whether the economy settles down in one economic equilibrium or another, besides individual preferences, endowments and technology, is the institutional arrangement.

Welfare economics lasted a century searching for a way to show that the free interaction of economic agents in the market maximizes social economic welfare, and it was a failure. And general equilibrium also failed in the attempt to show that there was a unique optimum equilibrium. Therefore, the optimum economic welfare and the microeconomic equilibrium are not only defined by individual preferences, endowments, and technology; but also, by the institutional setting under which the microeconomic interaction takes place.

WELFARE ECONOMICS

The story of welfare economics starts in the first decades of the twentieth century with the publications of Pigou's books on welfare in 1912 and 1920,

and ends up with the publication of *The Idea of Justice* in 2009 by Nobel laureate Amartya Sen. There were four attempts to show that markets do maximize social economic welfare. In the first attempt, Marshall and Pigou proposed that an egalitarian society maximizes social economic welfare. It failed due to the recognition that we cannot measure utility in a cardinal way, and therefore we cannot compare the marginal utility derived from the income of different individuals, and we cannot affirm that an egalitarian distribution of income maximizes welfare[122]. In the second attempt, Kaldor argued that economists should make recommendations only based on efficiency, because if inequalities are created, the winners can always compensate the losers. It failed because Nobel laureate Paul Samuelson showed that the only way we can be sure that a bundle of goods B is better than a bundle of goods A is in the case where, for all possible welfare distributions, B is preferred to A. And, like he demonstrates, the above condition is satisfied only in the extreme case, and without economic interest, in which B has more of each good than A (assuming there is no disutility). This conclusion shows conclusively that there is no real efficiency rule. Any efficient solution depends upon the given distribution of resources[123]. In the third attempt, Bergson and Samu-

[122] **First attempt:** Jevons pointed out that the labor-value theory could not be applied to things that lack value; for him, utility arises in things because of its relation to human needs. In the works of Jevons, Menger and Walras, marginal utility becomes the essential element of consumer behavior, and they find a rule to transform subjective value into measurable quantities. Wicksteed transformed the utilitarianism of Jevons into a scale of preferences and analyzed the utilization of resources to the maximum for a certain purpose. Menger, on the other hand, developed his theory in terms of needs and not in terms of pleasure, such as Jevons. For Pigou, economics was a science because it dealt with measurable amounts of satisfaction. Marshall and Pigou accepted the law of incremental marginal utility and assumed that different people obtain the same satisfaction from the same income; under this assumption, an egalitarian society would maximize social welfare.
The first attempt fails: Marshall's and Pigou's conclusion was shown as invalid since satisfactions cannot be added and, therefore, we must use an ordinal ranking and not a cardinal number. Since we cannot measure utility in a cardinal way, we cannot compare the marginal utility derived from the income of different individuals and, therefore, we cannot affirm that an egalitarian distribution of income maximizes welfare.

[123] **Second attempt:** Pareto and Barone presuppose independence between the different satisfactions of people and the absence of external economies and diseconomies; with this frame of reference, it is possible to separate efficiency from equity – i.e., justice considerations, which is known as the Pareto principle. Kaldor considered that the economist should be in favor of any change that improves the efficiency of the system, because if inequalities are created, the winners can always compensate the losers. Hicks, like Kaldor, argues that economists should make recommendations only based on efficiency, since the gains and losses are random at the individual level.
Second attempt fails: Three criticisms were made to Kaldor: 1) it is not always possible to measure efficiency (Scitovsky); 2) the consumer surplus used by Kaldor, based on partial equilibrium, can give wrong efficiency results (Samuelson), and 3) compensatory payments are not always politically feasible. Little criticized Hicks and pointed out that some eco-

elson introduced a Social Welfare Function that does not depend upon the distribution of resources, it is only the social aggregate of individual preferences. But Arrow shows that if one or more individuals has a nonlinear order in his preferences, the social preferences could be not transitive and therefore the Social Welfare Function could not be built[124]. In the fourth attempt, Sen

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nomic changes can cause large changes in the distribution of income; he observed that we cannot expect these to be compensated in the future.
It is particularly relevant to understand Scitovsky's criticism of Kaldor, through what was known as the Scitovsky paradox. This says, that having shown that a position B is more efficient than a position A -according to the criterion of Kaldor and Hicks-, using the same criterion it can be shown that after the community has adopted position B, very well A can become a preferred position for B. The reason for the paradox is that there is a reciprocal relationship between the social valuation of the bundle of goods and their distribution.
Samuelson showed that, even in those cases in which the Scitovsky paradox does not occur, we do not have a criterion to define the optimal solution. Since once it is understood that the preference judgments about the bundles of goods A and B are different in the case of the two distinct distributions, which correspond to positions A and B: it follows immediately, that that there is a need to understand what happens when there are other distributions: because A and B are not the only feasible ones. Due to the above, Samuelson concludes that the only way we can be sure that B is better than A is in the case where, for all possible welfare distributions, B is preferred to A. And, like Samuelson demonstrates, the above condition is satisfied only in the extreme case, and without economic interest, in which B has more of each good than A (assuming there is no disutility). This conclusion shows conclusively that there is no real efficiency rule.

[124] **Third attempt:** Faced with the impossibility of making economic policy recommendations based solely on efficiency, Bergson introduced the notion of a complete Social Welfare Function, which adds the social preferences of individuals and can consider external factors, so that the economist can forget about the problems associated with distribution. Samuelson gave an elegant exposition of the mechanism by which social welfare is maximized in the tangency between the Social Welfare Function and the production function that optimizes the use of resources.
Third attempt fails: However, Arrow showed that it is not always possible to add the social preferences of individuals, so that we cannot always build a curve of social welfare without falling into contradiction. The argument of Arrow can be easily understood, if we imagine a community composed of three people: a, b and c, which have to choose between three possible policies: 1, 2 and 3. Let us suppose that the order of preference of each person is the following: a-1p2, 2p3, 1p3; b-2p3, 3p1, 2p1; c-3p1, 1p2, 3p2 (p denotes "prefer"). If we assign each person an equal weight and try to build a social welfare function, based on the preferences of the majority; we find two votes for each of the following preferences: 1p2, 2p3 and 3p1. As can be seen, this system is incongruent and has no solution. The results of Arrow are generated basically because the individual c does not show a linear order in his preferences, but this is perfectly valid in reality: for example, an individual may prefer a communist country to a socialist country and at the same time prefer a capitalist country to a socialist country.
Conclusion: The controversy over welfare economics clearly showed that, as Harrod said, we cannot talk significantly about efficiency and optimal allocation of resources unless we have a market. And the choice of the market as a method of valuation is a value judgment, since prices imply a given distribution of resources.
Arrow's impossibility theorem put an end to the very long-term quest of neoclassical economics to show that markets optimize social economic welfare; it was proven technically that they do not. To evaluate social economic welfare, we need judgments, external to the market, which is what Sen proposes later.

argues that individuals have moral values that give a solid base to establish a social choice that could be the foundation of a social welfare function. Sen's Moral Economics attempted to find the solution to the welfare maximization problem by re-defining the nature of man. Sen's solution however requires absolute external ethical values, which the individual economic agents can use as a reference. But, as we have argued, humans are not evolutionarily made to be able to achieve such external universal truths. Social choices are welcome but are embedded in the conceptual system and the institutional arrangement of a given society- something that Sen never fully recognizes, even though he seems to get close to it with his conception of partial orderings. So we are back to the notion that markets cannot be shown to maximize social economic welfare, because social choice will always be relative to a specific conceptual system and its corresponding institutional arrangement. The fact is that there is not one, but a set of economic equilibriums of which many are sub-optimal and can be characterized by unemployment and/or underdevelopment; and social choice will not be enough to move these equilibriums to the optimum – which in any case is relative.

GENERAL EQUILIBRIUM

General equilibrium theory had important repercussions for welfare economics[125]. But, it is not possible to demonstrate a unique optimum equilib-

[125] The general equilibrium model has been very useful to reinforce some of the approaches to welfare economics and to understand them more precisely. In particular, the two fundamental theorems of welfare economics are derived from the general equilibrium model. The first of these theorems states that the process of assigning a market equilibrium is Pareto efficient (It is said that an allocation of resources is Pareto efficient if there is no possible redistribution that can improve the situation of one person without deteriorating the situation of another).This result, which is very general and does not require any assumption of convexity, is also very important because it emulates mathematically and allows to explain the invisible hand of Adam Smith. This result is the axis of the justification of the importance of the price system as an efficient system of transmission of consumer preferences, a mechanism that, as we have argued, is central to understanding the rise of Western capitalism. But remember our discussion about welfare economics: this result implies a given distribution of resources (and in general a given institutional arrangement), which is implicit in the prices that manifest themselves in the market. So, the success of the market as a transmitter of information in the West cannot be exported to other cultures without basic considerations about the institutions in those cultures, for example, the presence or not of a middle class, the legal system, the possibility of coalitions, and so on. The real world is characterized by Nash and information multi-equilibriums and to design an adequate institutional arrangement is a key problem to take into consideration. And in a

rium without the use of a set of *strong* assumptions[126]. The relaxation of these assumptions leads to imperfect competition models, information models, and game theory models in which it is possible to find systems with multiple equilibriums of which many are non-optimal, and even explosive situations without solution. Multiple equilibrium models show that the equilibrium obtained depends to a large extent on the institutions that are assumed. General equilibrium theory explained successfully how the market behavior trans-

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multi-equilibrium world, the Pareto optimality of the first theorem does not hold. Despite the above, this first theorem is not only an impressive result, but one of great importance for the economic science in general.

The second fundamental theorem of welfare economics states that, if an efficient Pareto allocation is found, then it will always correspond to a competitive equilibrium characterized by a defined set of prices and a redistribution of resources. This result implies that any redistribution of goods that one wishes to carry out, can always be done efficiently through the market, through a redistribution of resources. Mathematically, this result requires the assumption of technology and convex preferences. Note that the redistribution of resources can not only be politically impracticable, but can physically involve the redistribution of human capital, which cannot be done. Despite these impediments, there is an important message in this second theorem, because it implies that if the distribution of income is achieved by, for example, a tax (or benefit) from a single exhibition, then the desired redistribution of welfare can be achieved without sacrificing the efficiency of the market. The theorem has relevant implications. On the one hand, it is a natural defender of the importance of using the market and taking efficiency into account, since it tells us that the market can always be used; on the other hand, it makes it perfectly clear that the market cannot solve equity problems and that these must be addressed directly via the redistribution of income. This message is important in terms of resisting both the temptation to distort efficiency to achieve equity, and the temptation to argue that equity must be sacrificed for the sake of efficiency. In practice, however, the redistributions that would be required do not seem to be politically attractive in many cases, so that considerations are always made between equity and efficiency, and it is not uncommon for non-Pareto solutions to be established.

[126] Walras also made scarcity the essence of value and forged a process by virtue of which by means of "tatonnement" the market moves towards equilibrium. Walras studied the general equilibrium by counting equations and unknowns, and using the Walrasian auctioneer; however, this method does not tell us anything about the existence, uniqueness, or stability of the equilibrium.

In the general equilibrium of Leontief, one can prove the existence and uniqueness of the equilibrium, but not the stability of the primal and dual problem at the same time. In a neoclassical general equilibrium with trials (that is, where there are no inventories or transactions are not executed unless they are correct; so that implicitly there is a Walrasian auctioneer); stability can be proved given certain assumptions, such as the theorem of weak revealed preferences (which implies that the aggregate demand excess function behaves as a function of excess demand of a particular individual) or the substitution assumption among all the goods (this implies that the price increase in a good , keeping all other prices constant, increases the excess demand on all other goods). Stability in neoclassical models without trials, and where there are inventories, requires the introduction of new assumptions about the nature of the exchange system (see, for example, Intrilligator, 1971, chapter 9, and Varian, 1984, chapter 6).

mits information from the individual to the society; but was unsuccessful to prove the existence and stability of a unique Pareto efficient equilibrium.

A Beautiful Mind is a very enjoyable movie about the life of John Nash who received the Nobel Prize in Economics in 1994. Nash has shown that there are many equilibriums that are not Pareto optimal and that are stable. Which means that markets do not necessarily optimize, and there are many possible equilibrium outcomes What defines the final economic equilibrium? In game theory, which is the field in which Nash worked, the settings of the game. This changes drastically the neoclassical conclusions that given the set of endowments, the technology, and the preferences of many individuals a unique general economic equilibrium could be obtained. The result that one unique stable equilibrium does not exist is fundamental. It means that a generation of economists has been taught macroeconomics in a misled way. There is not any theoretical reason to argue, as the school of rational expectations did, that the economy will remain stable at a full employment equilibrium: *so, it is not surprising that in the real world it did not, and that we have had the 2008 GFC and the 2020 GP.* The setting of the game in game theory could be conceptualized, to some extent, as corresponding to the information set used in information economics, field in which Nobel Prize winner Joseph E. Stiglitz, among others, have shown that there are multi-equilibriums, which may correspond to unemployment or underdevelopment stable equilibriums. Another way in which one could conceptualize the settings in a game is as corresponding with an institutional arrangement. We will discuss more on these alternatives further down. But what is critical in here is: *that it is clearly established that the attempt to find one unique stable optimum equilibrium failed.*

What are the implications of the failure? Since the setting - whether a game, an information set, or an institutional arrangement - defines partially the final equilibrium to be obtained, the first implication is that the microeconomic foundations of macroeconomics must take the setting in consideration. The second implication is that even though markets do not achieve one unique optimal stable equilibrium, they do transmit very efficiently the information of individual preferences – which as we will see is fundamental for economic growth. It is true that there is no market solution without an institutional arrangement of reference; but it is also true that institutions cannot substitute the markets. Thus, any macroeconomic policy must be related to three issues: 1) the market's microeconomic efficiency; 2) a proper institutional arrangement – which among other things defines the fiscal and monetary policies; and 3) the economic growth model.

GAME THEORY

Game theory has shown that there are not only multi-equilibriums, but that many of them are not Pareto optimal – they are Nash equilibriums. Nine Nobel Prize winners have had very relevant contributions in game theory: Harsanyl, Nash and Selten (1994), Aumann and Schelling (2005), Hurwicz, Maskin and Myerson (2007) and Tirole (2014). The main message is that once the game is set, it defines the conditions under which economic agents operate – basically none of them knowing what the other economic agents will do. And since there are no coordinating agencies, many of the economic decision are not globally optimal – because they are optimizing conditioned upon what economic agent A thinks other economic agents will do. Therefore, such decisions in fact, may produce many diverse suboptimal equilibriums.

Notice that even informing the participants that it is possible to achieve a Pareto optimal solution will not help, because the fact of the matter is that they cannot communicate with the other participant, or participants, to be able to establish a pact of no aggression and/or cooperation to the common goal of reaching the Pareto optimal equilibrium. And even if they can communicate, they need to be able to trust what the other participant, or participants, said he/they will do. In many cases knowing that not complying with the committed behavior will bring extra benefits that can be substantial. Given the game, agent A does not know what agent B (or other agents) will do; and a movement of A towards the Pareto equilibrium, may end up putting him in a worse position that the one in which he started if B decides not to cooperate – this can easily be shown in the Prisoners Dilemma.

There is a close relationship, as we mentioned, between the game, the institutional arrangement, the set of information, and the uncertainty as to the future. Both the wrong game, and the improper set of information, can be seen as the equivalent of having the inadequate institutional arrangement. And the uncertainty as to the future may also be seen as the lack of confidence in the institutional arrangement to manage properly future events.

Tirole (1996)[127], is a good example of what occurs in the real world, he shows that both a corrupt economy and a non-corrupt economy have stable equilibriums. In a non-corrupt economy, the optimal individual strategy is not to be corrupt; but, in a corrupt economy it is to be corrupt.

[127] Tirole, J. (1996): "A Theory of Collective Reputations (with Applications to the Persistence of Corruption and to Firm Quality)", *Review of Economic Studies* 63-1, pp. 1-22.

That is why both equilibriums are stable. Notice that the equilibrium has little to do with the individual's preferences. Even if we assume that all the individuals in the corrupt economy would rather live in a non-corrupt economy, the corrupt economy will persist if there are not institutional features (including market prices – because markets are an institution) that allow the individuals to act in a non-corrupt manner. This example can be extrapolated to full employment or to the right development path; almost all, if not all, of the individuals rather have full employment and proper economic development, yet their individuals' optimal behavior may not take them there. Institutional interventions are required.

Game theory, like NIE and information economics, focuses on the settings that define the game; and not on the individual characteristics of the economic agents, as neoclassical economics, behavioral economics, and Sen's economics do. Even strong rational agents, in the wrong game, will produce suboptimal equilibriums.

INFORMATION ECONOMICS

Information economics' success is also shown in the fact that it has produced four Nobel laureates: Mirrless and Vickrey, 1996; and Spence and Stiglitz, 2001[128]. Information economics represents a strong critic to the vision of the economy of the free market of neoclassical theorists, according to which neither the institutions nor history matter. For the free market neoclassical economists, given the distribution of income, which is assumed not to be a problem to be solved by economic theory, equilibrium is basically determined by the fundamental forces of preferences, technology, and endowments. On the other hand, information theorists argue that information and coordination problems may impose limits on economic possibilities which are as real as technology or any of the other fundamental forces.

Information economy focuses on understanding the causes of *coordination failures* due to which the neoclassical equilibrium is not obtained. This literature shows the possibilities of multiple equilibriums, in which one or several of them can be sub-optimal; and, nevertheless, the markets, and in general even the existing institutions, may be insufficient to move the economy from the sub-optimal equilibrium to an optimal neoclassical

[128] Akerlof also won in 2001 the Nobel prize due to his contributions in Information Economics; but he had relevant contributions in Behavioral Macroeconomics.

equilibrium[129]. In addition, the sub-optimal equilibrium can create path dependence[130]. And temporary shocks can have long-term consequences, there is hysteresis[131].

The models used in the study of the information economy are dynamic, either with continuous or discrete decision variables. In some cases, the economic actors are identical; in others, they differ in their benefit functions (payoff); and in others, they differ in their strategy sets.

The inefficiencies of information give rise to a large set of economic externalities, that cannot be resolved through private arrangements, such as: 1) information; 2) group reputation effects; 3) effects of agglomeration; 4) spillovers of knowledge, and 5) pecuniary. The sequence is that there are multiple Pareto equilibriums that can be ranked according to their degree of efficiency; one of these equilibriums is superior to all the others in the sense that it is better for all, but the other inferior equilibriums exist, with their corresponding vector of prices, that do not move the system out of the inferior equilibrium. Information economics has been applied to diverse economic problems, among them, financial crisis[132], and underdevelopment[133].

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[129] Arnott and Stiglitz, 1991, Kranton, 1996, North, 1994. Arnott, R., Stiglitz, J.E. (1991). "Moral Hazard and Nonmarket Institution: Dysfunctional Crowding Out or Peer Monitoring?", *American Economic Review* 81-1, pp. 179-190. Kranton, R.E. (1996). "Reciprocal Exchange: A Self-Sustaining System", *American Economic Review* 86-4, pp. 830-851. North, D.C. (1994): "Economic Performance Through Time", *American Economic Review* 84, pp. 359-368. Alfred Nobel Memorial Prize, Lecture in Economic Science.

[130] Engerman and Sokoloff, 1997, Hoff, 1994, Mookherjee and Debraj, 1999. Engerman, S.L., y Sokoloff, K.L. (1997): "Factor Endowments, Institutions, and Differential Paths of Growth Among New World Economies: A View from Economic Historians of the United States", in Haber, S. (ed.): How Latin America Fell Behind: Essays on the Economic Histories of Brazil and México, 1800-1914, Stanford University Press, Stanford, pp. 260-304. Hoff, K. (1994): "The Second Theorem of the Second Best", Journal of Public Economics 54, pp. 223-242. Mookherjee, D., Debraj, R. (1999): Contractual Structure and Wealth Accumulation, Boston University, inedited manuscript.

[131] Tirole, J. (1996). "A Theory of Collective Reputations (with Applications to the Persistence of Corruption and to Firm Quality)", Review of Economic Studies 63-1, pp. 1-22.

[132] Greenwald, B., Stiglitz, J.E., (2003): Towards a New Paradigm in Monetary Economics. Cambridge University Press. Cambridge.

[133] Hoff, 2000; Hoff and Stiglitz, 2002. Hoff, K. (2000): "Beyond Rosenstein-Rodan: The Modern Theory of Coordination Problems in Development", in Pleskovic, B. (ed.): Proceedings of the XII Annual World Bank Conference on Development Economics, World Bank, Washington. Hoff, K., Stiglitz, J.E. (2002): "Modern Economic Theory and Development", in Meier, G.M., y Stiglitz, J.E. (eds.): Frontiers of Development Economics. The Future in Perspective, 3a ed., World Bank/Oxford University Press, Washington, pp. 389-485.

There is a very close relationship between an insufficient information set, the inadequate institutional arrangement, and the uncertainty regarding the future. Knight and Keynes had explored the consequences of uncertainty for obtaining economic equilibrium and for the determination of employment levels, but none of these authors managed to properly formalize their thinking. Theorists of underdevelopment have argued for a long time that it was due to development traps such as low industrialization, low research, and inappropriate institutions; but they did not formalize their thinking either. The great contribution of information economics is that it formalizes: 1) that the economic equilibrium depends on the institutional arrangement; and 2) that the growth path of a given economy also depends on the institutional arrangement. A critical message is that, today, market prices and institutions may not deliver neither the desired economic equilibrium nor the required long term growth path.

Information economics argues that whatever institutional interventions must be done, they must be analyzed in a dynamic path. Information economics proved that even with strong rationality assumptions, markets do not necessarily produce either full employment or the desired growth path.

ANY ECONOMIC EQUILIBRIUM DEPENDS UPON THE INSTITUTIONAL ARRANGEMENT

For a long time, neoclassical economists tried to show that a private market would a unique, stable, optimal equilibrium that maximizes social economic welfare. This result was critical for radical liberalism, but it cannot be obtained. No matter what theoretical perspective is taken, the final economic equilibrium depends necessarily upon the institutional arrangement. Besides the neoclassical school, two other schools have tried to define the economic equilibrium as a consequence of individual choices: Sen's economics, and behavioral economics; however they were not successful either.

Sen's economics, as we have said, solves the welfare problem building a social welfare function consequence of an ethical individual who makes social choices, but such a social welfare function will only exist if the individual preferences are the outcome of a common ethics – which can be as small as what Sen has called partial orderings, but must be common. Otherwise, the social welfare function will not go beyond the criticism made by Arrow. Now, there are only two ways in which individual

preferences are the outcome of a common ethics, either individuals have access to external common universal values that they understand and are willing to obey – which, as we have discussed before, is neurobiologically impossible; or these common values are the consequence of an institutional arrangement which, as in Veblen, is the outcome of a long historical cultural process. Thus, in Sen's economics there is only way out to obtain a unique equilibrium – a specific institutional arrangement.

Sen's rational ethical individual rests on two assumptions which are questionable within an evolutionary perspective: 1) that humans have rational access to universal moral truths and 2) that they are willing to behave according to them. His notion of partial orderings in the *Theory of Justice* is an attempt to diminish the heavy burden that these assumptions put on Sen's social theory; but it is unsuccessful because, if the two previously mentioned assumptions are gone, nothing guarantees the partial orderings. And then both Sen's solution to the social welfare function and his theory of justice do not longer have the general validity that Sen argued.

The only way out then is to understand social morality as the consequence of an institutional arrangement, in which case there are diverse economic equilibriums, for diverse institutional arrangements.

Behavioral economics also describes social dynamics out of the individual economic agent, which in this case is irrational – therefore there are already many possible equilibriums, but it cannot explain well why one specific economic equilibrium prevails. This, as we have seen, becomes very clear when behavioral economics is applied to macroeconomics.

As we have shown in other works[134], *humans* as defined by behavioral economics cannot explain several empirical realities such as: 1) why individuals do behave selfishly in large markets, even though they display altruistic and cooperative behavior in laboratory settings or small groups - even in monetary transactions. 2) Why individuals can display altruistic and cooperative social behavior in some cases, like the dictator's game in laboratory setting, or the high social expenditures in developed economies; and not do so in other cases, like the extremely low international aid (which is nothing else than a global dictator's game in real life). 3) Why in some cases individuals can display very aggressive behavior, particularly towards other *"out-group"* individuals not belonging to the *"in-group"* to which the individual belongs. 4) Why the companies with more global success are the ones which introduce new options to the

[134] Obregon, C. 2018. *Beyond Behavioral Economics: Who is the Economic Man?* Amazon.com. Research gate.com.

customer and new ways to process information in a more rational way. 5) Why despite the presumed individual nonrationality markets work so well both to allocate resources and to promote economic growth. To explain these realities, we need to go beyond behavioral economics.

Behavioral economics starts its analysis from the characteristics of the individual human nature. The whole discussion is around whether individuals are selfish or not, and whether they are rational or not. But there is not a careful description of the social group, the institutions, and the historical values of the culture of reference. Focusing on the individual to explain social dynamics and economic relations is the wrong methodological approach, which for the free-market defenders ended up in their proposals that economic markets can almost do it all. Behavioral economics rebels against this conclusion. And maintaining the same methodological approach, it ended up with the conclusion that *humans* display altruistic and cooperative behavior even in monetary transactions. But it could not explain why in some cases they behave altruistic and cooperative and in others they behave selfishly. And it could not explain in which cases individual selfishness is welcome, and in which ones it is not. And it could not understand the relationship between the individual selfish behavior in large markets, the efficient allocation of resources, and capitalism's faster economic growth. Social dynamics goes well beyond economics, and we do need to integrate other social sciences; but we should not, and cannot, do it using only the methodology of analyzing the characteristics of the individuals; because social dynamics goes well beyond the individuals - we need to describe the institutional arrangement of the group to which the individual belongs.

Introducing psychology allowed behavioral economics to describe a non-rational individual, incapable to know on many occasions his true economic preferences. But then, how do markets work so well to allocate resources and governments do so poorly? Why did the USSR fail, and the Western economies succeeded? These questions cannot be answered with behavioral economics. We need to go beyond.

Behavioral economics conceived humans as irrational, which is useful for some specific economic problems; however, there is not one given human nature that defines individual decisions. Humans are neither aggressive and selfish; nor cooperative and altruistic – what they do and decide is heavily defined by the group's institutional arrangement to which they belong.

Thus, again the inescapable conclusion is that the economic equilibrium depends not only upon individual preferences, but also upon the institutional arrangement.

CONCLUSION

In this chapter we have seen that it is not possible to fully explain the microeconomic interactions between the economic agents only based on the characteristics of the individuals, there is no doubt that the setting in which those interactions occur is highly influential. We have shown that any attempt to define the economic equilibrium as consequence only of the given technology and the individual's preferences and endowments must conclude in a failure; because the inescapable conclusion is that, besides these factors, the economic equilibrium is also decisively influenced by the institutional arrangement.

However, despite the failure of diverse theories to fully explain the economic equilibrium as a consequence only of the interaction between diverse individual economic agents; each of the schools ended up having important contributions. Neoclassical economics established the models to understand how a market works; and it has been extremely useful not only for price theory, but also for many other theoretical problems in economics and in finances. Whether in international economics, in the theory of the consumption function, in portfolio theory, or in public finances, among many other areas, the neoclassical model is a fundamental base. In finances, asset management, derivatives, and corporate finances have developed in the light of the neoclassical model. Sen's economics has changed the way we conceptualize development. It has created the capabilities approach; and his theoretical frame is behind the Millennium Goals of the United Nations, the HDI (Human Development Index), and the measurement of multidimensional poverty. Sen's social choice theory has and will continue contributing to the creation of a better global world. And behavioral economics has made us aware of the importance of emotions in economics, it has been useful to better understand some economic decisions, and has allowed the implementation of better policies in cases such as *Save More Tomorrow; Presumed Consent for Organ Donation; Disclosure of the Main Emitters of Pollution; and many more*[135]. *Behavioral economics will continue illuminating economic policy decisions from a different perspective, and therefore it is highly useful.*

[135] Ibid.

CHAPTER FIVE: NEO-INSTITUTIONALISM PART I

Even though the analysis of institutions and their impact was no longer popular in economics, it continued in other social sciences, sociological institutionalism (SI) in sociology and historical institutionalism (HI) in political science. And partially because of the theoretical debacle of radical liberalism (RL), it became popular in economics again in radical choice institutionalism (RCI) and in neo-institutional economics (NIE). In this chapter, we describe neo-institutionalism in economics and other social sciences. We have divided our analysis of neo-institutionalism into two chapters. In this first chapter, we briefly describe RCI, SI, HI, and evolutionary institutionalism (EI); and then we center our analysis on NIE, as it relates to the individual, the market, and the firm. In the next chapter we discuss NIE's vision of the State and of history. NIE shares some basis with RCI, but has many features of its own, which reflect the influence of the old American institutionalism of Commons and Knight, as well as of SI and HI.

Rational choice institutionalism (RCI) explains institutions as the outcome of a "game" between challengers who pit themselves against one another. The emphasis is on institutions as coordination mechanisms that generate or sustain equilibrium. It has its basis in economics and organizational theory, and the analysis starts from individuals maximizing choices. The norms and rules that arise are dictated by efficiency. The emphasis is in understanding the micro-foundations of institutions.

Sociological institutionalism (SI), which was mainly developed in sociology, sees institutional rules, norms and structures as culturally constructed. Myths and ceremonies, symbol systems, moral templates, languages, and cognitive scripts create institutional cultures which tend to dominate individual decision making. An actors' behavior reflects habits, superstition, and sentiments. Institutions propagate cultural norms. Individuals and groups act in specific situations according to rules organized as identities.

Historical institutionalism (HI), mainly developed in political science, brings time and temporality into the understanding of why institutions matter. The emphasis is in how institutions – whether these be formal rules, policy structures or norms - emerge from events and historical circumstances. They are concerned with the origins rather than with the

functions of the pieces that integrate the institutional arrangement. They see change as the consequence of the interactions between different social orders within the society. In this dynamic historical process, unintended consequences often occur. In this approach institutions are conceived in relational terms and path dependency becomes crucial. It explicitly incorporates the notions of conflict and power which in critical junctures create developmental pathways which constrain future historical events. It is centered on explaining diverse national and group trajectories over time.

Evolutionary institutionalism (EI) transfers principles from evolutionary theory to political science and to economics. It integrates aspects of biological evolution with the conscious and strategic decision making that characterizes humans. Preferences interact continually with political institutions, institutional arrangements, and environmental factors. EI, however, points out that ecological factors play a sometimes-decisive role in large-scale changes.

Neo-institutionalism in economics (NIE) takes elements from these three schools, but it is highly influenced by RCI.

RATIONAL CHOICE INSTITUTIONALISM (RCI)

RCI sees social phenomena as a consequence of individual rational choices. A choice is considered rational if its aim to achieve specific goals, and it is consistent with decision theory given the constrains of the situation. The key elements of rational choice are preferences, beliefs, and constraints. Preference may be consequence of transmitted cultural traits, personal habits, or other sources, but the key factor is that they can be constructed as individual preferences. Beliefs relate to cause-effect relations including the perceived possible outcomes of an individual action. Constrains define the limits under which the individual action takes place.

One of RCI's strengths is that it explicitly builds social outcomes from individual-level characteristics and behaviors, thus it explicitly addresses the micro-macro dimensions[136]. Hedström 2005[137] has suggested that RCI must comply with "social mechanism reasoning" which implies that: a) the explanation of macro phenomena must specify the opportunities

[136] Huber, J., ed. 1991. *Macro-micro linkages in sociology*. Newbury Park, CA: SAGE.

[137] Hedström, P. 2005. *Dissecting the Social: On the principles of analytical sociology*. Cambridge, UK: Cambridge Univ. Press.

and preferences of individuals at the micro level; b) it must specify how individual-level preferences and constraints affect individual-level (behavioral) outcomes; and c) the aggregation of individual-level outcomes that brings about collective-level outcomes. RCI starts with the simplest set of assumptions possible[138].

Diverse efforts have been made to make RCI compatible with individual preferences which are either bounded or less rational. Jones 1999 discusses RCI in the context of bounded rationality[139]. Lindenberg 2013 proposes to consider the limited self-regulating capacities of human beings[140]. Fehr and Gächter 2002 point out that empirically individuals exercise altruistic punishment – individuals at their personal expense are willing to penalize free riders (a finding of behavioral economics, which includes psychology and emotions into the preferences)[141]. Efforts have also been made to make RCI compatible with asymmetric information (analyzed initially by Akerlof, Spence and Stiglitz – Nobel laureates)[142]. And RCI has also considered the dilemmas that arise in game theory, such as the prisoner's dilemma[143], the dictator's game[144] or the volunteer's dilemma[145]. RCI has also been studied as to the influence and emergence of exchange structures[146]. Finally, RCI has been identified with NIE, although there are differences as to their influence on distinct authors, which will be discussed below.

The main criticism of RCI, made both by SI and HI, is that the assumption that individual actors have exogenous preferences is unwar-

[138] Lindenberg, S. 1992. *The method of decreasing abstraction. In Rational choice theory: Advocacy and critique*. Edited by J. S. Coleman and T. J. Fararo, 3–20. Newbury Park, CA: SAGE.

[139] Jones, B. D. 1999. Bounded rationality. *Annual Review of Political Science* 2.1: 297–321.

[140] Lindenberg, S. 2013. Social rationality, self-regulation, and well-being: The regulatory significance of needs, goals, and the self. In *The handbook of rational choice social research*. Edited by R. Wittek, T. A. B. Snijders, and V. Nee, 72–112. Stanford, CA: Stanford Univ. Press.

[141] Fehr, E., and S. Gächter. 2002. *Altruistic punishment in humans Nature* 415:137–140.

[142] Bacharach, M., and D. Gambetta. 2003. Trust in signs. *In Trust in society*. Edited by K. Cook, 148–184. New York: Russell Sage Foundation.

[143] Simpson, B. 2003. Sex, fear, and greed: A social dilemma analysis of gender and cooperation. Social Forces 82.1: 35–52.

[144] Güth, W., R. Schmittberger, and B. Schwarze. 1982. An experimental analysis of ultimatum bargaining. *Journal of Economic Behavior & Organization* 3.4: 367–388

[145] Diekmann, A. 1985. Volunteer's dilemma. Journal of Conflict Resolution 29.4: 605–610.

[146] Snijders, T. A. B. 2001. The statistical evaluation of social network dynamics. *Sociological Methodology* 31.1: 361–395.

ranted. Riker argued that we are unable to distinguish whether outcomes resulted from institutions or from the preferences of actors. which made it impossible to predict optimal outcomes[147]. Moe argues that RCI neglects the role of power in shaping outcomes[148]. Barret and Finnemore maintain that RCI cannot explain institutional pathologies[149]. Wendt and Pierson sustain that individuals are guided by appropriateness rather than by consequences[150]. March and Simon argue that actors rely on routinized responses to problems that emerge, as opposed to evaluating and deliberating on the optimal response[151]. Spruyt maintains that we cannot simply deduce institutional outcomes from preferences or impute preferences from observed outcomes[152].

RCI cannot explain an institution's change over time, nor its differences from other institutions[153]. RCI assumes actors that possess too much objective rational decision-making based on full information concerning a choice-scenario. This is not realistic[154].

SOCIOLOGICAL INSTITUTIONALISM (SI)

Sociological institutionalism emphasizes institutions over individual agency. Actors comply with institutional rules and norms because other type

[147] Riker, William H. (1980). "Implications from the Disequilibrium of Majority Rule for the Study of Institutions". *American Political Science Review*. 74 (2): 432–446.

[148] Moe, Terry M. (2005). "Power and Political Institutions". *Perspectives on Politics*. 3 (2).

[149] Barnett, Michael N.; Finnemore, Martha (1999). "The Politics, Power, and Pathologies of International Organizations". *International Organization*. 53 (4): 699–732.

[150] Wendt, Alexander (2003), "Driving with the Rearview Mirror: On the Rational Science of Institutional Design", *The Rational Design of International Institutions,* International Organization, pp. 259–290, Pierson, Paul (2000). "The Limits of Design: Explaining Institutional Origins and Change". *Governance*. 13 (4): 475–499. doi:10.1111/0952-1895.00142. ISSN 0952-1895.

[151] March, James G.; Simon, Herbert A. (1993-05-07). "6". *Organizations*.

[152] Spruyt, Hendrik (1994). *The Sovereign State and Its Competitors: An Analysis of Systems Change*. Vol. 176. Princeton University Press. p. 26

[153] Weyland, Kurt, "Limitations of rational-choice institutionalism for the study of Latin American politics," *Studies in Comparative International Development,* 2002, 37(1): 57–85.

[154] Peters, B. Guy, Institutional Theory: Problems and Prospects (Vienna: Reihe Politikwissenschaft/Institut Für Höhere Studien, Abt. Politikwissenschaft, 2000), p. 18, http://nbn-resolving.de/urn:nbn:de:0168-ssoar-246573,

of behaviors are institutionally inconceivable[155]. Its explanations are constructivist in nature[156]. Functions and structures of organizations are consequence of ceremonies and rituals and do not necessarily reflect functional purposes[157]. Institutional rules, norms, and structures are culturally constructed, and are not inherently rational or dictated by efficiency concerns. Myths and ceremonies create institutional cultures. They study the role of symbol systems, cognitive scripts, and moral templates. Most often they blur the line between institutions and culture. Their work often focuses on questions of the social and cultural legitimacy of the organization and its participants.

It sees culture as essential in explaining behavior[158]. Institutions cement and propagate cultural norms[159]. Institutional actors' behavior is consequence of the recognized situation that the actors encounter, the identity of the actors in the situation, and the analysis by the actor of the rules that generally govern behavior for that actor in that situation. Norms and formal rules of institutions shape the actions of those acting within them[160].

It has been argued that it is difficult for sociological institutionalism to explain institutional change, and that it fails to describe the behavior of members of an institution that failed to comply with the rules[161].

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[155] *Scott, Richard W. (2014). Institutions and organizations: ideas, interests, and identities. Sage. ISBN 978-1-45224222-4. OCLC 945411429.*
Schmidt, V.A. (2010), Taking ideas and discourse seriously: explaining change through discursive institutionalism as the fourth 'new institutionalism'.

[156] Jepperson, R.; Meyer, J. (2021), Meyer, John W.; Jepperson, Ronald L. (eds.), "Reflections on Part II: Institutional Theory", *Institutional Theory: The Cultural Construction of Organizations, States, and Identities,* Cambridge University Press, pp. 126–136, doi:10.1017/9781139939744.006, ISBN 978-1-107-07837-6

[157] *Meyer, John W.; Rowan, Brian (1977). "Institutionalized Organizations: Formal Structure as Myth and Ceremony". American Journal of Sociology. 83 (2): 340–363. doi:10.1086/226550. ISSN 0002-9602. JSTOR 2778293. S2CID 141398636.*

[158] Jepperson, R.; Meyer, J. (2021), Meyer, John W.; Jepperson, Ronald L. (eds.), "Reflections on Part II: Institutional Theory", *Institutional Theory: The Cultural Construction of Organizations, States, and Identities,* Cambridge University Press, pp. 126–136,

[159] Finnemore, Martha (1996). *National Interests in International Society*. Cornell University Press. p. 3.

[160] *March, James G. (1994), Primer on Decision Making: How Decisions Happen, Free Press, pp. 57–58.*

[161] Knight, Jack (1992). *Institutions and Social Conflict*. Cambridge University Press. p. 15. ISBN 978-0-521-42189-8.

HISTORICAL INSTITUTIONALISM

Historical institutionalists use both sociological and rationalist methods, but what distinguishes them is their argument that small events and flukes can have large consequences, that actions are hard to reverse once they take place, and that outcomes may be inefficient. They focus their analysis on how timing, sequences and path dependence affect institutions, and shape social, political, economic behavior and change[162]. Path dependence implies that any decision today limits the available future choices for any political actor or institution. Therefore, institutions do not perform with perfect efficiency because they were designed in earlier times. They focus on long term historical horizons and tend to employ comparative case studies[163]. Motion events are hard to reverse because of path dependency and many outcomes are possible[164].

HI analyzes case-specific institutions and actors. Actors having strategies restricted through constraining institutions. HI does take formal political, cultural, and social restrictions seriously. Formal institutions are represented by constitutions, legislatures, courts, governments, and such. Informal rules and procedures are historically negotiated agreements often unwritten[165]. HI two core ideas are: critical junctures, and path dependency. Critical junctures are moments of uncertainty in history. Path dependency arises because the choice of a single path toward some next uncertainty[166].

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[162] *Voeten, Erik (2019). "Making Sense of the Design of International Institutions". Annual Review of Political Science. 22 (1): 147–163. doi:10.1146/annurev-polisci-041916-021108. ISSN 1094-2939. Farrell, Henry; Newman, Abraham L. (2010). "Making global markets: Historical institutionalism in international political economy". Review of International Political Economy. 17 (4): 609–638.*

[163] *Katznelson, Ira (2007). Preferences and Situations: Points of Intersection Between Historical and Rational Choice In. Russell Sage Foundation. pp. 1–26. ISBN 978-1-61044-333-3. OCLC 945610829*
Pierson, Paul (1993).
"When Effect Becomes Cause: Policy Feedbac and Political Change". *World Politics.* 45 (4): 595–628. doi:10.2307/2950710. ISSN 0043-8871. JSTOR 2950710.

[164] Pierson, Paul (2000). "Increasing Returns, Path Dependence, and the Study of Politics". *American Political Science Review*. 94 (2): 251–267. doi:10.2307/2586011. hdl:1814/23648. ISSN 0003-0554. JSTOR 2586011. S2CID 154860619

[165] Hall, Peter A. and Taylor, Rosemary C. R., "Political science and the three new institutionalisms," *Political Studies,* 1996, 44(5): 936–957.CrossRefGoogle Scholar
Immergut, E. M., "The rules of the game: The logic of health policy-making in France, Switzerland, and Sweden," in Structuring Politics: Historical Institutionalism in Comparative Analysis, Steinmo, Sven and Thelen, Kathleen, eds. (Cambridge: Cambridge University Press, 1992).

[166] Collier, Ruth Berins and Collier, David, Shaping the Political Arena (Notre Dame, IN: University of Notre Dame Press, 2002)

HI has been criticized because of the difficulty to choose a critical juncture, which is usually done *ad hoc* by the researcher[167]. And it is also criticized because the locked-in nature of institutions during path dependency[168].

EVOLUTIONARY INSTITUTIONALISM

EI transfers principles from evolutionary theory to political science, it compares the institution to a gene169. EI however accepts both, nature *and* nurture, as explanatory variables.52,81 EI integrates aspects of biological evolution with the conscious and strategic decision making that characterizes humans. Preferences interact continually with political institutions, institutional arrangements, and environmental factors.53 EI, however, points out that ecological factors play a sometimes-decisive role in large-scale changes.

EI defines an ecosystem as the immediate environment of an institution. It includes the political system and its leaders at the national, regional, and local levels; economic, social, and geophysical conditions; and ambient ideas, including those associated with political thinkers[170]. EI points out that environmental factors are part of the ecosystem because they also influence preferences, for example, differences in geography or climate lead to differences in preference setting. Stability also depends on the environmental factors. Jepperson argues that "EI regards agents as intertwined with their institutional structures and able even to escape them or alter them. HI limits such influence on critical junctures when structures are weak and easily changeable. Institutional change is thus

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Mahoney, James, "Path-dependent explanations of regime change: Central America in comparative perspective," *Studies in Comparative International Development,* 2001, 36(1): 111–141.

[167] Peters, B. Guy, Pierre, Jon, and King, Desmond S., "The politics of path dependency: Political conflict in historical institutionalism," *The Journal of Politics,* 2005, 67(4): 1275–1300 at p. 1283

[168] Peters et al., p. 1286.

[169] Lewis, Orion A. and Steinmo, Sven, "How institutions evolve: Evolutionary theory and institutional change," *Polity,* 2012, 44(3): 314–339.
Blyth, Mark, Hodgson, Geoffrey, Lewis, Orion, and Steinmo, Sven, "Introduction to the special issue on the evolution of institutions," *Journal of Institutional Economics,* 2011, 7(3): 299–315. P.300
Lustick, Ian S., "Taking evolution seriously: Historical institutionalism and evolutionary theory," *Polity,* 2011, 43(2): 179–209. P.190.

[170] Jepperson, Ronald, "Institutions, institutional effects, and institutionalism," in The New Institutionalism in Organization Analysis, Powell, Walter and DiMaggio, Paul, eds. (Chicago: The University of Chicago Press, 1991), p. 144

not at the mercy of agency, nor is it confined to narrow windows of opportunity in time, but it is continuous at the many levels where structure and agency influence each other"[171].

The distinctive feature of EI is its willingness to learn from biology and its insistence on the important influence of geography, climate and in general geophysical conditions on preferences.

How much can EI learn from biology? As for genetics, its usefulness is limited because institutions differ from genes in two key elements: 1) human consciousness of the long-term implications of his/her decisions; and 2) the human society from the beginning is the outcome of an economic surplus, which disconnects somewhat institutions from the evolutionary survival pressures. Think for example of the phenomenon of many people being fat – there are no fat animals in the animal kingdom. There are other conceptions in biology such as ecology and stability that may end up being useful. As for the importance of geography, climate and in general geophysical conditions in influencing preferences, the point is well taken.

We will discuss furthermore EI in the next chapter, where we will return to some of the questions raised by Veblen in the context of the novel proposed institutionalism that we call CI.

NEO-INSTITUTIONALISM IN ECONOMICS (NIE)

Today, the thesis that the market is delimited by an institutional arrangement is generally accepted; this is reflected in the fact that both Coase and North received the Nobel Prize in economics (the former in 1991, the latter in 1993). NIE has been, as we shall see, predominantly influenced by the analysis and study of the institutions of Western economies. The vision of the institutions of NIE is the consequence of the microeconomic analysis of transaction costs, the analysis of property rights and the development of the theory of contracts. Coase's proposition[172] that frictionless neoclassical economics does not correspond to the real economy—which is characterized by transaction costs (costs of seeking and obtaining informa-

[171] Jepperson, Ronald, 1991., op. cit. 4

[172] 1937, 1960. Coase, R.H. (1937): "The Nature of the Firm", *Economica* 4, pp. 386-405. Reimpressed in Stigler, G.J., y Boulding, K.E. (eds.): *Readings in Price Theory,* Richard D. Irwin, Homewood, 1952. Coase, R.H. (1960): "The Problem of Social Cost", *Journal of Law and Economics* 3, pp. 1-44.

tion, costs of negotiating and deciding, and costs of policing and making contracts effective)—led to important modifications in the study of industrial organization in the contributions of Alchian, Williamson and others.

In this frictional economy, the property rights system defines the incentives of economic agents. North, for example, makes a historical analysis of the consequences of different systems of property rights. In this type of economy, both problems of asymmetric information and incentives are central, and the theory of contracts becomes basic for the analysis of both issues. The agent theory studies the information problems between the contracting parties (Fama, Alchian, Demsetz, Stiglitz and Holmstrom), while the relational and incomplete contract theory studies the information problems between the contracting parties and an interested third party, a judge for example (Macaulay, McNeil, Williamson and Alchian).

NIE's new approach has also influenced the analysis of the study of political institutions. Constitutional economics has focused on the analysis of the mechanisms by which public choice selects the rules under which political and economic decisions are made (Buchanan and Wagner, 1977). The works of Williamson and North have had an impact on the political analysis of institutions in various fields such as public administration (Weingast, 1984; Moe, 1990); the government organization (Shepsle and Weingast, 1987); the theory of the State (Levi, 1988); the international organization (Keohane, 1984) and the emergence and change of institutional political arrangements (Knight and Sened, 1995).

The historical roots of NIE's thought are found in the North American institutional thought of Commons. This author defined the institution as collective action in control of individual action (Commons, 1934a, p. 69). Commons placed special emphasis on the study of the transaction as a transfer of property. It is particularly notable that there is no influence of Veblen's thought in NIE, and this is particularly due to the vision of NIE, which contemplates history and institutions only from the point of view of the institutional arrangement that characterizes the West, so that a broader and more general point of view, such as Veblen's, was left aside.

As we have pointed out, there is a close connection between the vision of a world characterized by uncertainty, the absence of information and the presence of institutions. It is therefore not surprising that one of the authors who influenced the thinking of the new institutional economics was Frank Knight. Knight's uncertainty allowed this author to identify moral hazard as a problem endemic to all economic organizations[173].

[173] *Risk, Uncertainty, and Profit,* op. cit.

The idea that markets function under uncertainty and lack of information and that, therefore, economic decisions depend on an institutional arrangement, has a long tradition in economic thought. Even though this idea never managed to dominate the mainstream, it was always defended by various economists throughout the history of economic thought. In this tradition we have pointed out, among other authors, Malthus, Marshall, Keynes, Marx, Schumpeter, Veblen and Boulding[174].

In the remainder of this chapter, we introduce the NIE's theory of the market and the firm, and review Williamson's contributions. The next chapter is devoted to the NIE's theory of the State and of history, and includes North's contributions.

The Market and the Firm

Knight's moral hazard and Commons' insistence on the transaction as the unit of analysis were reflected in Coase's work, in which the firm is no longer defined by its technological conditions, but instead becomes an alternative form to organize economic activity[175]. In this vision, the economy is conceived as an active process of contracts that, by their very nature, are incomplete and force decision-making under a bounded rationality. In this world transactions are expensive; in Arrow's words, "transaction costs are the costs of putting the economic system to work"[176]. In this new economic world characterized by information frictions, three topics become central: I) the analysis of transaction costs; II) the study of contracts, and III) the problem of governance of contractual relations.

1)Transaction Costs: Williamson

Coase has pointed out that, to "carry out a transaction, it is necessary to find out who the other party is, to inform this person that one wants

[174] Obregón, C. 1984. *De la filosofía a la economía. Historia de la armonía social,* Trillas, México.

[175] Coase, 1937 p. 333., op. cit.

[176] Arrow 1969. Pag 48. Arrow, K.J. (1969): "The Organization of Economic Activity: Issues Pertinent to the Choice of Market versus Non-Market Allocation", in *The Analysis and Evaluation of Public Expenditures: The PBB-System,* Joint Economic Committee, 91st Cong. 1st Sess., vol. 1, Washington, Government Printing Office.

to negotiate with him and under what terms, to carry out bargaining negotiations and finally to define the contract and perform the required inspection to ensure that the terms of the contract are being observed, etc."[177]. Based on this argument, three types of transaction costs can be identified: a) search and information; b) negotiation and decision; and, finally, c) supervision and ensuring that the conditions are met.

Once the opportunism of economic agents is recognized and moral hazard is possible, given the lack of information and uncertainty, enormous efforts are made to define adequate transactions; and the costs of such efforts constitute an important part of the economic product that is generated. Transaction costs occur in labor contracts, contracts between companies, and the costs of maintaining a political body capable of establishing a certain degree of governance in contractual relations. In this way, the central economic institutions of a society—the firm itself, the government, the institution of property (social and private), labor relations, and others—are geared toward making it possible to execute transactions. Thus, the cost of carrying out transactions is very high. Wallis and North estimated that the cost of transactions in 1970 in the US economy was between 46% and 55% of the GNP[178].

The incorporation of transaction costs to economic analysis gives rise to several developments in the economics literature: A) the analysis of the consequences of transaction costs for the traditional neoclassical equilibrium; B) the study of organizations as instruments that reduce and optimize transaction costs; C) contractual analysis and private property institutions; D) the analysis of the State as an instrument to establish governability in transactions; E) the historical study of the economic and social impact of the institutions that allow transactions. In this chapter we will deal with developments (A), (B) and (C), and in the next chapter we will deal with developments (D) and (E).

As for (A), transaction costs could in principle be incorporated into a general equilibrium model and obtain the same results as in the traditional model[179]. The model would continue to be Pareto efficient if the transac-

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[177] Coase, 1960, p. 15., op. cit.

[178] Wallis, J.J., y North, D.C. (1988): "Measuring the Transaction Sector in the American Economy, 1870-1970", in Engerman, S.L., y Gallman, R.E. (eds.): *Long-Term Factors in American Economic Growth,* Studies in Income and Wealth 51, University of Chicago Press, Chicago/London, pp. 95-161.

[179] Foley, 1970; Dahlman, 1979. Foley, D.K. (1970): "Economic Equilibrium with Costly Marketing", *Journal of Economic Theory* 2, pp. 276-291. Dahlman, C.J. (1979): "The Problem of Externality", *Journal of Law and Economics* 22, pp. 141-162.

tion costs used in the economic system were the minimum possible; in this sense, transaction costs would simply be one more cost of production. The true and only optimum is the one that incorporates transaction costs[180]. However, as Stiglitz himself and others have pointed out, the lack of information leads us to a world where multiple equilibria are possible, so that there are various Paretian optima depending on the institutional arrangement in place. Recall, for example, the study on corruption of Tirole[181]. Thus, the traditional extended neoclassical approach, to include the cost of transactions, has important limitations, since in a world with no full information it is practically impossible to define what would be the optimal institutional arrangement. The market and economic rationality do not move us from one equilibrium to the other. In this world, rationality is limited, and we must settle only for the possibility of making partial comparisons in a limited set of cases in which, on some occasions, it is possible to point out that some institutional arrangements are superior to others only under certain conditions. previously defined and accepted by the participants.

Once the economic world is conceived in this way, it is impossible to detach it from the institutions and therefore from politics, history, culture, philosophy, and so on. Once economic rationality is limited, the question arises as to what parameters to use for comparisons between institutional arrangements, and here we fully enter democracy, politics, culture, history, ethics, and so on. At this moment, the world can no longer be ordered from best to worst except, in the best of cases, for a limited set of institutions, and even here it is necessary to resort to non-economic parameters. In Tirole's example of corruption, it is not evident that the best institutional arrangement is the one in which corruption does not occur; as it seems evident in the real world, in which most of the human societies on the planet are riddled with corruption. Corruption, like so many other economic phenomena, cannot be understood based only on economic rationality and openly requires institutional analysis.

NIE opened up to this new world of institutions, but attempted to partially close itself again by using Western institutions as a frame of reference for the "best"; in my opinion, such an attempt is indefensible.

Regarding (B), Williamson has studied the organization as a market alternative to reduce and optimize transaction costs and has done so from (C), that is, from the analysis of contracts in a partnership within the

[180] Stiglitz, 1985, p. 26. Stiglitz, J.E. (1985): "Information and Economic Analysis: A Perspective", *Economic Journal,* supplement 95, pp. 21-41.

[181] Ibid.

institution of private property. Williamson (1985) is based on making the transaction the unit of analysis. The transaction cost economy proposed by this author "is interdisciplinary insofar as it involves aspects of economics, law and organizational theory"[182]. Under this perspective, organizational variety is explained because of optimizing transaction costs. The new approach is microanalytic, based on behavioral analysis, recognizes the importance of asset specificity, and uses comparative institutional analysis. The company is conceptualized as a governable structure and not as a production function. Private institutions are the basis of the governability of contracts and the court is only seen as a last resort.

From the point of view of the study of the contract, Williamson distinguishes between two major branches of analysis that seek to replace or expand the neoclassical view of economics: the monopoly branch and the efficiency branch. The first seeks to explain deviations from the neoclassical solution via monopolies and their characteristics; the second explains such deviations as attempts to economize. Monopolies can be maintained via strategies directed at the consumer or at rivals; in the first case, techniques such as price discrimination and leverage power are used[183]; in the second, techniques such as barriers to entry and strategic behavior are used[184]. NIE belongs to the second branch, that of efficiency, and explains deviations from the neoclassical solution as attempts to optimize. The branch of efficiency is divided, in turn, into two large groups: the first focuses on the analysis of incentives and investigates whether they are aligned or not. The second group, to which Williamson belongs, focuses on transaction costs and measurement and governance problems.

In the first group, the analysis of incentives generally refers to the ownership structure and the characteristics of the agent who carries out the economic act. The literature on property rights is extensive and seeks above all to define which are the property structures that most favor

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[182] 1985, p. 387. Williamson, O.E. (1985): *The Economic Institutions of Capitalism,* Free Press, New York.

[183] Posner, R.A. (1979): "The Chicago School of Antitrust Analysis", *University of Pennsylvania Law Review* 127, pp. 925-948

[184] Levi, 1988; Bain, 1958; Stigler, 1963 and 1968. Levi, M. (1988): *Of Rule and Revenue,* University of California Press, Berkeley Bain, J. (1958): *Industrial Organization,* John Wiley & Sons, New York/London. Stigler, G.J. (1963): "United States v. Loew's Inc.: A Note of Block-Booking", *The Supreme Court Review,* pp. 152-164. Reimpress in Klein, B., y Lerner, A.V. (eds.): *Economics of Antitrust Law,* vol. II, Edward Elgar Publishing, Cheltenham (UK)/ Camberley (UK)/Northampton (USA), 2008. Stigler, G.J. (1968): *The Organization of Industry,* Richard D. Irwin, Homewood (IL).

productive incentives in economic agents. This literature emphasizes that property rights are important for the economic performance of society[185]. The literature on the economic agent has developed in two parts[186]. The first is the positive theory linked to the analysis of the factors that determine the nature of the contracts, such as the intensity of capital, the degree of specialization of the assets, the costs of information, capital markets, internal and external labor markets, and the costs of monitoring and committing to a specific performance. The second part is the literature on the principal and the agent and seeks to define the conditions that determine the contract between the principal and the agent when we consider private information and complex incentive alignment problems[187].

In the second group, the analysis of the transactions also refers to efficiency but, in contrast to the first, it focuses more on the execution of the contract and focuses on governance and measurement problems. This second group is an extension of the first, since it accepts the importance of the property regime and of aligning incentives but adds that the court is not efficient in resolving disputes and that, therefore, the private institutions that serve *ex-post* as support to the contract are essential; hence the importance of governance. The negotiation is permanent and includes the post contract period. Governance and asset measurement and speci-

[185] In this tradition we find Coase (1960), op. cit. Alchian (1961 and 1965), Demsetz (1967 and 1969), North (1973, op. cit. 1981 and 1990). Alchian, A.A. (1961): *Some Economics of Property,* RAND D-2316, RAND Corporation, Santa Monica (CA). Alchian, A.A. (1965): "Some Economics of Property Rights", *Il Politico* 30, pp. 816-829. Demsetz, H. (1967): "Toward a Theory of Property Rights", *American Economic Review,* papers, and proceedings 57, pp. 347-359. Demsetz, H. (1969): "Information and Efficiency: Another View-point", *Journal of Law and Economics* 12, pp. 1-22. North, D.C. (1981): *Structure and Change in Economic History,* W.W. Norton, New York. North, D.C. (1990): *Institutions, Institutional Change and Economic Performance,* Cambridge University Press, London/Cam-bridge University Press, Cambridge, 2004.

[186] Jensen, M.C. (1983): "Organization Theory and Methodology", *Accounting Review* 50, pp. 319-339

[187] Hurwicz, 1972 and 1973; Spence and Zeckhauser, 1971; Ross, 1973; Jensen and Meckling, 1976; Mirrlees, 1976; De Alessi, 1983. Hurwicz, L. (1972): "On Informationally Decentralized Systems", en McGuire, C.B., y Radner, R. (eds.): *Decision and Organization,* North Holland, Amsterdam, pp. 297-336. Hurwicz, L. (1973): "The Design of Mechanisms for Resource Allocation", *American Economic Review* 63, pp. 1-30. Spence, A.M., y Zeckhauser, R. (1971): "Insurance, Information, and Individual Action", *American Economic Review* 61, pp. 380-387. Ross, S. (1973): "The Economic Theory of Agency: The Principal's Problem", *American Economic Review* 63, pp. 134-139. Jensen, M.C., y Meckling, W.H. (1976): "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure", *Journal of Financial Economics* 3, pp. 305-360. Mirrlees, J.A. (1976): "The Optimal Structure of Incentives and Authority Within an Organization", *Bell Journal of Economics* 7, pp. 105-131. De Alessi, L. (1983): "Property Rights, Transaction Costs, and X-efficiency", *American Economic Review* 73, pp. 64-81.

ficity issues are interdependent. Thus, the world of the contract can be described based on three basic characteristics: 1) bounded rationality; 2) opportunism, and 3) asset specificity. If all three characteristics are present, the contract requires governability (private order); if (3) is not fulfilled, the contract can be given via competition: the classic case; if only (1) and (3) hold, commitment is required; if only (2) and (3) hold, planning is needed. (1) and (2) are the two basic behavioral assumptions of transaction cost economics, so that planning and commitment are always insufficient and classical economics is a particular case only relevant for assets that are not specific.

The two basic behavioral assumptions to which transaction cost economics refers are bounded rationality and opportunism. A third behavioral assumption used is that of neutral risk aversion, which, in opposition to the first two, is clearly contrary to reality and is introduced only for analytical purposes; the purpose of such introduction is to isolate the economic effects of transaction costs and not confuse them with risk aversion. In the implicit contract tradition, risk aversion is introduced to justify pseudo-rigid wages[188]; however, even assuming neutral risk aversion, pseudo-sticky wages can be explained by introducing transaction costs, which is particularly relevant to explaining pseudo-sticky prices in intermediate product markets.

Technology and asset ownership are important but not sufficient to determine the economic organization, which crucially depends on the transaction costs from which a governance structure is determined, which strongly influences the prevailing economic incentives. Transaction cost economics has been successfully applied to the fields of industrial organization, labor economics, and the study of modern corporations. This new approach has also been used in the analysis of comparative economic systems[189], and in the study of family organizations[190].

This new approach makes it possible to explain the vertical integration of companies because of the need to safeguard transactions linked to spe-

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[188] Azariadis, 1975; Baily, 1974; Gordon, 1974. Azariadis, C. (1975): "Implicit Contracts and Underemployment Equilibria", *Journal of Political Economy* 83, pp. 1183-1202. Baily, M.N. (1974): "Wages and Unemployment Under Certain Demand", *Review of Economic Studies* 41, pp. 37-50. Gordon, D. (1974): "A Neoclassical Theory of Keynesian Unemployment", *Economic Inquiry* 12, pp. 431-459.

[189] Sacks, S. (1983): *Self-Management and Efficiency,* George Allen & Unwin, London.

[190] (Pollack, 1983) Pollack, A. (1983): "Texas Instruments' Pullout", *The New York Times,* October 31 de 1983, p. D1.

cific assets through internal governance, which allows vertical integration. This approach also allows us to understand why price discrimination is applied to different economic agents; this discrimination is based on the cost of monitoring and renegotiating with the different agents. Finally, the approach is very useful because it points out that all auction processes, including those in which a country auctions off a natural monopoly, must be carefully studied microeconomically to make explicit all associated transaction costs, both externally and financially. Gilson suggested that business lawyers should be viewed as transaction cost engineers[191].

Recourse to the courts, however, should be seen as a last resort, so that the study of the governance of transactions goes through the analysis of the optimal mix of private and public structures[192]. First, in no legal system are all promises judicially enforceable[193]; secondly, efficiency considerations make the legal instance always insufficient[194]; third, the need to establish long-term working conditions favors the creation of unions and the establishment of collective bargaining agreements. Williamson acknowledges that the transaction costs approach does not explain well the problem of power relations at work, nor the problem of the dignity of the worker.

From this new approach, the modern corporation is basically the result of a series of organizational innovations aimed at saving transaction costs. Williamson mentions among these innovations: the development of line and staff organizations by the railroads; the integration of distribution in manufacturing production; the creation of the corporation with operating divisions; the evolution of the conglomerate, and the appearance of the multinational company.

There are three basic limitations of the transaction cost economics approach, according to Williamson himself: 1) the models are primitive, with many degrees of freedom, and the measurement and evaluation problems are severe; 2) the two basic behavioral assumptions, opportunism and bounded rationality, are insufficient, and 3) the theory is incomplete, not only in that its models are partial, but also because of the lack of

[191] Gilson, R. (1984): *Value Creation by Business Lawyers: Legal Skills and Asset Pricing,* Law and Economics Program Working Paper 18, Stanford University, Stanford.

[192] Kronman, A. (1985): "Contract Law and the State of Nature", *Journal of Law, Economics and Organization* I, primavera de 1985

[193] Llewellyn, 1931, p. 738. Llewellyn, K.N. (1931): "What Price Contract? An Essay in Perspective", *Yale Law Journal* 40, pp. 704-751.

[194] Williamson, 1985, p. 400., op. cit.

development of the theory of bureaucracy and insufficient attention paid to the multilateral ramifications of contracts. This author suggests that, from the economic point of view, the following areas require more research: the analysis of incentives; the consequences of the need to maintain an adequate reputation in the market, and the consumer's inability to make probabilistic calculations, which leaves room for the development of social institutions such as insurance.

Williamson cites Leon Mayhew's comment that "behind utilitarian markets lies an authentic society, a society that exists beforehand and regulates utilitarian contracts between individuals"[195]. Williamson also quotes Arrow to point out that trust, loyalty, truth-telling and other values are not commodities. But for Williamson dignity and trust and other non-economic social characteristics, while important, are difficult to estimate operationally; however, he thinks his new institutional approach will help. For Williamson, the organizational study based on transaction cost analysis is a good organizational empirical method to understand the social institutional arrangement. He writes: "Transaction cost economics maintains that microeconomic institutions play a crucial, subtle, and relatively underappreciated role in explaining economic behavior, over time, within and across industries, within and across countries. and sociopolitical systems"[196].

Williamson illustrates one of the basic problems of the transactional costs approach: its inability to focus on large social institutions. The basic point to be made is that the empirical organizational study proposed by Williamson already implicitly carries with it a specific Mayhew's society. Thus, this method is fertile for studying the social institutions of the West, but it is inadequate for comparative study with other societies. Williamson acknowledges, for example, that labor contracts are delimited by family considerations, reputation effects, relations between present and future generations, etc., and points out that the economic contract requires studying and understanding these and other delimitations. But what Williamson does not see clearly is that all these social delimitations to the economic contract vary substantially in different cultures with different conceptual systems, so that the institutional study must refer to these great conceptual systems if it wants to understand the history and differences between different societies. Discarding the macroeconomic study of insti-

[195] Mayhew, 1984, p. 1289. Mayhew, L. (1984): "In Defense of Modernity: Talcott Parsons and the Utilitarian Tradition", *American Journal of Sociology* 89, pp. 1273-1305.

[196] Williamson, 1985, p. 408., op. cit.

tutions and concentrating on microeconomic analysis forces us to look at history from the incentives that the Western individual receives or fails to receive, an individual who is not even differentiated in some other non-Western societies and other historical stages even of the West[197].

The method by which Williamson exports the Western individual and his institutions to other historical epochs and other non-Western societies is his definition of the contractual human[198]. From his definition of a human, the necessary institutions are logically constructed, such as the company, the market, the government, and society in general. Williamson acknowledges that his book is fundamentally about the institutions of capitalism but maintains that the method of analysis is of general application. "Although transaction cost economics (and, more generally, the new institutional economics) is useful for the study of economic organizations of all kinds, this book focuses primarily on the economic institutions of capitalism"[199].

Williamson's contractual individual is defined from bounded rationality and opportunism. "Transaction cost economics, as we know, defines human nature, as we know, from bounded rationality and opportunism"[200]. Bounded rationality keeps economic man rational but limits his rationality by acknowledging uncertainty and lack of information, thus giving rise to the need for institutions. Opportunism recognizes the economic individual seeking his own interest and extends it to situations *ex-post* of the contract, thus giving rise to what is known in the economic literature as adverse selection and moral hazard. Adverse selection includes individuals not giving information about themselves or what they know when it is not in their interest to do so, for example: buying insurance and selling used cars. Moral hazard is related to the possibilities that the contract made *ex-ante* is distorted or not fulfilled *ex-post*. Three features of the economic environment make Williamson's contractual nature of humans particularly relevant: asset specificity, uncertainty, and transaction frequency. The more relevant these characteristics are, the more evident is the limited rationality of the economic human, the greater the possibility of opportunism and the greater the need for private institutions that carry out *ex-post* arbitration.

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[197] Obregon, chapter 2. *Teorias del desarrollo.,* op. cit.

[198] Williamson, 1985, chapter 2., op. cit.

[199] Ibid, p.16.

[200] Ibid, p.44.

The contractual individual of Williamson's transaction costs economy is exported through space and time and becomes the indisputable essence and axis of any social structure. The consequence of this approach is to look at history and other non-Western societies from the point of view of the West's institutions and apply a metric and a unit of analysis that do not correspond to them. NIE relaxes the economic rationality of the economic agent by introducing a bounded rationality, which allows the introduction of uncertainty, the absence of information and the institutions. But it must be pointed out that NIE keeps the individual rational because, even given his/her bounded rationality, he/she is a calculating individual, one who optimizes transaction costs. The institutions that this individual builds seek to optimize transaction costs. In this approach, economic relations —transactions— are not only the unit of analysis, but also the axis of social life; society is defined by the bounded rationality of the contractual individual and his opportunism, and the individual by his permanent desire to carry out economic transactions.

The economy of transactions costs is a clear advance over the neoclassical economics' rational human, because by delimiting the rationality of the latter, it allows us to realize the importance of analyzing the institutions; however, it is far from being an adequate institutional analysis even of Western society, since it restricts the analysis to those institutions that arise from seeking the optimization of the transaction cost. Given the importance of economic life in the overall life space of the Western individual and given the individual's relative independence from society in the West, this transaction cost approach is clearly useful in the study of the Western institutions, but even here it is insufficient, since there is a set of non-economic institutions that would be very difficult to explain by this method; think for example of parenthood. For societies other than the Western, or for the study of the historical roots of the West, in which the individual is little or not at all differentiated, trying to structure society and explain institutions on the basis of the contractual optimizing individual is not relevant or useful.

II) The Study of Contracts

The most elementary antecedent of a contract is that the contracting parties have the legal power to contract on whatever the contract refers to. This brings us directly to the study of ownership: who owns what

and who gets to decide what. In the neoclassical world, property is only of secondary importance; a socialist economy can, in principle, reproduce a decentralized economy to mathematical perfection, as Weitzman showed[201]; however, it is in the world of the new institutional economy with uncertainty and asymmetric information that property becomes relevant, since the incentives of economic agents depend on the property structure and, therefore, the innovative capacity of the whole social system is related to its ownership structure.

One of the problems of the communist companies is that those who make the decisions operate with short and distorted horizons. Posner points out that an efficient property system is one in which all scarce resources are owned by someone and must be transferable and tradable[202]. Private property, in the sense of Anglo-Saxon law, includes not only physical property but also patents, copyrights, and contract rights. Of course, the State's commitment to respect and defend private property is particularly relevant. The literature on incentives linked to property rights is extensive[203].

The study of contracts has allowed the new institutional economics to distinguish three different analyses of the contract: 1) the theory of the agent, mainly in charge of studying the consequences of asymmetric information between the contracting agents; 2) the theory of implicit contracts, which studies the difficulties that arise as soon as the fulfillment of contracts cannot be fully forced; 3) the theory of incomplete contracts or relational contracts, which focuses on *ex-post* opportunism and the difficulty of using the court (Williamson). The latter theory has been extensively discussed previously. Let's look at the other two:

1) The agent theory studies the relationship between the principal and the agent; the former entrusts the latter with certain economic tasks for the account and risk of the principal. The literature in general highlights the fact that the agent will typically not act in the best interest of the principal and the question is: how can the principal control the distortions introduced by the agent's behavior? Examples of this type of problem

[201] Weitzman, M.L. (1976): "Optimal Revenue Functions for Economic Regulation", MIT, Department of Economics, Working Papers 193.

[202] Posner, R.A. (1972): "The Appropriate Scope of Regulation in the Cable Television Industry", *Bell Journal of Economics and Management Science* 3, pp. 98-129.

[203] Coase, 1960., op. cit; Alchian, 1965., op. cit; Demsetz, 1964 and 1967., op. cit; and many other authors such as Hardin, V.L. Smith, Clark, Hirshleifer and Riley, Ostrom, Besen and Raskind, among others.

are abundant: the doctor-patient case (the doctor has privileged information, and whether he acts on behalf of the patient interests or not is difficult to monitor); shareholders as principal and company management as agent, and so on. Different principal-agent relationships give rise to different problems. The insurance problem, for example, can give rise to adverse selection because insurance claimants know more about their medical condition[204]; or else can give rise to moral hazard[205], that is health insurance leads to excess medical expenses or fire insurance leads to careless conduct. A typical case of the principal-agent problem can be found in central planning processes: frequently, the principal will incur monitoring costs and the agent the costs to establish guarantees that he/she will not do this or that behavior. Thus, the principal's profits will be diminished by costs, which will include monitoring costs, collateral costs, and residual loss due to the agent not adequately optimizing the principal's interests[206].

Fama and Jensen distinguish between managerial decisions and control decisions[207]. The first include the generation of proposals for the use of resources, the structuring of contracts and the decision of the initiative to implement. Control decisions refer to the implementation or execution of the selected decision and the monitoring of the actions of decision-making agents and the implementation of remuneration. Fama and Jensen argue that separating those with residual risk from those who make management decisions leads to a decision system that separates management decisions from control decisions; while the combination of managerial decision and control decision in a few agents, necessarily leads to the residual risk being shared by these agents.

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[204] Akerlof, 1970; Spence, 1974; Phlips, 1988. Akerlof, G.A. (1970): "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism", *Quarterly Journal of Eco-nomics* 84, pp. 488-500. Spence, A.M. (1974): *Market Signaling: Information Transfer in Hiring and Related Screening Processes,* Harvard University Press, Cambridge. Phlips, L. (1988): *The Economics of Imperfect Information,* Cam-bridge University Press, Cambridge.

[205] Holmstrom and Migrom, 1987; Spreman, 1987; Varian, 1984; Kreps, 1990. Holmstrom, B.R., y Milgrom, P. (1987): "Aggregation and Linearity in the Provision of Intertemporal Incentives", *Econometrica* 55, pp. 303-328. Spremann, K. (1987): "Agency Theory and Risk Sharing", en Bamberg, G., y Spreeman, K. (eds.): *Agency Theory, Information, and Incentives,* Springer, Heidelberg, pp. 3-37. Varian, H.R (1984): *Microeconomic Analysis,* W.W. Norton, Nueva York/London; 3a ed.: 1992. Kreps, D.M. (1990): *A Course in Microeconomic Theory,* Harvester, New York.

[206] Jensen, M.C., y Meckling, W.H. (1976): "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure", *Journal of Financial Economics* 3, pp. 305-360.

[207] Fama, E.F., y Jensen, M. (1983): "Separation of Ownership and Control", *Journal of Law and Economics* 26, pp. 301-325.

Miller[208] is a critic of the principal-agent literature and refers to the empirical anomalies reported in Baker, Jensen and Murphy[209], who found that in many organizations the behavior of managers was not directly associated with the payments they received; Miller insists that the organization cannot only be seen as a set of economic rewards, but as a consequence of managerial leadership better understood from the perspective of political science and organizational psychology.

2) The theory of implicit contracts[210] studies the conditions under which contracts are voluntarily fulfilled or not by economic agents. Klein and Leffer[211], Coleman[212] and Frank[213] show that, if the losses related to potential future profits are greater than the profit of not fulfilling the contract today, the contract will be fulfilled voluntarily. The problem with this theory is that it can lead to multiple equilibria, some good and some bad. To avoid bad equilibria, a high degree of cooperation between the contracting parties is required.

III) The Governance of Contractual Relations

In a world with uncertainty and asymmetric information, the bounded rationality, opportunistic, contractual optimizer individual of NIE gives rise to economic institutions basically based on a) transaction costs; b) economic incentives for innovation, and c) the possibility of economies of scale. Some products will be manufactured more efficiently by the market, others by the internal organization and others in a mixed way.

A central issue is the form of governance that the contract requires. In some cases, with non-specific products and non-recurring transactions, it may be the market itself. The most frequent transactions require other

[208] Miller, G.J. (1992): *Managerial Dilemmas: The Political Economy of Hierarchy,* Cambridge University Press, Cambridge.

[209] Baker, G.P., Jensen, M.C., y Murphy, K.J. (1988): "Compensation and Incentives: Practice vs. Theory", *Journal of Finance* 43, pp. 593-616.

[210] Blanchard, O.J., and Fischer, S. (1989): *Lectures on Macroeconomics,* MIT Press, Cambridge.

[211] Klein, B., y Leffler, K.B. (1981): "The Road of Market Forces in Assuring Contractual Performance", *Journal of Political Economy* 89, pp. 615-641.

[212] Coleman, J.S. (1990): *Foundations of Social Theory,* Belknap Press/Harvard University Press, Cambridge.

[213] Frank, R.H. (1992): "Melding Sociology and Economics: James Coleman's Foundations of Social Theory", *Journal of Eco-nomic Literature* 30, pp. 147-170.

forms of governance, for example the intervention of an external arbitrator. More specific assets can give rise to bilateral governance structures. And specific assets with recurring transactions can give rise to internal governance and the emergence of the integrated organization. One way or another, all the required institutions—the structure of ownership, the extension of the market, the growth of the large corporation, and the role of the State and the law as safeguards of last resort for private contracts—derive from of the governability needs of the contracts, and these needs are deduced from the human nature that the analysis supposes, a contractual optimizer, opportunistic human, with bounded rationality.

In this context, the problem of NIE is to define which governance structure, or which mix of structures is optimal. For this, it is necessary to consider the incentives for production, on the one hand, and the costs of governing the contract, on the other. From this point of view, the entire society and its set of institutions are explained from the logic of the implications of the economic efficiency of optimizing the cost of transactions.

CHAPTER SIX: NEO-INSTITUTIONALISM PART II

Once the structuring axis of the social framework is the individual opportunist contractual optimizer with bounded rationality, the State, like the other social institutions, is defined from its role as facilitator of contractual relations. The function of the State is to promote the realization of the two great socio-economic objectives: 1) innovation, and 2) the reduction of transaction costs. The first is achieved via the market and is closely linked to safeguarding private property, since it is the way to maintain adequate incentives for innovation. The second is achieved through "organizations" and it is the role of the State to regulate adequately to allow the efficient expansion of "organizations".

In all cases, the State is a guarantor of last resort of the soundness of contractual relations. The State, together with private institutions, must form a mixed structure that facilitates the execution and renegotiation of contracts both *ex-ante* and *ex-post*. If the social fabric is structured from the axis of the individual opportunist contractual optimizer with bounded rationality, then history will be seen from the perspective of the degree of efficiency of the social fabric to allow the realization of the two basic central objectives: to allow innovation and reduce transaction costs.

THE STATE

The analytical concepts of property rights, transaction costs, and contract theory have been applied to the State and its organization by political analysts and historians such as Moe[214] and North[215]. The State can be explained in terms of an implicit contract between it and the citizens. The function of the State is to provide protection and justice, which in-

[214] Moe, T.M. (1990): "Political Institutions: The Neglected Side of the Story", *Journal of Law, Economics, and Organization,* special issue 6, pp. 213-253.

[215] North 1981, 1990. North, D.C. (1981): *Structure and Change in Economic History,* W.W. Norton, New York. North, D.C. (1990): *Institutions, Institutional Change and Economic Performance,* Cambridge University Press, London/Cam-bridge University Press, Cambridge, 2004.

cludes protecting the rights to property and to enter contracts. The State maximizes its revenues subject to the cost to citizens of changing State leaders or the cost of emigrating to another State[216]. Levi points out that the leaders of the State carry out a predatory attitude[217]. Thus, the long-term interests of the State may not coincide with the optimized interests of citizens[218]. McGuire and Olson argue, however, that there are forces that tend to keep the interests of the State aligned with those of citizens[219].

Conceptually, the implicit contract between citizens (the principal) and State leaders (the agent) is a relational contract subject to both bounded rationality (uncertainty and incomplete information), asymmetric information and opportunism both *ex-ante* and *ex-post*. It is, therefore, crucial to determine which are the institutions that serve to renegotiate the *ex-post* contract. In the case of the State, these institutions are related to the principle of separation of powers and the constitutional State. And finally, as in the case of any private contract, the contractual relationship between the State and the citizens is based on the credibility of the agent. As citizens do not form a homogeneous interest group, the negotiation is both between them and with the State. The commitments that are established become credible through the institutionalization of the commitments acquired through political institutions; this point is argued by several authors[220]. Political institutions give stability to an otherwise chaotic democracy governed by majority rule[221]. North points out that political institutions are not necessarily efficient, which is why a constitutional State organized as a democracy continues to have problems: basically, the conflict for power can get out of the constitutional channel[222].

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[216] North, 1981., op. cit.

[217] Levi, M. (1988): *Of Rule and Revenue,* University of California Press, Berkeley

[218] Calvert, R.L. (1995): "Rational Actors, Equilibrium, and Social Institutions", in J. Knight, y Sened, I. (eds.): *Explaining Social Institutions,* University of Michigan Press, Ann Arbor, pp. 57-93.

[219] McGuire, M.C., y Olson, M., Jr. (1996): "The Economics of Autocracy and Majority Rule: The Invisible Hand and the Use of Force", *Journal of Economic Literature* 34, pp. 72-96.

[220] Weingast and Marshall, 1988; North and Weingast, 1989; Moe, 1990, op. cit. 1991. Weingast, B.R., y Marshall, W. (1988): "The Industrial Organization of Congress", *Journal of Political Economy* 96, pp. 132-163. North, D.C., and Weingast, B.R. (1989): "The Evolution of Institutions Governing Public Choice in 17th Century England", *Journal of Economic History* 49, pp. 803-832. Moe, T.M. (1991): "Politics and the Theory of Organization", *Journal of Law, Economics, and Organization,* special issue 7, pp. 106-129.

[221] Moe, 1990., op. cit.

[222] North, 1990., op. cit.

At the level of international relations, the safeguarding of private property is essential for NIE, as well as the possibility of transferring said property and respecting established contracts. The problem, however, at the international level, is that there is no global authority that guarantees property and contract rights. The international community develops a set of operational and administrative rules, which are guaranteed from one of several methods: a) explicit guarantees, such as economic hostages, collateral, guarantees granted, rules of self-behavior with indicated punishments; b) threats to terminate the relationship or to receive compensation from income from another relationship with the same agent; c) the use of power, balance of power systems such as NATO, Warsaw, and others; the power of the hegemon; or the cooperation between hegemonic powers.

International regimes are institutions that tend to stabilize relations between countries and are, of course, special cases of relational contracts because they lack the ultimate reinforcement of the law, given the sovereignty of States; therefore, the efficiency of the institutions is of paramount importance in this case. At the international level, "the rules are changed, manipulated or broken according to the demands of the moment [...] they are frequently subject to negotiation and renegotiation"[223]. The models of international institutions of NIE emphasize information, reputation, credibility, and coordination. Garrett and Weingast point out that institutions provide the framework for solving problems that would otherwise be characterized by multiple equilibria[224]. Keohane[225], Alt, Calvert, and Humes[226], and Alt and Martin [227]emphasize the reputational effects of international regimes.

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[223] Keohane, 1984, p. 89. Keohane, R.O. (1984): *After Hegemony: Cooperation and Discord in the World Political Economy,* Princeton University Press, Princeton.

[224] Garrett, G., and Weingast, B.R. (1993): "Ideas, Interests, and Institutions: Constructing the European Community's Internal Market", en Goldshein, J., and Keohane, R. (eds.): *Ideas and Foreign Policy,* Cornell University Press, New York, pp. 173-206.

[225] 1984., op. cit.

[226] Alt, J.R., Calvert, R., y Humes, B. (1988): "Reputation and Hegemonic Stability: A Game Theoretic Analysis", *American Poli-tical Science Review* 82, pp. 445-466.

[227] Alt, J.R. y Martin, L.L. (1994): "Contracting and the Possibility of Multilateral Enforcement", *Journal of Institutional and Theoretical Economics* 150, pp. 265-271.

HISTORY

For North, history is important because institutions connect the past with the present and the future[228]. North's thought explains institutions as the great framework that establishes the conditions that determine the way in which external stimuli are interpreted. Given increasing returns to scale and a world with positive transaction costs, economies are subject to multiple equilibria with path dependence. In this way, given the same economic stimulus, two societies respond differently given the social and political institutions that each of them has. North's example is the response of Spain versus England to the fiscal crisis of the states imposed by the conditions of world military confrontations. In England, parliament restricts the King's power, and it becomes responsible for taxes and military spending; in Spain, centralism is reinforced, and the State is financed through conquest; the Spanish courts failed to break centralism. The initial response is a consequence of the political-social conditions of the moment. In England, the productive process had diversified the sources of income and power; in Spain, the conquest of America concentrated the entry into the monarchy. Over time, the initial response is reinforced and gives rise to interest groups and social structures that defend the initial positions. In this way, Latin America inherits Spanish centralism, while the United States and a substantial part of Western Europe dwelve in the consequences of English individual rights.

Institutions are formal and informal. The former are written rules of cooperation and action between the members of a society; the constitution, for example. The second are consequences of the culture that is generated through millennia. In primary societies, culture defines the basic form of interaction in the absence of writing and formal definitions of social organization. As societies become more complex, formal institutions grow. A central point of North's analysis is that part of the West's success is that formal institutions emerged naturally from informal ones, so that no tension was created between the two sets of institutions. In contrast, in Latin America the adoption of formal Western-style constitutions was conceived amidst tensions with informal institutions. The consequence in these cases, says North, is that informal organizations often prevail. Despite the symbiotic process between formal and informal organizations, in the long term, societies present dependent trajectories, due to the resilience of informal institutions (ability to remain in the face of significant changes); which explains

[228] For a broader discussion of North's ideas, see Obregon, Teorias del desarrollo., op. cit.

why, despite the tremendous technological and productive development worldwide, some societies remain behind in relation to the West. North does not give a definitive answer as to how these relatively backward societies might develop; however, his work clearly points out some of the possible solutions. First, North's model of economic success is unmistakably the West's, and the basis of Western economic development is the individual's innovation capacity; hence individual property rights become central. The difference between a successful society, and one that is not, is that the former provides the right incentives for innovation. According to North, the incentives for innovation come from the expansion of exchange; but also, and decisively, from institutions that protect private property and the rights to innovate, such as patents. North, however, points out that exporting the Western model to a society with different informal institutions is not necessarily successful, as the case of India shows. Thus, the solution is not obvious, but in any case, to North it seems that the Western model provides the necessary ingredients for success. This author asserts that success is intimately linked to the individual, his creativity, and his rights: the individual is the agent of change in history[229]. Secondly, North points out that institutional changes are only generated when powerful groups with the capacity to influence the institutional arrangement decide to make them. The interests of these groups are what often prevent the establishment of Western institutions in backward countries. Even though North does not provide an answer here, he does make it clear that change requires aligning the interests of these groups with the long-term social interest.

North's thought is a critique of neoclassical economics, in which information has zero cost, so that, even with increasing returns, the social system via the price mechanism tends to correct itself and always find the optimal solution. In the neoclassical world, institutions don't count, North argues, and history is irrelevant, so societies don't have path dependencies. But this neoclassical world, while relevant for understanding some features of the contemporary Western society, is irrelevant to answering the question of why some societies remain backward for so long. In the real world, economic evolution does not occur like Alchian proposed; according to North, institutions allow us to explain why.

North's social theory of institutions is also a critique of Marxist economics since the determinism towards communism has not been corroborated by history. North acknowledges that Marxism has important contributions, particularly regarding the importance of the political pro-

[229] North, 1990, p. 83., op. cit.

cess, ideologies, and interest groups in determining economic behavior. However, Marxism, like the neoclassical school, is based on a rational individual and ultimately the consequence is an optimizing process that leads, in the neoclassical case, to obtaining the a-historical economic optimum and, in the case of Marxism, to a deterministic movement towards an idealistic communist humane society. In North's social thought, individual rationality is bounded: the individual is opportunistic, there is uncertainty, information is expensive, and institutions provide stability to the political-economic perception of reality. In this way institutions count but are far from being necessarily efficient: they reflect the interests of power groups and give rise to dependent trajectories. Therefore, the evolutionary rationalism characteristic of both Marxism and the neoclassical school can be delayed for very long periods.

A basic difference between Williamson and North is the distinction the latter makes between organizations and institutions. For North, organizations optimize within the broad historically given macro-institutional framework. While Williamson focuses only on microeconomic analysis; North writes: "The modern literature by Williamson and others explores the most efficient structure of governance and organization within existing institutional constraints"[230].

North's central purpose is to determine how institutions, that favor the kind of cooperation that allow economies to capture the benefits of exchange that were central to Adam Smith, evolve. Thus, North considers the study of the following topics: A) institutions; B) institutional change, and C) economic performance[231]. We will analyze each of them below.

A) Institutions

Institutions are the restrictions created by humans to delimit human interaction. "As a consequence, they structure the incentives in human exchange, be it political, social, or economic. Institutional change delimits the way in which societies evolve over time and, therefore, is the key to understanding historical change"[232].

[230] Ibid p. 79

[231] Ibid.

[232] Ibid, p. 3-

The central objective of North's analysis is "to understand the differential behavior of economies over time"[233]. This behavior refers to the total cost of transaction and transformation (production) in the economies. Such total cost is influenced not only by the technology used but also crucially by the institutions. "The main objective of institutions in a society is to reduce uncertainty"[234]. Institutions can be formal, for example the law, or informal, for example custom.

North has been modifying his vision of institutions. In North and Thomas (1973), they are efficient and change because of relative prices[235]. North (1981) abandons the idea of efficiency in institutions, given that leaders can, in their own interest, promote inefficient solutions[236]. But it is not until North (1990) that a theory is provided that explains why Alchian's evolutionary theory does not work; that is, why competitive forces do not eliminate inefficient institutions[237]. The explanation of North (1990) is that the change of the institutions is influenced by the symbiotic relationship with the organizations that the institutions themselves promote, in such a way that a dependency path is created that reduces other opportunities for change[238]. In this way, societies can enter a path of successful change, like the United States, or a path of continuous failure, like Third World countries. In the case of the United States, those who had the negotiating power to alter the institutions promoted institutions that favored investment in education, respect for property rights and, in general, an institutional framework that favored productivity. In the case of the Third World, redistributive activities were favored instead of productive ones. North tries to explain why the difference in both cases.

For North, the role of institutions in the economies is explained from the sum of a theory of production and a theory of institutions. The latter, in turn, is built from the theory of human behavior and the theory of transaction costs.

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[233] Ibid.

[234] Ibid, p. 6.

[235] Ibid.

[236] Ibid.

[237] Ibid.

[238] Ibid.

The Theory of Human Behavior

For North, "institutions are a creation of human beings. They evolve and are altered by human beings; therefore, our theory must begin with the individual"[239]. But who is the individual that North has in mind? He is certainly not a neoclassical economic human. For North, the behavioral assumptions of economists may be useful for certain problems, but are not adequate for understanding the existence, formation, and evolution of institutions. History is complex and provides many examples where economic rationality did not occur. The competition can be confusing, and the signals so weak, that the classical evolutionary consequences may not be obtained for long periods of time. The information may be so poor that the actors are not able to identify better alternatives. Significant cultural changes cannot be explained by relative prices alone, the abolition of slavery for example. In repetitive and structured situations, economic rationality is relevant, but individuals often face unique alternatives —non-repetitive— in which the information is incomplete, and the consequences are uncertain. The social world, for North, is characterized by multiple equilibria[240]. The individual that North uses in his analysis has bounded rationality and is opportunistic.

The Theory of Transaction Costs

Information is expensive and necessary to carry out transactions; information costs are the sum of the costs of measuring the attributes of what is exchanged, the costs of protecting rights, and the costs of monitoring and enforcing agreements. For North, these costs are the source of social, political, and economic institutions. According to this author, the mix between the formal protection of rights versus the individual attempt to acquire rights and protect them is key to the understanding of history. Specialization in production implies a generalized exchange, which cannot take place without an institutional framework that protects contractual rights and - as its basis - the right to property. This institutional framework does not develop automatically, and implies a delicate balance between informal restrictions, formal rules, and the structure to guarantee that the agreements are fulfilled. This delicate political-economic balance defines order and economic progress in societies.

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[239] Ibid p. 5.

[240] Ibid, p. 24.

Culture, Informal Institutions

Informal institutions provide constraints on people's behavior in all societies, from primitive societies to the most advanced ones. In the latter, formal institutions are very important and have achieved great development, but even so they only explain a minor part of the total number of institutions. The same formal rules in the presence of different informal institutions produce different results. Informal institutions come from socially transmitted information and are part of what is called culture. North follows Boyd and Richerson[241] in their definition of culture and cites them; culture, for them, is "the transmission from one generation to the next, through teaching and imitation, of knowledge, values and other factors that influence behavior". Informal institutions, for North, are well defined by Sugden[242], and he quotes him: "These are rules that have never been consciously designed and that it is in everyone's interest to maintain." For North, the cultural filter "provides continuity so that past solutions to exchange problems are continued in the present and make informal constraints an important source of continuity in long-term social change"[243].

For North, economic exchange occurs within informal institutions that are broader than the pure economic utility of the individual; restrictions include ideology and other values such as honesty, integrity, preservation of an individual reputation, and others. Some of these ideological or moral restrictions (the difference between ideology and morality for North is that the former always questions and refers to the social system of property and exchange) can be explained by their long-term economic benefit, but others cannot. These restrictions without economic benefit have been explained by different authors in different ways. Margolis argues that the individual has preferences regarding the welfare of the group[244]; Sugden mentions that individuals establish moral cooperation[245]; North asserts that we do not have a convincing explanation, which does not deny its existence.

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[241] 1985, p. 2. Boyd, R., y Richerson P.J. (1985): *Culture and the Evolutionary Process,* University of Chicago Press, Chicago.

[242] 1986, p. 54. Sugden, R. (1986): *The Economics of Rights, Co-operation, and Welfare,* Blackwell, Oxford.

[243] North, 1990., op. cit. page 37.

[244] Margolis, H. (1982): *Selfishness, Altruism and Rationality: A Theory of Social Choice,* Cambridge University Press, Cambridge.

[245] Sugden, 1986., op. cit.

Formal Institutions

The difference between formal and informal institutions is, for North, only one of degree. As societies become more complex, the rate of return on formal rules rises. The latter can complement and increase the efficiency of informal rules, be they political, judicial, economic, or contractual. Formal rules reflect private interests and are not necessarily efficient in society.

Political rules reflect the interests of many groups, including political leaders. The interests of the State may or may not reflect the interests of citizens. In general, participatory democracy improves the political efficiency of the system, but it is always far from being an efficient system.

North believes that individual private property is an efficient system of incentives, which is in some cases a consequence of relative prices that indicate the benefits of private property[246]. In other cases, the inefficiency of the political system and the interests of powerful leaders and groups may prevent the efficient development of individual private property[247].

Contractual rules reflect uncertainty and lack of information and are generally a consequence of both formal and informal political and economic rules. North points out that, even when there are efficient formal contractual rules, positive economic behavior may not be obtained if the informal rules in this regard do not correspond to the formal ones.

Contractual Compliance

North writes: "societies' inability to develop efficient, low-cost contracts to enforce is the most important source of both historical stagnation and contemporary underdevelopment in the Third World"[248].

According to game theory, in the world of the prisoner's dilemma, North explains, if you're looking at a single trade or a single deal, simply sticking to the deal doesn't pay the players. Axelrod has explored the conditions in the prisoner's dilemma that would lead both players to keep what was agreed upon; these conditions are that the game is played indefinitely[249]. But North observes that this implies the perfect knowledge

[246] North, 1973., op. cit.

[247] North, 1981., op. cit.

[248] North 1990., op. cit. p. 54.

[249] Axelrod, R. (1986): *The Evolution of Cooperation,* Basic Books, New York.

that the game will be played to infinity, in addition to the ability to observe that the other player is complying with what was agreed upon; if there is uncertainty about when the game will end and there is a cost of observing the other player's moves, then the discount rate will enter into the decision of whether or not to keep what was agreed upon.

This world of personal exchange without institutions that stabilize it, is very fragile. The simplest institution that can be thought of is that of a third party guaranteeing that what has been agreed is fulfilled. Historically, this would seem to be the function of the State; but we must be careful because the State itself is part of the exchange process and can easily abuse power in their favor. The institutional balance by which stability is provided to what has been agreed upon is sophisticated, and involves a balance of political power—which, for example, is the intention of developed Western democracies. How this delicate balance is generated is a complex process that depends not only on formal rules but also on the set of informal institutions that accompany it. In general terms, we can describe how it happened in the West, but this does not mean that it is easily reproducible within another social structure characterized by other informal institutions.

For North, Westerners are not free because they live in a constitutional democracy, as Ostrom points out[250]; but on the contrary, because they are free, they decide to live in a constitutional democracy. At this point, North quotes Riker[251]: "It seems likely to me that public opinion normally causes constitutional structure and rarely, if ever, does the reverse happen." Thus, the creation of the moral and other informal constraints required for contracts to be enforced is a long historical process absent, for example, "in Africa's rapid transformation from tribal societies to market economies."[252] The political constitutions and federal schemes in Latin America were like those of the United States, but in the first case they did not work properly because the "persistence of the institutional pattern that was imposed by Spain and Portugal continued to play a fundamental role in the evolution of policies and perceptions of Latin America and distinguished the history of that continent"[253].

[250] Ostrom, V. (1971): *The Political Theory of a Compound Republic: A Reconstruction of the Logical Foundations of Democracy as Presented in the Federalist,* VPI, Center for Study of Public Choice, Blacksburg (VA).

[251] Riker, 1976, p. 1. Riker, W.H. (1976): "Comments on Vincent Ostrom's paper", *Public Choice* 27, pp. 13-15.

[252] North, 1990, p. 60., op. cit.

[253] North, 1990, p. 103., op. cit.

Institutions, Transformation, and Transaction Costs

Institutions play a central role in the cost of production, both in the transformation and the transaction. In the real world, transactions involve a set of costs related to measuring the physical and legal qualities of what is being exchanged, the costs of monitoring and enforcing contracts, and the uncertainty associated with the contract being honored. Transaction costs are related to transformation costs in complex ways; for example, if the uncertainty related to the fulfillment of the contract increases, the production processes will be projected for a shorter term and will involve less physical capital, it will be less efficient, and the cost of transformation will rise.

There are many factors that can make transactions difficult and contract costs more expensive –for example: 1) labor risks, related to labor law, or the real force of unions to interrupt the production process; 2) an inefficient organization of financial contracts; 3) administrative bureaucracy and levels of corruption. All these factors increase the costs of production not only directly by raising the transaction cost, but also indirectly, by raising the cost of transformation. This is one of the most important problems in the Third World, according to North.

B) Institutional Change

Social and economic evolution is a consequence of technological and institutional changes, which exhibit trajectories dependent on the past (path dependence). Long-term economic change is the cumulative consequence of countless political and economic decisions made by entrepreneurs. These choices reflect their models of reality, which are influenced by ideas, ideologies, and beliefs, which in turn are only partially refined by information on the consequences of the decisions made and the policies adopted. Such consequences are unpredictable to some degree. "Even the most casual inspection of political and economic choices, both throughout history and today, reveals the wide gap between intentions and results"[254]. What in the long term provides stability to the process of change is the institutional arrangement, which is essential in understanding the dependent trajectories of societies.

[254] North, 1990, p. 104., op. cit.

Institutional Change and Organization

According to North, organizations develop within the great institutional framework given exogenously; however, organizations are a source of social change and in the long term they provide feedback to the institutional framework. "Organizations incrementally alter institutional structure"[255]. Organizations are created based not only on institutional constraints but also on other constraints such as technology, income, and preferences. Given the influence of the institutional framework on organizations, they "are not necessarily, however, productive in society because the institutional framework frequently has perverse incentives"[256].

While Williamson conceives the organization as the result of positive transaction costs[257], and Barzel sees it as the result of positive measurement costs[258], North, without denying that the organization serves what is mentioned by those authors, emphasizes the fact that the organization crucially depends on the institutional framework in which it operates. North's thesis is that the optimizing entrepreneur is an agent of change, but in the direction specified by social institutions. If institutions reward piracy and looting, the result of optimizing will be very different than if they reward productive work. The accumulation of pure scientific or applied technological knowledge that has characterized the West is due to various institutional factors, such as respect for property and innovation. These institutions raised the rate of return to innovation produced by the expansion of trade. Technology, or applied knowledge, was a source for the growth of pure scientific knowledge, by providing the latter with questions. Technology is path dependent, so the process of expanding knowledge is self-reinforcing.

The organization, for North, has a positive role in the creation of knowledge, although only if the institutional framework is adequate. "But the general points that I want to make here I think are very clear: 1) the institutional framework will determine the direction of the acquisition of knowledge and skills, and 2) that direction will be the decisive

[255] North, 1990, p. 73., op. cit.

[256] North, 1990, p. 73., op. cit.

[257] 1985., op. cit.

[258] Barzel, Y. (1982): "Measurements Cost and the Organization of Markets", *Journal of Law and Economics* 25, pp. 27-48.

factor for the long-term growth of the organization and the society"[259]. North distinguishes between allocative efficiency and adaptive efficiency: the former maintains the status quo and optimizes it; the second allows knowledge to expand and society to adapt efficiently to its environment. The first depends on the neoclassical optimization of the price system, given technology, preferences, and income distribution, and concludes with obtaining the Paretian optimum. The second depends on the appropriate institutional framework that encourages the creative destruction that Schumpeter spoke of. If social institutions are inadequate, they will raise substantially the transaction and transformation costs, and result in slow technological development.

Institutional Change and Stability

"The agent of change is the individual entrepreneur responding to the incentives incorporated in the institutional framework. The source of change is changes in relative prices or preferences. The process of change is primarily an incremental process"[260].

Institutions are not necessarily efficient; their basic objective is to provide formal and informal rules that serve as restrictions and generate a dependent path and, therefore, stability. But institutions, though slowly, also change over time. Changes in relative prices are the fundamental source of change because they modify the incentives in human interaction. The only other source for institutional change are changes in preferences.

When changes are minor, changes in prices (reflecting changes in population or in environmental opportunities) and in preferences (for example, the cultural view of slavery), they are absorbed within existing institutions. When changes are significant, so that the benefit of the change is greater than the cost of implementing it, the formal institutions change, and the informal ones do not. When formal institutions change, an imbalance is generated, which in the short term means that informal institutions attenuate the initial change of formal organizations and favor a process of incremental change, while in the long term they are equivalent to a slow adaptation of informal institutions. The latter provide stability to social change, and even seemingly revolutionary social changes are often attenuated by informal rules.

[259] North, 1990, p. 78., op. cit.

[260] North, 1990, p. 83., op. cit.

C) Economic Performance

Institutions are "the basic determinant of the long-term economic behavior of economies"[261]. In some societies, innovation is penalized (primary tribal societies); in others, it is stimulated (the West); this determines the long-term economic behavior. According to North, the key to understanding institutional change is not to explain why innovation was penalized in tribal societies, which is understandable, but why such customs endure through the centuries and do not become efficient. This author gives, as an example, the permanence of a very primitive impersonal trade with high transaction costs in North Africa among the Suq. In contrast, in other cases such as the West, the innovations necessary to reduce transaction costs occurred on several fronts: capital mobility increased, information costs were reduced, and innovations were introduced that allowed risk diversification. The initial conditions generate divergent paths of development, as exemplified by the case of England versus that of Spain.

North asserts that "incentives are the basic determinants of economic behavior"[262] and that institutions define incentives, but he wonders: What creates efficient institutions? The answer lies in the informal institutions and transaction costs inherent in the political process. When informal rules reinforce formal ones and the political process generates incentives to create and enforce efficient property rights, the incentives are correct and economic development is generated. How do you get to the right informal institutions? For this North has no other answer than to suppose that they are generated slowly through a long historical process. However, this author points out that the existence of a successful Western economy is a clear stimulus for change in economies with poor performance.

North (2005) is dedicated to studying the process of economic change[263], which he defines as the result of demographic evolution, knowledge expansion and institutional changes; that is, changes in "1) the quality and quantity of human beings; 2) the stock of human knowledge in particular regarding human command over nature, and 3) the

[261] North, 1990, p. 107., op. cit.

[262] North, 1990, p. 135., op. cit.

[263] North, D.C. (2005): *Understanding the Process of Economic Change,* Princeton University Press, Princeton.

institutional framework that defines the deliberate incentive structure of a society"[264].

North makes clear the historical inapplicability of the neoclassical model. In a non-ergodic world (a world that does not repeat itself), continuous parametric change cannot be explained by dynamic mathematical theories based on neoclassical models. This point has been mentioned repeatedly by different authors, who have focused on the analysis of structural change instead of the study of social dynamics from a given set of parameters. These authors are, among others, Malthus, Marshall, Keynes, Marx, Veblen, and Schumpeter.

For North, the process of economic change involves the interaction between very different elements of society. First, there is a genetic basis, which, however, is not decisive for North, as shown by the cultural differences in the historical development of different societies. The world is non-ergodic (that is, it does not repeat itself and always changes) and is characterized by uncertainty regarding the future, a la Knight, which cannot be reduced to probabilistic terms. That is why neoclassical theory cannot explain historical change. Institutions reduce uncertainty, set demographic incentives, and encourage the accumulation of learning. Institutions are the external manifestations of the internal system of beliefs, with which humans established their consciousness regarding the reality that surrounds them.

The difference between social change and Darwinian evolution is that the former is a consequence of intentional decisions based on a belief system. This consciousness is a mix between the rational and the irrational. The belief system and institutions condition learning and the accumulation of knowledge. In this way, beliefs and institutions formed in the past influence present choices and path dependence is generated. Learning is not only individual but is conditioned by culture. "Human learning is more than the sum of the accumulation of experiences of an individual throughout his personal life. It is also the cumulative experience of experiences of past generations. The cumulative learning of a society embodied in its language, human memory, and symbol storage systems, including beliefs, myths, ways of doing things, is what constitutes the society's culture"[265].

The geographical situation, in relation to demographic changes, accumulation of knowledge, military war and other factors, is producing

[264] Ibid. p. 1.

[265] Ibid. p. VIII.

changes in the reality of the non-ergodic world. The adaptability of the belief system and institutions is a key to adequately read and interpret changes in reality and adapt to them. This adaptability is what for North distinguishes the West from other societies. The perception of reality is always incomplete, and the intentions not only reflect a rational choice but also the appropriateness or inadequacy of the perception, which is influenced by the belief system. Decision making is thus a complex process. The neoclassicists were right that human history is formed based on individual choices, but these choices, contrary to what the neoclassicists thought, are not only the consequence of rational individual preferences but are determined also by a system of rational and irrational beliefs delimited by the institutions. Given the inadequacy of perceptions, the results are often different from the intentions. Social decisions, moreover, are frequently influenced by the interests of the leaders of said society, which biases the decisions of what would be socially appropriate.

The big difference North sees between the West and other societies is that, while historically the West itself and other societies were structured to deal with the physical environment, in the modern West much of the institutional structure is about dealing with problems of the social environment. Institutions, says North, define the formal and informal rules and procedures to ensure compliance. From the institutions, the political and social structure is defined, which is the key to economic behavior. In general, societies can have a process of order or disorder. Authoritarianism can preserve order and is preferable to disorder; however, authoritarian systems tend not to adapt well to profound changes in reality. North points out that democracy is more apt to establish flexible social systems, with greater capacity to adapt, as is the case in the United States and before England. The success of the West is because, given its fortunate historical development, it managed to develop a flexible system of beliefs and institutions, capable of adequately reading reality (based on a theoretical-scientific culture) and adapting to it. Instead, the failure of Russia and the relative failure of Latin America can be explained by the rigidity of its institutions and the inflexibility of its belief systems.

North refers to the work of anthropologists who establish that the human mind is the product of a long period of adaptation, during which myths served to establish order in a world aimed at controlling the physical environment, so that humans are genetically programmed to personal exchange and the acceptance of non-rational interpretations of reality. The modern world, with the establishment of scientific discipline and per-

sonal exchange, stands in opposition to these long-term genetic-cultural trends, so that there is nothing automatic about the implantation of the institutions of the Western world but that, on the contrary, cultural resistance is to be expected.

Smith's world requires impersonal exchange, specialization of knowledge, efficient factor markets, and government limited by institutions, so that the government does not abuse power for its own benefit. None of these requirements is easy to implement; in the West they became a reality because of historical accidents, but their migration to other cultures is difficult and will encounter resistance. North criticizes the neoclassical economists for failing to understand these complexities, and assuming therefore that "there is such a thing as laissez-faire and that once efficient property rights are established and the operation of law is established, the economy is going to operate well without the need for further adjustments"[266]. The modern world is characterized by enormous institutional complexity linked to the problems of a growing social structure, while control of the physical environment has become less important.

North makes the message of his book explicit (2005): "you have to understand the process of economic growth before you can improve economic performance and you must have an intimate understanding of the individual characteristics of that society before be ready to try to change it. Thus, one must understand the complexities of institutional change to be effective in carrying out such change"[267]. According to North, the institutional structure inherited from the past must be considered and how changes can be resisted, either by the belief system or by the interests of the leaders. A system that tries to force formal changes will fail when these oppose the informal structure. You cannot change an institution and leave the others intact, which are opposed to the new institution.

North recognizes that Korea, Taiwan, Singapore and, recently, China, have been more or less successful in the economic field, despite having done so historically based on authoritarian regimes; however, for North this is a transitory phase and those countries will eventually have to find a development model, if not identical to the West, with similar basic characteristics, such as: the implementation of better product measurement technologies, the establishment of property rights, the creation of an efficient judicial system and the establishment of institutions to resolve disputes and concentrate social knowledge.

[266] Ibid. p. 122.

[267] Ibid. p. 165.

North assumes that we know what the ideal institutions are that would promote the development of poor countries (essentially institutions like the West's), but we also know that their implementation in other cultures is very delicate and, therefore, there is no certainty of whether we will be successful: "there is no certain formula to achieve economic development"[268].

Thus, North is unclear about the future of underdeveloped societies. And, while for him the future of the West is partially assured by the flexibility and adaptability of its institutions, North points out that the Western future may also be at risk. The decline of past civilizations shows us that "adaptive efficiency can also have its risks"[269].

Commentary on North's Vision of History

North's work was decisive in convincing economists of the importance of institutions in the economic development of the West, and this was a major contribution. North's thinking is an extension of the contractual thinking of other members of NIE. He borrows from RCI the notion that even though institutions are decisive for the economic equilibrium, such equilibrium has fundamental microeconomic forces – in the case of North the innovative capacity of the individual. However, North also borrows from SI and HI. From SI, North borrows the notion that institutions have a decisive influence on individual decisions. And from HI North inherits the vision of a society defined by the trajectory dependency of its institutional framework.

The fundamental change in North's thinking versus Williamson's, for example, is that it introduces an institutional framework that has its own history and is therefore not derived from current microeconomic conditions. Furthermore, institutions in North go beyond being economic, so that individual behavior can sometimes be explained without regard to individual interest. These changes allow North to understand the difference in economic behavior between Western and non-Western societies. North's work, due to these modifications, results in a deep and interesting historical analysis.

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[268] Ibid. p. 165.

[269] Ibid. p. 169.

North's great contribution is to highlight the trajectory dependency of the institutional framework, due to the resilience of informal institutions. In this way it is possible to understand the West as a specific historical situation in which informal institutions were compatible with historically given economic opportunities, and therefore, reinforced formal institutions without conflict. But this is not easily repeatable in other societies.

North's work is sophisticated and of great importance. This author analyzes the difficulties in exporting Western institutions to other cultures (Latin America, for example). He explains the relevance of social order, and why authoritarian States can establish, at least temporarily, successful economic regimes through imposing order (Singapore, China, Korea, Taiwan). He also points out the risks of destroying local institutions (Russia). North clearly delimits the historical applicability of the neoclassical model. In the following paragraphs we will make a critique of North's thought, but it should be noted that, despite the criticisms that we will make, the reader should not lose sight of the fact that the work of North has the enormous importance of having revived the discussion of institutions in economics in a historical analysis, which allows us to understand: a) that institutions have a decisive influence on individual decisions, and b) that in order to understand the economic development of a country and the possibilities of accelerating it, it is necessary to carefully study its own historical institutional framework. Therefore, despite the limitations of North's thought mentioned in the following paragraphs, this author's thesis must be recognized as a great contribution.

North's work is dominated by an element of idealism. For him, economic development implies, in one way or another, imitating the West; although North recognizes that this imitation could take different forms. The ideal, for North, is the West, and it is easy for him to identify it as such: "It is easy to describe the ideal political model [...]: 1. An institutional matrix that produces a set of organizations and establishes a set of rights and privileges. 2. A stable structure of exchange relations in both political and economic markets. 3. An underlying structure that credibly binds the state to a set of political rules and protects organizations and relationships of exchange. 4. Conformity because of the mix of internationalization of standards and enforcement of them. The ideal economic model is constituted by a set of economic institutions that provide the incentives for individuals and organizations to engage in productive activities"[270].

[270] Ibid. pp. 157-158.

North's work runs into the same problem as Williamson's, in that it exports, through history, the opportunistic optimizer human with bounded rationality – a modified version of the neoclassical Western individual. In this way, for North the individual is the central axis of historical change; progress in history occurs when society modifies the property regime to provide the individual with better incentives for innovative behavior. Seeing history as a product of the innovative behavior of the Western individual does not do justice to the fact that the individual only differentiates himself from society through a very slow process, as Veblen rightly pointed out.

North's idealism generates a permanent bias in his analysis; history is seen from the idealism of the Western individual, and this prevents North from seeing the relevance of the community in the historical process. Not only is the community the natural way of development of the individual, given the cultural genetic load of his long hunting periods; but the community explains, better than the individual, the history and development of non-Western societies such as those of Asia, Africa, Latin America, and the communist countries. The Western individual is the accidental product of a period in history and, without denying his great importance in the development of capitalism, it must be recognized that even in the Western historical case the relevance of the individual has been exaggerated.

First, Western history prior to capitalism, like that of other cultures, is better explained by the community than by the individual. And secondly, even the history of capitalism cannot be understood only from the individual; in fact, it is democracy, through the establishment of the rights of the middle class, which guarantees the consumption of this class, which would be the engine of growth that would distinguish capitalist empires from other previous empires, and which has allowed their unexpected and successful expansion As we have pointed out, the participation of governments in the gross product has gone from 10 to 40% in the twentieth century in the Western world. Capitalist expansion has undoubtedly been associated with the expansion of the rights of the community over those of the individual. In this sense, the isolated individual, innovative producer, is not what best defines even the cultural history of the West. As Galbraith already pointed out many years ago, large corporations are increasingly the owners of basic production processes and, without downplaying individual creativity, it is far from being the central axis even of Western history.

North's idealism has important implications, for if we abstract from the difficulties he mentions in establishing the ideal institutions in developing countries, and we assume that it could be done, what would be the results? According to North, individual creativity would be unleashed and the economic performance of these countries would automatically improve. However, this view leaves aside the problem of the lack of worldwide institutions that adequately coordinate global political and economic relations. For North's proposal to work, his ideal would have to be established not only in each underdeveloped country but also worldwide (global democracy), and here we really come to the very impossibility of the ideal; for even North would not argue that this ideal should be pursued. Democracy at the world level clearly has no relevance or applicability in today's world.

At the global level, it is necessary to accept the limits of democracy and the current impossibility of a global democracy, and to design an alternative institutional arrangement that allows the proper functioning of the international community. Strong global institutions are required.

The free, productive, and innovative economic agent, provided with the necessary incentives from the appropriate institutional framework, is not the only possible social arrangement to obtain economic development, nor is it necessarily the optimal one. As we mentioned, although it has been critical for the West it has not been the only axis of the explanation of the economic development of the West, it is not the basis of international relations, and it will hardly be the solution for underdeveloped countries.

North's problem lies in the fact that, by imposing an ideal element on his analysis, it becomes the axis of explanation of the past and the construction of the future. North fails to appreciate the importance of communal traditions in the economic development of Asia. The lesson from Asia is not that temporarily efficient institutions can be implanted in constant search of the Western ideal, but that there are other possible paths using the strengths of the history of each of these communities to compete globally with the West (see next chapter). This requires institutional changes that allow productive interaction with the West, but these changes are far from being the beginning of a later emulation of the West. The ideal element in North's social vision is not justified.

China shows that marginal economic changes can create economic growth. In general, the economic expansion of Asia questions North's thesis about the negative consequences of that continent having the

wrong (non-Western) beliefs and institutions. North's work is more successful in understanding the failure of Russia, and the relative failure of Latin America, than it is in understanding the reasons for Asia's success.

In the tradition of previous development economists, North uses the comparison between the West and non-West to develop his theory of development. This method of analysis - searching for the factors of Western development that the underdeveloped countries do not have - has been used often before. For the import-substitution model, this factor was the level of savings, for the neoclassical economist, relative prices, and free trade. Yet - as we will see in the next chapter - both economic models failed. According to North, the factor to emulate is the private property regime, which provides adequate stimuli for the creative individual's innovation and technological development, and therefore, allows taking advantage of the increase in commercial exchange.

In contrast to other previous thinkers, North points out that the institution of property rights is not easily transplantable from Western society to others, given the resilience of informal institutions, which explains why the economic backwardness of some societies persists in the long run. However, as difficult as it is, and knowing that it is unlikely to happen, it is implicit, given North's framework of analysis, that the only path to development left to poor societies is to imitate the West, that is: to establish the correct incentives through the corresponding regime of private property and all the legislation and social and political changes that this implies.

In this commentary on North's thought, we will focus on different aspects of it: 1) his interpretation of the history of Western capitalism; 2) his use of the history of Western capitalism to reinterpret world history, and 3) his vision of underdevelopment as the lack of Western institutions, i.e., incentives related to private property.

1) North's View of Western Capitalism's History

North's interpretation of the history of Western capitalism begins in 1973 and is modified in 1981 and 1990[271]. This author's proposal (1973) is that "the development of an efficient economic organization in Western Europe is the key that explains the success of the West"[272]. Thus, if a society does not grow, it is "because it does not provide incentives for economic

[271] Ibid. pp. 157-158

[272] North, 1973, p. 1., op. cit.

initiatives"[273]. North points to innovation, economies of scale, education, and capital accumulation as symptoms of economic growth but not as its cause; the cause is an efficient organization without which economic growth simply will not happen. An efficient organization is one that brings private and social rates of return closer together, and this requires that property rights are well defined. If the private costs exceed the private benefits, even if the activity is socially profitable, it will not be carried out.

In 1981, North modifies his 1973 view of the history of capitalism. In 1973, for example, the persistence of inefficient institutions was due to the need for tax revenue to support the leaders, but the institutions in general were efficient. In 1981, the institutions can be inefficient: the leaders create inefficient institutions based not on fiscal needs but in pursuit of their own interests. The argument of the possible inefficiency of the institutions remains in North in 1990 and is key to explaining why in the long term the economic behavior of some societies continues to be very poor, despite the exponential increase in global technological knowledge.

The history of Western capitalism is written, North insists, before the capitalist phase itself began. The determining factor in the development of the West was the expansion of the population. European trade expanded in the 11th and 12th centuries, leading to the expansion of fledgling cities. In the thirteenth century, diminishing returns in agriculture produced a famine and stopped the expansion of the population and, therefore, labor became more expensive, and the price of agricultural products fell. The fall in rents and the increase in the cost of labor were undoing the feudal structure, so that, by the time the population grew again in the second half of the fifteenth century, feudalism had practically ended, even though capitalism itself had not started. The fifteenth century sees a new growth in population, higher prices for agricultural products and cheaper labor, but this time new conditions appear that reduce the Malthusian pressure on resources, in particular trade with Asia and the discovery of America, so that by the 17th century the Malthusian pressure was less drastic given the migration to America and the increases in productivity. Here is one of the keys to North's explanation; for him, the new structures of property rights that evolved in Holland and England are the cause of the increases in productivity in both countries. North asserts that the history of capitalism had already been determined in both countries by the end of the seventeenth century, even if the true capitalist expansion took place in the following two centuries.

[273] North, 1973, p. 2., op. cit.

North is correct in that the new property rights are a fundamental part of economic modernity, but in our view, they are only one of several features of modernity. These new ownership structures are really the consequence of previous commercial expansion and of the new trade promoted by Asia and America. Before the commercial expansion, Europe had to produce manufactures, and in those European countries where the State was less strong, a natural process of democratization of the production process took place; just as it had previously happened in Greece versus Persia, now it happened in Holland and England versus Spain and France. As in Greece and Rome, the increase in trade is associated with redefinitions of property rights. But it is not the new property rights that produce incipient capitalism; what saves Europe from a new Malthusian crisis is the discovery of America and the renewed trade with Asia; without this, the European seventeenth century would have been like the thirteenth despite the new redefinitions of property rights.

The most important political change of modern times was, in England, the Parliament's control of military spending and taxes, an issue for which Cromwell cut off the English king's head in 1649. The new political phenomenon in the West is democracy, a product of the growth of cities and the relative weakness of the monarchs in some European states such as Holland and England. The weakness of the monarchs in these countries is the consequence of the productive process in them, which distributes income and, therefore, also distributes economic power more democratically. In France, more than a century later, the democratic phenomenon also imposed itself. The process of democratizing is associated with redefinitions in property rights, but these are not a cause but a consequence of democracy. The dominant social phenomenon throughout this period was the democratization of the production processes, which led to the democratization of the political processes and these, in turn, to new legislation; among them, and of paramount importance, the legislation on private property. But the legislation on private property is a consequence of a political democracy sponsored by the democratization of the productive conditions.

North (1981) points out that the second economic revolution only really begins in what has been called the Industrial Revolution, but that the true revolution occurs later. The Industrial Revolution was characterized by innovations in the production process, in which the machine replaced man, but this was only the beginning of the second economic revolution, which was characterized by a scientific revolution linked to technology,

which unleashed the development of the petrochemical industry and nuclear energy, among others. North (1981) states that the second economic revolution produced the neoclassical world, characterized by technological expansion that opposed the classical Malthusian view. North is right; the surprising thing about capitalism is that it has not succumbed to Malthusian pressures. But the question we must ask ourselves is: what is it that allowed this second economic revolution characterized by mass production like never before in history? North's answer is innovation stimulated by the incentive given to the individuals by private property. To us, North's overemphasis on this factor is misguided. It is indisputable that individual selfishness is one of the engines of capitalism and, therefore, it is understandable that an adequate structure of property rights is necessary to allow the individual forces of selfishness to support development. However, there are other factors of great importance that have been left out by North, some of which, in our opinion, are more fundamental than the structure of private property, in the sense that they precede it and to a large extent explain its emergence.

The central engine of capitalism is the acceleration of technological change associated with large-scale consumption. This was made possible in principle by the commercial expansion with Asia and America, but what sustained this technological growth later was the growth in the consumption of the middle classes. What distinguishes capitalism from other historical periods is that the initial expansion, product of growing trade, was not stopped, as in the case of Alexandria and Rome, by the rising administrative costs of the empire. Western empires, in contrast to previous empires, enjoyed an endogenous engine of growth of their own: the consumption of the middle class, not only of their own empire but of Europe in general and of America. The new phenomenon in capitalism is the enormous expansion of an endogenous market, which is a direct product of the expansion of the middle class.

Pre-capitalist history is basically Malthusian, for the expansion of technological development, brought about by the expansion of trade, was often held back by the costs of maintaining an empire that would provide the order necessary for commercial expansion. Pre-capitalist trade was limited to exchange between wealthy classes, or to the looting of resources from other societies; in any case, marketable consumption was small in relation to the overall economy of the society. The expansion of the middle class increases the size of what is endogenously tradable and generates a technological development not previously seen in humanity.

What characterized the second economic revolution was mass production, a consequence of the great expansion of the middle class because of democracy. Democracy restricts the interests of the powerful classes and aligns them with social interests, creates the welfare state, maintains the consumption capacity of the middle class, expands the endogenous market of the West, and allows mass production, which requires the development of new energy sources; in this way, the massive consumption of the middle class sponsors technological development, and this guides science's expansion.

The democratizing productive process frees the individual and fosters democracy, and this generates the conditions of the new world. The free man unleashes his creativity in technology, in science and in other fields. The social energy of the new world is unprecedented. The phenomenon is complex and has many causes and consequences that are difficult to isolate and to distinguish from one another. But without failing to recognize that the phenomenon of capitalist expansion is multifactorial, it is necessary to emphasize that the importance of mass consumption by the middle class in this process has been underestimated. In the preceding paragraph, we have emphasized the individual consumer, rather than the traditional emphasis of economists on the individual producer. In this vision of the individual consumer, the dynamics of capitalism is given by the dynamic preferences of the consumers of a growing middle class, which allows mass production and accelerated technological change guided by the dynamic preferences of such middle class.

Note that, from this point of view, the main force of change is not the individual innovation in the production process but the social innovation in the structure of the consumption of the society. This would explain why the Soviet Union found it difficult to imitate capitalism, since it lacked the dynamism provided by the changing preferences of the middle class. The Soviet Union was neither scientifically nor technologically backward; its problem was that it did not grow adequately because it lacked the growth engine of the middle class of Western capitalism. The Soviet effort to produce was concentrated on saving, on military expansion, on scientific and technological innovation, and disregarded the income and consumption expenditure of the popular class and, therefore, lacked an endogenous motor of growth; due to this, like all ancient empires, it succumbed to its administrative costs of expansion (see next chapter)[274].

[274] See Obregon, 1997, pp. 127-137. Obregón, C. (1997): *Capitalismo hacia el tercer milenio,* Nueva Imagen, México.

Throughout the previous paragraph, we have emphasized the mass consumption of the middle classes; and we wish to reiterate that this phenomenon is a consequence of a political democracy generated by the original democratization of the productive process. The democratization of the productive process (as it had happened in Greece before) generated the economic and political power of the middle class, which was later consolidated via democracy. In this way, democracy is the consequence of a previous consolidation of the economic and political power of the middle class. When democracy is formally superimposed on societies which have not developed a middle class in their own historical process, the informal historical institutions do not relate to the democratic phenomenon and democracy does not work well.

In a fundamental sense, the historical phenomenon of the West must be understood from its roots; the basic change of capitalism was democracy, and not a formal democracy, but one sponsored by the early democratization of the production process. For this reason, as North indicates, the informal institutions coincided with the formal ones. This had several consequences, property rights legislation being just one of them. The consumption of the middle classes is another key consequence. The expansion of scientific knowledge is one more, and we could go on, but the basic point is that it is inappropriate to prioritize only one of them. The development of the West is a multifactorial phenomenon.

The whole point of our criticism of North, is that North makes one of the causes or symptoms of capitalist expansion in the West "the cause", and this, in our opinion, is simply indefensible. What emerged with capitalism is a new world, with a differentiated individual, with an expanding middle class, with accelerated technological change and a renewed scientific spirit. This new active and creative human, being differentiated, requires legal frameworks that protect and define private property, but it is unjustified to make property incentives the basic axis of the history of capitalism, particularly when capitalism is born from societies where the individual was not yet well differentiated. What makes capitalist expansion powerful is not just individual selfishness and creativity, but communal strength to restrain the interests of the powerful classes and to stimulate the middle-class consumption.

The history of the West has been described to us as the history of the individual and of capitalism; and as a great break with the past, in which the individual was not yet differentiated. But the history of the West must also be seen as the triumph of democracy, the community, and popular

rights. In a sense, it were not the capitalists who created capitalism but the middle class who, through democracy, restricted the capitalists' luxury consumption and forced them to save; it is not the productive creativity of profit-seeking capitalists that drives the expansion of the West, but the shifting dynamics of middle-class' preferences that fuel technological change and economic growth.

2) North's Use of the History of Western Capitalism to Reinterpret World History

North's vision of the history of Western capitalism (with the individual's innovation as the agent of change, motivated by the incentive of the appropriate structure of property rights) is transferred to North's account of world history. The first point to make is that North (1981) only explains world history as the history of the West; there is no attempt to incorporate, say, the contemporary histories of China or Japan, for which it would be virtually impossible to use North's differentiated individual. Japanese society, even today, resists its interpretation through the lenses of individualism. Japan's economic success after World War II is based on the communal strength of the Japanese society and not on the individual incentivized by North's private property rights [275].

But even if we focus, like North, solely on world history as an antecedent to the history of capitalism, we find it untenable to explain such history based on individual incentives for the reasons stated below. North (1981) explains the first economic revolution as the agricultural revolution; for him, the basic change between hunting and agriculture was the property regime. North asserts that hunting implies a regime of common property rights, and, on the other hand, agriculture implies a regime of exclusive communal property; the first implies hunting until the extinction of the animals, while the second implies an ordered regime of exploitation based on social taboos. North's argument is that social taboos could not organize an orderly method of hunting because the tribal expansion of the population was welcome since it allowed them to defend themselves against other tribes[276]. From our point of view, North's argument is untenable. Primary societies were characterized by a collective life and a perfectly integrated system of values and economic action. We know, for example, that hunting was a ritual involving cave painting. Hunting,

[275] Ibid. pp. 67-81.

[276] North, 1981, pp. 85-86., op. cit.

like any other activity in primary society, was perfectly controlled by the "should do" and "should not do" (the taboos). Tribes lived in harmony with their environment through hunting. In this way, in hunting, as in agriculture, primary societies penalized the overexploitation of natural resources since this was necessary for their subsistence. For the primary man, the animals were an integral part of his cosmic-material reality, a reality in which man did not occupy a central role; in this reality, animals were as respected as humans or gods or natural forces[277]. The basic objective of the primary society was to live in harmony with its environment, and this implied not over-exploiting it. North's explanation that the reason early societies tended to overexploit animals in hunting is that tribal population expansion was welcome, allowing it to fend off other tribes, does not hold; because, if we take this argument to the agricultural period – where defending from others was also a priority - then we would also have therefore the overexploitation of the soil. Simply, in our view, North's argument is unsustainable; and yet it is his central argument for explaining the rapid technological change that has occurred with agriculture. North writes: "The change in incentive stems from the different property rights in the two systems. When there is a common property right, there is little incentive for the acquisition of superior technology and learning. In contrast, exclusive property rights that reward owners provide a direct incentive to improve efficiency and productivity, or, in fundamental terms, to acquire more knowledge and new techniques. It is this change in incentive that explains the rapid progress made by humanity in the last ten thousand years, in contrast to its slow development in the long era of primitive gathering and hunting"[278].

It is true that agriculture was associated with a faster technological development than hunting, but this is not due to the incentive regime, but rather to the fact that agriculture is an activity that more easily allows technological development, particularly given the expansion of urban life and the discovery of the use of copper (and later bronze). The technological expansion of agriculture was associated with what Childe called the "copper age." The causality is the other way around: the discovery of agriculture allowed the expansion of food, and these surpluses facilitated urban life, which in turn favored technological changes. In particular, the discovery of copper (and later bronze) was crucial in increasing the agricultural surplus and accelerated the process. The new social com-

[277] See Obregon, 1997, chap. 1., op. cit.

[278] North, 1981, p. 89., op. cit.

plexity requires redefining the different social roles and property rights, which for most of human history are not individualized in the sense that they are in the West. The consequence of urban life was the rise of the State, and from Egypt to Persia states disputed the hegemon's power. Finally, Persia fell to the Greek. And the Greek world, democratized by the characteristics under which iron production took place (independent workshops), exported, via Alexander, its incipient humanism to other regions. The battle between Carthage and Rome finally left the Roman Empire as the hegemon. Throughout this period, trade expanded, and new property rights were redefined, but they did not have the sense of individual property rights of the West. In Rome, for example, there was what was called the right of the lord, which gave the lord of the house rights over all the inhabitants of his house (his family, other inhabitants, and the slaves), including his sexual use and the power to sell them as slaves (even non-slaves). Even in Rome, the individual was not properly differentiated, and his rights were very limited. The divine emperor, as a social symbol, concentrated a large part of the social power and had practically unlimited rights over the destiny and life of most of the individuals (high-ranking Romans enjoyed certain rights via the militia, the senate, and other institutions). Using personal incentives of private property as a way of explaining the economic progress of this time is inappropriate, it is equivalent to impose the current world of the West on a world that did not resemble it[279].

For North, the fall of the Roman Empire was simply because it was no longer economically viable; because the expenses of sustaining the empire could no longer be paid with the technological military differential that Rome had over the barbarians[280]. This explanation by North is correct, but the questions are: Why was Rome so expensive to support? And why did it need to maintain an army of this size? We find the answers in the fact that Rome, in contrast to contemporary capitalism, lacked an endogenous engine of growth: it lacked the middle-class consumption that contemporary capitalism has. The only way for Rome to grow was to appropriate new regions; but the expansion increased the administrative costs of control exponentially while the benefits of the appropriation grew linearly, creating the conditions that would eventually lead to the end of the empire.

[279] See Obregon, 1997, chap. 1., op. cit.

[280] North, 1981, p. 122., op. cit.

3) North's Vision of Underdevelopment

Given the approach used by North, for him underdevelopment is explained by the absence of a private property regime that adequately encourages individuals' innovation, who are the agents of change. North acknowledges that the Western regime of private property cannot be exported to underdeveloped countries without great problems, but in any case, he finds in this deficiency the cause of underdevelopment. The failure of Russia, India, and other countries to achieve development via the implementation of individual property rights would be explained by North by the resilience of informal institutions. Thus, these counterexamples do not question North's vision, but the great problem remains that this vision does not explain the rise of Japan and Asia versus, for example, European countries with better individual property rights. Japan and Asia based their success on the communal strength of their society and not on stimulating the individual through the property regime (see next chapter).

The central problem with North's view of history is that it is based on a West/non-West binomial, so that underdevelopment is automatically defined as the non-West. The alternative to North is to understand the history of the West as consequence of its unique position and its global historical characteristics at a given moment. The West benefited from the expansion of world trade at the right historical moment. This led to many fundamental changes in this society, including the rise of the middle class and the consumer individual, mass production, individual freedom, the innovative individual, Western property rights, changes in ideology and religion, and the expansion of scientific thought and its link with technological expansion. All these factors are combined and mixed in the creation of the new Western society. Even the innovative individual is not just a direct consequence of the property regime; because how then, could we explain Galileo or Da Vinci?

Changes in the property regime are important, as are other factors, but they cannot be defined as "the cause" of development, as North does. In Asia, with institutions different from the Western ones, some Asian countries benefited from the post-war commercial expansion and some of them have even managed to become developed countries. But they did it based on their own institutional strengths, and not based on North's property regime that incentivizes individual innovative behavior.

What worked for the West was not just individual property rights, but the consonance of many factors. Development is a multifactorial pro-

cess and does not happen in only one way. Asia developed also with a multifactorial mix, but one very different from the one of the West (see next chapter). The only commonalities between both experiences are. 1) the use of global frontier technology; and 2) the effective use of pre-existing historical informal institutions – but such institutions were very distinct in both cases (see next chapter).

There is an inherent contradiction in North's thinking: on the one hand, the individual is the innovative agent of change; on the other, positive transaction costs necessitate corporate growth in many economic sectors. In today's West, technological change is increasingly being carried out by corporations. The foregoing does not deny the importance of individual creativity, nor does it deny that an adequate system of incentives contributes to raising productivity in the West, but it does clearly indicate that individual creativity is not the only social force for change, nor is it the predominant one. Technological innovation in Japan and Korea was driven almost exclusively by large corporations.

It could be argued, for example, as we have done before, that it is not the innovative producer individual who is the agent of change in capitalism, but rather the consumption of the middle class. This approach would explain why the innovative process has accelerated in the West despite the growth of corporations and the gradual reduction of the isolated innovative capitalist. But again, even accepting the relevance of this new approach, we must not lose sight of the fact that development is a multifactorial phenomenon, so that the consumption of the middle class is only one of the factors that led to the development of capitalism.

Innovation in today's capitalism occurs in large corporations and in large universities and scientific centers. The link between science and technology, through the active link between both groups of centers, is essential. There is no doubt that the expectation of profits is the basic cause of innovation in corporations; but despite this, the phenomenon of science and innovation in general goes beyond a restricted economic vision; the causes are again multifactorial, such as the "free human" - with a new vision about himself, and his environment, that frees his curiosity; the new political and social structure; the new widespread levels of education and so on. The expansion of scientific knowledge has its own motivations, which cannot be reduced only to the economic link between the scientific community and large corporations.

In the abstract assumption that it was possible to impose the private property institutions suggested by North (that is, leaving out the pecu-

liarity of informal institutions in different societies and their resilience), development would not be generated[281]. Without a consuming middle class, with an unequal distribution of income, without education, without a spirit with scientific aspirations, and with monopoly powers of the productive processes in a few hands, and most of all without access to technology in the global frontier (see next chapter) the underdeveloped countries would continue to be underdeveloped, even after the implementation of individual rights of property.

North establishes, as part of his ideal, "Four proposals for the maintenance of political order in the face of economic change, which can give us the key to adaptive efficiency"[282]. The first proposal is that of a shared belief system about the legitimacy of government goals and the rights of citizens. The second proposal refers to successful constitutions that limit

281 The importance of implementing an adequate property rights defense system in underdeveloped countries is argued, for example, by De Soto (2000). He asserts that, if legislation is accelerated and respect for the law on private property, economic development will take place in underdeveloped countries just as it happened, according to North, in the West. For De Soto, greater legality would have repercussions on the integration of the informal sector of the economy and on greater financial intermediation, which would substantially accelerate the pace of economic growth in underdeveloped countries. De Soto is subject to two main criticisms: 1) the first is the same criticism we made to North: respect for private property is only one of the ingredients of development in the West. Without the creation of an export sector and access to global frontier technology, without greater savings and without a fall in country risk, it is difficult to see the growth of underdeveloped countries accelerating even if greater respect for private property is achieved;2) the second criticism is that De Soto intends, through formal laws, the solution of the existence of the social relations that the informal sector of the economy implies. This author does not pay enough attention to North's argument about the resilience of informal institutions. The problem of development is much more complex than the formal establishment of laws and procedures that seek to guarantee private property. The proper functioning of these formal structures depends on the degree of acceptance of the judicial power and the proper functioning and informal acceptance of democracy.

The foregoing does not mean that the process of economic development does not have to be supported by an adequate system of legal property rights but said system may differ from that of the West, as in the case of China and other Asian countries. Moreover, a more formal implantation of Western property rights, as in India and Latin America, can occur without changing the growth rate of these regions. Moreover, financial intermediation can stimulate economic growth and is desirable, but not essential; Asian countries increased their domestic savings and maintained unsophisticated financial systems, essentially using the savings almost directly to finance large corporations. In the Asian model, the increase in amounts financed had only a marginal connection with changes to the law on private property. On the other hand, the modern formal systems of property rights will not have an impact on financial intermediation unless the country risk decreases, and this decrease will occur or not depending, as we have said, on the actual operation, determined by informal resilience, of the entire political and economic system of the country in question.

282 North, 2005, p. 107., op. cit.

political space by establishing the rights of citizens, and other limits on the decision-making capacity of the government. The third proposition is that property and personal rights should be clearly defined. And the fourth proposal says that the State must provide credible commitments in relation to all these rights, providing protection against opportunism and exploitation of public officials.

These proposals are relevant for the Western society, but not necessarily so for traditional societies, in many of which individual and collective rights are not well differentiated, but whose leaders cannot abuse them, since the social role of each, including the leaders, is well defined. There is a social cohesion in the traditional society that is based on the community, and not on the establishment of the differentiation of the individual and his rights. In this traditional view, everyone does what they have to do[283]. This communal strength was key to the success of Asia and does not relate to North's ideal. It is particularly important not to destroy the informal institutions of traditional societies, which maintain social cohesion and order, and to use them for economic development even when these institutions bear little or no relation to North's ideal.

North's analysis obscures two problems that require our attention. The first is the relationship between globalization and underdevelopment, and the second is the visualization of development as a process of incorporating marginal changes into institutional structures different from the Western ones. North leaves us with the impression that underdevelopment is due to the absence of ideal institutions; however, as Asia has shown, even without these ideal institutions, economic growth can be generated.

CONCLUSION OF CHAPTERS FIVE AND SIX

While other disciplines continued exploring a broad vision of institutions in schools such as sociological institutionalism (SI) and historical institutionalism (HI), in economics institutionalism was forgotten for decades. However, as we saw in chapter four, microeconomic developments in information theory and game theory made it clear that the economic equilibrium depends also upon the institutional arrangement. Therefore, it was natural to explore what an institution is. The answer was provided

[283] See Obregon, 1997, chap. 1., op. cit.

by NIE and was based on the neoclassical individual maximizer, but with bounded rationality (due to lack of full information) and opportunistic not only *ex-ante* the transaction but also *ex-post*. Institutions then are seen as what provides stability to the contractual economy and allows for an economic equilibrium to be obtained. There are however multiple equilibria corresponding to diverse institutional arrangements.

Following this line of thought the State is seen as an institution, and development as the process that occurs as the result of having the right institutions. While rational choice institutionalism (RCI) tries to incorporate the new microeconomic concepts of information theory and game theory into neoclassical theory, NIE in North developed a theory of history that not only borrows from RCI, but also from SI and HI. The NIE solution provided by North however follows closely the proposals of other NIE scholars and it is based on the neoclassical optimizer individual with bounded rationality and opportunism. NIE is inspired in Commons and leaves behind Veblen's institutionalism.

NIE is a great contribution. The thought of Coase, Williamson, North and others has had a great influence. Institutions have allowed a new vision of the harmony of Adam Smith. Uncertainty and the absence of information make institutions essential. However, despite its great successes, NIE is far from being an integrated discipline with a precise vision. There are important differences in distinct views, for example, of Williamson versus North. In one extreme, NIE has adherents who consider it an extension of the neoclassical model, which should be expanded and include more restrictions[284]. In the other extreme, other NIE adherents consider the new paradigm to be antithetical to the neoclassical model and incompatible with it[285]. Hybrid neoclassical-NIE models often contain incongruous assumptions, such as bounded rationality and positive transaction costs, on the one hand, and full knowledge of the essential data and a rational process of decision-making, on the other. There is no well-integrated, generally accepted alternative that we can call the NIE model of the economy. NIE is still in a stage of development; however, it does not seem that it will become an alternative to the neoclassical price model; but rather a complement that allows economic problems to be seen from a different, broader perspective.

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[284] RCI, Dahlman, 1979. Dahlman, C.J. (1979): "The Problem of Externality", *Journal of Law and Economics* 22, pp. 141-162.

[285] Furubotn, E.G., and Richter, R. (2003): *Institutions and Economic Theory. The Contribution of the New Institutional Economics,* University of Michigan Press, Ann Arbor.

North's contribution on the resilience of informal institutions makes it possible to explain why in certain cases the export of Western institutions to underdeveloped countries does not work well (this is the historical example of India, Latin America, and the ex-USSR 1990-2000), and this was a great contribution. But what North does not explain are the strengths of these informal institutions that, mixed with heterodox formal institutions, can give rise to economic success stories like those of China, other countries in Asia, and even recently India itself. Rodrik represents an advance over North in that he recognizes the importance of strong domestic institutions in stimulating development, but there is still Rodrik's insistence on seeing the institutions of other countries as a transition to the optimal institutions, which are the Western ones, and to explain the success stories based on these institutions, i.e., respect for private property or democracy[286].

The reality is that successful Asian countries have developed for the most part without democracy; and that in China respect for individual rights is very low, and of course there is no democracy. These societies are competitors of the West, not its followers; they have adopted from the West the minimum necessary to integrate globally and compete, but basically, they continue to be societies with values different from the West. Openly analyzing these differences is relevant and changes our focus on the problem of underdevelopment. This will be one of the key topics in the next chapter. And, as we will see, to understand why these Asian countries have been successful forces us to develop a novel understanding of institutionalism, different from NIE, that we have called comprehensive institutionalism (CI). The discussion of the characteristics of CI and its relationship with Veblen's proposals will be presented in chapters eight to twelve[287].

[286] Rodrik's proposals are presented at greater length in Obregon, C. 2008. *Institucionalismo y desarrollo*.Amazon.com Research gate.com.

[287] Obregon, C. *Teorias del desarrollo* (2008)., op. cit. and *Institucionalismo y desarrollo* (2008)., op. cit. are widely devoted to this.

CHAPTER SEVEN: INSTITUTIONALISM AND ECONOMIC GROWTH

Economic theory was born in the West and has been mostly concerned with explaining the West's economic problems. Economics started with Adam Smith focusing on explaining the wealth of nations, and he convincingly argued that economic growth was due to technological development due to the enlargement of the markets. Since then, the economic growth of the West has been taken for granted. The stationary state of the classics was used as a frame of reference for recommending economic policies but was never thought as a true destiny of the West's economy. For Smith, the way out of the stationary state was technological development; Malthus added the need of population policies, and Ricardo the necessity of free trade. For Ricardo, then, the key theoretical problem for economists was the theory of value. Marx inherited from Ricardo the notion that the central problem was the theory of value and transforms it into a theory of exploitation and social justice. He transforms the stationary state of the classics in his theory of the falling rate of profits, and the inevitable collapse of capitalism. Both Ricardo's and Marx' theories of value failed. Ricardo never found the *numeraire* against which economic value could be measured. A *numeraire*, was finally found by Sraffa, using the trace of a matrix, for a static economy with no money; restricted conditions that cannot replicate a real economy. Given Ricardo's failure, Marx understood that any theory of incorporated labor was going to be unsuccessful. Thus, he introduced his notion of social necessary labor – which needs to be validated by the market's prices. But if labor, as Marx argues, must be validated *ex- post* by the market's prices, then the labor theory of value becomes a tautology. Which may have some philosophical meaning, or not, but is not useful as an economic theory of prices. Given both Ricardo's and Marx' failed attempts to develop a price theory based on the labor value, the neoclassical school searched for another alternative to understand the allocation of resources in a decentralized economy. The critical point to realize is that, after Smith, economists never concerned themselves with the problem of economic growth.

Neoclassical economics conceived the economic world as defined only by the interaction between the individual economic agents. Institutions were mistrusted and were pointed out as the reason why a social economic optimum was not obtained. Economic growth was seen as a natural consequence of the efficient economic interaction of individuals in a free market. Neoclassical economists did not have a macroeconomic theory, and they did not have an economic growth theory either. In the neoclassical capital theory, both the natural rate of interest and the quantity of capital were defined simultaneously by individual saving preferences and real investment opportunities. Therefore, just as the interest rate, the economic rate of growth was a natural – real – phenomenon defined by free market forces.

It was not until Nobel Prize winner Robert Solow's growth theory was published, in 1956, that neoclassical economics had a formal growth theory. However, it did not have any impact on the economic policies in the West. Its main influence was in the import-substitution model adopted in Latin America and other regions, and in the communist model used by the USSR. And as we will see, both models of economic growth failed. They were unsuccessful because saving in these models was associated with obsolete technology, which did not resist the confrontation with the frontier technology developed in the West. The existence of the developed West changed the conditions under which development could occur. When the West developed itself, any new technological discovery was frontier technology. But once the West is already developed, the West defines the frontier technology; and any technological discovery made outside of the West becomes obsolete technology. And any growth based on obsolete technology becomes spurious and disappears when the economy opens to trade with the West. A real experience illustrates this point. When East Germany was reunited with West Germany, it represented around 13% of West Germany's GDP; five years later, it was in the vicinity of 8%[288]. The same happened to Russia in the "lost decade" from 1990-2000. Obsolete technology is also one of the reasons of the failure of the import-substitution model.

Due the failures of the previously mentioned models, it is not surprising that with the neoclassical revival in the eighties, the Washington Consensus recommended emerging economies (EE) to fully integrate themselves

[288] See Obregon 1997, p 260 and Smyser 1993, chapters 7 and 8. Obregon, C; 1997 *Capitalismo hacia el tercer milenio: Una historia cultural de la evolución de las economías del mundo*. Patria, Mexico. Smyser, W.R., (1993). *The German Economy*. St Martin Press, New York.

to the West's microeconomic equilibrium. They were advised to open their external sector, to free their internal prices, to reduce their government size, and to maintain a conservative monetary policy. Among the countries of the world, the one that followed most closely these recommendations was Mexico – and it was a big failure. Mexico's GDP per capita annual rate of growth 1990 to 2018 was only 1.03%. It was unsuccessful mostly due to both the theoretical disregard of the importance of the institutional differences between the developed economies (DE) and EE; and to the ICTR which drastically changed the parameters under which foreign investment occurred. Western economic growth happened in nations that already had a specific historical institutional arrangement. And exporting those institutions is very difficult, as North has pointed out. But even more decisive was the fact that the ICTR fragmented the global process of production, so that DE were no longer interested in exporting full production processes and were only concerned with the specific conditions given to them for the segment of production they were interested in allocating in EE. Therefore, the whole neoclassical institutional characteristics of an economy became somewhat irrelevant. And the conditions given to the fragmented process of production dominated the investment decisions. This explains why so much capital went to a communist country like China, and so little to Mexico – which is why this last country failed.

In Solow's model, technology is exogenous, and economic growth is defined by the level of savings, which is what moves the economy from one growth path to the next. Endogenous models of economic growth, as their name indicates, consider technology as an endogenous phenomenon. Four main schools of endogenous growth are worth mentioning: Science, Learning by Doing, Research and Development, and Education (quality of labor). All these schools further enrich our longitudinal understanding of the Occidental model of growth. Each one of these variables has been key in the fast Western economic growth. They do not, however, explain cross-sectional data.

There have been only two successful models of economic growth: the Occidental and the Asian. The endogenous growth models fail to explain the Asian growth model. None of the countries that adopted the Asian model had an initial advantage in any of the variables mentioned by the endogenous models. Moreover, the endogenous models of economic growth failed to explain satisfactorily the previously mentioned failures of the import-substitution model and the communist model. The USSR, for example, excelled in science, had significant research and development, ap-

plied learning by doing, and had education and highly qualified labor; and despite all of these strengths, from 1950 to 2000 it grew less than Africa.

The problem with most theories of economic growth is that they were built either to explain the West's growth or having in mind how to imitate it. But the West had its own institutional history, and other cultures and regions theirs. This has been the source of many failures, or lack of explanations, of the theories of growth. The attempt to copy the historical savings of the West induced the failure of both the communist and the import-substitution model. Trying to incorporate the EE to the West meant the failure of the neoclassical model. The endogenous growth models do not explain neither the success, nor the failure of non-Western economies. Sen's Western freedoms, while important in the West's history, do not explain economic growth or development differences in countries outside the West[289]. Even North assumes, without historical justification in any real case, that the adoption of the Western institutions will produce development in the EE. The truth is that Mexico, by any standards, adopted significantly more Western institutions than China and failed, while this last country succeeded.

We need a new growth theory (NGT) capable to explain: 1) both the successes of the Occidental model and of the Asian model; 2) the failures of the import-substitution model, the communist model, and the neoclassical model. 3) The incapacity of the endogenous growth models, Sen's freedoms, and North's Western institutions to explain the differences in the real world between the countries that adopted the Asian growth model versus those that did not.

One of the consequences of models of economic growth centered in the West, is that it is in general assumed that copying the West is possible. Therefore, it is argued that if all the countries in the world were democratic, and the global markets were open and free, the world would enjoy peace and economic progress, and some economists even justice[290]. Not only is this idealism impossible to achieve, but it is theoretically and historically incorrect. The enlargement of free markets did develop the West, but it always happened within a global order based upon national interests. While capitalism is not bounded by national borders, democracy is. And this necessarily means global conflict. Which can only be avoided by building global institutions that recognize the interests and relative power of the nations involved. The global economy implies the

[289] Obregon, C; 2008. *Teorías del Desarrollo Económico.,* op.cit.

[290] See Obregon, *The Economics of Global Peace.,* op. cit.

need of a different institutional arrangement than the one that has developed within each one of the distinct DE. While in most DE institutional development has been a success, including democracy, that has gone hand and hand with fast economic growth, at the global level there is a lack of a proper institutional arrangement. Poverty, income distribution, international finances, global health, transnational crime, environmental preservation, international trade, and so on, at the global level look like a highly underdeveloped economy; and reflect the lack of a proper institutional arrangement at the world's level. The 1930 GD, the 2008 GFC, and the 2020 GP are explained to a large extent by the weakness of the global institutional arrangement. And if we do not do something about it, other global crises will occur; some of which are already in the making like the consequences of the Russia-Ukraine war.

In summary: in the established theories of economic growth, we encounter four main problems. The first one is the attempt to export the Western model to other countries. The second problem is to define development basically as the process of adopting the Western institutions. The third one is the lack of a theory of development based upon alternative institutions to the West's. And the fourth problem is the lack of theory to explain the World economy, which requires institutions that are very different from the typical ones of a Western DE. The NGT that must be developed should successfully face these four challenges.

THE FAILED COMMUNIST MODEL

The failure of this model can be appreciated in the collapse of the USSR, the unsatisfactory economic growth of Eastern Europe and the low growth of Cuba. 2016/1950 the USSR grew 0.76 the world's growth, 2000/1950 Eastern Europe grew 0.68, and 2015/1950 Cuba only grew 0.60. The most interesting case is the USSR because it won the Second World War, had a large market, technology in the frontier, high education, and high savings. So, it is needed to explain why the USSR grew less than Africa 1950 – 2000, 0.80 of Africa's growth, even though Africa grew only 0.69 the world's growth.

The communist model's failure has to do with two theoretical misconceptions. The first one is the Marxist belief in a long-term falling profit rate, which meant that capitalism was doomed. The idea was very

simple, because value came from labor, when capital grows with labor growing less than capital, value over capital must decline, therefore there will be a declining rate of profits. An associated idea was that capitalism is condemned to have under-consumption crises, since labor cannot consume enough because it does not receive the full value that it has aggregated. But in a communist society, it was thought, since theoretically there is no exploitation, workers are supposed to receive the full value that they aggregate and then there will be no under-consumption. Moreover, capital can accumulate without limits because profits do not matter. Therefore, the Marxist recipe for growth was to accumulate capital and to pay the full value added to the workers. The accumulation of capital was supposed to be the engine of growth, and this was confirmed by the second theoretical misconception, which was Solow's neoclassical model of economic growth. This model argued that higher savings equal higher investment and therefore more rapid growth. Following these two recipes USSR accumulated capital through a high savings rate, but it did not grow. The collapse of the USSR was not only theoretically inexplicable but politically it was a surprise. The URSS thought that it was richer, and the West thought the same about the USSR. Why was everybody wrong? Because without market prices the national accounts do not reflect the true state of the economy. The USSR 1990/1950 grew as much as the US, 2.24% in annual terms (0.98 the World's growth), and then the collapse came in 1990; and in a decade (1990-2000) the USSR destroyed all the growth benefits obtained in the previous four decades. And this happened even though the USSR, after the collapse, followed the advice of the best Western economists.

There are three main reasons for the USSR collapse. 1) Its excessive spending in a) military armament, b) its imperialistic endeavors and c) its space adventure; meant that not much was left for the rest of the economy. 2) Given 1), the process of industrialization had to put an extra burden on the agricultural sector – i.e., it was needed to transfer huge resources from the agricultural sector to the industrial sector. 3) The industrial sector that was developed did not trade with the West, therefore it did not have the West's frontier technology. There was not a demanding middle-class market in the USSR; but even if they would have had one - anyhow the USSR's market was only around 20% the size of the West's. Therefore, the industry in the USSR could not develop its own technology at the world's frontier. Frontier technology in the USSR was mainly only in the space and military areas.

The Cold War was a mistake for the USSR, it isolated its economy which was much smaller than the West's and could not really compete with the latter. The attempt to compete with the West militarily, internationally, and in space exploration, was too expensive. Industrializing at the expense of the agricultural sector meant growing food imports. And the lack of frontier technology in the industrial sector meant that industrial exports to the West were not viable. The model just did not work, finally it had to collapse. Two events precipitated the preannounced collapse: 1) given the USSR's dependence on oil exports, the most relevant event that precipitated the collapse was the oil crisis of the mid-eighties, and 2) Ronald Reagan directly defied the imperialistic endeavors of the USSR, all around the world, increasing the USSR's spending in this area; and launched the Star Wars defense project, which meant new expensive military technology to stop nuclear missiles, which increased the required USSR military expenditures.

But the main reason behind the USSR's collapse was that not all savings produce the same kind of growth. Savings are *ex-post* equal to investment, and they are certainly required for growth; but they only do produce proper growth if investment is truly productive, that is, if the investment uses frontier technology at the international edge. The USSR isolated itself and grew with technology that was already obsolete by Western standards. When it opened to the West in the 90's a large part of the economic infrastructure collapsed, because it could not compete with the West's technology. This of course predicts a poor future for Russia which is isolating itself again due to the Russia- Ukraine war.

The USSR increased savings, put an emphasis on industrialization at the expense of the agricultural sector, and oriented its efforts to be competitive in military armament and space technology. But it did not have the industrial technology at the frontier that the West had, where it developed due to changing preferences of a large middle-class market. Markets are essential, without them an economy does not work properly. All the old empires collapsed because, as the empire expanded, centralized expenses that grew exponentially with the geographical size of the empire became too high, compared with the linear fruits of the empire's expansion consequence of the new conquests. Therefore, it was more and more difficult to maintain it together. The USSR was no exception to the old empires, because it lacked the stimulus of a growing middle-class market, which was the main characteristic that prevented the West's collapse. The middle-class' growing demand provided the West with an internal motor

of growth that the USSR did not have. And given the size of the West's economy, technology at the frontier was defined in the West. The USSR, by isolating itself, did not have access to this technology.

The lesson to be taken from the USSR's collapse is that capital accumulation is not enough. An economy must open and compete in the global market and must have flexible local markets so that prices are accurate and national accounts thus can reflect the true state of the economy. USSR was a large market, but not large enough to compete with the one of the West. In 1990 the value of the West's market was 5.1 times the USSR market[291]. Moreover, the West's was an open, flexible and competitive market and the USSR was not – it truly did not have any chance to succeed. And, when the USSR had to open to the West due to the several factors mentioned above, it collapsed because it was not a competitive economy.

Russia did collapse together with the USSR, 1990-2000 the annual rate of growth of USSR was -4.26% and the one of the Russian Federation was -3.77[292]. Russia collapsed in 1990- 2000, this meant that Russia was not efficient in the use of its high saving rate. The 1988 -2017 saving rate is very high and similar to the one of the successful Asian economies, but GDP growth is extremely low compared with the same group of countries – due to the 90's collapse. Russia has 25% the average savings efficiency (to produce growth) of the world, 22% the efficiency of Malaysia, 20% the one of Thailand, 16.7% of Korea, 12.5% of India and 10% of China[293]. Why? Because Russia collapsed.

It is true that the Russian Federation, and even the former USSR have recovered, if for example we take the same savings efficiency indicator and apply it to the period 2000- 2017 we find a normal efficiency. This of course has two problems. The first one is that 2000- 2017 growth has a bounce back effect from the 1990 – 2000 collapse, which is left out by concentrating only on 2000 – 2017. And the second one, of course, is that we cannot ignore that the collapse did happen. We must remind ourselves that before 1990 the USSR had the same annual growth rate than US, so everything looked fine - but it was not. The Russian Federation has recovered growth, and it looks fine again – but it is not; it is still pretty much an inward-looking economy whose public finances and ex-

[291] Own calculation based in Maddison Project 2018 and USSR 1989 population census.

[292] World Bank data.

[293] See Obregon, C; 2018. Globalization Misguided Views, op. cit.

ports continue to be mostly oil dependent. And with the Russia-Ukraine war, Russia is precipitating itself to rapidly become a true poor EE.

Thus, it is important to remind ourselves that commanded economies without market flexibility can show high rates of growth for large periods but, whenever they open to compete with the outside world, they collapse. Probably the only country in Eastern Europe that has become truly developed is East Germany. But it had to pay a very high price. East Germany had been growing at very high rates before it joined West Germany. Before they were reunited, it was argued that the two Germanys were extremely productive because of the German character. But as we mentioned earlier, when East Germany joined in, it represented around 13% of West Germany's GDP; five years later, it was in the vicinity of 8%[294] Why? Because most of the goods and services offered by East Germany were not competitive by Western standards. The same happened with the USSR when it opened in 1990. Therefore, the problem is that if an economy has an inward-looking economic growth it may be growing fast, but when it opens to the world, it may be worth very little. Because as soon as foreign competitors arrive, they make the inward-looking technology and its associated industry obsolete; therefore, a lot of the old economy's value disappears.

Before the Russia-Ukraine war, the Russian Federation was in a better shape than before due to several reasons: 1) added local market flexibility, 2) added openness to the external world, and 3) it did not have any longer the pressures associated with the Cold War. But it still was a central command economy which public finances and exports are oil dependent. And now it is entering dark years for its economy by closing itself again.

The Russian Federation and the USSR have partially recovered from the 1990-2000 crisis, but they never became modern. Communism did not modernize the Russian Federation: its industry is not sophisticated enough to compete globally - and in the future it will be less so.

The Russian Federation is still dependent on oil exports. It lacks competitiveness in the two key lines of industrial exports: machinery and transport equipment and miscellaneous manufactured articles. It is of course in these two lines where China has become more competitive.

The exports and imports in machinery and transport equipment tell the story of the different growth models very well. The countries in the Occidental model are very active in exports and imports of machinery

[294] See Obregon 1997, p 260 and Smyser 1993, chapters 7 and 8. Both op. cit.

and transport equipment. They import more than they export, but not by much. A simple average share of total imports and exports in this line in selected Occidental countries is: 35.44 and 31.19 respectively[295]. Countries in the Asian development model export more than they import. Their simple average share is 41.46 for imports and 52.63 for exports[296]. India has some elements of the Asian growth model, but it has its own model based on services exports as we will explain later on. The Latin American Countries are mostly importers with an import simple average share of 29.24 and an export share of 10.13[297]. Russia's industry is not modernized; its average share is 44.10 for imports and 4.60 for exports. The difference between both shares is higher than in any of the main Latin American countries. China has modernized its industry, the Russian Federation's remains very underdeveloped. The 2016 Russian Federation share in total merchandise exports was very small, 1.80 %, versus China's 13.38%. But its share in machinery and transport equipment exports is even smaller, 0.2%; versus China's 16.99%. An even better key indicator of global competitive power is the share in machinery and transport equipment exports to developed economies. In this indicator the Russian Federation almost disappears, it has a share of only 0.09%, which shows that its industry is not globally competitive. In this indicator China remains very strong with a share of 13.6%[298].

Due to the communist model the USSR and the Russian Federation grew their economies inward looking, and therefore their economies lack global competitiveness. The communist model has not worked properly for neither of them.

Eastern Europe also suffered the consequences of the communist model. Up to 1990, everything seemed to be going excellent, 1990-1950 it grew 1.03 the world's growth. But it had a huge contraction 2000/1990, it grew only 0.66 the world's growth. Therefore 2000/1950 it only grew 0.68 the world's, almost the same as Africa's 0.69. 2016/ 2000 Eastern Europe had a similar recovery than the USSR, 1.32 versus 1.38 the world's growth. In 2016 Eastern Europe still had the scars left by the communist model of growth. The only Eastern European country that became truly developed was East Germany, and this happened because of the reuni-

[295] See Obregon, C; 2018. Globalization: Misguided Views, op. cit.

[296] Ibid.

[297] Ibid.

[298] Ibid.

fication with West Germany. By 2016 Eastern Europe's GDP per capita was 4% higher than the USSR's, but only 82% the one of the Russian Federation and 50% compared to Western Europe's[299].

Cuba's economic growth has been a disaster. 2015/1960 Cuba performed worse than USSR 2016/1950 or Eastern Europe 2000/1950, it grew only 0.60 the world's growth. Cuba shows a similar pattern to the other communist countries analyzed, except that even in the good times 1990/1960 it grew only 0.84 the world's growth. 2015/1990 Cuba grew 0.71 the world's growth. And 2015/2000 it had a recovery like Eastern Europe and the Russian Federation,1.35 the world's growth. Most of Cuba's bad performance is due to the communist model adopted, which also failed in the USSR and Eastern Europe. However, a large part of the difference in performance between Russia and Cuba is certainly due to US's economic blockage of Cuba. In any case, Cuba made the wrong choice adopting the communist model; like anybody else it overestimated the economic success of the USSR, and became its unconditional ally, confronting the US. Cuba has paid a huge price because its miscalculation of the real relative economic power of the USSR.

Communism in China apparently was not a failure, 1980/1950 it grew 1.08 the world's growth. But it is necessary to understand what explains this number before passing a final judgment as to whether communism was successful in China prior to the 1980 -1990 capitalist reforms. First, China was in 1950 quite destroyed by the corruption of the Kuo Mi Tang and by the vandalism of the Western countries in China which had already lasted one century. According to the Maddison project 2013, it is not until 1956 that China recovers the income level it had in 1850. When the revolution wins in 1949 and Mao starts to govern China, the main task was just one of reorganizing the country. Between 1952 and 1950 according to the Maddison project 2018, income in China grew 31%. Therefore, the reorganization 1952-1950 explains the good numbers for 1980/1950 that China had. If we re-estimate this number for 1980/1952 it goes down to 0.88 the world's, showing already the failure of the Chinese communism prior to the capitalist reforms 1980 – 1990. Moreover, the real trouble for communism in general starts in 1980. The USSR's number for 1980/1950 is 1.01 the world's growth, not far anymore from China's 1.08; and the number for 1980/1952 is 1.05 higher than China's 0.88. Up to 1980 China was performing similarly to the USSR, what saved China is that by implementing the 1980-1990 capitalist reforms it

[299] Data from Maddison Project 2018.

avoided what would have been its collapse in 1990, like it happened to Russia. China's income in 1980 was only 77% higher than in 1850 and was at the level of 1894 USSR income, by 1980 China was still a very poor economy.

What really has made China successful were the 1980 – 1990 capitalist reforms, which positioned it very well for the ICTR that occurred in the world after 1990. China entered the ICTR adopting the Asian growth model that had been already successful in other countries. And its very low wages made it extremely competitive for the new world to come. This story will be developed later, in the section in which we explain the Asian growth model. For now, we will close this section on the communist model of growth observing that it was not successful in any country. China is communist, but its success is not due to the communist model of growth, but to the Asian growth model. China's recent success reminds us that an economic growth model can function well with different ideologies and diverse forms of governing.

The difference between Soviet and Chinese communism was the Chinese transition period 1980-1990 which changed the characteristics of the Chinese economy and oriented it outwards. By following the Asian growth model, that we will further explain below, China was able to use as its fundamental source of growth the ICTR[300] that started in the mid-eighties and gained great speed in the nineties.

The communist model of the USSR and the Russian Federation almost look like the Chinese model, in the sense that they have high savings, high exports and a healthy external balance. But the huge difference is that one looks outwards (the Chinese), and the other looks inwards. China develops an extremely competitive industry, and the USSR and the Russian Federation a noncompetitive industry.

In summary, there are several key lessons from the communist model: 1) An inward-looking economic policy develops a non-competitive industry. 2) An inward-looking economy may appear to have healthy economic growth, but whenever it opens, a lot of this growth goes away as its industry disappears by not being able to compete with the foreign technology. 3) Something was wrong with the theory that high savings and huge capital accumulation produce high growth. What it did not consider is the technological quality of the capital. Savings only produces proper growth if it is used for investing in frontier technology.

[300] We remind the reader that I stand for information, T for technology in the workplace, C for communications and R for Revolution.

THE IMPORT-SUBSTITUTION MODEL

The import-substitution model had its origins in the postwar Latin America (LA). During the war imports were difficult to obtain, and a process of import-substitution naturally originated. And when the war was over, a group of economists, mainly at CEPAL, thought that continuing with this process was the key to modernize LA. These thinkers were impressed, like everybody else at the time, with Stalin's industrialization success and therefore looked forward to industrializing LA following his steps. Moreover, given the weakness of global trade at the time, it was not conceptualized as a relevant source of economic growth. They argued that the West had developed through high savings, and they recommended strategies to increase savings to the West's historical standards. Solow's economic growth model, which main article was published in 1956, did reinforce their point of view. The import-substitution model does not have the command economy problems of the communist model, but it shares with it the inward-looking industrialization program. The model was not successful, LA grew 1990/1950 only 0.91 the world's growth, while East Asia grew 1.56[301]. Contrary to the assumptions made to recommend the import-substitution model, global trade became a key source of growth, and LA did not benefit from it as much as it could have done. Moreover, focusing inwards meant the use of obsolete technology because of an inadequate scale of production and the lack of significant presence in the global markets, where the frontier technology is defined. The import-substitution of capital goods became not only inefficient but expensive, and it created current account imbalances that had to be financed, therefore the countries recurred to international debt. And given the lack of sustainable competitive exports, when global interest rates increased in the Volcker's era, LA entered the 80's debt crisis. This crisis and the need to repay the renegotiated debt, for many years limited the potential rate of growth of LA. In many ways, the neoclassical growth model was a response to the crisis created by the failure of the import-substitution growth model. But, as we will see, it did not work either, LA 2016/1990 grew again only 0.90 the world's growth, while East Asia grew 2.61.

There are substantial differences between the inward-looking and the outward-looking approach. 1) The countries that grew more in Asia had much higher exports than LA, the exception is China and India which

[301] We use 1990 because the debt crisis of the eighties was the consequence of the import-substitution model used before.

has not yet entered the Asian growth model. 2) These countries also had higher savings. But in here two facts stand out, first China's high savings were used to introduce the 1980-1990 transformations that positioned it so well to adopt later on the Asian growth model and reap the growth benefits of the ICTR. Second, Argentina had higher savings that Korea, yet Korea grew 5.98% annually and Argentina only 0.68%, which again reiterates the thesis that what counts is how these high savings are used. Korea's exports were 19% of GDP and Argentina's only 0.64%. 3) Few countries like Brazil and Mexico had a good growth with the import-substitution model, which shows that import-substitution is a source of growth, but the cost was to have an inefficient industry. LA represents only 3% of total world's merchandise trade versus 8% of Japan and 11% of other Asian countries. And in terms of machinery and transport equipment exports LA only represents 1%. In 1990 LA was as inward-looking as the USSR and Eastern Europe. The inefficiency of LA's industry had a high cost later. As the global trade increased from 1990 onwards, its industry was unable to compete. Thus, most of LA became a commodities exporter and this defined to a large extent the low growth of LA 1990 - 2018. The exception was Mexico which due to the NAFTA (the free trade agreement with US) entered the ICTR and modernized its industry. Yet Mexico only grew 1.03% annually 1990-2018, like Brazil's 1.16%, to understand why we will review in the next section the neoclassical economic growth model adopted by Mexico in 1988 with President Salinas.

The import-substitution model in Latin America was not the success it is often argued, it was a failed model that ended up in the 80's financial crisis (just like the URSS's collapse in 1991). And alike the case of the communist model, it left LA with a noncompetitive industry. Both the level of indebtedness and the lack of industrial competitiveness constrained enormously the future potential growth of LA. Just to get a perspective 1990- 2018 China grew 4.4 times LA's growth.

With the import-substitution model, 1950 to 1990[302], Latin-America had a low savings rate, 21.58 GDP versus world's 25.87 and East Asia's 33.30; relative low exports, 12.88 GDP versus world's 15.60 and East Asia's 15.46; and its growth rate was acceptable 2.26% (like the world's annual growth rate 2.28%, but much lower than East Asia's 3.43%). Argentina performed very badly growing only 0.64%, Mexico grew 2.4%, and Brazil 2.7%. Malaysia, the lowest growing country from the ones following the Asian growth model, grew 3.02%, China 3.35% (partially due

[302] S, Ex, and EB data not available 1950 -1960, we use 1960 – 1990 instead.

to the benefits from the capitalist policies of the eighties), Thailand 4.43%, Singapore 4.73%, Hong Kong 4.93%, Japan 5.87%, and Korea 5.08%[303].

While the countries following the Asian growth model grew fast and built a competitive exporting industry, LA grew only at the average of the world and ended with the debt crisis and a noncompetitive industry.

LA's merchandise exports as a percentage of the world's went down from 8.05% in 1960 to 4.52% in 1990[304]; while East Asia's went up from 12.47% to 22.04%. In 1990 manufactured exports as a percentage of global manufactured exports was for LA only 2.25%, while East Asia it was 23.83%. It is true that in this year LA's GDP was 37.25% the one of East Asia, and therefore LA should have had a smaller participation in global manufactures. But at the same level of efficiency LA should have exported 8.88%. Thus, East Asia in 1990 had 4 times the efficiency of LA in exporting manufactures (8.88/2.25). These higher manufacture exports, plus higher savings explain the GDP growth difference between East Asia and LA. East Asia grew 3.43% annually 1950 -1990 versus LA 2.05%. The result was that while in 1950 East Asia was 1.92 times LA, by 1990 it was 2.68 times. A relative increase in size of 40%. Being smaller, more inefficient, and with a higher debt certainly did not help LA in the years 1990 – 2018. The import-substitution model was a failure, but, in addition, as we will see in the next section, LA took again the wrong choices in 1990 and selected again inadequate models of economic growth.

THE NEOCLASSICAL MODEL

From a purely theoretical point of view, the neoclassical model is quite elegant, and its logic works. But it left out of the model a key element of the real economic world – institutions. The model shows that capital will flow to wherever it can obtain more profits, thus it should seek low wage countries. Therefore, it is argued that if the EE fulfill some conditions, capital will flow to them; and they will grow quickly, and with first

[303] In here, we are using growth rates 1950-1990 for all the countries to compare them. The Asian countries performed better even though the Asian growth model did not start properly until the 60's (except for Japan where it started in the 50's and China where it started in the 80's but did not fully develop until the 90's).

[304] Notice that both India and South Africa, amongst other countries, became inward looking between 1960 and 1990 due to import-substitution policies.

class global technology. The conditions to be satisfied are to open their economies, maintain low wages, reduce bureaucracy, maintain clean government finances, reduce the government size to give space for the productivity of the private sector to operate, and free internal markets so that market prices reflect true scarcities. The neoclassical model was applied in many countries in LA, like Argentina, Brazil, and other countries, but only for relatively short periods; in the Russian Federation, partially during the nineties; but nowhere was it applied more rigorously and for a longer period than in Mexico. And Mexico's growth 2018/1990 was a failure. It grew only at an annual rate of only 1.03%. Why did this happen? The model has two concrete problems. The first one, as we said before, is that it did not consider the obvious fact that in the real world there are institutions, that distinguish the different countries, which cannot be changed quickly at will. There is a country risk associated with the specific history of each country, defined by historical, political, or racial conflicts, social class problems, the legal system's transparency, the police's professionalism, corruption, bureaucratic inefficiencies, physical infrastructure, mafia history and so on. A country cannot change at will its cultural, social, political, administrative, and physical infrastructure conditions. Therefore, capital was not willing to fully go to EE just because they had low wages. There was too much risk involved in transferring fully the technology. But the second and more definitive reason for which the neoclassical growth model did not work is because only few years had passed when the ICTR started to dominate the international arena. The ICTR meant that there was no longer the need to fully transfer capital and its technology to the developing economies. Due to the advances in information, communication, and work technology, it became possible to manage from offshore very complex processes of production. Such processes of production were fragmented and distributed amongst many countries. Diversifying amongst countries and maintaining at home the key managing decisions and controls reduced a lot a specific country risk. These two problems explain why capital did not abundantly come to a specific developing economy to substitute insufficient local savings. In a very short sentence the main difference between Mexico and China, is that Mexico remained expecting the foreign capital to come, and it never did in the amounts expected by the neoclassical model. While China increased its local savings a lot. Mexico's average saving rate over GDP was 22% while China's was 48%[305].

[305] Obregon, C; 2018. *Globalization Misguided Views,* op. cit.

This reminds me of a conversation I had with Paul Samuelson when he was still alive, many years ago at MIT, he said to me "Well, it is true that Solow's economic growth model has many problems (we were discussing the capital theory controversies); but one thing is no doubt correct in his model, *"without savings there is no growth"*. It is true that huge savings do not guarantee the right kind of sustainable economic growth, savings must be mostly invested in frontier technology. But that does not mean that high savings are not required for high growth. High savings may not be a sufficient condition, but they are certainly needed. Although, as we will see, there are other factors, Mexico's low savings rate explains, to a large extent, its low growth rate.

THE ASIAN GROWTH MODEL

There are many economists that questioned whether an Asian growth model exists[306]. China took 28 years to grow from 2,379 dollars (in1990) to 12,569 (in 2018). The questions are: How many years did it take other countries to achieve the same results? Do other Asian countries use a similar number of years? Does a group of Asian countries cluster and differentiate themselves from other countries? Clearly there is an Asian growth model, the Asian countries selected took an average of 29 years[307]. And they clearly cluster and differentiate themselves from LA's average of 100 years; the West's of 100 years and other countries' average of 90 years. There are two main phases in this model. The first one 1990/1950 was dominated by Japan, which by 1968 had achieved the same level of per capita income that China has today. Other countries that achieved China's present level of income are Singapore in 1976, Hong Kong in 1979, Taiwan in 1987, and Korea in 1990. Malaysia and Taiwan achieved it in the second phase, 1994 and 2008 respectively. The first phase was characterized by cheaper local national production of computers chips, cars, and others. The second phase was dominated by the ICTR, which fragmented production amongst many countries.

[306] The World Bank in 1992 argued that it did not.

[307] Data comes from Obregon, C; 2020. *Three Lessons from Economists: That policy Makers Should Never Forget*. Amazon.com, also available at Research Gate.com

The Asian growth model is distinct in each country but has some elements in common[308]: 1) A powerful regulatory state that guides the model. 2) Flexible planning involving the private sector, with a high degree of autonomy for companies. 3) The private sector establishes clear commitments, and it is of paramount importance in the definition of the model. 4) The model is based on exports; production is oriented to compete in the global market. 5) High internal savings. 6) Cutting-edge foreign technology. 7) A learning process that promotes local technology and competitiveness with the outside world.

8) Exports are the basic axis of the Asian growth model, but at the same time it efficiently defends the growth of the domestic market, through a) a series of regulations that –- without being tariffs – hinders the growth of imports, and b) through an undervalued exchange rate. 9) A national agreement that reinforces the historical social belonging of each nation through the commitment to unite to compete with the outside world. The agreement is for economic growth, in the understanding that the only way to achieve this is by competing head-to-head with the developed world, that is why is so important to export to it. 10) In all cases, there is awareness that it is necessary to learn from the West and negotiate with the West, but always with the aim of competing with it. 11) In all cases, the competitive model strengthened and used traditional local institutions, while creating new ones oriented to global competition. 12) The central objective is to guarantee economic growth at the national level.

The Asian growth model provided in the real world a new explanation for development, one that was not foreseen by the theorists of economic development- including North. It was based on high savings, on orienting the economy outwards, and on recognizing the relevance of the local institutional arrangement.

The institutional arrangement, though, did not copy the West's. It recognized the need to integrate the economy to the global market, but it did it primordially through promoting exports and restricting imports. It recognized the need of high savings, but it introduced the innovation of savings much higher than the West's. In a very surprising conclusion, imposed upon us by economic reality, we learned with this model that development happens when the poor save for the rich to consume, and not like previous theory told us, when the rich save to lend to the poor– for the latter to have capital to develop.

[308] Obregon, C; 1997, 2008, 2020. 1997, *Capitalismo hacia el tercer milenio.,* op. cit. 2008, *Globalización y subdesarrollo,* Amazon.com. Research Gate.com. 2020, *Three Lessons from Economists,* op. cit.

In the last 68 years we have seen several Asian countries become developed: Japan, Singapore, Korea, Hong Kong; and others improve their GDP income a lot. 1990 - 2018 all the countries that followed the Asian growth model improved their relative GDP per capita position versus Mexico substantially: China 698%, India 172%, Thailand 91%, Malaysia 100%, Korea 107%; and even the two countries that started with much higher GDP levels improved versus Mexico, Singapore 94%, and Hong Kong 59%. Comparing these seven Asian countries plus Japan with many countries around the world, 1950 – 2016 seven of them are the ones with the highest GDP per capita annual growth, and only Malaysia grew slightly less than Switzerland. 1990 – 2018, East Asia and Pacific was the highest growth region in the world. The Asian growth model did work very well.

THE OCCIDENTAL GROWTH MODEL

The success of the Occidental model is undeniable. There have been many articles and books explaining why the West grew rich. The Occidental model's success is explained in many ways, the most well-accepted versions are based on anyone of these factors or its combinations: free markets, proper institutions, learning by doing, research and development, education and labor quality, and scientific and technological development

The first observation to be made is that the Occidental model took around 100 years to increase its GDP per capita from around 2,400 2011 PPP International Dollars (China's 1990 level to around 12,600 (China's 2016 level); while the Asian model took only around 29 years. The same growth of the West changed the global conditions and made the fast Asian success possible. Asia developed exporting to the middle class in the West, using the frontier technology of the West.

The Occidental model is, simply put, capitalism. And it is very important to realize that before capitalism the other productive systems were characterized by extreme poverty. If we use as a poverty line 3.10 2011 PPP International Dollars a day from the World Bank (which includes out- of- pocket health expenditures); the World on average was poor until 1820 when it crosses barely the poverty line by only 2%[309]. The

[309] See Obregon, C. 2020. *Three Lessons from Economists.,* op. cit.

world's population starts growing in the period 1500 to 1820, and it is not until 1820 to 1870 that both the population and the GDP per capita grow significantly. Clearly the way out of poverty is economic growth, and the only productive system that has been able to grow at a considerable speed is capitalism. What is new in capitalism? Mainly that the process of production gets globalized.

There are three lessons to learn from the Occidental growth model. First, before capitalism there was only poverty, and the population almost did not grow; because it did not have enough food, shelter, and other sanitary conditions. Simply put, economic growth is what guarantees human life, without it people die. Therefore, economic growth is without a doubt the name of the game in economics. Second - the Occidental model is just what is known as capitalism, and its main difference with other modes of production is the globalization of the production process. Before capitalism, globalization meant the conquest of other regions by military means, and the accumulation of wealth, fruit of the war, but the production process was not truly globalized. Third – what distinguishes the Occidental model is the mass consumption of the middle class, which allows for mass production and fast technological development. Thus, together with the globalization of the production process there is a globalization of consumption. This is what provides capitalism with its own engine of growth and prevented the collapse that previous empires suffered. In these empires the increasing cost of administrating centrally the vast territory grew exponentially with the increase in its extension, and at one point it became higher than the fruits of war, which only grew linearly. In other words, as war was fought farther and farther, the cost became impossible to be repaid by its fruits. In capitalism, economic growth does not require military conquests, it occurs because of the growing consumption of the middle class. Military confrontations happen frequently in capitalism, because of the conflicting interests of the Nation States, and there is also military conquest of foreign regions – but economic growth mainly happens at the center of capitalism due to the consumption of the middle class. Fourth, the Asian model was successful, but it is a dependent model, in the sense that it grows exporting to the middle class of the West. The consumption of this middle class then, is not only the explanation of the success of the Occidental model, but also of the Asian model.

TOWARDS A NEW INSTITUTIONAL GROWTH THEORY

Let us first start by listing whether the key elements mentioned in diverse theories of economic growth was present or not in the Occidental model, in the failed models, and in the Asian model, see Table 7.1.

TABLE 7.1 ECONOMIC GROWTH MODELS

	Occidental Model	Failed Models	Asian Model
Neoclassical Theories			
Science	Yes	Yes	No
Research and Development	Yes	Yes	Yes
Learning by Doing	Yes	Yes	Yes
Education	Yes	Yes	No
High quality labor	Yes	Yes	Yes
Savings	Yes	Yes	Yes
Other Theories			
Sen' Freedoms	Yes	Yes	No
North's Western Institutions	Yes	Yes	No
Classical Theory			
Smith's Enlarged Markets	Yes	Yes	Yes
NGT new element			
Technology guided by Middle Class	Yes	Yes	Yes

Science was key for the Occidental model; in the failed models it was clearly present in the USSR and in Russia and it does not explain the success of the Asian model. Thus, science is clearly needed for the economic growth of the world but: it is not sufficient to obtain growth in particular countries, and it is not necessary to obtain growth in a dependent model.

Both Research and Development and Learning by Doing were both key for the Occidental model and for the Asian model. Therefore, they are necessary for economic success. However, they do not generate growth by themselves because they were also present in the failed communist model.

We have distinguished between Education and High-Quality Labor, the first being scholarly education and the second specific skills acquired for special labor tasks. Education was a key element in the Occidental

model, but it was not so in the Asian model. And it was present in the communist model. Therefore, education does not promote growth by itself, and it is not necessary for dependent growth to happen. High Quality Labor is necessary for successful growth, it was present in both the Occidental and the Asian models. But, again, by itself it does not generate growth as the failed communist model shows.

High savings are necessary for successful growth, but not sufficient. It was present in the successful Occidental and Asian models but was also present in the failed communist and import-substitution models. Thus, by itself it does nor promote growth.

Sen's freedoms explain the Occidental model, but clearly, they are not sufficient nor necessary to generate dependent economic growth. In relative terms, Latin America enjoyed more freedoms than Asia (particularly in the beginning) and Asia performed much better.

North's Western institutions do explain the Occidental model but are not sufficient nor necessary to generate dependent economic growth. Their presence was much stronger in Mexico than in China, for example.

Smith's theory of enlarged markets explains both the Occidental model and the Asian model but fails to explain both the failure of the USSR and of the neoclassical model in Mexico.

The technology guided by middle class explains the Occidental model, the Asian model, and the failure of the communist and the import-substitution models. However, it does not explain the failure of the neoclassical model, Mexico did export to the international middle class and failed. Thus, it is necessary, but not sufficient to create economic growth.

What do we learn from the previous comparison between diverse model of economic growth? First, the explanations of the Occidental growth model are not necessarily adequate to explain the success of the Asian model. Second, the explanations of the Occidental model happened historically all at once, and they all correlate and together they explain the West's success, but each one of them, isolated, does not necessarily generate economic growth.

Therefore, we need a theory of growth for the Occidental model, a second and distinct theory of growth for the Asian model, a third theory to describe how todays' underdeveloped countries can become developed, and finally a fourth theory to promote the economic growth of the world at large.

The theory of growth for the Occidental model is well-known, it is the sum of the neoclassical theories plus the classical theory; but we will add a new element: technology guided by the enlarged middle-class market.

The theory of growth for the Asian model has already been explained before. It is distinguished from the Occidental model in several aspects. As a dependent model it does not emphasize science, its technology is guided by exporting to the West's middle class, saving is very high, imports and exchange rates are managed, governments intervene in guiding the economy but let markets freely operate. It does not emphasize neither scholarly education, Sen's freedoms, nor North's Western institutions.

What should todays' underdeveloped countries do? The ones that have the possibilities, should replicate the Asian growth model, and integrate themselves into the ICTR. The poorer countries however cannot do it and will only become developed if eventually there is a new Marshall-type plan, focused on their development.

What does the long-run rate of growth of the world depend upon? It is defined by: 1) The global savings rate given by inter-temporal preferences and institutional characteristics; 2) technological development which is influenced by many endogenous causes such as science, R&D, learning by doing, and education (quality of labor), the size of the world's free market –which includes the global middle class; and the fast changing preferences of the middle class; 3) productivity given by the incorporation of low wage workers, traditionally both through migration of labor or capital, and recently through the ICTR.

CONCLUSION

Diverse schools of economics have developed distinct theories of economic development. Mainly the focus has been to learn from the West's success in order to recommend others to do the same. But once institutionalism gets rid of fixed essences like the innovative individual of North, it becomes clear that there is not one unique theory of economic growth that can be applied universally. In fact, the success of the West has already changed the new institutional conditions for other countries. There is however a further lesson to be learned, the only other model of growth, besides the Occidental, that has been successful is the Asian and its success was related to using frontier technology because of its exports to the West. Thus, the free West's markets that transmit the dynamic changing preferences of the Western middle class are quite relevant. Which means both that the neoclassical price theory is crucial to under-

stand the transmission of information in these middle-class free markets, and that Smith was right in the relevance of the expansion of the markets – but a key element of such expansion is the fast growth of the Western middle classes.

An institutional NGT to start has three main contributions: 1) It unveils the role of the middle class to enlarge the market in capitalism, and how its changing preferences guide the expansion of the frontier technology; 2) it auspices the understanding that increased savings directed towards obsolete technology will not create sustainable economic growth. 3) It shows that economic growth, just like the microeconomic equilibrium in the first section, depends upon the institutional arrangement; and therefore, there cannot be just one model of economic growth that explains the Occidental, the Asian, the underdeveloped countries', and the world's economic growth. In each case a careful study of the relevant institutions is required.

NIE due to its Western bias is unable to explain the complexity of the real world, in which other cultures compete with the West, with the strength of their own historical institutions. NIE is not adequate to understand the success of the Asian growth model, neither is it capable to guide us in answering what kind of global institutions are required. In this chapter we have outlined some of the characteristics that an institutional NGT should have. The interested reader will find more on this topic in some of my previous works[310]. NGT is part of the novel institutionalism called comprehensive institutionalism (CI) discussed in this book. In the next chapters we will indicate, from a broader perspective, which should be the vision provided by CI.

[310] *Globalization Misguided Views.,* op. cit.

CHAPTER EIGHT: NEW COMPREHENSIVE INSTITUTIONALISM AND EVOLUTIONARY THEORY

The question of agency has become central to modern economics and other social sciences. However, we will argue that it is only relevant to understand the Western culture and its influence. This is a critical issue because it is often assumed that the existence of the agency is an essential problem in social sciences, yet - as Veblen argued - the agent, in the sense understood in the West, is only a cultural feature of the Western society. This point, as we will see, turns out to be critical as to how social sciences are developed. If we start from the individual-agent, then the question is how social order is achieved out of the values, beliefs, preferences, choices, and actions of such individual-agents; but, as we have seen, it turns out that such social order is characterized by multiple equilibria and there are only two solutions: external essential values or institutions. Since we do not have access to such external essential values, neither by the human brain alone, nor aided by science, it follows that the equilibria chosen would necessarily be partially defined by the institutions.

But does the individual- agent exist independent of the institutions? The evolutionary answer is that the individual-agent is a product of the institutions. This was the critical contribution of Veblen that has not been fully understood. That does not mean that individuals do not exist independent of institutions, individuality is a fact of evolution; but the individual social agency assumed in the Western individual-agent is a product of Western historical institutions.

SI has documented the decisive influence of institutions on individual-agent decisions, HI has shown that institutional changes are constrained by their path dependency that limit the range within individual-agent decisions may influence them, and EI has argued that there are environmental and physical conditions that define the range of social choices that can be chosen and that economics should learn from evolutionary biology; but none of these schools has understood well what Veblen's key contribution was. The point is that in non-Western cultures, in the previous history of the West, and in the history of the world seen as one

culture, social order cannot be defined starting from the individual-agent.

It is not a question of whether the individual is selfish and rational as in neoclassical economics, or irrational altruistic and cooperative like in behavioral economics, or rational and ethical like in Sen's economics – no matter which assumption is taken, it would be necessarily misleading, because to understand how social order is accomplished and how social change occurs, one needs to start by the evolutionary understanding that humans were born as social beings, and therefore have never existed as isolated individuals taking decisions. RCI and NIE both have the correct methodology to understand the role of the individual-agent in the Western culture (and in the influence of this culture), and they have been very successful. But even to fully understand the West, one needs to start by realizing that the agency of the individual in the West is a social concession, consequence of a particular social history. Even in the West, the individual agency only covers certain aspect of the social life. An aspect which has become critical without doubt, but that does not explain many other features of social life that are also extremely relevant. As we have mentioned, it is precisely in the last seventy years, with the formalization of neoclassical economics, the success of rational expectations, and the development of RCI, that Western governments and social expenditures have grown as never before in history. Today in the West governments manage around forty percent of the annual richness produced (the GDP); clearly institutions and social choices that do not depend directly upon individual-agency are of the utmost importance, even in the West.

The CI proposed in here understands that is extremely important to study the individual-agency in the Western culture, and the possible role that it could have in other cultures. As we have seen, capitalism's fast growth would not have happened without the expansion of the private markets and the efficiency with which they transmit information. And in this sense, it welcomes the contributions of neoclassical economics, RCI and NIE. But all these schools have only described the economic relation between an individual-agent, institutions and social order and change; and even in the West, the individual agent has other relations with the society. Kenneth Boulding has described the key relations that happen in three social systems: the economic, the integrative and the power one. Thus, even for the West the social universe is much more complex than how it is contemplated by the previously mentioned schools. The individual-agent relates to society through the three systems and in each one of these systems there are institutions. Neoclassical economics has explored with

detail the relationship between an individual-agent and the society in a Western society in the economic system, RCI has opened the discussion of the existence of institutions in this relation, and NIE has explained why institutions are required and what institutions are needed, all these schools represent important contributions that should not be underestimated. But all of them work within one of the three systems mentioned by Boulding, and none of these three systems works independently of the others. Think for example, how the power system today in the Russia- Ukraine war has affected all the economies. And one of the reasons, among others, why the war started was a failure of the integrative system, inside Ukraine, between Ukraine and Russia, and between Russia and the West.

We are getting ahead of ourselves in here, these points will be explained furthermore down below, but the point to be made is that each one of the scientific contributions of neoclassical economics, RCI and NIE must be understood for what it is – its contributions must be acknowledged and its limitations must be pointed out. We must avoid two mistakes. The first one is to generalize the findings of these schools beyond the area in which they are applicable. The second one is to underappreciate their importance because they are not relevant for other relevant social areas. The task of the CI proposed in here is not to claim that neoclassical economics, RCI and NIE do not work, nor to replace them. We find the discussions as to what explains better human nature, neoclassical economics, or behavioral economics on one side, and neoclassical economics and Sen's economics on the other, quite irrelevant. There is not a given human nature. Just as there is not one unique relation between the individual-agent and the society that we must study. Even the same individual-human, in a specific society, behaves differently in each one of the three systems we mentioned. And while certain institutional environments impose a similar behavior on all the individuals, in most other cases individuals behave differently in the same environment. Moreover, the individuals' behavior differs between cultures, historical times and even the age or sex of the individual. All we can do in social science is to explore some commonalities that remain true under certain social conditions, with the hope to establish a positive feedback loop with social reality on particular issues and be able to influence a given culture and historical time. The irrational altruistic human of behavioral economics is not an alternative to the rational selfish human of neoclassical economics, but a complement. In large economic markets humans behave like in neoclassical theory, while in other cases, under the influence of the

integrative system, they may behave irrational and altruistic. Behavioral economics has shown its applicability in a subset of economic problems, but it is not at all a substitute for neoclassical economics. The ethical human of Sen is not a substitute for the selfish rational human of neoclassical economics, either. Sen's ethical human interrelates with the integrative system, and Sen's economics has been particularly useful in relationship to poverty. Sen's economics is also a complement of neoclassical economics. And the three, neoclassical economics, Sen's economics, and behavioral economics, operate within the frame of the Western culture, although Sen's somewhat interrelates with other cultures. Again, the CI does not pretend to substitute behavioral economics or Sen's economics; its goal is to provide an institutional framework that delimits each one of these schools' contributions within a more general relationship of the individual with the society. And in this case the individual does not refer to the Western individual-agent, but to a physical individual, that is, a biological entity differentiated from society that owes his individuality to evolutionary reasons, The new frame of the individual-society relationship that is proposed in CI is based on scientific knowledge from different sciences and is applicable to diverse societies and distinct historical times. CI, however, is more than just a general frame to place different social and economic theories; it is a new institutional theory of social sciences that provides interesting new results as to how understand and confront key social problems of our times.

Why do we need a comprehensive view, like CI, of the relationship between the individual and the society? Because the relationship between the individual and the society goes well beyond an economic relation, and therefore the economic relation must be placed in the perspective of what we know of the relationship between the individual and the society in other disciplines such as evolutionary biology, neurobiology, contemporary psychology, anthropology, and other sciences.

CI does not pretend to create a new evolutionary economics capable to substitute neoclassical economics, RCI, NIE, behavioral economics, or Sen's economics. It does not pretend either to borrow new terms or theories from evolutionary theory to transplant them to economics. CI is evolutionary because it uses the knowledge of evolutionary biology and evolutionary linguistics. But CI uses this knowledge together with the knowledge from other scientific disciplines such as neurobiology and psychology. CI uses contemporary psychology, but not to create a new economics based upon psychological knowledge. as behavioral economic at-

tempted, but to explore other social relations in the integrative and power systems that may be of interest in defining whether a particular finding in economics is relevant or not in a specific given institutional environment.

NIE has been heavily influenced by the Western individualism and, following Commons, has developed a theory of the institutions based on the innovative individual, incentivized by institutions that protect private property. But as we have seen, NIE is insufficient to explain the success of the Asian growth model. NIE is not a full explanation of the Western model either, because it leaves out the key role of the growing middle class in capitalism. NIE does not have an adequate theory of institutional development in other cultures. And NIE is not an appropriate theory to understand the whole history of the world, seen as one culture. While it is important to renew the need to understand what institutions are, NIE is only a partial solution; we need a broader theory.

Veblen was on the right track when he pointed out that the Western free individual was a historical outcome of a specific historical time; and he was also on the right track by suggesting that economics should integrate itself with evolutionary theory and other social sciences. But even Veblen was too much Western-centered in his description of the historical stages. Recently there has been an attempt to rescue Veblen, by Hodgson and others, and to create an evolutionary economics[311]. This attempt however does not go in the right direction, because the main goal should not be to transplant concepts from evolutionary theory (or other social sciences) to economics[312]; but to understand economics in the context of the scientific discoveries of evolutionary theory and other social sciences. Economics was born to understand specific problems of the Western economies such as economic growth and the transmission of information through the price system. It assumes the institutional arrangement of the West and has been a highly successful science. But, as already mentioned, we must be very careful not to make one of two mistakes: a) disregard neoclassical and classical economics because they are not useful to understand other institutional arrangements – or other social problems not well studied by these schools; b) try to generalize eco-

[311] Hodgson, G.M. (2004): *The Evolution of Institutional Economics,* Routledge, London/New York.

[312] This eventually may be useful just like concepts from physics or mathematical game theory have ended up being highly useful, but these efforts are just part of the normal development of a science and should not be confused with the task of placing economics in its corresponding place in the broader context of what we know about human beings in evolutionary biology, neurobiology, and other social sciences.

nomic results, based upon the West's historical institutional arrangement, to other cultures with distinct historical institutional arrangements – or to other human problems not well described by economics.

It is not a question of discussing which is the more critical determinant of social dynamics: institutions (like SI suggests) or individual agency (as RCI defends). Or discussing whether path dependency is dominant, as HI suggests, or social engineering can be powerful enough to break such path dependency. What must be done is more complex.

Individual agency has been particularly key in Western history, and the role of free markets and private property must be fully understood, and the neoclassical contributions on price theory results are key in this understanding. But the world seen as one culture, and other non-Western cultures, have not developed based upon a strong individual agency, but mostly as an outcome of historical institutions, as HI has suggested. However, in certain cases there has been more room for social engineering that HI concedes. China, Japan, Singapore, and other Asian countries have drastically changed their historical path – and they did it relatively quickly – in about twenty years, on average. Moreover, Bretton Woods showed that the world's institutional design is possible. And even the Western countries have drastically modified their institutional arrangements after the Second World War – with large governments and large social expenditures. All these changes of course are not just the outcome of intentional social engineering, but also of historical forces at hand. But the point is that drastic changes are possible, and that human beings do influence their future. However, social decisions are not necessarily a consequence of individual choices, as Western institutionalism defends. Leaders are many times the key decisive factor in the change of social direction.

Neither the world at large, nor the successful Asian countries, nor other non-Western countries, would ever look like the West, each one of these entities has its own institutional history that constraints and defines the likely and possible future paths that will be taken, there is ample room for social engineering, but only up to a point. Japan, that was under American control and influence, has never become truly Western. India, despite the heavy English influence, remains quite distinct to the UK. The West will not change other historical entities to become like the West, because they have not had the West's history.

Think of the world as one historical entity, and it is easy to realize that it will never become like the West – there are not any basis to expect,

for example, a global democracy. Social engineering does work, and fast and deep social transformations are possible, but under the historical constraints given by the actual institutional arrangement.

NIE has already shown that the combination of several approaches can be fruitful. North uses RCI to maintain the relevance of the individual-agent (which is particularly important in the West's history), he uses SI to argue the decisive influence that informal institutions have, and HI to explain the resilience of the informal system. CI proposes a broader institutional theory that incorporates the scientific contributions of all the already mentioned schools: classical and neoclassical economics, behavioral economics, Sen's economics, RCI, SI, HI, EI, and NIE with the scientific knowledge acquired in other disciplines such as evolutionary biology, neurobiology, contemporary psychology, anthropology, and others. The first critical contribution of CI is that it allows to differentiate ideological, idealist proposals in each one of these schools from their true scientific proposals. We will argue that the scientific proposals of these various schools are complementary to each other, and that large part of the discussion amongst them is due to ideological differences that must be excluded from the discussion. The view of the social world that emerges with CI is quite distinct than the one proposed by RL and RI (Marxism); and it allow us to understand the true causes of most of the key social problems of the world today.

CI is based upon the scientific fact that humans do not have access to reality. Science is based upon models that are not reality. These models interact with reality in a useful way to solve specific problems, but they are not reality itself. Just as time (in the real world-in reality) is neither the absolute time of Newton nor the relative time of Einstein; there is not a true real nature of humans. In large private economic markets, the rational selfish economic human is an abstraction that works reasonably well. In laboratory settings influenced by the integrative system, humans are altruistic; but they are not so at the global level where the total aid to poor nations is extremely low (because the international integrative system is very weak). Under diverse settings, to solve different problems, diverse assumptions may be appropriate, that is what science is all about. If it can fruitfully interact with reality, a scientific model cannot be shown to be false. For example, both neoclassical economics and behavioral economics are scientific endeavors that have shown their usefulness for a specific subset of economic problems. The purpose of CI, using other sciences, is to provide a more general institutional theory that allow us to place each

one of these schools' contributions in its right place - as to what their true scientific contributions are. CI does not, should not, and will not, enter the discussion of choosing one scientific model over the other based on whether it describes better or not the "true" human social nature. There is no such a true human social nature that we can apprehend with our minds or with our scientific methods.

In this chapter and the following, we will highlight the main characteristics that a broader institutional theory (the proposed CI) must have, and we will insist that the key feature it must have is that it should be able to integrate the scientific contributions of neoclassical economics and the other schools mentioned in previous paragraphs, while being able to place them in their specific relevant social and historical context, and in the universe of what we know of human beings in evolutionary biology, neurobiology and other social sciences. Such a broader institutional theory, while being able to explain the Western history and the West's historical alternatives today, should also be able to do the same for non-Western cultures and for the world at large, seen as one culture.

EVOLUTION AND ECONOMICS

North is right, genetic basis are not socially decisive as shown by the cultural differences in the historical development of different societies. Institutions are not genes, they differ in two critical aspects: 1) humans' capacity for abstraction allows them to make decisions based upon long-term considerations – they always reflect certain degree of human choice (which does not necessarily mean that the social choices are the sum of individual choices of the members of the society – in many cases social choices are taken by the leaders); 2) human societies are characterized by an economic surplus, that allowed them to grow in population numbers beyond those corresponding to the human brain size according to evolutionary forces.

Nothing is to say whether evolutionary, biological, or other social sciences concepts may be useful or not to the future development of economics, just like concepts from physics or mathematical game theory have ended up being highly useful. Behavioral economics has already shown that this may be a promissory research route. However, as argued before, behavioral economics is not a substitute, but a complement, of neoclassical

economics. These efforts are just part of the normal development of a science, just as economics has learned from other sciences, other social sciences have learned from economics; but these efforts should not be confused with the attempt to replace neoclassical economics with an evolutionary economics that does not exist as a true new independent paradigm.

The goals of economics are very different from those of evolution. And the processes through which economics works are also quite distinct from the processes in evolution. The goal of evolution is to maximize the possibility of survival of life by diversifying the most possible the genetic pool. The goal of economics is to improve human's economic well-being. Evolution is basically a random process; its only non-random element is the Darwinian natural selection – and the process of natural selection works in a randomly diversified genetic pool. Randomness does noy play a key role in economics. Evolution is not an intelligent process and does not involve any decision related to the future; even the process of natural selection works blind towards an unknown future material environment, and it may turn to be a successful survival process or not. That is why random genetic drift also exists. Economics involves an intelligent process that always involves intentionality.

The previously mentioned differences, as we mentioned before, do not exclude the possibility that specific knowledge in evolutionary biology may result relevant to advance economics in the future, just as specific knowledge in economics may also be relevant in the future to advance evolutionary biology. But they certainly leave quite clear that economics is not and cannot become an evolutionary science, if by this it is understood that the West's economic phenomenon of today will be better comprehended by using terminology and knowledge already developed in evolutionary biology.

Veblen was right in that it is needed to place economics in its corresponding place in the broader context of what we know about human beings in evolutionary biology, neurobiology, and other social sciences – like psychology. But he was wrong in underestimating the relevant contributions of neoclassical economics. Neoclassical economics solves a very particular problem, that of the transmission of information in private markets with independent economic agents, a situation which is extremely important to understand the Western success in economic growth. But this "neoclassical economic human" is not all there is in humans. As we will argue, humans not only go beyond their economic relationship with the society, but the economic relation changes in distinct societies,

and even in the West today the economic relation goes well beyond the individual agency-institution relation assumed by neoclassical economics. Veblen was right that the neoclassical economic human is the product of a particular historical period of the Western society, and that a broader institutional historical theory is needed. But he was wrong in underestimating the importance of the neoclassical human in explaining the fastest economic growth in human history – capitalism.

Understanding evolutionary biology, however, accomplishes a key role whenever we wish to distinguish between ideological preconceptions in economics and true scientific findings. Evolutionary biology provides us with four critical lessons, from the point of view of our interests in here. First, we were evolutionarily designed from the beginning to be social beings, the isolated decision-maker has never existed in any society, and it is only an abstraction in a specific model. Second, we were evolutionarily made to belong to our surroundings, that is, we have the evolutionary capacity to relate to those near to us, to a social group, and to the biological and physical universe surrounding us. Third, the existence of individuals is an evolutionary fact required to maximize the survival chances of life itself. Therefore, there must be always some degree of conflict between the individual and the society – a conflict that is resolved through social institutions (including a sophisticated language). Fourth, we were originally designed to belong to small groups, which became larger due to technological advancements and the development of a sophisticated language. Therefore, there is always potential conflict between diverse small groups which may or not be resolved through institutions.

These four conclusions are critical to understand Veblen's main contribution – that there is not an essential nature of humans. The individual-agent as conceived by the West is not our human nature, but the outcome of a particular historical time of the West – it is a social concession. And this individual agency only operates in certain areas of the social life. Social order as the consequence of isolated individual choices and actions is just an assumption in a model that does not relate to any historical reality. Individualism understood as the presumption that private free markets will deliver social stability, peace, progress and even justice is an ideological proposal of RL, that contradicts evolutionary scientific evidence. Therefore, even in the West social order cannot be explained only based on isolated individual choices or actions. And Marx's conviction that humans' true essential nature is to become a "species being", is

not validated by the study of evolution. Human life has changed through evolution, but from the beginning, even with our ancestors, there was conflict between the individual and the group and between distinct small groups. As groups became larger, eventually nations were formed, and since then there has always been a degree of conflict between them. The international humanistic communist society, satisfying human's true nature as "species being", is just an ideological proposal of RI.

HOW DOES BIOLOGICAL EVOLUTION WORK?

What from the standpoint of the history of the universe is an insignificant change on a very small planet called earth; from the point of view of life, it results in large biological adaptations that lead to the disappearance of some species and the emergence of others. The fundamental condition for the existence of life is its adaptability to the material universe that precedes it. When the earth changes, life must adapt to survive; and such adaption is neither superior nor inferior to a previous adaptation: it is just different, it is context dependent. There is no specific direction in the biological evolution, except that the constant change is what characterizes it, the proliferation of new forms of life. In this change, there is no sense of progress; it simply consists of adaptive improvements, related to a given specific context. Life is just an accident of matter; and surviving implies an adaptive response to changing earth conditions. Note that earth changes are infinitesimal in relation to the material universe; and are due neither to the universe's expansion nor to the growth of entropy in it. They are mostly consequence of specific geological conditions of our planet. These changes, however, from the point of view of life are monumental; and, as noted, give rise to evolutionary adaptation of the species. Including, in some cases, their disappearance, and in others, the emergence of new species.

Our current understanding of biological evolution is the result of four major intellectual contributions: 1) The theory of common ancestry and natural selection of Charles Darwin; 2) the studies on inheritance of Gregor Mendel; 3) the discovery of the DNA by James Watson and Francis Crick[313]; and 4) the recent discovery of the complete genome of humans and other species.

[313] Which happened in 1953. See Obregon, *Existence and Time.,* op. cit.

To maximize the chances of survival of life, evolution requires the greatest possible genetic variability both between individuals and species. Variability means that the chances that some individuals or species will survive, against environmental changes, are increased. Since such environmental changes are unknown *ex-ante,* the best way to address them is through genetic variability, which is accomplished in two ways: individual genetic variability and genetic variability amongst species. Individual genetic variability is derived from mutation, recombination (for example, sexual reproduction), and migration. For example, the DNA of every human being is different. Genetic variability amongst species occurs through random genetic drift and natural selection. The change in the frequency of a genotype in a population may be due to random genetic drift, or to a directional, non-random natural selection adaptive process, or to a combination of both. It occurs due to the finite number of heirs, which causes the genotype frequencies of these to differ in relation to the previous generation. Random genetic drift ensures that in addition to natural selection, there is a random variation of species, which occurs even when there are no environmental changes. The process of random genetic drift results in the random attachment of different alleles in different populations. One hypothesis, that has gained adherents in recent years, argues that much of the characteristics of the genomes are due to the evolutionary mechanism of random genetic drift. Natural selection operates through inheritance. Since individuals are born and die and can inherit, those most capable of surviving when confronted with specific environmental changes give rise to adaptive natural selection changes in the frequency of a genotype of a population.

Contemporary genetics has shown that both Mendel and Darwin were right. As Mendel argued, there are Mendelian laws of inheritance in defined populations, characterized by organisms that reproduce sexually in a defined geography; but there are also many other factors that define evolution. As we mentioned, the individual genetic *pool* is changing due to mutation, recombination and migration, and the genetic *pool* of the population by random genetic drift and natural selection. The laws of Mendelian inheritance assumed equal survivability and reproduction of new genotypes. But from an evolutionary standpoint, the relative ability of a genotype to survive and reproduce in competition determines which genotypes will remain. Darwin's natural selection works incessantly in the genetic variability, to adapt the organisms to a specific given environment. The three major factors that define biologi-

cal dynamics are therefore: 1) Heredity (Mendel); 2) Chance (mutation, recombination, migration, and random genetic drift); and 3) Natural Selection (Darwin). The evolution occurs both at micro level of *alleles* and the macro level of species[314].

Life is not a necessity of the material world. Life is an accident in the material universe, which could or not have occurred. As an accident of matter, life must adjust to its laws; and it is not the other way around. Evolution has a logic of its own, it is defined by the goal of increasing survival chances in front of *ex-ante* unknown changes in the material universe. This logic is independent of humans; it was there long before they came into existence. Evolution happens by chance, and the first vertebrate could have had disappeared during the Cambrian revolution, in which case humans would never have existed. From an evolutionary perspective, there is nothing necessarily unique in the human species; nothing says that it had to be created, and nothing guarantees that it will survive future material changes in the universe. Confronted with drastic environmental material changes, other living beings, like bacteria, have much better survival chances. The calendar of the material, biological and human universe clearly shows that humans are irrelevant both in relation to the material universe, as well as in terms of the biological universe. Life's survival logic explains most of what we are. Who are we? A chance outcome of the evolutionary process. Where do we come from? From a common ancestor with the chimpanzee. Where are we going? To continue evolving. Why are we individuals? To maximize the diversification in the genetic pool of the human species, to increase its chance of survival to future unknown material changes. Why are we born, and why do we die? Because individuals must inherit their genetic characteristics to their offspring to improve the adaptive qualities of the genetic pool of the species. Why do we have distinct sexes and why are we attracted to each other? Because sexual reproduction diversifies the genetic pool. Why are our bodies so perfect for certain tasks, and why did our brains evolve to be so large? Because of natural selection. Why are we social beings? Because this increases our survival chances through several routes. Social groups can defend themselves better from predators. A social group is more productive. A social group is needed to take proper care of babies. And the social group was the key for certain key evolutionary characteristics, like being erected or having a large brain.

[314] For a broader explanation of how biological evolution works see Obregon, *Existence and Time.,* op. cit.

Preliminary analyses of complete genome sequences confirm the conclusions of previous molecular studies, that show the similarity between the genetic components of all living organisms, supporting the idea that all living organisms are descendants of a single random biochemical accident that produced life[315]. A species is formed by groups of individuals that can interbreed between them, although they can also exchange genes with other groups. Species' differences are due to differences between several or many genes. Not only are there differences between species, but also between the same species found in different geographical locations. Speciation, the source of two or more species from a single common ancestral species, usually occurs because of genetic differentiation of geographically segregated groups. Once the species are distinct, then the crossing is impossible, even if they are not geographically segregated.

The universe has 13,700 million years and is estimated to have been for 7000 million years in the accelerated expansion we know. Our galaxy formed less than 10 000 million years ago. The solar system and the earth were formed 4 500 million years ago. The first rock comes from 3800 million years ago. Possibly, complicated chemical processes in the world of RNA gave rise to DNA, and bacteria was first produced 3500 million years ago. 2000 million years ago a bacteria took up residence at the single cell of another bacteria. This process led to the first eukaryotic cell. The descendants of this unicellular eukaryotic cell were also unicellular for about 1000 million years. But eventually, they became multicellular; and they gave rise to plants, fungi, and animals. The great advantage of multicellular cells was the division of labor, that allowed the expansion of the volume of organisms and eventually brain development[316]. The oldest known fossils of multicellular animals are 575 million years old. 542 million years ago, began what is known as the Cambrian explosion; and in a relatively short period of time, a great diversity among species was produced, among them the first vertebrate. The rapid acceleration of species' diversification in the Cambrian revolution is probably due to the interaction of two factors: the increasing

[315] Hartwell, 2011, p. 348. Hartwell, L. *et. al.* (2011 the 4th. ed.), *Genetics,* Mc Graw Hill, New York.

[316] The multicellular organism was better equipped in its ability to diversify, not only by the division of labor that characterizes it, and which makes possible to support larger organisms, but also because it reproduces sexually. Sexual reproduction accelerates diversification via recombination, because in the process of meiosis gametes receive half of the genetic information via paternal and the other half via maternal.

genetic variation consequence of multicellular organisms, and the increased availability of oxygen that characterized this period[317]. About 325 million years ago reptiles appeared, and 225 million years ago mammals did. The time that goes from 250 million years ago to 65.5 million years ago is known as "The Reptiles' Age", due to their predominance over other species. The disappearance of the great dinosaurs possibly was due to the impact on the earth of a large extraterrestrial body, 65.5 million years ago, and this led to the rapid reproduction of mammals. The time between 65.5 million years ago and 2.6 million years ago is known as "The Mammals' Age". The first primates arise 77.5 million years ago. The ancestors of humans separate from the orangutan, 18.3 million years ago. 8.6 million years ago, gorilla and chimpanzee separate from each other. 6 or 7 million years ago, early hominids appear. The *Homo erectus* appeared 2 million years ago. The *Homo erectus* outside of Africa appeared one million years ago, resulting in both the *Neanderthal* and the *Denisova man*. Finally, the clear ancestor of modern humans appears in Africa, the *Homo sapiens,* which was only 200 thousand years ago. The *Homo sapiens* migrated out of Africa between 50 to 100 thousand years ago; less than 50 thousand years ago he reached Australia, 25 to 38 thousand years ago he colonized Europe and Asia, and only 15 to 30 thousand years ago he comes to America[318]. 8000 years ago, urban life starts. The economic boom of Western civilization is at most 500 years old. Table 8.1 shows the timing of the existence of the material universe and life, compared with an annual calendar. The left side dates the emergence of the material universe and of life, and the right side shows the equivalences in an annual calendar. The table assumes that the material universe is born at 00 hours 00 minutes 00 seconds of the first day of January and that the midnight, 24:00, of December 31st of the calendar year 2014, corresponds to the present day evolution of the universe. Note that the emergence of man *(Homo sapiens)* is located on December 31st at 23:00 hours 52 minutes and 19.6 seconds, almost finishing the year. And that what we call capitalism emerges at 23:00 hours and 59 minutes 58.8 seconds. From the point of view of our annual calendar, 500 years of capitalism represent only 1.2 seconds. From the time perspective of both the material universe calendar, and

[317] Knoll, 2003, p. 114. Knoll, AH (2003), *Life on a Young Planet,* Princeton University Press, Princeton, NJ

[318] Futuyma, 2013 p. 153. Futuyma, D. (2013 the 3rd. Ed.), *Evolution,* Sinauer Associates, MA, USA.

the biological calendar, man is irrelevant. Human's 200 thousand years of existence correspond to only 0.00001 of the lifetimes of the universe. And an individual life (assuming 80 years of life span) corresponds to 0.000000006 of the lifetimes of the universe. An individual, who turns 80 at 24:00 pm on December 24, 2014, was born on December 23 at 23 hours, 59 minutes, and 59.8 seconds. 80 years in the calendar of the universe correspond to one fifth of a second. The tragedy of individual death, while highly significant for each of us, has virtually nothing to do with the existence of life, or with the existence of the material universe. The arrow of time that signals our death, while explaining our personal psychological anxieties, really has little to do with the arrows of time of the material and of the biological universes.

TABLE 8.1. CALENDAR OF THE MATERIAL, BIOLOGICAL AND HUMAN UNIVERSE

Millions of years	**Event**	**Annual Calendar**				
		Month	Day	Hour	Min.	Seg.
-13700	The material universe was born	01	01	00	00	00.0
-4500	Surge earth	09	03	02	37	39.9
-3500	The first bacteria	09	29	18	02	37.7
-2000	The first eukaryotic cell (core)	11	08	17	10	04.4
-1000	The first multicellular cell	12	05	08	35	02.2
- 542	The Cambrian Explosion	12	17	13	26	11.4
- 325	Reptiles appear	12	23	08	11	23.2
- 225	Mammals appear	12	26	00	07	53.0
- 7	Hominids appear	12	31	19	31	26.7
- 2	*Homo erectus*	12	31	22	43	16.2
- .2	*Homo sapiens*	12	31	23	52	19.6
- .008	Urbanization appears	12	31	23	59	41.6
- .0005	Capitalism appears	12	31	23	59	58.8
- .00008	A man who turns 80 is born at 24 hours of December 31, 2014	12	31	23	59	59.8

LANGUAGE AND CONSCIOUSNESS

What distinguishes a monkey from an ape is that the former has no tail. From the evolutionary point of view, this is an important distinction because mammals in general do have a tail. Hominids' differentiation from chimpanzees began 6 or 7 million years ago. What distinguishes a hominid from an ape is that the former is bipedal. What distinguishes a hominid from contemporary humans is still the subject of much discussion, but the distinctive characteristics that seem widely accepted are brain size, long legs, and the relative size of the face and its projection. Each of these features evolved in different periods. For example, brain size had a dramatic evolution about 2 million years ago, nearly tripling its historical size.

Archaeologist Steve Mithen [319] has suggested that the general and social intelligence was found already in the apes, that the *Homo habilis,* 1 million years ago, had natural history intelligence and technical intelligence, that language likely appeared more than half a million years ago with the *Homo erectus,* and that the cognitive fluidity was increasing, for example with the *Homo neanderthalensis,* up to the specialized intelligence that characterizes the *Homo sapiens*.

The evolution leading to *Homo sapiens,* like any evolutionary process, was not teleological and/or preconceived, but the result of a chain of accidents. 2 million years ago, there were at least six species of hominids, and even 100,000 years ago there were still most likely five. No one could have predicted 130 thousand years ago that the species *Homo sapiens,* which only had then 10,000 members in Africa, was going to increase its number to over 7 billion today; and that they would dominate the planet. Among the many accidents that occurred along the way, for example, is the extinction of large dinosaurs 65 million years ago.

The distinguishing characteristics of the human being are basically five. The first is his ability - and necessity - to develop an enlarged social life, which involves the capacities to: imitate others, understand their minds, and regulate emotions. The second is the size of his brain and, above all, his capacity for abstract, sophisticated thoughts. The third is technological development. The fourth is his - significantly developed - cognitive ability. And the fifth and last is a sophisticated syntactic language. These characteristics are interrelated and reinforce each other. The advanced language is of social origin, and it gives human beings the ability to have an autobiographical self-conception, which allows a vision of a past and an extended future. The development of the cortical brain, and the sophisticated abstraction that it enables, allows humans - through language – to imagine and create complex abstract representations of reality. Thus, the notion of extended time in humans is a result of their capacity for sophisticated abstractions due to a language that has a social origin. Therefore: language, extended time, and social life are closely related; and are not understandable independently of one another.

From the point of view of our interest here it must be emphasized that we were from the beginning social beings, even our oldest ancestors 7 million years ago were already social beings, chimpanzees are social beings, what distinguishes the hominids is even stronger social life, and what distinguishes the *Homo sapiens* from other hominids is, again, more intense social life. The isolated individual never existed, it is an abstract

[319] Mithen, SJ (1999) *Problem-solving and the evolution of human culture,* London, Institute for Cultural Research.

assumption that may result useful in an economic model to explore certain theoretical relations, but it never existed in real societies. Individuals were always social beings, and social dynamics was always from the group to the individual, which does not deny the fact that individuals always existed as a physical reality, but evolutionarily speaking the survival of the group has always had priority over the individual's survival.

The Evolution of Language

The evolution of language is still under discussion. To specify the topics addressed and some of the conclusions, it is useful to distinguish three different views of what is meant by language: I) in the first view, language is a necessary tool for communication required for social life based on transmission of information. This type of language can be animal or human, and can refer to gestures, various sounds that can be guttural, musical, whistles or other; II) in the second view, it is a human proto language distinguished by five characteristics: it transmit symbols, it may refer to absent objects, it communicates shared intentionality, it allows cultural transmission and learning, and it uses vocal control and imitation[320]; III) in the third view, language is a syntactic structure in which words get their meaning in the structural context in which they occur. Learning a human vocabulary involves phonology, semantics, cultural knowledge, and grammar. Words get their meaning from the syntax. For example, the meaning of "killing" in: "my feet are killing me" *versus* "killing is immoral". Each word is related to complex social activities; for example, it is not the same to *kill* than to *assassinate,* the second word implies intentionality. The syntax produces a meaning by manipulating the structure of phrases or sentences; for example, "the jury believed the declaration of the defendant", *versus* "the jury believed the declaration of the defendant impossible". Animals are only able to handle a very simple syntax [321].

Seven conclusions can be defended about the evolution of language: [322]1) The syntactic language is a distinct innate human capacity and, there-

[320] Tallerman, in Tallerman and Gibson, 2013, p 479. Tallerman, M. and K. Gibson (2013), *The Oxford Handbook of Language Evolution,* Oxford University Press, UK.

[321] Ibid p. 443.

[322] These are based on the known evidence, which is compatible with the knowledge we have in biology, psychology, and other disciplines.

fore, should have genetic underpinnings. 2) Most likely, this innate genetic ability is the result of a complex evolutionary process, that involves both individual random genetic variation (mutation, recombination, and migration), as well as random genetic drift, and natural selection. 3) Natural selection works gradually over millions of years and creates more complex forms of social life. 4) Language is both the result of genetic differentiation via natural selection working on random genetic variability, and the result of social life requiring more complex thought and communication. Language, in turn, changes the social process of survival, and reinforces the change both via genetic adaptation and natural selection, and via the mechanisms of cultural transmission 5) Human proto language involves human characteristics not found in animals, but these are the result of a more complex social life. So, there is a clear evolutionary process from language I to language II. In fact, apes, and other animals, as we mentioned, can learn simple ways of proto language and proto grammar. 6) The evolution from proto language II to syntactic language III is relatively recent. But it should be noted, that II already has the first elements required to evolve to III, particularly the ability of abstraction. 7) What is communicated, partially depends on how it communicates. The syntactic language III allows a larger number of combinations that sponsor the human capacity of sophisticated abstraction[323].

The evolution of language is paralleled by the evolution of the capacity for abstraction of human beings, and we cannot tell which precedes which. This ability for increasingly complex abstraction will underpin the creation of ever more sophisticated conceptual systems of belonging that will allow the expansion of the social group.

As the economic surplus was increasing, human groups were becoming more numerous, and the need for a language that allowed expanded communication also increased. The language creates culture, that is, conceptual systems and institutional arrangements which develop their own social homeostasis (which by the way, excludes individuals who do not belong to the social group of reference).

A protagonist self is essential for mental orientation; and it is guided towards survival. And the survival guidance has been conditioned by evolution to the proper development of our belonging. Therefore, only from the basis of adequate belonging it is possible to establish proper alternatives for the freedom of self.

[323] For a further discussion in each one of these seven theses, see Obregon *Existence and Time.,* op. cit.

We have neurobiologically been made to develop belonging. Not only were our mirror neurons created to interact with others, but in primates, including humans, a large part of the brain is devoted to visual capacity. To see others and the external world allows us to interact with them. We can perceive the environment through abstract categories which allows the creation of implicit formulas for information storage and expands our ability to relate to the outside.

The biological homeostatic survival value guides, through emotions, the conscious processes. And these processes in turn, also become an essential part of the biological survival of organisms capable of consciousness. The autobiographical consciousness is defined using language, which is of social origin. So that the individual's biological survival requires a relationship with the social group: it depends on the social conceptual system (myths, religion, art, morality, science, etc.) and its corresponding institutional arrangement: survival depends on belonging. There is a large-scale interaction between culture and genetic changes; for example, it has been shown that the increased availability of milk producers due to the development of ranches, has developed a genetic change in humans that allows greater tolerance to lactose[324].

Even if we possess a brain that operates as one unit; for analytical functional purposes it can be divided in three. Maclean described the human brain as consisting of three levels: reptilian, limbic and cortical. The reptilian is in evolutionary terms the more primitive one, it governs body motions; and it allows the freedom to move. The limbic is a mammalian heritage, it is millions of years old and is responsible for emotions and dreams; the limbic relationship with the mother or caregiver is what defines mainly the quality of our emotional freedom. The cortical is unique to humans, has only a few hundreds of thousands of years, and is responsible of conscious thought, abstraction, and planned action; and it is required to develop our freedom of choice. The distinction between the three brains is only suitable for explanation purposes, because the three brains work coordinately as one. Developmentally, the emergence of each level had to adapt to the brain levels that preceded it. Thus, the cortical brain evolved adaptively in relation to the limbic brain, that precedes it. The cortical brain in humans is the main responsible to produce images. However, even if the cortical brain's image production capability is damaged, the brain continues to produce images through the operation of the brainstem. The brainstem is the lower part of the brain and corre-

[324] Damasio, 2010, p. 294. Damasio, A. (2010), *Self Comes to Mind,* New York, Random House.

sponds to the animal reptilian heritage. Which seems to be further proof that animals also imagine.

The process by which humans know the external world is like the one of many animals. Animals also imagine. Experiments with rats, as we mentioned before, show that they can store abstract images, and use them for their decision making. And as, also mentioned before, a BBC documentary shows how a shark decides to hide all night in a cave to prey on walruses when they go into the sea in the morning[325]. Demonstrating that animals are also capable of planning. Animals imagine and make decisions that, involve both abstract images and a sense of time. For those decisions animals, as humans do, reproduce images stored as neural maps.

Our brain and thought process is of animal heritage; but the human language is significantly more sophisticated than any form of communication of the rest of the animals. The complexity of human language allows the use of images in an extended time; unlike animals, whose decisions and images have limited temporality. Humans are the only ones with an autobiographical consciousness of themselves, which allows a historical view of the past and, therefore, a projection of the consequence of his/her decisions into the distant future. Autobiographical memory started with a proto human language and was developed and perfected with the syntactic language. The syntactic language identifies images with specific words that have contextual meaning; and it increases by far the mental ability to create new images, new combinatorial orders of the images initially saved.

In short, the learning capacity of a simple proto language was already present in apes, but it was not until the development of new technologies, 2.6 million years ago, that the social life of the hominids began to change. And it required more social cooperation and a greater cognitive capacity. Six processes occurring simultaneously concatenated and evolved influencing each other: 1) greater technical skill used in hunting, gathering and rituals; 2) the increased need for cooperation and communication, expanding social life, increasing the ability to imitate others and to understand their minds, and creating the need for learning to regulate one's emotions; 3) greater cognitive capacity, leading to more sophisticated thoughts; 4) physical development that creates the required bipedalism, freeing hands for other activities and creating new phonological physical capacity; 5) larger brain size, and 6) language. Gradually and slowly,

[325] See the preamble.

these six processes were producing the biological and social evolution that led to modern humans. The proto human language possibly began 1.8 million years ago with the second technological revolution that characterized the *Homo erectus*. The third technological revolution, 500,000 years ago, gives a decisive impetus to language and started a slow transition to syntactic language. However, the syntactic language only seems to be substantially developed in the fourth technological revolution with the *Homo sapiens,* around 100,000 years ago.

All this evolutionary process made humans substantially different from their predecessors. An advanced language gives humans the ability to abstract and conceptualize an extended time and to conceive death symbolically. The first burials, 400,000 years ago, denote that the proto human language already provided basis for an autobiographical self, but it is not until the emergence of syntactic language that the imagination of human's future extends fully. Human ability for sophisticated abstract imagination, associated with the syntactic language, increased the possibilities of cognitive, technological, and social development. It is, without doubt, a key factor for the great cultural expansion that humans have experienced.

CONCLUSION

Economics is not and cannot become an evolutionary science, if by this we understand the creation of a new economics based on evolutionary principles and knowledge. However, evolutionary biology provides important, critical, scientific information about the evolution of humas which is highly useful in our quest to develop a CI capable to provide a general institutional explanation of the relationship between the individual and the society. We learn that humans have always been social beings, that even our ancestors were social beings and that what distinguishes the *Homo sapiens* from other hominids is precisely a more intense social life. The baby's head containing a larger human brain could not be expelled of the mothers' womb if it was fully grown; therefore, the child needs maternal attention the first years, which requires social life. We also learn that evolutionarily speaking the human's brain size corresponds to life in groups of around one hundred individuals[326]. And that genetic diversity

[326] Dunbar, RIM (1992), "Neocortex size as constraint of group size in primates", *Journal of*

requires for us to be individuals which need to be born and to die. Since we are born, we are evolutionarily prepared to relate to the outside world – to belong. In other works, I have described three ways of belonging that are required for survival, and which will be further explained in the next chapter: love, which is the belonging relationship with the mother or caregiver and those very near to us, social significance which is the relation with the social group, and existential significance which is the belonging relation with the physical and biological universe that surrounds us. Thus, the individual belongs to the social group and the social group's survival has priority over the individual's survival, which does not mean that the latter is not important. The abstraction of an isolated individual, whose rational choices and preferences define social order and change, may be relevant for a particular model, but clearly does not correspond to evolutionary reality. Neither does the philosophical presumption of a humans as a "species being" have any support in evolutionary biology. Individuals in addition to belonging, require individual instincts of survival, thus there is always existential tension between the individual and others. We were evolutionarily designed to belong to small groups towards which we are tied emotionally, larger groups go beyond our original evolutionary design, and there is therefore always tension between small groups and the larger group that they conform. Moreover, there is always tension and potential conflict between larger groups belonging to distinct conceptual systems and institutional arrangements. In the next chapter we will further discuss these issues, reviewing the contributions of contemporary neurobiology and psychology.

Human Evolution, Vol. 22, pp. 469-493.

CHAPTER NINE: CI AND CONTEMPORARY PSYCHOLOGY AND NEUROBIOLOGY

Veblen was impressed by the achievements both in evolutionary theory and in psychology, but his work has two main limitations to be understood in our days: first, both disciplines have changed substantially since he wrote, and secondly, he used the notions of instincts and habits too freely to develop his theory of history.

Evolutionary theory, as we saw in the last chapter, is not a Darwinian theory, as Veblen thought; natural selection is only one of the key components of evolution. Mendel's heredity process, the discovery of the DNA and the full genome of humans and other animals have changed our understanding of evolution. Evolution is mainly a random process diversifying the species, the individuals, and the populations of the species. Species became highly diversified in what was called the Cambrian revolution, individuals are diversified through mutation, recombination and migration and the population of a species is diversified through genetic drift and natural selection. Adaptation is only possible through natural selection, but it is only one of the two possible ways for the diversification of the species' populations.

Instincts have been scientifically studied by Lorenz and others who have found four basic instincts: hunger, sex, reproduction, and fear[327]. Thus, there are basis to rescue Freud's insistence in the relevance of sex and aggression – although Freud also was too imaginative. Instincts are an individual survival feature; but there is no scientific basis for acknowledging social instincts as Veblen did. To some extent Veblen's instinct of parental inclination gets empirical support from the psychology of attachment that will be explained below; but Veblen's instincts of workmanship and of idle curiosity, which are central in Veblen' theory of history, do not have any support in contemporary science. Moreover, Veblen's usage of the concepts of "habits of life and of thought", while reflecting the notion of habits used in the popular psychology of his times of William James, has the problem that habits have never been properly researched,

[327] Lorenz, Konrad, *On Aggression,* New York, Harcourt, Brace and World, 1996.

and they were replaced first by empirical behaviorism and recently by the successful experimental cognitive psychology.

Due to all the previous arguments, a scientific institutionalism cannot be based on Veblen's institutionalism, and there is a need to develop in here a novel version that we call comprehensive institutionalism, CI. We already discussed in the last chapter the conclusions that evolutionary theory provides to CI; in this chapter we will look at the conclusions that CI can learn from contemporary neurobiology and psychology.

Since the most recent attempt to integrate economics and psychology has been made by behavioral economics (BE) – which produced Nobel prize winners in economics, we will look in the first section at BE's contributions. But, as we will discuss, while for certain specific problems the contributions of BE are undeniable, BE is far from being a general framework to understand a psychological human in a broad sense that can be used to build CI. The main limitation of BE is that it does not have a theory of society and of the way institutions evolve, and therefore it cannot carefully describe the different responses of individuals in diverse institutional environments. While it is true that under laboratory settings (like in the dictator game), and in certain conditions in real life, individuals may behave irrationally, altruistic, and cooperative, it is also true that in other circumstances, like in large economic markets, they clearly behave rationally and selfish. The extremely low international aid from Western nations to poor countries clearly does not show the altruistic individual of the dictator game, but a selfish individual.

Therefore, to be able to explain the diverse behavior of individuals in distinct institutional settings, CI needs to look for a broader view of the psychological human than the one that behavioral economics holds. This broader view is offered by belonging psychology, which uses and advances cognitive psychology. Belonging psychology has the virtue that it relates to the evolutionary nature of humans.

To search for a broad view of the psychological human, one should start by realizing that there are three basic roots of contemporary psychological thought: Freud[328]– which was the only one influenced by evolutionary theory, Piaget[329] and Skinner[330]. Only the latter two used the scientific method; none of the three, however, is now scientifically accept-

[328] (1856-1939).

[329] (1896-1980).

[330] (1904-1990).

able in their original form. The problem with Freud is that even though he based his conclusions on the observations of his patients; he did not carry out a scientific process of controlled observation. So, his theoretical categories are not scientific, and could not be demonstrated as he presented them. The stages of child development originally proposed by Piaget proved too rigid, and the working scheme with which, according to him, the child learns reality has been proven to be too rational. Skinner's learning theory resulted to be applicable only to a limited set of situations. Nevertheless, contemporary psychological theory would not be possible without the contributions of these three great thinkers.

The second section of this chapter briefly reviews the thought of the three previously mentioned authors and how it was transformed to give rise to contemporary cognitive psychology – which is todays' most recognized psychological theory. Contemporary cognitive theory uses Skinner's to document how the ego learns from the environment, but the ego is not an empty, fully manipulable ego, as Skinner argued. The ego is formed by learning from the environment, but once it is formed it also interacts with the environment, as the experiments of Bandura have shown. This ego then, is compatible with Piaget's vision that the ego of the child is formed in its interaction with the outside world. But unlike Piaget, the relationship with the external world is not determined by rigid stages, and it has an emotional content. Contemporary cognitive theory owes much to Piaget, but unlike him, it emphasizes the emotional content of learning and the role of the unconscious. Much of the learning process is unconscious, so that Freud was right about the importance of the unconscious. But the unconscious of the contemporary cognitive theory is not dominated by the Freudian instincts of sex and aggression. The unconscious is defined plastically by the child's relationship with the environment. Rogers, for example, sees the unconscious as a tool to develop warm relationships.

One of the most interesting developments, consequence of the scientific critique of Freud's and Piaget's theories, is Bowlby's psychology of attachment, which we will review in the second section. Bowlby, influenced by the work in ethology of Lorenz, discusses the instinct of belonging (attachment in Bowlby's words, I have named it belonging to recognize the fact that in humans it always involves emotions). And even though Bowlby improperly underestimates the Freudian instincts of sex and aggression, the fact is that the instinct of belonging directs and conditions the Freudian instincts towards adequate social life. Therefore, these

instincts are not autonomous, as Freud thought. From this point of view, Freud observed patients who suffered belonging failures.

Bowlby, based on studies of artificial intelligence, modifies the schema of child mental work of Piaget, and replaces it with the internal working model he proposes, which unlike Piaget has a central emotional content. Contemporary neurobiology and the empirical studies of the psychology of belonging show that Bowlby was right. In its contemporary versions the psychology of belonging is consistent with the most recent advances in cognitive learning theory; but it has the great advantage of being also compatible with both an evolutionary view of human nature and with recent neurobiological findings.

The conclusion of the second section is that the human being is not biologically determined, as it was originally thought by Freud and Piaget, the inherited genetics only work as they should if the interaction with the environment is the appropriate. The ego is consequence of natural biological survival instincts that guide the individual behavior towards survival; however, these instincts' guidance may fail. The interaction with the environment is decisive to define the future behavior of the individual. However, Skinner was also wrong, the environment is not as decisive as he thought. There is an individual ego that develops because of both genetic tendencies and environmental experiences; and once the ego develops it interacts with the environment in an individual way. Therefore, the ego is not as manipulative as Skinner thought. Cognitive psychology has shown how is that this ego learns. And belonging psychology has taught us that whether the adults' personality is secure or insecure relates to the emotional belonging quality of the relationship with the mother, or caregiver, during the first twelve months. Thus, there is a complex interaction between individual inherited genetic characteristics, survival instincts and environmental conditions that give rise to an individual ego, which once developed interacts with the environment in a distinct way. Thus, individual history and particular genetic characteristics relate to the way in which the individual reacts to a specific external stimulus. Some individuals, the secure ones, will have more potential freedom in choosing their behavior than others.

In the third section we introduce the two evolutionary survival conditions: freedom of individuality and belonging. And we argue that individual satisfaction is the prerequisite to satisfy the first; but, that the second guides how is it that the individual is satisfied. Therefore, the two conditions are closely related from an evolutionary survival point

of view. This section states that belonging is expressed in three ways: the love to close ones, belonging to a social group and belonging to the biological and material universe surrounding us. The first way has been extensively documented by the psychology of belonging and the other two ways by other schools of psychology and by sociology.

The conclusion obtained from sections two and three is that contemporary psychology and neurobiology do not describe neither the irrational altruistic individual of behavioral economics, nor the rational selfish individual of neoclassical economics, and neither Sen's rational ethical individual. Instead, it is an individual with a very flexible mind and capable to display distinct behaviors and to adapt to diverse social and environmental institutional circumstances. The psychological individual is capable of behaving like any one of the three mentioned individuals, depending on the circumstances. CI, therefore, cannot be based only in the findings of behavioral economics, but must integrate a broader psychological view of humans such as the one that we find in the psychology of attachment (belonging).

BEHAVIORAL ECONOMICS

BE was built mainly as a critique of the rational economic human of contemporary neoclassical economics, particularly in its free markets' version. The *humans* of BE are defined as non-rational, altruistic, and social cooperative individuals. BE integrates psychology and economics and argues that we are *humans* and not *econs*[331]. *Humans* are not rational; they are emotional beings who under some circumstances may make the wrong choices and therefore need help from the government. *Humans* are not selfish individuals; they are altruistic and socially cooperative. They argue that there are powerful socio-economic and psychological incentives. People get wellbeing by compensations different from money, whether intellectual gratification, respecting others, social conventions, and social status. That explains why: paying students to study reduces the quality

[331] Good reviews of Behavioral Economics, ordered from simple to complex are Baddeley, 2017; Tomer, 2017; Cartwright, 2018; and Dhami, 2016. Baddeley, M. (2017). Behavioral economics. A Very Short Introduction. Oxford University press.UK. Tomer, J.F. (2017). Advanced Introduction to Behavioral Economics. Edward Elgar, Northampton, Massachusetts. Cartwright, E. (2018). Behavioral Economics. Routledge, New York. Dhami, S. (2016). The Foundations of Behavioral Economics. Oxford University Press. Oxford, UK.

of their intellectual effort; charging parents for picking up late their child from a nursery had the effect that more parents did it, because they felt entitled to do it, once they paid for the service; payments for blood donations reduce donations; and higher wages encourage more work only if they are related to be treated well by the employer. Economic decisions, BE argue, are not only related to prices but to human relationships and social interactions. BE can be defined as the quest to integrate psychology and economics by showing that the definition of *humans* in psychology can cast light on specific economic problems. At the outset, then, one must understand that BE is not and will not be a new paradigm in economics - simply because it cannot solve the full set of problems that economics needs to address. BE, however, has been very useful to approach from a different perspective certain economic decision[332] and has been crucial in the implementation of innovative policies in specific cases[333].

That emotions and others' influences do count in the individual's perception of reality and in his decisions, has been shown for decades in many laboratory findings both in social psychology and in cognitive-behavioral psychology. Therefore, to some extent, it is not surprising that

[332] Behavioral Economics' methodology to criticize traditional economics works as follows: 1) It shows that humans fail in their process of decision making, due mainly to the psychological characteristics of Kahneman's system 1; 2) Intervention is required – in this case Nudges are recommended. But, as we will show, the link between 1) and 2) is not necessarily well established. The following list of failures due to system 1 is not exhaustive, but good enough for our purposes. Decision failures due to psychological factors are: 1) Anchoring, 2) availability heuristic, 3) representativeness, 4) priming, 5) optimism and overconfidence, 6) status quo bias, 7) loss aversion, 8) psychologically overweighting rare events, 9) probabilities miscalculation, 10) reversals, 11) safety considerations, 12) endowment effect, 13) framing, 14) psychological memory, 15) time and adaptation as psychological dimensions, 16) regret, 17) mental accounting, 18) sunk costs, 19) inconsistent customer behavior in bargains, 20) the house effect, 21) the breakeven effect, 22) time inconsistent preferences i.e. hyperbolic discounting of the future, 23) altruistic behavior, 24) cooperative behavior, 25) punishing non cooperative behavior, 26) psychological fairness, 27) reciprocity, 28) conditional behavior, 29) lack of self-control, 30) influences of advertising or other information, 31) conformity - peer pressure. Decision failures are also due to other three factors, mentioned by Thaler (2015): 1) economic transactions that do not allow for learning, 2) experts with conflict of interest, 3) lack of salience

[333] List of principal Behavioral Economics Interventions: 1) Save More Tomorrow; 2) A Diversified Portfolio: which automatically rebalance through time; 3) RECAP in mortgages; 4) RECAP in student loans; 5) RECAP in credit cards; 6) Nudges for the financial mistakes made in the 2008 crisis; 7) Prescription Drugs Plan for Seniors; 7) Presumed Consent for organ donation; 8) Disclosure of the main emitters of pollution; 9) Choosing a school; 10) freedom to buy or not the the right to sue the doctor for negligence; 11) Replace official marriages for civil unions; 12) Give More Tomorrow;13) The Charity Debit Card and Tax Deductions; 14) Stickk.Com – to help people remind their commitments; 15) Quit Smoking Without a Patch; 16) Motorcycle Helmets; and 17) Gambling Self-Bans.

BE has found that economic decisions are also influenced by these two factors. Therefore, the interesting question is whether BE has brought value added in the understanding of a relevant subset of economic problems. And the clear answer is that it has been very relevant in the solution of specific economic problems like organ donation, individual saving decisions, and others[334]. There are five Nobel prize winners that can be associated with behavioral economics: Simon (1978), Akerlof (2001), Kahneman (2002), Shiller (2013) and Thaler (2017).

The scientific method used in psychology has been very different from the one used in economics. Psychologists typically base their results on empirical findings in the laboratory, while economists study reality from an abstract deductive mathematical model. They also differ in the object under study. Psychologists are concerned with broad *human* individual and social behavior; while the economists' main interests are market prices, consumers' and producers' microeconomic behavior, allocation of resources, economic value, economic growth and development, income distribution, the open economy and financial and macroeconomic stability. Economics has been able to advance in the problems it is trying to solve, by introducing the assumption of the *economic human-* the *econ*. Economists are only concerned with individual and social behavior to the extent that its study is helpful to solve the set of economic problems mentioned above.

Humans, as defined by BE, cannot explain several empirical realities such as: 1) why individuals do behave selfishly in large markets, even though they display altruistic and cooperative behavior in laboratory settings or small groups - even in monetary transactions. 2) Why individuals can display altruistic and cooperative social behavior in some cases, like the dictator's game in laboratory setting[335], or the high social expenditures in developed economies; and not do so in other cases, like the extremely

[334] See Obregon, C. 2019, Beyond Behavioral Economics: Who is the Economic Man. Amazon.com, also available at Research gate.com

[335] *In the Dictator's Game in which the player A is a dictator that can give whatever he pleases and keep the rest, surprisingly enough 74% of participants divide the money 50-50, and in the punishment stage 81% choose to punish an unfair allocator. In public good games the standard traditional economic prediction that no one will cooperate turns out to be wrong; on average people will cooperate half their stake to the public good.* These results are argued by Behavioral Economics as an empirical demonstration that humans are not rational selfish calculators maximizing their personal well-being. However, what it really shows is that in developed countries there is a strong integrative system. And we must recall that both the integrative system and the power system are reflected in monetary and economic transactions. Therefore, it is not surprising to find that the integrative system plays a role even in monetary transactions in the laboratory, in the Dictator Game and others, in developed countries.

low international aid (which is nothing else than a global dictator's game in real life). 3) Why in some cases individuals can display very aggressive behavior, particularly to other, *"out-group"* individuals not belonging to the *"in-group"* to which the individuals belong. 4) Why the companies with more global success are the ones which introduce new options to the customer and new ways to process information in a more rational way. 5) Why despite the presumed individual non-rationality, markets work so well both to allocate resources and to promote economic growth. To explain these realities, we need to go beyond BE.

BE starts its analysis from the characteristics of the individual human nature. The whole discussion is around whether individuals are selfish or not, and whether they are rational or not. But there is not a careful description of the social group, the institutions, and the historical values of the culture of reference. Focusing on the individual to explain social dynamics and economic relations is the wrong methodological approach, which for the free-market defenders ended up in their proposals that economic markets can almost do it all. BE rebels against this conclusion. And maintaining the same methodological approach, it ended up with the conclusion that *humans* display altruistic and cooperative behavior even in monetary transactions. However, it could not explain why in some cases they behave altruistic and cooperative and in others they behave selfishly. And it could not explain in which cases individual selfishness is welcome, and in which ones it is not. And it could not understand the relationship between the individual selfish behavior in large markets, the efficient allocation of resources, and capitalism's faster economic growth. Social dynamics go well beyond economics, and we do need to integrate other social sciences; but we should not, and cannot, do it using only the methodology of analyzing the characteristics of the individuals, because social dynamics goes well beyond the individuals.

Introducing psychology allowed BE to describe a non-rational individual, incapable to know, on many occasions, what his true economic preferences are. But then, how do markets work so well to allocate resources and governments do so poorly? Why did the USSR fail, while the Western economies succeeded? These questions cannot be answered with BE. We need to go beyond BE.

One of the first relevant studies in group psychology is The Robbers Cave experiment, which showed how students became influenced by the "*in-group*" to which they belonged in the experiment, to the point of becoming extremely aggressive towards other students considered as

the "*out-group*"[336]. The aggression was due to competition between the two groups for resources in a camping area. The experiment had to be stopped before the initially planned date for their conclusion, because the high and unmanageable level of aggression among participants. This study, that has been followed by many others in social psychology, already left no question that we are social beings, and that we are influenced by others.

The results of this study cannot be explained neither with BE, nor with its extension into identity economics. Individuals were socially cooperative, but only within the *"in-group"*, and they behaved selfishly and aggressive towards the individuals belonging to the *"out-group"*. Thus, individuals are neither only altruistic and cooperative, nor basically selfish and aggressive – they behave different in distinct situations. And to understand these results, it is not enough to internalize in the individual's utility function the social norms, as identity economics do. Because if the individuals had internalized the humanistic values of their larger society, they would not have become so aggressive to the other students' group, which after all was part of the same large society to which they belonged. What this study basically showed, is that there are not very relevant individual preferences, and that they can be changed with the influence of the group, in a record time of less than a week.

None of the economic schools which aim at explaining microeconomic interaction based only on the individual were successful. The neoclassical school could not prove that markets attain a unique stable optimal equilibrium that maximizes welfare. Sen's economics and BE also failed. Sen's economics requires either external moral truths which can be attained by individuals willing to follow them; or a set of moral values which is institutionally developed. Since neurobiologically humans do not have access to external moral truths, it follows that moral values are institutionally dependent. BE conceived humans as irrational, which is useful for some specific economic problems; however, there is not one given human nature that defines individual decisions. Humans are neither intrinsically aggressive, rational, and selfish; nor fundamentally irrational, cooperative and altruistic – what they do and decide is heavily defined by the group (and its institutions) to which they belong.

However, despite their failure to fully explain the microeconomic interactions between diverse economic agents, each of these previously

[336] Sheriff M. and OJ Harvey (1961), *Intergroup Conflict and Cooperation: The Robbers Cave Experiment, Norma OK, University of Oklahoma, Institute of Intergroup Relations.*

mentioned schools has important contributions that we must consider. As we argued before, neoclassical economics established the models to understand how a market works, which has been extremely useful not only for price theory, but also for many other theoretical problems in economics and in finances. Whether in international economics, in the theory of the consumption function, in portfolio theory, or in public finances, among many other areas, the neoclassical model is a fundamental base. In finances, as we pointed out, asset management, derivatives, and corporate finances have developed in the light of the neoclassical model. Sen's economics has changed the way we conceptualize development. It has created the capabilities approach; and his theoretical frame is behind the Millennium Goals of the United Nations, the HDI (Human Development Index), and the measurement of multidimensional poverty. Sen's social choice theory has and will continue contributing to the creation of a better world. BE has made us aware of the importance of emotions in economics, has been particularly useful to better understand some economic decisions, and has allowed the implementation of better policies in cases such as: *Save More Tomorrow; Presumed Consent for Organ Donation; Disclosure of the Main Emitters of Pollution; and many more*[337]. *BE will continue illuminating economic policy decisions from a different perspective, and therefore it is highly useful.*

As we have seen, it is not possible to fully explain the microeconomic interactions between the economic agents only based on the characteristics of the individuals. There is no doubt that the social setting in which those interactions occur is highly influential.

HISTORICAL DEVELOPMENT OF CONTEMPORARY COGNITIVE THEORY

In this section we describe the historical development of contemporary cognitive theory and how it is incorporated in the psychology of belonging. The aim is to build a broader psychological vision of humans that can be used by CI. As noted above, contemporary cognitive theory was developed on the shoulders of three main traditions: Freud's psychoanalysis, the cognitive theory of Piaget, and the psychology of learning of Skinner. From these three pillars other schools of psychology were consolidated such as the English and American psychiatry of object relations, the interpersonal

[337] Obregon, C. 2019, Beyond Behavioral Economics: Who is the Economic Man, op. cit.

relational psychology, the psychology of personality, the American and European social psychology, and the psychology of positive emotions. What all these schools have in common is that the circumstances under which the ego develops and behaves are relevant, therefore any psychological theory that starts only from the individual without considering the institutional environment will necessarily be insufficient and incomplete.

Freud, post-Freudians, and Object Relations

Sigmund Freud, watching his ill patients, made three major contributions to the understanding of the human psyche: 1) he described the psychological consequences of the conflict between meeting individual biological and social needs; 2) he discovered that biological development stages produce susceptible moments, more prone to psychological trauma, and 3) he insisted on the existence of the unconscious as a determinant of behavior[338]. However, Freud's thought did not withstand posterior scientific critique and therefore none of his contributions were able to remain in the manner proposed by him. In relation to contribution 1: There is evidence that children are born aggressive, but they unlearn the aggression via the belonging that the mother provides them[339]. Aggression in adults is rather a result of social learning than an innate aggression[340]. As for the sex instinct, it does not necessarily imply frustration, as Freud argued, it all depends on the belonging quality in the process of sexual maturation. So, Freud's instincts of aggression and sex are not autonomous-independent, as he believed: they are socially guided by the instinct of belonging. Regarding contribution 2: Biological stages and the potential psychological conflicts that may occur in them is still the contemporary psychoanalysis' explanation of neurosis; but the stages are not predetermined as Freud conceived them, they are considerably more flexible. In terms of contribution 3: There is abundant empirical evidence related to the

[338] Freud, S. *(1953-1974), The Standard Edition of the Complete Psychological Works, Stracherey J. (ed.), London, Hogarth.*

[339] Fonagy, 2004; Allen and Fonagy *et al.,* 2008, p 324. Fonagy, P. 2004. *"Early life trauma and the psychogenesis and prevention of violence", Ann NY Acad. Sci, Vol. 1036, pp. 181-200.* Allen, GJ, P. Fonagy and Bateman AW (2008), *Metalizing in Clinical Practice,* American Psychiatric Publishing, Arlington, VA.

[340] Bandura, 1973. *Aggression: A Social Learning Analysis,* Englewood Cliffs, NJ, Prentice-Hall.

importance of the unconscious as a determinant of human behavior[341]; but the unconscious is not determined by Freud's autonomous instincts.

In Freud's thinking there is an empty – dependent - ego dominated by the conflict between the id and the superego. The post-Freudians modified the initial thought of Freud and introduced: 1) the independent autonomous ego - consequence of his environmental development[342]; 2) that the ego is formed by means of the interaction of social norms and internal motivators[343]; 3) the development of the ego is studied empirically, and it is shown, for example, that young children may show depression[344]. Spitz's work in this area was key in the later reflections of Bowlby; 4) external objects are introduced but they are still linked to the Freudian instincts[345], and the ego is integrated to the objects of reality[346]; 5) the development of the infant is explained with emphasis on the importance of his relationship with his mother, it is noted that normal development is possible and it is shown that some specific personality disorders are caused by problems in development347; 6) the process of development

[341] Kihlstrom, 1987. Kihlstrom, JF (1987), *"The cognitive unconscious", Science, Vol. 237, pp. 1445-1452.*

[342] Hartmann 1939, 1950, 1952 and 1955. Hartmann, H. (1939), *Ego Psychology and the Problem of Adaptation, New York: International University Press, 1958. (1950), Comments on the Psychoanalytic Theory of the Ego, New York: International University Press, 1964. (1952), The Mutual Influences in the Development of Ego and Id. Essays on Ego Psychology, New York: International University Press, 1964, pp. 155-82. (1955), Notes on the Theory of Sublimation. Essays on Ego Psychology, New York: International University Press, 1964, pp. 215-440.*

[343] Erikson, 1950, 1956 and 1959. Erikson, EH (1950), *Childhood and Society, New York, Norton. (1956), The Problem of Ego Identity. Identity and the Life Cycle, New York, International Press, 1959, pp. 104-64. (1959), Identity and the Life Cycle, New York, International Press.*

[344] Spitz, 1945 and 1959. Spitz, RA (1945), *hospitalism: An Inquiry into the Genesis of Psychiatric Conditions in Early Childhood. The Psychoanalytic Study of the Child, 1, pp. 53-73. (1959), A Field Theory of Ego Cenetic Formation: Its Implications for Pathology, New York: International University Press.*

[345] Jacobson, 1954b and 1964. Jacobson, E. (1954), *The self and the object world: vicissitudes of Their infantile cathexes and Their Influence on ideational affective development, The Psychoanalytic Study of the Child 9, pp. 75-127. (1964), The Self and the Object World, New York: International University Press.* Jacobson, KC, and DC Rowe (1999), *"Genetic and Environmental Influences on the Relationship Between Family Connectedness, School Connectedness, and Adolescent Depressed Mood. Sex Differences ", Dev Psychol, no. 35 (4), pp. 926-39.*

[346] Loewald, HW (1951), *Ego and reality. Papers on Psychoanalysis, New Haven, CT, Yale University Press, 1980.*

[347] Ana Freud, 1926.1936, and 1981. Freud, A. (1926), *Four Lectures and Child Analysis. The Writings of Anna Freud, vol. 1, New York: International University Press, pp. 3-69. (1936), The Ego and the Mechanisms of Defense, New York: International University Press, 1946. (1981), Child Analysis as the Study of Mental Growth, Normal and Abnormal. The Writings of Anna Freud, vol. 8, New York, International University Press, 1981, pp. 315-30.*

is presented as an individualized process348, and 7) the notion of mental representations is introduced, which is an important antecedent of the concept of mentalizing of Fonagy and others349. The representational view of Sandler makes post-Freudian structuralism compatible with contemporary cognitive psychology. These great post-Freudian developments served as inspiration to other streams of thought, in particular the psychiatry of object relations. But, in most of these other streams of thought, besides the psychiatric critical method of the post-Freudians, the scientific psychological method is introduced: with controlled observations and repeatable experiments.

The great contribution of the English school of the psychiatry of object relations, represented, among others, by Klein, Fairbairn and Winnicott, is to introduce external objects in the development of the self (ego). The object of obligatory reference is the mother, and from this relationship largely the individual psychic structure is defined. Klein combines a post-Freudian structural model with an interpersonal development model of objective relations which are changing personality throughout life[350]. Thus, individual psychology depends, according to Klein, on the relationship with the external world; this dependence implies a break with Freud. Klein would not lead to the ultimate consequences of such a break, but other authors would. Fairbairn[351] introduced the notion that the libido does not seek pleasure but people (objects), which already represented a major break with the post-Freudians. Subsequently, this notion would be key to the development of Bowlby's thought, for whom what prevails is not the libido but the relation-

[348] Mahler, 1963 and 1979. Mahler, MS (1979), *The Selected Papers of Margaret S. Mahler, New York, Aronson.*

[349] Sandler 1960, 1976.1981, and 1994. Sandler, J. (1960), *"On the concept of superego," The Psychoanalytic Study of the Child, 15, pp. 128-62. (1976), "actualization and object relationships", Journal of the Philadelphia Association of Psychoanalysis, 3, pp. 59-70. (1981), "Character traits and object relationships," Psychoanalytic Quarterly, 50, pp. 694-708. (1994), "Fantasy, defense, and the representation world. Fifth World Congress of the World Association for Infant Psychiatry and Allied Disciplines ", 1992, Chicago, IL, Infant Mental Health Journal, 15 (1) spec. issue, pp. 26-35.*

[350] Klein 1935.1936 and 1959. Klein, M. (1935), *A Contribution to the Manic-Depressive Psychogenesis of States. Love, Guilt and Reparation: The Writings of Melanie Klein, vol. I, pp. 236-89, London: Hogarth Press (1975), pp. 236-89. (1936), The Psychotherapy of the Psychoses. Contributions to Psychoanalysis, 1921-1945, New York, McGraw-Hill, 1964. (1959), "Our adult world and Its roots in infancy", in R. Money-Kyrle (ed.), The Writings of Melanie Klein, vol. 3 London, Hogarth Press, 1975, pp. 247-63.*

[351] Fairbain 1954 and 1963. Fairbairn, WRD (1954), *"Observations on the nature of hysterical states," British Journal of Medical Psychology, Vol. 29, pp. 112-27. (1963), "Synopsis of an object-relations theory of the personality", International Journal of Psychoanalysis, no. 44, pp. 224-225.*

ship with the object - the mother, a belonging relationship. For Winnicott[352] the infant uses the mother to be able to achieve his independent functioning. This notion would also be used by Bowlby, for whom the instinct of belonging exists both in the baby and the mother.

Under the influence of British psychiatry, the American psychiatry of object relations is developed. This school of thought is represented, among others, by Kernberg and Kohut. Kernberg[353] transforms Klein's psychiatry into a scientific proposal, which besides its clinical orientation is empirically based. This is a good example of an unscientific theory, in Popper's terms, which becomes a scientific one. For Kernberg, the unconscious motivators are not instinctive: they are formed as consequence of the units of object relationships, they arise from defense mechanisms related to object relations. The child is born with affective dispositions of pleasure and displeasure. Affection is always involved in images of subject and object relations. He uses the notion of representations introduced by the post-Freudian Sandler. The psychic structure in Kernberg is composed of three elements: the representation of self, the representation of the object and the affective states that link the two. For him the representational character of reality gives the ego degrees of freedom that can be useful in therapy. The representational character of Kernberg's psychology of object relations supports contemporary cognitive theory, as Horowitz and Ryle have shown; and can also be used to build bridges between Kernberg and the psychology of belonging[354].

From the point of view of our interests in here what post Freudians and the object psychology have shown is that there are not fix responses of individual psychological beings because the external institutional environment is critical in the way the ego develops and responds, therefore external objects-institutions- are relevant to explain individual behavior.

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[352] Winnicott 1953 and 1958. Winnicott, DW (1953), *"Transitional objects and transitional phenomena", International Journal of Psychoanalysis, 34, pp. 1-9. (1958), Collected Papers. Through Paediatrics to Psychoanalysis, London, Tavistock.*

[353] Kernberg 1980a, 1980b, 1984, 1992. Kernberg, OF (1980a), *Internal World and External Reality: Object Relations Theory Applied, New York, Aronson.* Kernberg, OF (1980b), *"Some implications of object relations theory for psychoanalytic technique", in H. Blum (ed.), Psychoanalytic Explorations of Technique: Discourse on the Theory of Therapy, New York: International University Press, pp. 207-239. (1984), Severe Personality Disorders: Psychotherapeutic Strategies, New Haven, CT, Yale University Press. (1992), Aggression in Personality Disorders and Perversions, New Haven and London, Yale University Press.*

[354] Horowitz, MJ (1989), *Nuances of Technique in Dynamic Psychotherapy, Northvale, NJ., Jason Aronson Inc.* Ryle, A. (1982), *Psychotherapy. A Cognitive Integration of Theory and Practice, London, Academic Press.*

Piaget and neo-Piagetians

Piaget[355], just like Freud, conceived man as biologically determined. The child is born, according to him, with flexible mental and behavioral programs that Piaget called schemas. Piaget claimed that the child is preprogrammed to develop in its interaction with the environment "autonomously". But in Piaget, in contrast to Freud, the development of consciousness is fundamental; a point which would greatly influence the development of later cognitive psychological theory. It would not be until the second revolution of cognitive theory that the relevance of the unconscious was, again, recognized. For Piaget the child forms its formal abstract capacity in adolescence, after three stages as a child. The process involves assimilation of environmental experience, accommodation to the internal schema of knowledge and development of a new equilibrium. Piaget built, from the beginning, his theory in scientific terms, his theory allows for the accumulation of knowledge. The ability of abstraction studied by Piaget influenced Sandler in his vision of the psychological world as representational. But, distinct from Piaget, Sandler's representational world involves both the conscious and the unconscious.

Neo-Piagetians have shown that the developmental stages of Piaget are too rigid and that his notion of biological determinism is indefensible. The present-day neo-Piagetian will emphasize the child's information system, his genetics, his intellectual ability, and the influence of the environment. Piaget's idea of the internal schema of knowledge, along with initial work on artificial intelligence, influenced Bowlby in his conception of an internal working model; but Bowlby's model has a belonging emotional content that Piaget's does not have. Diverse contemporary cognitive theories have empirically demonstrated the importance of the affective part: Mischel, Fonagy and Target, and many others. Bowlby thought that he had built a bridge between Freud and Piaget - Ainsworth thought the same - the bridge consists in the following: children with secure personalities behave confidently, in a Piaget's fashion, and maintain flexibility in their representational ability to abstract the world; while insecure children behave in a Freud's fashion and are trapped in rigid and concrete modes of thinking result of emotional childhood belonging conflicts.

[355] Piaget 1936. 1954, 1967. Piaget, J. (1936), *The Origins of Intelligence in Children, New York: International University Press, 1952. (1954), The Construction of Reality in the Child, New York, Basic* Books. *(1967), Biology and Knowledge, Chicago, University of Chicago Press, 1972.*

Neo Piagetians, as post Freudians and object psychology, have conclude the relevance of the external institutional characteristics in understanding ego development and behavior.

Interpersonal-Relational, Personality, and Ego Psychologies

The Interpersonal Relational Psychology. The psychiatry of object relations made the inner psychology dependent on the relation of the self with the environment. The relational-interpersonal psychology would make inner psychology depend on a specific object -the relationship with other people. This psychology is represented, among others, by Sullivan and Mitchell.

Mitchell[356] creates a bridge between relational structuralism and post-Freudian psychology. For this author, sexuality and aggression are powerful vehicles to keep the relational context. Sullivan[357], breaks with the post-Freudians and rejects the view of sex and aggression of Freud. For Sullivan, as for the psychiatry of object relations, as well as for the psychology of belonging, it is the tenderness of the mother which determines the degree of integration of the personality of the child. Conflict and aggression, for this author, are learned responses to the environment. Sullivan's great contribution is his emphasis on personality as dependent on relationships with others. Sullivan's vision is compatible with cognitive theory. Empirical evidence of the importance of interpersonal relationships is abundant and leaves no doubt about the importance of social belonging, even if this author does not use this language.

The Psychology of Personality. As the individual psychology of the self is defined from the relationship with the object, we might ask: What is this individual psychology? What is inside this ego? To resolve these questions was that task taken over by the psychology of personality. Some representatives of this school are Murray, Allport, Cattell and Eysenck. Of relevance to us are Allport and Murray. Both authors focus on the creativity and flexibility of the ego and on the social character of the individual.

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[356] Mitchell, SA (2000), *Relationality. From Attachment to Intersubjectivity, Hillsdale, NJ, Analytic Press.*

[357] Sullivan 1953, 1956.1962, 1964. Sullivan, HS (1953), *The interpersonal theory of psychiatry, New York, Norton. (1956) Clinical studies of psychiatry, New York, Norton. (1962), Schizophrenia as a human process, New York, Norton. (1964), The fusion of psychiatry and social science, New York, Norton.*

Allport openly raises the question of the consequences of not having an empty ego. In this author's view, the need to understand the flexibility of the ego and the need to see the individual's psychology as an outcome of his overall social context, and not just his family, is clear. To Allport[358] the normal individual's psychology is not determined by his experiences in infancy; it is mainly defined by his present concerns and, especially, his future goals. The capacity and competence of individuals to achieve their goals is crucial. The most important theoretical contribution of this author is his analysis of the ego: its uniqueness, its rationality, the importance of the future goals and the relevance of the conscious personality traits. Allport's vision, however, does not have the required empirical support. The most important contribution of Murray[359] is to explain the individual's needs through a wider taxonomy of social needs than Freud's, and to make explicit the influence of the social environment in triggering those needs. Satisfying the need reduces stress in the individual. His taxonomy of motivations has resulted in many empirical studies. One should also highlight Murray's vision of a creative ego, and of a dynamic-flexible ego personality. To this author personality is dynamic, skills and successes are an essential part of personality. Murray liberates the individual from the Freudian conflict. For him, satisfying most of the instincts of the id is culturally acceptable, and the function of the ego is not to repress the id, but to channel it based on the superego. The vision of the dynamic personality of Murray-Carlson precedes Mischel, who produced a revolution leading to the integration of the theories of personality with social psychology. A revolution which turns out to be key for the understanding of the relationship between the individual and the society as a belonging relation. Therefore, any theory describing how individuals behave without considering in which institutional external circumstances they are is necessarily incomplete and insufficient.

Ego Psychology. If the ego is not empty, and - as Murray points out - each person is unique, it is natural that we intend to explain his/her behavior from the understanding of this person's ego. Among other representatives of ego psychology, we can mention Kelly and Rogers.

[358] Allport 1937 and 1961. Allport, GW (1937) *Personality: A psychological Interpretation, New York, Holt. (1961), Pattern and Growth in Personality, New York, Holt, Rinehart, and Winston.*

[359] Murray 1936.1963 and 1968. Murray, HA (1936), *"Basic concepts for a psychology of personality", Journal of General Psychology, Vol. 15, pp. 241-268. (1963), "Studies of stressful interpersonal disputations", American Psychologist, Vol. 18, pp. 28-36. (1968), "Components of an Evolving personological system", in DL Sills (ed.), International encyclopedia of the social sciences, vol. 12 pp. 5-13, New York, MacMillan and free Press.*

For Kelly[360] individuals seek to anticipate the consequences of their actions. The major contribution of this author is his vision of how individuals construct their psychological reality. Kelly's thought is very rich in its exploration of the individual's ability to understand the world as representational alternatives, and it has been well documented empirically. Rogers[361] has led ego psychology to become as much a successful school as behaviorism and psychoanalysis. His great contribution is that behavior is understood from the internal frame of reference of the individual, from his ego. Rogers emphasizes the phenomenological nature of reality and the relevance of the cognitive structure of the self, and sees it as a key determinant of individual psychology. To Rogers, in contrast to Freud, repression can be avoided. A healthy personality is formed when an unconditional psychological reward is received. The thought of Rogers led to the development of his person-centered therapy, which emphasizes empathy, and has been very influential. Rogers's empathy collects the necessary affectivity in the patient-psychiatrist relationship and, in general, in human relationships. The psychology of Rogers, even if he uses another language, is fully compatible with the psychology of belonging. Rogers's empathy is itself a belonging relation. This author was influential in the second revolution of cognitive theory that puts a renewed emphasis on the relevance of emotions. His theory has produced very large empirical research.

Learning, Social Psychology, and Positive Emotions

The Psychology of Learning. If there is an ego and it is formed in the interaction with the environment, the question is how this ego learns. This is the basic question that the psychology of learning seeks to answer. Some representatives of this school are Skinner, Dollard, Miller, Wolpe, Seligman, Bandura and Mischel.

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[360] Kelly 1955 and 1969. Kelly, GA (1955), *The Psychology of Personal Constructs, New York, Norton. (1969), "Man's construction of His alternatives", in B. Maher (ed.), Clinical Psychology and Personality: The Selected Papers of George Kelly, New York, Willey, pp. 66-93 (Paper originally published in G. Lindzey (ed.), The Assessment of Human Motives, New York, Holt, Rinehart and Winston, 1958,*

[361] Rogers 1959.1961, 1972, 1977). Rogers, CR (1959), *"A theory of therapy, personality, and interpersonal relationships, as developed in the client-centered framework", in S. Koch (ed.), Psychology: A study of science, vol. 3, New York, McGraw-Hill, pp. 184-256. (1961), On Becoming a Person, Boston, Houghton Mifflin. (1972), Becoming Partners. Marriage and Its Alternatives, New York, Delacorte. (1977), Carl Rogers on Personal Power, New York, Delacorte.*

Skinner[362] showed empirically, through repeatable controlled experiments, the decisive influence of the external environment on what is learnt. Skinner asserted that we can manipulate behavior without considering the internal features of the learner: that is, without reference to the ego. However, Skinner's methodology is applicable only to a limited range of human behavior. The theory of stimulus-response of Dollard and Miller[363] extends learning theory to a wide range of human behavior; but the critical limitation of this theory is that it is not based on laboratory experiments. Bandura's cognitive learning is highly relevant because it also shows the importance of the ego in learning and can be verified empirically. Mischel's great contribution is his cognitive - affective dynamics model. Which allows for the integration of social, ego and personality psychology. This model shows clearly that the self is a social self. It is particularly relevant to review some points of the thought of Bandura and Mischel.

For Bandura[364] individuals conceive and develop hypotheses about the consequences of repeated behaviors and change them. The conditioning is cognitively mediated. The reinforcement involves an assessment of the assumptions used. This is called the strengthening of self. Individuals interact with the environment and influence it. Humans, given their cognitive ability, can observe, learn, and imitate. Bandura's great contribution is that he makes a very efficient integration of ego psychology and the psychology of learning, that is empirically documented. Aggression for Bandura is solely due to social learning. This author draws attention, without using this language, to the second way of belonging. While the areas of emphasis in the analysis are different between Bandura's psy-

[362] Skinner 1938, 1969, and 1974. Skinner, BF (1938), *The Behavior of Organisms, New York, Appleton-Century-Crofts. (1969), Contingencies of Reinforcement: A Theoretical Analysis, New York, Appleton-Century-Crofts. (1974), About Behaviorism, New York, Knopf.*

[363] Dollard and Miller. 1939 and 1950. Dollard, J. et. al. (1939), *Frustration and Aggression, New Haven, Yale University Press.* Dollard, J., and NE Miller (1950), *Personality and Psychotherapy: An Analysis in Terms of Learning, Thinking and Culture, New York, McGraw-Hill.*

[364] Bandura 1962, 1965.1969, 1973.1977, 1986, 1989, 2006. Bandura, A. *(1962), Social Learning Through Imitation, Nebraska symposium on motivation, no. 10 pp. 211-269. (1965), "Influence of models reinforcement contingencies on the acquisition of imitative responses", Journal of Personality and Social Psychology, Vol. 1, pp. 589-595. (1969), Principles of Behavior Modification, New York, Holt, Rinehart, and Winston. (1973), Aggression: A Social Learning Analysis, Englewood Cliffs, NJ, Prentice-Hall. (1977), Social Learning Theory, Englewood Cliffs, N. J, Prentice-Hall. (1986), Social Foundations of Thought and Action, Englewood Cliffs, NJ, Prentice-Hall. (1989), "Human agency in social cognitive theory," American Psychologist, Vol. 44, pp. 1775-1184. (2006), "Toward a psychology of human agency", Perspectives on Psychological Science, Vol. 1, pp. 164-180.*

chology and the psychology of belonging: the cognitive ego that both defend provides a bridge that makes the results of both theories consistent.

Mischel[365] argued that empirical work has shown that highly generalized behavioral conditions or broad predispositions are not demonstrable. His argument sparked a debate about the person - situation that has dominated the literature of the past 35 years. For him personality is plastic, the individual acts differently in different situations. His focus is to understand what the individual constructs in specific situations *versus* defining global personality traits. Mischel recognizes that stable personality traits have some value in understanding the individual personality but stresses the importance of interpreting such traits in the light of a careful analysis of the plasticity of personality[366]. Mischel's great contribution is his cognitive - affective personality dynamics model. Which introduces emotions, allows the integration of social, ego and personality psychology, and shows that the self is a social self. Mischel's vision of a cognitive-affective dynamic ego is properly documented empirically, and it has its counterpart in the psychology of belonging in Target and Fonagy's insistence that mentalizing also involves emotional awareness.

Social Psychology. The European tradition, although representing a minority, has taken over the study of the community and its impact on the individual. Examples of this tradition are Erich Fromm and the theories of social identity[367]. The American tradition has been devoted to the study of the individual personality and its interaction with the social group[368]. The American contemporary social psychology has merged with the psychology of personality.

The European tradition continues in the perspective of psychological studies suggesting that the community emerges, and that it must be dis-

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[365] Mischel 1973 and 1995 Mischel, W. (1973), *"Toward a cognitive social learning reconceptualization of personality", Psychological Review, Vol. 80, pp. 252-283*. Mischel, W. and Y. Shoda (1995), *"A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure", Psychological Review, Vol. 102, pp. 246-286.*

[366] Mischel, W. 2004 "*Toward an integrative science of the person", Annual Review of Psychology, Vol. 55, pp. 1-22.*

[367] Tajfel and Turner, 1979; Hogg, 2006. Tajfel, H., JC Turner (1979), *"An integrative theory of intergrouping conflict", in WG Austin and S. Worchel (eds.), The social psychology of intergroup relations Monterrey, CA., Brooks / Cole, pp. 33-47*. Hogg, MA (2006), *"Social identity theory", in PJ Burke (ed.), Contemporary Social Psychological Theories, Palo Alto, C. A, Stanford University Press, pp. 111-136*

[368] Adler, Horney and Cervone in Rhodewalt, 2008; and Rhodewalt, 2008. Rhodewalt, F. *(ed.) (2008), Personality and Social Behavior, New York, Psychology Press.*

tinguished from the sum of the individuals. Sherifs[369] studies showed the emergence of group norms, Asch[370] studies the conformity to standards, while Lorenzi - Cioldi and Clemence[371] study the emergence of social representations. The theory of social identity of Tajfel[372], Hogg[373], Doise[374], Turner and Oakes[375], and others, argues that the explanation of social behavior only based on the individual and interpersonal behavior leaves much to be explained in terms of the behavior of groups. These authors defend the status of a social dimension, a social identity and collective self. One advantage of this approach is that it allows to analyze more clearly cultural and institutional differences both in the individual and in the society[376]; it clearly states the dynamics of social belonging.

The contemporary American social psychology has merged with personality theory and cognitive psychology. This is mainly due to the conception of Mischel of a cognitive - affective dynamic personality, that is defined in the interaction with the environment. The result of this merger is that American contemporary social psychology must start exploring the mental systems, i.e., structures and cognitive-affective intraindividual processes that contribute to consistent and distinguishable patterns of experience and action[377]. According to Baldwin, the representations are

[369] Sherif, M. (1936), *The Psychology of Social Norms, New York, Harper & Bros.*

[370] Asch, SE (1952), *Social Psychology, Englewood Cliffs, NJ, Prentice Hall.*

[371] Lorenzi-Cioldi, F. and A. Clémence (2001), *"Group Processes and the construction of social representations" in MA Hogg and RS Tindale (eds.), Blackwell handbook of social psychology: Group process, Oxford, Blackwell, pp. 311-333.*

[372] Tajfe1972 and 1984. Tajfel, H. (1972), *"Some Developments in European social psychology, European Journal of Social Psychology, 2, pp. 307-322.* Tajfel, H. (ed.) (1984), *The social dimension: European development in social psychology. Cambridge, Cambridge University Press.*

[373] Hogg, MA (2006), *"Social identity theory", in PJ Burke (ed.), Contemporany Social Psychological Theories, Palo Alto, C. A, Stanford University Press, pp. 111-136*

[374] Doise, W. (1986) *Levels of Explanation in Social Psychology, Cambridge, UK, Cambridge University Press.*

[375] Turner, JC, and PJ Oakes (1986), *"The significance of the social identity concept for social psychology with reference to individualism, interactionism and social influence", British journal of Social Psychology, 25, pp. 237-252.*

[376] Markus and Kitayama, 1991; Oyserman and Kemmelmeier, 2002. Markus, HR, and S. Kitayama (1991), *"Culture and the self: Implications for cognition, emotion, and motivation", Psychological Review, Vol. 98, pp. 224-253.* Oyserman, D., HM, and M. Coon Kemmelmeier (2002), *"Rethinking individualism and collectivism. Evaluation of theoretical assumptions and meta-analyzes ", Psychological Bulletin, 128, pp. 3-72.*

[377] Cervone patterns *et. al.,* in Rhodewalt, 2008., op. cit.; Kuhl *et al.,* 2006. Kuhl, J., Kazen, M., and SL Koole (2006), *"self-regulation Putting theory into practice: A user's manual", Applied Psychology: An International Review, Vol. 55, pp. 408-418.*

relational[378]. This contemporary approach makes it unsuitable to seek to separate the effects of the individual (the self) *versus* those of the situation. Social functions cannot be separated from the social context: the ability of children to discriminate objects is linked to the context, and the same holds for more complex social functions[379]. It is required to understand temperamental differences to establish the contexts[380], and to introduce cultural factors[381]. The narrative combines the person (the self), the interpersonal relationship and the situation[382]. The language is social, and it is required for a large part of the individual mental activity[383].

In this interpersonal context the relevant question is what happens with the self of Rogers and others. The self seeks to maintain its own conception to navigate the social environment[384]. It seeks to maintain a secure, true, and optimal self-esteem[385]. Self-esteem depends on the actual conduct directed towards an individual goal[386]. Neuroimaging studies have yielded some interesting results for social psychology: 1) We use different parts of the brain when we are relating with family versus acquaintances or strangers. 2) Our social knowledge is biased by our motivations; we use different parts of the brain in relation with assumptions related to collaborators ver-

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[378] Baldwin (1992 and 1999). Baldwin, MW (1992), *"Relational schemas and the processing of social information", Psychological Bulletin, Vol. 112, pp. 461-484. (1999), Relational schemas: Research into cognitive social aspect of Interpersonal Experience, In D. Cervone and Y. Shoda (eds.), The Coherence of Personality: Social-cognitive bases of Consistency, Variability, and Organization, New York, Guilford, pp. 127-154*

[379] Cantor, N. and JF Kihlstrom (1987) *Personality and Social Intelligence, Englewood Cliffs, NJ, Prentice Hall.*

[380] Kagan, J. (2003), *"Biology, Context, and Developmental Inquiry", Annual Review of Psychology, Vol. 54, pp. 1-23.*

[381] Fox, NA et.al. (2005), *"Behavioral inhibition: linking biology and behavior Within a developmental framework", Annual Review of Psychology, 56, pp. 235-262.*

[382] Hermans, HJM (2001), *"The construction of a repertoire staff position: Method and practice", Culture and Psychology, Vol. 7, 323-365.*

[383] Toulmin, 1985; and Harre and Tissaw, 2005. Toulmin, S. (1985), *The inner life. The outer mind Worcester, MA: Clark University Press.* Harre, R. and MA Tissaw (2005), *Wittgenstein and Psychology: A practical guide, Basingstoke, UK, Ashgate*

[384] Higgins, 1996; Leary and Baumesiter, 2000. Higgins, ET (1996), *"The" self-digest ": Self-knowledge serving self-regulatory functions", Journal of Personality and Social Psychology, Vol. 51, pp. 451-458.* Leary, MR and RF Baumeister (2000), *"The nature and function of self-esteem, Sociometer theory", in MP Zanna (Ed.), Advances in experimental social psychology, vol. 32, pp. 1-62, New York, Academic Press.*

[385] Kernis MH (2003), *"Toward a conceptualization of optimal self-esteem", Psychological Inquiry, Vol. 14, pp. 1-26.*

[386] Rhodewalt and Rhodewalt Peterson, in Rhodewalt 2008., op. cit.

sus the ones involving competitors[387]. The great contribution of American contemporary social psychology is that links the individual (the self) and the society using an emotional and rational dynamic cognitive model; so that the self is a social self. This model is compatible with ego, personality and learning psychology; and, given their cognitive roots, is also compatible with the psychology of belonging, as Andersen and others show[388].

Contemporary social psychology recognizes that the narrative combines the person (the self), the interpersonal relationship and the situation[389] and that language is social, and it is required for a large part of mental individual activity[390]. Therefore, contemporary social psychology is consistent with the psychology of belonging and with Fonagy's notion of mentalizing. The narrative integrates the human brain and along with language it is responsible both for our mentalizing capacity and for our ability to socialize. In fact, mentalizing is a requirement to socialize. The current emphasis of American social psychology in the interdependence of the personality (ego) and the social environment produces a rapprochement with the European approach. And both are properly documented empirically. Given recent advances in social psychology we can conclude that: social relations are belonging relations, because they involve narrative and language and thus establish a link between the individual and the society; and they are the product of the development of our evolutionary relationship potential - the definition of social belonging.

The Psychology of Positive Emotions. Seligman[391], and others have recently proposed a positive psychology focused on studying how the psychologically healthy human being can increase his/her happiness. Csikszentmihalyi proposes that the individual should improve his cognitive capacity[392]; Fredrickson studied how the individuals can increase their level of

[387] Downey *et. al.,* in Rhodewalt, 2008., op. cit.

[388] Andersen in Rhodewalt, 2008., op. cit.

[389] Hermans, HJM (2001). op. cit.

[390] Toulmin, 1985; Harre and Tissaw, 2005. Both op. cit.

[391] Selignman (1975, 1991, 2002, 2002a, and 2003) Seligman, MEP (1975), *Helplessness: On Depression, Development, and Death, San Francisco, WH Freeman. (1991), Learned Optimism, New York, Knopf. (2002), Optimism, Pessimism, and Morality, Mayo Clinic Proceedings, 75 (2), pp. 133-134. (2002a), Authentic Happiness: Using the New Positive Psychology to Realize Your Potential for Lasting Fulfillment, New York, Free Press. (2003), Vanguard Authentic Happiness Teleclass-24 Weeks retreived October 26, 2004, from <www.authentic happiness.com >. "2.5-million-year-old stone tools from Gona, Ethiopia", Nature, 385, pp. 333-336.*

[392] Csikszentmihalyi (1996 and 1998). Csikszentmihalyi, M. (1996), *Flow (Flow). A psychology of happiness, Barcelona, Kairos*. Csikszentmihalyi, M. (1998) *Learning to flow, Barcelona, Kairos*.

positivity[393]; Seligman discusses how to increase positive emotions about the past, present, and future; Haidt mentions three ways to access positive emotions: meditation, cognitive therapy, and Prozac[394]. There is an extensive empirical literature on the benefits of positive emotions; but it is important to understand that they are not just the result of a cognitive individual voluntarism, they require adequate belonging.

Contemporary Cognitive Psychology

Cognitive theory is based on the ego's capacity to learn from the environment. The ego develops an internal cognitive system that guides it in processing information from the environment. Cognitive theory is the foundation that allows the integration of diverse psychological theories to the psychology of belonging. This is so, because the internal working model of Bowlby, as Main said, is itself a cognitive structure. Cognitive theory: 1) has been applied to the psychology of learning by Bandura and others; 2) has also been used in social psychology and personality psychology by Mischel, Cervone and others; 3) it is the basis of the ego psychology of Rogers; 4) it is compatible with the psychology of object relations of Kernberg, as Horowitz and Ryle have shown; and 5) it is also compatible with the post-Freudians, as Stern argues[395].

Cognitive theory establishes a bridge between different streams of psychology. A bridge that goes from Skinner's behaviorism to the post-Freudians, as Dollard and Miller have pointed out. Cognitive development has been advocated by many psychologists, including the Gestalt school, Bowlby, Lewin, Sullivan, Murray, Allport, Kelly, Rogers, Festiner, and others. Cognitive psychology helps to understand the representational character of reality, a message that is clear in many psychologists such as Sanders, Kernberg, Kelly, Roger, Main and Fonagy and Target, and that is becoming widely accepted. Mentalizing in human beings is due to their cognitive system. Cognitive theory not only builds a bridge between different psychological streams, but it also makes them compat-

[393] Fredrikson (2003, 2009). Fredrickson, B. (2003), *"The value of positive emotions", American Scientist, Vol. 91, pp. 330-335. (2009), Positivity, New York, Random House.*

[394] Haidt, J. (2006), *The Happiness Hypothesis, Barcelona, Gedisa.*

[395] Stern (1985) Stern, DN (1985), *The Interpersonal World of the Infant: A View from Psychoanalysis and Developmental Psychology, New York, Basic Books.*

ible with the psychology of belonging. This is so even though these other theories do not use the language of belonging.

The contemporary development of cognitive theory has led to a widespread rejection of the empty ego of Freud and the fully manipulated ego of Skinner. Humans are not necessarily sentenced to fixed or predefined behaviors. The ego has the capacity to learn, and it is possible for humans to consider future goals and to make decisions. What characterizes contemporary thought, despite the recognition of the unconscious, is the emphasis on the conscious state[396]. Humans can mentalize (Fonagy, Target); an ability that Freud had underestimated. But the question is: What determines the flexibility of the ego? What defines the ability to properly mentalize about the future? And the answer is that to be able to mentalize properly, it is necessary to have adequate belonging. The psychology of belonging (attachment) provides a bridge between the psychopathology characterized by fixed and predetermined behaviors and the flexible ego, able to self-determine its future.

Psychology and Neurobiology of Belonging

The psychological theory of belonging (Attachment Theory) was initially proposed by Bowlby[397]. For him, attachment is a biological imperative of evolution. The infant has instincts that guide him to find a figure to attach, and seeks to ensure the continued availability of his caregiver. Bowlby proposed that the way in which parents treat children is critical to explain their development; the proposal would be empirically verified by Ainsworth.

Bowlby was influenced by Piaget's learning theory which explains that the baby, playing with what surrounds it (i.e., exercising its freedom of movement) develops a relationship of cause and effect *versus* the environment, and this is recorded on it as a mental schema. Bowlby, rather than the notion of mental schema, used the concept of an internal working model (adopted from early work in artificial intelligence). The internal working model of Bowlby, unlike Piaget's, has an emotional con-

[396] Adler, Allport, Kelly, Rogers, Murray, Csikszentmihalyi's and Seligman's positive psychology, and others.

[397] Bowlby 1969, 1973 and 1980. Bowlby,J. (1969) *Attachment and Loss, Vol. 1. Attachment. New York: Basic Books. (1973) Attachment and Loss, Vol. 2. Separation and Anger, New York, Basic Books. (1980) Attachment and Loss, Vol. 3 Sadness and Depression, New York, Basic Books.*

tent. Thus, the internal working model that the infant forms depends on the emotional interaction with its parents – especially the mother, is this model this determines the way in which the infant processes the world around it. Later, the internal working model proposed by Bowlby would be verified empirically by Ainsworth and Main. For Bowlby belonging (attachment in his words) is also crucial in the psychological development of adults; this proposal would be empirically verified by Fonagy.

Mary Ainsworth[398], who collaborated with Bowlby, empirically demonstrated that the infants' internal working model varies depending on the quality of the relation with the mother or caregiver. Her experiments led to the conclusion that the quality of preverbal communication between mother and infant defines how secure the personality of the child is. She constructed the experiment of the *Strange Situation,* in which the mother temporarily abandons the child in a strange room with an unknown person. This experiment classified children, according to their behavioral response in this strange situation, into three categories: secure, avoidant, and ambivalent. Mothers of secure children establish a contingent and collaborative communication. Insecure children optimize as much as they can the quality of protection they receive. Avoidant children show their emotions and do not expect attention; but they always show concern about the availability of the mother, seeking to be heard by her.

A student of Ainsworth, Mary Main, experimentally discovered a new category of infants, disorganized children[399]. Disorganized behavior is the result of fear of the parents, whom infants identify as a source of danger; or alternatively it is consequence of watching the parents behave fearfully and impotent.

Mary Main was also concerned with designing longitudinal studies to assess the permanence of the internal working model[400]. The first important result of Main found a strong correlation between the classification of the child's personality according to the infant's behavior

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[398] Mary Ainsworth (1967 and 1978). Ainsworth, MDS (1967), *Infancy in Uganda. Infant Care and the Growth of Love, Baltimore, The Johns Hopkins University Press*. Ainsworth, MDS et. al. (1978) *Patterns of Attachment: A Psychological of the Strange Situation, Hillsdale, NJ, Erlbaum*.

[399] Main, M., and J. Solomon (1990), *"Procedures for Identifying infants as disorganized / disoriented During the Ainsworth Strange Situation", in M. Greenberg, D. Cicchetti & EM Cummings (eds.), Attachment During the Preschool Years: Theory, Research and Intervention, Chicago, University of Chicago press, pp. 121-160,*

[400] Main, M., E. Hesse, and N. Kaplan (2005), *"Predictability of Attachment Behavior and Representational Processes", in KE Grossmann, Grossmann K. and E. Waters (Eds.), Attachment from infancy to adulthood: Lessons from longitudinal studies, pp. 245-304, New York, Guilford Press.*

in the *Strange Situation* at twelve months, with internal models of representation with which the child interprets the events that occur when it is six years old. The second important result was the correlation between the infant's behavior at twelve months and the representational mental state of the parents regarding belonging. Main proposed that the internal working models of Bowlby are structural processes that determine not only the feelings and behavior, but also, attention, memory, and cognitive awareness. These internal working models relate not only with different patterns of nonverbal behavior but also with language patterns and mental structure[401]. Main's studies show that the rules that the baby learns, in order to survive, are maintained throughout his/her life and determine not only his/her subsequent behavior but how he/she perceives the external world. Main showed that these rules have a decisive influence on the style that the individual will have to exercise parenthood.

Several studies have confirmed the proposals of Bowlby, Ainsworth and Main. Van IJsendoorn corroborated Main's correlations in six countries[402]. Hesse recorded that Benoit and Parker found correlations in three generations[403]. Sroufe showed that secure children become confident leaders; avoidant children tend to victimize other children; and ambivalent children tend to be the victims[404]. As adults, avoidant children have a risk factor linking them with problems of narcissism and schizoid and obsessive behavior. As teenagers, ambivalent children tend to correlate with anorexia, and as adults they relate to hysteria and histrionic behavior[405].

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[401] Main *et. at.,* 1985, p. 67. Main, M., N. Kaplan, J. Cassidy (1985), *"Security in infancy, childhood, and adulthood: a move to the level of representation", in I. Bretherton and E. Waters (Eds.), Growing Points of Attachment Theory and Research. Monographs of the Society for Research in Child Development, Vol. 50 (2-3, serial no. 209), pp. 66-104.*

[402] Van IJsendoorn (1995.1999). Van IJsendoorn MH (1995), *Of the Way We Are: On Temperament, Attachment, and the Transmission Gap: A Rejoinder to Fox (1995), Psychological Bulletin, 117 (3), pp. 411-415.* Van IJzendoorn MH and A. Sagi (1999), *"Cross-Cultural Patterns of Attachment. Universal and Contextual Dimensions ", in J. Cassidy and PR Shaver (Eds.), Handbook of Attachment. Theory, Research, and Clinical Applications, New York, Guilford Press, pp. 713-734.*

[403] Hesse (1999) Hesse, E. (1999), *"The Adult Attachment Interview: Historical and Current Perspectives", in J. Cassidy and PR Shaver (Eds.), Handbook of Attachment: Theory, Research, and Clinical Applications,* New York, Guilford Press.

[404] Sroufe, LA, EA Carlson, and AK (1999.), *"Implications of attachment theory for developmental psychopathology" Development and Psychopathology, 11, pp. 1-13.*

[405] Schore, AN *(2002), "Advances in neuropsychoanalysis, attachment theory, and trauma research. Implications for self-psychology " Psychoanalytic Inquiry, 22, pp. 433-484.*

Disorganized children, when exposed in life to additional social pressures are associated with serious personality disorders[406].

The relationship of belonging has a fundamental emotional centrality. There is a limbic connection between mammals, product of a long evolution, which allows the protection of infants and the development of group life. In the case of reptiles, the brain controls body balance and ensures survival; aggression is a means to get what they need, they have no emotions and only optimize their own survival. Instead, the limbic brain controls emotions, relationships, hormonal balance, and sex; in mammals it restricts the reptilian aggression and inclines them to provide the required social protection for the limbic relationship between mother and baby to be able to develop. The limbic communication is essential to establish the relationship of belonging: without emotion there is no belonging (only attachment). Verbal expressions, of which the cortical brain is capable, are meaningless if they are not supported by the emotional nonverbal communication - that comes from the limbic relationship.

The psychology of belonging indicates that not only the future personality of the child, adolescent and adult correlates with early emotional learning, but also their mental model of information processing and the subsequent attitude that will have as a parent. Neurobiology has proven that the neuronal development of the infant depends on the quality of the relationship with the parents. Both, the psychological theory of belonging and contemporary neurobiology, highlight the importance of the quality of nonverbal communication and of the emotional relationship.

Some genetic studies, particularly of twins created separately, have shown the power of genetics in determining some key traits such as intelligence, personality, temperament, preferences, and aversions. But none of these traits are correlated with how secure the personality is. The secure or insecure behavior of the child, the adolescent and the adult do not correlate with any gene: it is explained by the quality of care and nonverbal communication that the infant receives[407].

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[406] Fonagy, P. *(2003), "Towards a Developmental Understanding of Violence", J Psychiatry, No. 183, pp. 190-192.*

[407] (Siegel and Hartzell, 2003, p. 149). Siegel, DJ, and M. Hartzell (2003, paperback ed. 2004), *Parenting from the Inside Out, New York, Penguin Group.*

The Neurobiology of Belonging

The brain is divided into two hemispheres, which interact between them. When the left hemisphere dominates, the information is processed linearly (a fact at once), logic and language are used. On this side syllogistic reasoning: cause-effect, binary logic, good and evil, right, and wrong, and linguistic analysis is exercised. When the right hemisphere dominates the information is processed visually, spatially, nonlinearly, and holistically. The autobiographical self, nonverbal cues, a comprehensive sense of the body, mental models of self, strong emotions and social understanding are processed mainly by the right hemisphere[408]. Historical and self-narratives emerge from the interaction of the two hemispheres, the left seeking to logically explain the autobiographical, social, and emotional information in the right hemisphere[409]. To our knowledge these narratives only prevail among humans, due to the ability to abstract of the cortical brain.

Memory is the form in which experiences create neuronal maps. There are two forms of memory: unconscious – implicit; and conscious – explicit. Implicit memory is available from birth and records physical, behavioral, emotional, and perceptual modalities. This memory does not require conscious attention, and events cannot be remembered. Explicit memory depends on the maturation of the hippocampus in the limbic brain, which takes a year and a half. The hippocampus creates a contextual neural map of integral representations. By the second year of life the infant can develop a sense of self and of the passage of time which allows for autobiographical memory; in this case the prefrontal cortex is involved. Explicit memory allows through narratives, creating stories and dreams, which give the mind a sense of reality and allow it to organize experience into an image of its being in the world. Explicit memory requires conscious attention and recorded events tend to be remembered both as data as well as episodes. Our perceptions of the outside world and our emotions depend not only on the explicit memory but also on the implicit, to which we do not have access through reason.

Emotion is a fundamental aspect of integration of many brain functions. Emotions give a sense of vitality to being. Emotion, meaning, and social connection are determined by the same neuronal process[410]. The

[408] Siegel and Hartzell, 2003., op. cit.

[409] Siegel, D J 1999, *The Developing Mind, New York, Guilford press*

[410] Siegel and Hartzell, 2003., op. cit.

primary emotion puts the mind in an alert mode, which is followed by an assessment that gives rise to categorical emotions (like sadness, disgust, etc.). Resonance occurs when two people align their primary emotions, which occurs among infants and their mothers in the first two days after birth. Emotions are in the limbic brain; usually mammals can transmit their emotions. Iacoboni discovered mirror neurons in humans that had been discovered years before in monkeys[411]. These neurons, as noted above, give us the ability to correctly interpret other mammals' emotions, an advantage obtained in the evolutionary process. Thus, emotions can be understood as neuronal integration processes that connect us with others. The integration of the activity of two brains is a vital process for survival and for proper development of the genetic potential[412]. That is why emotional imbalances have important implications for the ability to reason and the physical health of the individual. Acute problems of belonging disrupt the function of brain circuitry required for mentalizing.

Our brains are built to be influenced by interaction with other brains, this is an evolutionary survival trait. Collaborative and contingent communication, that which appropriately responds to signals from another, is essential because it is the process by which children create both their social knowledge and the understanding of themselves. The growth of the baby's brain literally requires interaction from brain to brain and occurs because of a positive relationship between mother and infant[413]. Neurologically coherence requires environmental contingent responses which may involve either or both cerebral hemispheres[414].

Neurons that fire together create neural synaptic circuits that underlie the operation of the flow of information in the human brain. These circuits store information and form a model of internal memory that consists of invariant memories that organize the infinite information that is perceived from abroad. Without these models of internal memory, the infinite information from the environment would not be actionable and would constitute a chaos. Thus, most of what we perceive does not come to us by our senses but is generated by the internal memory model. Therefore, early childhood is crucial because it defines the brain's first model of the world.

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411 Iacoboni, M. et al. (1999), *"Cortical-mechanisms of human imitation" Science, no. 286, pp. 2526-2528.*

412 Siegel (1999), op. cit.

413 Schore, 2002., op. cit.

414 Siegel, 1999., op. cit.

Recent discoveries in neurobiology clearly indicate the importance of emotions in interpersonal relationships and generally in human behavior. Wallin[415] identifies three reasons that support the above argument. First, of the two structures, the upper rational (cortical brain / left brain) and emotional lower (subcortical / right hemisphere), the first depends on the second and often is dominated by this. Traffic is greater from the amygdala to the cortex than vice versa[416]. Second, the information from the cortex to the amygdala, goes from the middle region of the prefrontal and not from the dorsolateral, indicating the importance of integrating the dorsofrontal rationality with the subcortical emotionality. Third, the lower three layers of the cortex receive input from the senses of the body and the top three layers processed them based on "invariant memories". Lewis, Amini and Lannon point out that the implicit memory is part of our knowledge, and our limbic brain allows us perceptions of which we have no rational explanation, and yet, much of our behavior is explained by these emotions and limbic connections[417]. Neural connections that were developed before the explicit memory is formed are not remembered or understood by the cortical brain. Reason cannot replace the importance of limbic connections to other mammals and humans. "Limbic resonance, regulation, and revision define our emotional limbic existence…"[418]. Limbic biology and chemical relations govern mammals.

Our genetic code is defined in such a way that it only develops properly if the adequate experience with the outside world is given. From inherited genetics there are several possible developments, and which of these happens depends on the social experience: in which the initial care of the infant and the child's early years play a basic role. Suomi shows that monkeys with a gene that impacts the metabolism of serotonin show abnormal social behavior in the absence of maternal care; however, if they are grown with appropriate mothering the abnormal behavior is regulated[419].

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[415] Wallin, DJ (2007), *Attachment in Psychotherapy, New York, Guilford Press.*

[416] Le Doux, J. (1996), *The Emotional Brain: The Mysterious Underpinnings of Emotional Life, New York, Simon & Schuster.*

[417] Lewis et. al. 2000, p. 288., op. cit.

[418] Lewis *et. al.,* 2000, p. 229., op. cit.

[419] Suomi (1999, 2000). Suomi, SJ (1999), *"Attachment in rhesus monkeys", in J. Cassidy and PR Shaver (Eds.), Handbook of attachment. Theory, Research and Clinical Implications, 181-197, New York, The Guilford Press.* 2000 *"A biobehavioral perspective on developmental psychopathology. Excessive aggression and serotonergic dysfunction in monkeys ", in AJ Sameroff, M. Lewis, and S. Miller (eds.), Handbook of Developmental Psychopathology, 2nd. ed. New York, Plenum Press.*

The need for a social life is not only human, but also in general a characteristic of mammals and even other animals like birds. Harlow's and Lorenz's experiments, among others, have shown the strength of the social instincts in mammals and other species. Lorenz showed how ducks and geese instinctively follow their mother and, cheating the instinctive attachment system, he managed to make them follow other objects, including himself. The instinctive attachment system of birds is programmed to make them follow anything that moves and appears before their eyes since earlier life. Lorenz's studies have also been repeated with mammals such as sheep, guinea pigs and monkeys. This instinct to belong of birds and mammals was called "imprinting" by Lorenz. Harlow showed that a monkey prefers to stay with an artificial mother instead of staying next to a device that gives milk. Hofer has shown that the mother-child relationship in rats is vital for the proper chemical and physiological functioning of the rat daughter[420]. The mother's body, when it is close to the daughter's, regulates chemical and biological processes in the baby all throughout her body system: it affects the heart rate, the sleep, and the immune, neurochemical, circadian and endocrine systems.

Children regulate their sleep better if they sleep with an artificial, breathing bear than with a simple Winnie the Poo. The syndrome of sudden infant death is related to maternal sleep habits that leave the baby alone; it is noteworthy that the syndrome increases four times when mothers are depressed. Babies who sleep with their mother breastfeed up to three times more than those who sleep alone (McKenna, 1996). Mammals generally grow, protect, and defend their descendants when they are immature. Babies react to emotions and facial changes of the mother at 36 hours of age and can distinguish the voice of the mother rather than the father (implying some form of prenatal learning). At 42 minutes old, a baby can mimic the facial expression of an adult[421]. We are genetically prepared to develop ourselves interacting with other human beings (es-

[420] Hofer (1987, 1995, 1996, and 2004) Hofer, MA (1987), *"Early relationships: a psychologist's view", Child Development, Vol. 58 (3), pp. 633-47. (1995) "Hidden regulators: implications for a new understanding of attachment, separation, and loss" in S. Goldberg, R. Muir, and J. Kerr (eds.), Attachment Theory: Social, Development, and Clinical Perspectives, Hillsdale, New Jersey, Analytic Press. (1996), "On the nature and Consequences of early loss", Psychosomatic Medicine, Vol. 58, pp. 570-81. (2004), "The emerging neurobiology of attachment and separation: How parents shape Their infant's brain and behavior", in SW Coates and JL Rosenthal (eds.), September 11 "When the Bough Broke" Attachment Theory, Psychobiology, and Social Policy: An Integrated Approach to Trauma, New York, Analytic Press.*

[421] Meltzoff, A. and M. Moore (1998), *"Infant intersubjectivity. Broadening the dialogue to include imitation, Identity, and Intention ", in S. Braten (ed.), intersubjective Communication and Emotion in Early Ontogeny, Cambridge, UK, Cambridge University Press, pp. 47-88.*

pecially to be protected and guided as babies) and with the biological and material universe around us.

There is a limbic regulation between mammals that allows communication between them and strengthens the vital chemical activity of the parties involved. Neurotransmitters are released by the body because of interpersonal relationships. In relationships with people close to us the body releases opium, and another neurotransmitter, oxytocin, which is released by the mother before delivery and in adolescents during the crush. Long forced separations disturb adult cardiovascular, hormonal, and immunological processes functions. Neurotransmitters are used in adults for the treatment of nervous disorders: serotonin (Prozac) is used for anxiety, depression, low self-esteem, and hostility, among others; opium reduces anxiety.

The brain is created through the energy that activates neurons, but the flow of energy in the mind is defined from a flow of information. The integration of information into a coherent whole is facilitated or inhibited because of interpersonal relationships, and the primary means of communication in such relationships are emotions. "…an individual's ability to organize emotions – a product in part, of earlier attachment relationships - directly shapes the ability of the mind to integrate experience and adapt to future stressors.[422]" Experience directly influences synaptic connections - the way neurons are connected between them - and strengthens them or leads them to their demise.

Anxiety and depression are the first consequences of the limbic omission. Spitz showed that children in orphanages and prisons, which are not given interpersonal care, lose weight, get sick and often die[423]. Adult monkeys that grew up isolated cannot interact with other monkeys, they tend to self-mutilation, and stop eating and drinking for long periods. A monkey that grew in isolation does not develop its mammalian nervous system properly; and shows a general disruption of brain function, that Kraemer doubted that can be remedied or controlled by drugs. This general disorganization of the brain produces aggressive social behaviors. Monkeys growing next to mothers who were showing emotional stress presented personality disorders[424]. The limbic isolation in humans also

[422] Siegel, 1999 p. 4., op. cit.

[423] Spitz (1945)., op. cit.

[424] (Kraemer, 1985, 1989, 1990.1992, and 1996). Kraemer, GW (1985), *"Effects of expats in early social experience of neurobiological-primate behavioral development", in M. Reite and T. Field (eds.), The Psychology of Attachment and Separation, New York, Academic Press.* Kraemer, GW (1992), *"A*

has serious consequences, the lack of a relationship of belonging to the family and to society leads to all kinds of undesirable aggressive behaviors, such as crime. Lewis, Amini and Lannon note that: "no intrinsic restriction on harming people exists outside the limbic domain"[425]. For these authors violence between groups is due to the rational explanation that the enemy is not like us. The unsatisfied limbic brain seeks to replace relationships with substitutes like drugs, alcohol, excessive plastic surgery, and others. Thus, serial criminals may be explained, in some cases, by genetic defects, and in others, because of extreme limbic negligence; and in most cases as a combination of the two factors.

Grossly inadequate synaptic connections in the early years can impair brain function to the point of leaving it without redress. When acute negligence with the child occurs, babies show a head circumference less than normal, their brain has shrunk by the loss of millions of cells result of the lack of interpersonal relationships and of maternal protection; the possible cause is excess cortisol and other hormones triggered by stress that cause neuronal damage[426]. In less extreme negligence cases, limbic omission has consequences of aggressive and undesirable social behavior. When damage is reparable, psychiatric, and psychological therapies can contribute to create new relationships with trustable personalities and can contribute to recovery.

Most adults remain with the personality that they developed as children, so that even if there is hope of change, this does not happen very often. There are biological reasons that hinder the personality change (even though with appropriate therapy or with new solid belonging conditions, it is only impossible in extreme cases). First, after adolescence neuronal plasticity – the creation of new synaptic connections – decreases. Second, the invariant mental models previously developed make new learning

psychobiological theory of attachment", Behavioral and Brain Sciences, Vol. 15, pp. 493-541. Kraemer, GW, Ebert MH, DE Schmidt, and WT McKinney (1989), *"A longitudinal study of the effect of different social rearing conditions on cerebrospinal fluid norepinephrine and biogenic amine metabolites in rhesus monkeys", Neuropsychopharmacology, no. 2 (3), pp. 175-89.*
Kraemer, GW and AS Clarke (1990), *"The behavioral neurobiology of self-injurious behavior in rhesus monkeys", Progress in Neuro-Psychopharmacology and Biological Psychiatry, Vol. 14, pp. S141-S168. (1996). "Social Attachment, brain function, and aggression", Annals of the New York Academy of Science s, no. 794, 121-35.*

[425] Lewis et. al. 2000, p. 216., op. cit.

[426] Teicher 1997 and 2002. Teicher, MH et. al. (1997), *"Preliminary evidence for abnormal cortical development in Physically and sexually abused children using EEG coherence and MRI, Annals of the New York Academy of Sciences, 821, pp. 160-175.* Teicher, M. (2002), *"The Neurobiology of Child Abuse", Scientific American (March 2002), pp. 68-75.*

difficult. Many studies reveal, however, that new synaptic connections are possible. Neuroplasticity, although significantly lower, remains active in the adult. For example: infants are born with the ability to distinguish thousand phonemes, but since most languages use few of them (the English language uses only 40), most of our phonetic ability distinction is lost in adulthood; however, the Japanese, at the Center for Neural Basis of Consciousness, have been trained to distinguish phonemes in English which do not exist in their original language.

The lesson learned from the neurobiology of belonging is that we are beings whose individual adequate genetic development depends on the proper belonging to the outside world (the external institutional environment is critical). Emotional stability, which depends on adequate belonging, is a prerequisite for proper reasoning. Our autobiographical consciousness enables the use of reason and imagination to reinterpret the past and to analyze and create options for the future; but this ability depends on our emotional stability, which is mainly developed based on an appropriate belonging.

THE TWO EVOLUTIONARY SURVIVAL CONDITIONS

This section discusses the two evolutionary survival conditions "freedom of individuality" and "belonging"; we review the empirical evidence which shows that the satisfaction of both conditions is required for the brain to unfold properly.

Freedom of Individuality

The most important discovery of contemporary neurobiology is that the genetic program is designed primarily to work in proper interaction with the environment. The evolutionary purpose is the biological survival value, and for it is necessary to ensure the adaptation of the body to the environment. Therefore, our genetic inheritance is governed by the principle of adaptation to an outside world. And since the world is moving, complex organism's adaption requires them to move. The basic objective

of the brain, as mentioned, is to coordinate movement. Rodolfo Llinas[427] attributes the birth of the mind to the brain's control of organized movement: which enables learning and survival of the individual entity in a complex and challenging external world that is in motion. Freedom of individuality is an evolutionary condition of survival. As animals we were designed by nature to develop in an environment in which freedom of individuality is necessary for survival. Freedom of individuality consists of 1) Freedom of movement, which is the essential way of learning; 2) paying attention individually to what happens around us - to be able to survive; and 3) face all the time, individually, new challenging situations that continuously arise - which keeps the brain active.

The neurogenesis - the growth and maintenance of neurons - depends on the freedom of individuality. Movement is necessary for proper neural development. Rats that grow in enriched environments where they can run, maintain, and develop about 15% more living neurons compared with rats that grow in a plain box, and they are more capable of learning tasks and resist better stress[428]. It has been found that acetylcholine, a chemical necessary for learning is in highest amounts in rats trained in difficult spatial problems[429]. It has also been shown that if the rats are forced to exercise, these neuronal benefits previously mentioned are not obtained. Exercise must be voluntary. The voluntary exercise promotes the growth of new brain cells and maintains the existing cells for a longer period, consequence of the need to learn to face new environments[430]. The life of a rat running in an enriched environment, in which there are other animals around and objects to explore, increases the weight of the whole cerebral cortex 5%, and the weight of the specific areas directly stimulated by nearly 9%[431].

Freedom of individuality is a precondition for the development of the appropriate relationship with the exterior world: and on its adequate

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[427] Llinas, R. (2002), *I of the Vortex: From Neurons to Self, Cambridge Mass, USA, MIT Press.*

[428] (Volkmar and Greenough 1972. Kempermann, Gage *et al.,* 1997 and 1998). Volkmar, FR and WT Greenough (1972), *"Rearing complexity Affects branching of dentrities in the visual cortex of the rat", Science 176 (1972), pp. 1445-1447.* Kempermann G, HG Kuhn, and FH Gage (1997), *" hippocampal neurons in adult mice More living in an enriched environment ", Nature, Vol. 386, pp. 493 - 495.*

[429] Renner, MJ, and MR Rosenzweig (1987), *Enriched and Impoverished Environments, New York, Springer-Verlag.*

[430] Springer, MV et al. (2005), *"The relation Between During brain activity and memory tasks years of education in young and older adults, Neuropsychology, 19 (2), pp. 181-92.*

[431] Rosenzweig, MR et. al. (1962), *"Effects of environmental complexity and training on brain chemistry and anatomy", Journal of Comparative and Physiological Psychology, 55, pp. 429-37.*

satisfaction depends the proper neuronal development. Lack of movement stops the proper functioning of our dopamine and attention systems, which are crucial for brain plasticity[432]. Birds chirp a new tune in every season and consequently develop new brain cells in the brain area responsible for singing[433]. The emergence of new brain cells has also been demonstrated in primates and humans. Neurogenesis occurs not only in childhood and youth but also, albeit on a smaller scale, at maturity. Cage and his group found empirical evidence of new neural cells produced in old age in humans[434]. Age-related memory loss may be preventable and even reversible with appropriate mental exercises[435]. The two keys to fight against the aging brain, from this point of view, are exercising and keeping mentally challenging tasks; movement is life. Depression is characterized by smaller hippocampus[436]. In this sense, neurogenesis in the hippocampus seems to be the best cure for depression, and it is produced by exercise and by being constantly exposed to novelty. In contrast, chronic stress prevents neurogenesis. Exercise keeps running our respiratory and cardiovascular systems, which are essential for proper neurogenesis. Movement is necessary to relate to the outside world and to achieve adequate belonging to it; but, as we have said, it is required that movement be voluntary. Freedom of individuality involves voluntary movement, paying attention to our surroundings and challenging ourselves with a novel outside. Freedom of individuality, belonging and neuronal development belong to the same catalog - designed by evolution for the proper adaptation of the body to the outside world, thereby ensuring its survival.

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[432] Vaillant, GE (2002), *Aging well: Surprising Guideposts to a Happier Life from the Landmark Harvard study of Adult Development, Boston, Little, Brown, and Co.*

[433] Erikson, PS et. al. (1998), *"Neurogenesis in the adult human hippocampus", Nature Medicine, Vol. 4 (11), pp. 13-17.*

[434] Van Pragg, H. et. al., (2002), *"Functional Neurogenesis in the adult hippocampus," Nature, 415 (6875), pp. 1030-1034.*

[435] Vaynman *et al.,* 2004 and 2006. Vaynman, S., Z. Ying, and F. Gomez-Pinilla (2004), *"Hippocampal BDNF Mediates the efficacy of synaptic plasticity and exercise on cognition", European Journal of Neuroscience, 20, pp. 2580-2590.* Vaynman, S., and F. Gómez-Pinilla (2006), *"Revenge of the '' sit ''. Impacts How lifestyle neuronal health and cognitive Through Molecular Systems with That interface energy metabolism neuronal plasticity ", Journal of Neuroscience Research, 84, pp. 699-715.*

[436] Santarelli, I. et. al. (2003), *"Requirements of the hippocampal neurogenesis for the behavioral effects of antidepressants", Science, 301, Aug. August 2003, pp. 805-9.*

Belonging

Belonging is the identification with the outer world product of the development of our evolutionary potential relationship with it. Belonging involves reasoning, but has an emotional base given by the limbic brain and it requires the imagination that characterizes the right brain hemisphere. We belong in our existential uniqueness: we are unique, and we are different to the external world, but we can develop our potential belonging. The unique existence implies that identification is never a complete integration. Individuality (Derrida's *"Differeance"*) is an incontrovertible fact of the individual reality. The tension between the individual and society is never fully eliminated, a fact that Freud properly highlighted, and Bowlby underestimated. But Freud never realized to what extent the individual can identify with society, so that belonging may predominate over the individual distinctness. The life of a living human being necessarily involves the process of developing his potential belonging in relation to those he loves, the social group and the existential universe surrounding him. The main bridge between existential individual uniqueness and belonging to everything else are emotions. The holistic and imaginative functions of the right hemisphere and the limbic brain allow for the development of emotional bonds which are the basis for the development of individual belonging to those he/she loves, to the society as a whole and to the biological and material universe that surrounds him/her. But humans are also provided by the evolution of a cortical brain and of the capacity for mentalizing. The relations of belonging, thanks to language, are expressed in the narrative, which also involves the left hemisphere. Mentalizing is key to the transmission of information between generations; and the narrative would not be possible without mentalizing. Table 9.1 presents the definition of mentalizing.

TABLE 9.1. THE CONCEPT OF MENTALIZING

Mentalizing is a concept coined in psychology, which involves making mental our emotions, reading them carefully and creating alternatives via the representational imagination to explain our past with psychological flexibility and build future viable alternatives to be considered. Mentalizing involves the holistic imaginative capacity of the right hemisphere and the emotional limbic brain; but involves both logic and reason, so it also requires both the use of the left hemisphere as well as of the cortical brain. For more extensive explanations see Allen *et. at.*, 2008; Obregon, 2009.

The narrative creates consistency and integration at the individual level; and it generates identification and the possibility of conceptual belonging to the people we love, society and the existential universe. Mentalization generates a conceptual system that is not only based on emotions, but also on mentalized concepts that define a culture that can be transmitted not only through customs, practices, and actions, but also conceptually via verbalization and language.

Children are born with a contingent detection mechanism that provides them information about the emotional interaction with caregivers, they quickly learn to inhibit and control emotions and develop alternatives to the initial basic inhibitory automatic responses, these responses are specific to each given relationship. Humans develop emotional cognition in interaction with caregivers who mark their emotions, which is a precedent to develop emotional representations, including the representation of oneself. The human species has a unique ability to communicate social learning pedagogically[437].

Mentalization, as Gergely and Unoca conclude, from the evolutionary point of view, must begin with the ability to read the minds of others, but soon is used to read one's own mind and is linked to the cognitive ability to control emotions, which generates better strategies for emotional expression, both in cooperative and in competitive relationships. Given that the cognitive ability is learned through emotional control in the relationship with caregivers, mentalization is related to the quality of the initial belonging relationship and differs significantly between individuals as the psychology of belonging (attachment) has shown.

The Three Belonging Ways

The need to belong is an innate instinct, which makes the child seek to be meaningful to someone else, in the beginning this someone else is the provider of food and protection, in most cases the mother. The adult continues looking for ways to be meaningful to those he loves, to the social

[437] (Csibra and Gergely, 2006; Gergely, 2007; Gergely *et al.,* 2007.) Csibra, G. and G. Gergely (2006), *"Social learning and social cognition: The Case of Pedagogy" in MH Johnson and YM Munakata (eds.), Processes of Change in Brain and Cognitive Development. Attention and Performance, XXI, pp. 249-247.* Gergely, G. (2007), *"Learning 'about' versus learning 'from' other minds: Human pedagogy and Its implications "(ed.), P. Carruthers innateness vol. III, Foundations and Mechanisms, Oxford, UK, Oxford University Press.* Gergely, G., I., and K. Király Egyed (2007), *"On Pedagogy" Developmental Science, Vol. 10 (1), pp. 139-146.*

group and to the existential universe around him. The search to be meaningful involves developing relationships of belonging, which identifies us with something else, greater than ourselves, enables us to transcend the loneliness of our individuality and makes us significant in terms of that something else. We are significant if we signify something to that something else, greater than us. The search to be meaningful - to belong, is a necessity imposed by evolution, and the proper neural development of the brain depends on its success.

The individual, as we have mentioned, has three different ways to belong[438]. The definition of each is presented in Table 9.2. The three belonging relations have emotional bases and all of them are required for the proper individual development.

TABLE 9.2. THE THREE BELONGING WAYS

Belonging: is the identification with the outer world product of the development of our evolutionary potential relationship with it.
Love: the belonging relation with our mother or care giver and to those near to us.
Social significance: the relation of belonging to society.
Existential significance: the relation of belonging to the existential universe.

The psychological theory of belonging highlights the belonging relation with the mother or caregiver, the father and those near to us - the first way – love.

Although social significance - our relationship of belonging to society as a whole - was a concern for Bowlby, the founder of the psychology of attachment (belonging in our words) did not develop a theory concerning social significance. However, social significance is crucial for proper individual belonging. The implications of social belonging in individual psychology have been emphasized, as we have seen, by other schools in psychology - such as interpersonal relational psychology, personality psychology, learning psychology, social psychology, and the psychology of the positive emotions. The fundamental relevance of social significance has also been highlighted by sociologists as Durkheim and Weber.

In the case of existential significance, contemporary psychiatry begins to recognize the importance of meditation and mindfulness. Being aware of life itself and our existential relationship with the universe around us

[438] Obregon, C. 2009. *La Soledad y el Amor*. Amazon.com. Research gate.com.

gives us peace of mind, regulates our chemical processes, and makes us less vulnerable to suffer or remember traumas. Germer and other scholars describe mindfulness as a non-verbal process of being intentionally focused on the present and aware, but without involving a thought process[439]. Being conscious promotes affective regulation and stimulates the imagination, facilitating therefore the mentalizing process. Affective regulation is required to have a reflective attitude; mentalizing includes both. Diverse conceptual systems give different cultural relevance to mentalizing versus the process of being conscious.

The psychological and biological viability of the individual depends on his/her relations of belonging. In the Western tradition the individual is responsible for individually signifying himself/herself by the three-ways, and his possibilities of achieving success depend largely on his belonging heritage. But even with inadequate belonging heritage, some individuals can achieve a secure personality, based upon new relevant social figures of belonging and on developing a proper identification with the existential universe. Mentalizing allows the individual to look at his heritage of belonging with flexibility, and to put renewed emphasis on the importance of new adequate sources of belonging. Creativity, social success, love of/ from new figures of belonging and being aware of the here and now of the existential universe as well as the vitality of the existence, facilitates mentalizing, reducing therefore the negative impact of the initial heritage of belonging. However, it must be emphasized that it is not possible for an individual to mentalize without access, during his adult life, to new proper sources of belonging. Precisely one of the aims of psychiatry is to provide such new sources of belonging. The psychiatrist himself, as Wallin, Fonagy, and others comment, becomes an important new source of belonging[440].

Any of the three ways to obtain significance alleviates loneliness and increases the individual's sense of belonging. In addition, the three ways reinforce each other. Hence the importance of individuals to develop as much as possible each one of the ways of significance. The love that the individual receives in his childhood is crucial to form an appropriate basis of belonging. Social significance provides a solid foundation for transcending loneliness. Existential significance adds additional bases to ease the loneliness. Belonging to the existential universe gives meaning to our existence and to life itself.

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[439] Germer, CK, Siegel, RD (2005). *Mindfulness and Psychotherapy. New York. Guilford Press.*

[440] Wallin (2007)., op. cit. and Fonagy (Allen 2008). Allen, GJ, P. Fonagy and Bateman AW (2008), *Metalizing in Clinical Practice, American Psychiatric Publishing, Arlington, VA.*

CONCLUSION

Contemporary psychology and neurobiology do not show us neither the irrational altruistic individual of behavioral economics, nor the rational selfish individual of neoclassical economics, and neither Sen's rational ethical individual. Instead, it is an individual with a very flexible mind and capable to display distinct behaviors and to adapt to diverse social and environmental institutional circumstances. The psychological individual is capable of behaving like any one of the three mentioned individuals, depending on the circumstances. Any methodology based only upon individual characteristics is therefore necessarily insufficient and incomplete to explain individual behavior which strongly depends upon institutional external circumstances.

Under certain conditions the psychological individual's behavior may be fully defined by external stimulus, but under most circumstances there is an active ego that differentiates one individual from other and therefore their responses to the external stimulus. Individuals are biologically different among them, a requirement of evolutionary diversification; therefore, biological differences influence distinct responses to the same external stimulus. Individual existence and individual genetic and learning differences have always been there. They are true in any given culture, not only due to individual biological differences, but also to the fact of the distinct exposure to external stimuli that constitute the specific learning path of each individual. Differences among individuals however are manifested in very diverse manners in distinct cultures. Because individuals always operate as social beings, the social conceptual system and institutional arrangement influence decisively how individual differences are socially manifested.

As we have seen, the freedom of individuality is a precondition for proper brain development and therefore it must be satisfied for most individuals in any culture. But we should not confuse the freedom of individuality with Western individualism. The freedom of individuality does not provide any specific concession to the individual, while Western individualism does, specifically, grant freedom to vote, to be active politically and to express freely; and freedom to own property and to exchange goods and services. Freedom of individuality is a neurobiological evolutionary characteristic of individual humans. Western individualism is a social concession to the individual consequence of a specific social differentiation that happened in Western history.

The development of the individual's ego necessarily obeys a rational relation with the outside environment that allows his/her survival – thus, the ego is capable of rational learning. But rational learning as we have seen is always emotionally guided. The individual is tied to others through emotions. And since the individual has always been a social being, the way he thinks and acts has social origins. Abstract thought is linked to a language of social origin. The differential characteristic of humans is that they have a higher abstract capacity, and already before the *Homo sapiens* existed, burial rituals clearly show that a conceptual social system was present along the institutional arrangement that allowed the survival of the group. Social learning must direct individual behavior because it is a survival condition of the group. Social psychology has extensively documented the influence of the group on individual behavior even under the West's institutional arrangement.

The individual has survival instincts, but they are guided by a belonging instinct required for upbringing the child and allowing group survival. Belonging is a given evolutionary potential to relate to the outside world. The upbringing of the child requires both love and social significance, the first and second ways of belonging, and the environmental survival of the group requires the third – existential significance.

Because of belonging, any attempt to define the social dynamics based on the conditions of the individual, regarding whether he is rational and selfish, irrational, and altruistic or rational and ethical, will fail. Under distinct belonging conditions the individual's evolutionary adaptative survival capacity generate different responses. It is not possible to define the individual responses unless we identify the relationship between the individual and the society in diverse cultures and in different circumstances.

In the next chapter we will discuss a CI general theory of the relationship between the individual and the society that pays particular attention to the belonging aspects of such a relation.

CHAPTER TEN: CI THEORY OF SOCIAL ORDER AND SOCIAL CHANGE

Based on the scientific knowledge presented in the previous chapters we now introduce, in the first section of this chapter, a general framework of CI of the relationship between the individual and the society, that is relevant for diverse cultures and distinct historical times. Using this general framework of CI of the relationship between the individual and the society, we discuss in the second section social order as an outcome of belonging; and we discuss how social order is established in distinct ways in different cultures and societies. The critical conclusion is that diversity is the characteristic of human societies and that the Western route of differentiation – individualism – is only one of the several main routes that exist. Moreover, in the Western societies, as in the large societies included in the other routes of differentiation, there are many different variations. Thus, real societies differ among them for three main reasons: 1) they may belong to a distinct cultural differentiation route; 2) they have their own specific particularities within the differentiation route to which belong; and 3) many large societies are composed of populations that belong to distinct differentiation routes. Finally, in the third section we present several theories of social change, and we emphasize that: 1) although it occurs - as North argues - at any place in the social system, its main determinant is technological development, and 2) by its very nature social change is slow, particularly due to the opposition of the old institutions. Social change, however, happens in different ways in distinct societies at diverse historical times.

THE INDIVIDUAL AND THE SOCIETY

In building this general framework we are using abstract social categories that are useful to illustrate the relationship between the individual and the society; the reader however is warned that other abstract so-

cial categories could be used. The ones that we use are chosen because they allow us to fruitfully interact with social reality, as we will show in the next chapter. However, other abstract categories might also turn out to be useful. Science does not discover reality; it just interacts fruitfully with it.

Humans have two key evolutionary characteristics: 1) freedom of individuality i.e., humans are individuals, genetically differentiated from others, who are born and die; and 2) belonging, i.e., humans belong to a social group. To maximize humans' survival chances, evolution provided them with two kinds of instincts: selfish instincts (hunger, fear, sex, and aggression) and the belonging instinct. Selfish instincts guarantee that everyone looks after his/her individual own survival. A belonging instinct guarantees that the individual is related to a group, because that increases his/her survival chances. The belonging instinct was evolutionarily designed to guide and redefine the selfish instincts, because the group's and the species' survival are more relevant than the survival of any specific individual.

In evolutionary terms, humans already come from an ancestor that lived in groups. And the evolutionary changes that led to the *Homo sapiens* were concomitant with a more intense social life. If anything distinguishes humans from the animals is their syntactic language, which is due to more intense social life, and provides them with a higher abstract capacity that allows the vision of an extended time. To be human meant, from the beginning, to live in a group. Individual's survival depends upon his belonging to a group.

Any animal that is evolutionarily designed to live in group has a pragmatic institutional arrangement that orders the assignment of the individuals in the group and defines the required tasks for the group's survival. Humans, due to their higher abstract capacity, from the beginning develop a conceptual system that works in parallel with the institutional arrangement. In fact, burial rituals of 300,000 years before the appearance of the *Homo sapiens* already reflect the presence of a conceptual system, with the vision of an extended time.

The first task of the conceptual system and its corresponding institutional arrangement is to define, for any given society, the three belonging ways discussed in the previous chapter: love, social significance, and existential significance. Love guarantees the required emotional and physical nurturing that the upbringing of the child requires for the species to survive. Social significance defines the belonging of the individual to

the group and maximizes both the individual's and the group's survival chances. Existential significance orders the relationship with the outside biological and physical world which is required for survival. Social significance is expressed through three social systems: integrative, power, and economic systems. The interaction between the individual and the society (the institution) is presented in table 10.1 and the definitions of the corresponding categories in table 10.2

TABLE 10.1 SOCIAL INTERACTION

	Love	
Individual	Social significance	Institution: conceptual system and
	Existential significance	institutional arrangement
	Integrative system	
Social significance:	Economic and trade System	
	Power system	

TABLE 10.2 DEFINITIONS OF CATEGORIES OF ANALYSIS OF SOCIAL BELONGING

Individual: refers to a physical individual that has survival selfish instincts as well as the belonging instinct.

Institution: is the sum of a conceptual system and its corresponding institutional arrangement.

Conceptual system: it is a mixture of knowledge, beliefs and habits that fully explain the social and physical reality, and guide and direct social and individual behavior.

Institutional arrangement: The set of institutions that make operative the conceptual system.

Belonging, love, social significance and existential significance are defined in table 9.2.

Integrative system: traditions and customs and social obligations, for example: established rules, the law; values and social beliefs in general; ethical principles; religion; benevolence; and individual commitments individually socially sanctioned.

Economic system: the distribution of property or use rights of economic resources, and the production and distribution of economic goods and services.

Power system: the social use of force

Magic, rationality, harmony, the primary society, the traditional society, and the Western society are defined in table P1.

The basic social interaction system of any society is the integrative system. The integrative system consists in the traditions and customs, socially established obligations, established norms, the law, values, and social beliefs in general, ethical principles, the religion, benevolence, and commitments acquired individually but socially sanctioned. This system holds society together, and it is the base that defines the main relationship between the individual and the society. The power system refers to the use of public force. The use of force is usually only allowed to the State; individuals are forbidden to use any sort of force against other individuals of the same *in-group,* although they may be allowed to use it against other members of the society which are conceived like *out-group* members, i.e., slaves. The power system, or the threat to use it, usually governs, to a large extent, the relationship between groups – although diplomacy is frequently also used. The economic system is related to the definition of property and use rights of economic resources and the production and distribution of economic goods and services. The hallmark of every society is the degree to which the integrative system validates the economic system as a source of social significance. In primary societies the economic system is highly restricted; therefore, production and distribution of economic goods is mainly decided within the integrative system. In traditional societies, the economic system is differentiated, but it is still not dominant. In the Western societies the economic system is a main pillar of the social significance; and even if the integrative system remains central, its relevance is reduced to the extent that it validates the importance of the economic system.

What is an institution? In other works, I have defined an institution as the sum of the conceptual system and its corresponding institutional arrangement[441]. The definition sounds somewhat tautological, but it is not. It is meant to indicate that the actual physical institution that we see in a society always has a corresponding conceptual system attached. Think for example of the institution of the parliament in England, it has its members, they discuss in a specific building, and so forth – but they also represent a conceptual system –i.e., the constitution, the laws, and so on. The conceptual system is defined as the sum of knowledge, beliefs and habits that comprehensively explain social, biological, and physical reality, which guides and directs social and individual behavior. An institutional arrangement is the set of institutions that make the conceptual system operable in real social life. The conceptual system and its corresponding institutional arrangement have a specific historical culture in each society. Therefore, social

[441] Obregon 2008 *Institucionalismo y Desarrollo.,* op. cit.

decisions not only correspond to todays' choices (whether democratic or not) but also to the historical institutions that compose the society at any given time. In democratic societies, whether we talk about representative democracy or participative democracy, democracy always operates in an already given institutional arrangement and its corresponding conceptual system, which do change through democratic decisions, but slowly.

This general CI interaction scheme between the individual and the society already alerts us to the problems encountered with several of the schools of economics, and of institutionalism, that we have been discussing before. And clarifies why each one of these schools only presents a limited version of the social world which, although it offers important, specific, scientific contributions, when pretending to represent the whole social world becomes only an ideology without scientific basis. Neoclassical economics and RCI intend to describe the social dynamics as the consequence of individual values, choices, preferences, and actions. In RCI institutions are seen as performing only the function to allow the private systems of preferences to work properly. But the individual of these schools is the Western individual, consequence of a particular history. Their results are only relevant for the Western economic system and leave out the Westś integrative and power systems. Moreover, for other cultures in which the individual has not yet been differentiated (or fully differentiated) by his rights, the Western individual is not even useful to explain properly the economic system. That is why neoclassical economics has failed in its recommendation to developing countries, failed in its advice to ex USSR countries, and has failed to serve as a guide for global economic policy. BE, as we have said, does not explain most economic problems in Western economies, and it is useful only for a particular subset. BE cannot explain the economic growth of capitalism. Moreover, understanding why individuals may be altruistic in the dictator's game and selfish whenever aiding poor people in other countries, requires realizing that in one case the integrative system is strong and in the other it is weak. Sen's economics cannot explain economic growth and many other economic problems. Sen's ethical human enters the integrative system and cannot be discussed within economics alone. And any ethics is consequence of a conceptual system, and there are not necessarily common trends between two distinct cultures' conceptual systems. SI stresses the relevance of institutions in defining individual behavior, but it has two problems: it undermines the relevance of individualism in explaining the economic growth in capitalism; and it ignores the social conflict that is consequence both of individual selfish survival instincts and of the fact

that belonging is stronger in small groups and that therefore social conflict between small groups in an enlarged society is always there. HI focuses on the path dependency but undermines the strength of social engineering, as it has been shown in the fact that a selected group of the Asian countries developed in an average of only twenty years[442]. This strong social engineering, however, was not consequence of the rational selfish individual of the neoclassicals, and neither of the altruistic cooperative individual of behavioral economics, nor of the ethical individual of Sen, or the creative innovative individual of NE. It was the consequence of decisions of a group of leaders that used the strength of traditional institutions to properly integrate their economies to the Western markets. We cannot explain this successful Asian growth starting from the individual, we must start from the social engineering of the leaders. Yet it cannot be explained either from SI, or from an institutional perspective alone. The difference between the failed communist model and the successful Asian model is that the latter exports to the dynamic Western markets – whose characteristics need to be understood with neoclassical economics plus the role of the middle class in these markets. The real social world is very complex and must be understood with flexibility, using the scientific model that is appropriate for a particular circumstance and a given problem. In the next chapter we will discuss why today's worldwide problems look differently from the perspective of CI, and what new solutions this new novel view offers.

SOCIAL ORDER

As we have seen in the last chapter, our belonging instinct has been carefully documented by the psychology of belonging. Thus, belonging to a group is the most human characteristic that we have, we became *humans* due to the enlargement of the social group. Now, evolution, according to our brain size, prepared us to live in groups of around one hundred to one hundred and fifty participants[443]. In groups of this size our emotional and chemical belonging works properly. However, as technology developed, the economic surplus grew and fostered the enlargement of the group, significantly above its originally designated evolutionary size.

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[442] *Globalization Misguided Views.,* op. cit.

[443] Dunbar 1992., op. cit.

Therefore, emotional, and chemical belonging were no longer possible. So, social belonging became more and more a conceptual – rational – relation, which by its very nature is weaker and more unstable.

Since humans evolutionarily need for emotional belonging (i.e. touching and looking into the eyes of other humans is an evolutionary requirement) it must be performed in larger societies by smaller groups, in which such human contact is possible. Any large society is composed by small groups whose stability is a precondition for the stability and order of the larger group. In primary societies, since the groups were small, emotional belonging is exercised to the group. In traditional societies, the extended family plays the primary role of providing emotional belonging – although tribes, clans, and other associations like sports games, or belonging to a social institution like the Roman senate, and so on, also play a complementary role. In contemporary Western societies, the unicellular family is the main provider of emotional belonging, but many other groups are complementary. In particular, the pressures under which the unicellular family exists due to the need of both parents to work (sometimes even in geographically incompatible places), has meant that other groups have gained relevance as providers of emotional belonging – that explains to some extent gangs, and groups like the Hare Krishna, and other more traditional groups, like clubs, schools, churches and so forth. The critical point to emphasize here is that *social order* in a large society always implies *social order* in the small groups that compose it.

In primary societies, love and social significance were/are both with the social group; and existential significance is also largely obtained through the social group. In traditional societies, as we have said, love was/is exercised mainly with the extended family, and social significance with the social group; existential significance may or not be obtained through the social group[444]. In contemporary Western societies, love is mainly exercised with the unicellular family and social significance, with the social group[445]. Existential significance, through Protestantism, has

[444] *Existence and Time.,* op. cit.

[445] The primary, the traditional and the Western societies are abstract categories of analysis used in previous works. They are defined as follows. Primary society: the individual is not differentiated from the society. The society, in turn, is not differentiated from the existential universe. Traditional society: the individual is differentiated from society in terms of his responsibilities, but not in terms of his rights. The society may or may not be differentiated from existential universe. Western society: the individual is differentiated, in addition to his responsibilities, by his rights. The individual exercises his rights of expression; political participation and voting freedom; economic freedom and property; and to pursue his individual economic interests. The society is differentiated from the existential universe.

become related to working for the wellbeing of the social group. Since we are evolutionarily prepared for having an emotional and biochemical belonging tie, love is central for an adequate individual belonging; that is why the disappearance of the unicellular family in Western societies is a serious threat to the psychological stability of the individual.

What we would like to point out in here is: that the individual needs the group, not only for his economic survival, but also for his psychological wellbeing. Extreme cases of loneliness produce uncontrolled aggressiveness or self- destruction. Monkeys that are grown isolated mutilate themselves and are never any longer capable to establish social relations with other monkeys[446]. Drug abuse is in fact one way to compensate for the lack of dopamine and oxytocin, consequence of inadequate emotional belonging in our contemporary societies[447].

We already have in here an initial explanation of why social expenditures over GDP in Western countries are between 20 and 30%, but international financial aid over world 's GDP is only 0.2%. Individuals belong to a given country, but not to a world community.

Social order is a natural consequence of the need of humans to live in a group. Our evolutionary ancestor, whoever it was, already lived with *social order*. In a world with existential regularities, it was natural that the primary societies tied *social order* to their relationship with the biological and physical universe and that they valued stability and the maintenance of *social order* [448]. In traditional societies, already composed of distinct groups, and in which individuals do not have close physical contact anymore, *social order* cannot longer be sustained only by evolutionary emotional belonging and the question of how to establish *social order* became critical. In ancient Rome, for example, as in many other traditional societies, *social order* was initially based on the direct representation of diverse clans or regions in a general council. Later, it changes to a more sophisticated system, based on direct democracy for certain public posts, the senate elected by the elites, and the emperor – and as we know *social order* was always difficult, and in many cases had to be imposed by force and was fragile – remember for example Cicero's confrontation with Caesar. In contemporary society, as in the traditional societies, *social order* depends critically on the *social order* of the groups that compose the larger

[446] Kraemer, 1985, 1989, 1990.1992, and 1996., op. cit.

[447] Obregon 2009., op. cit.

[448] The Savage Mind., op. cit.

society. And by its very nature it is also fragile, think for example of the breakdown of both the former USSR and the former Yugoslavia, the American Civil War, The French Revolution, The Russian Revolution, or the Mexican Revolution.

In addition to the fragility of the *social order* in the larger societies, there is of course a very fragile global social system, always characterized by wars and confrontations – *social order* at the global level has never been fully obtained.

The Selfish Instincts

We must be very careful not to confuse our selfish instincts with the selfishness of the economic human in large markets. The selfish instincts are an evolutionary characteristic of humans which is a constant in all societies, but in many of them social belonging did not allow for any social expression of these individual selfish instincts, at least for most of the individuals. It is the case of contemporary Western societies that the expression of the selfish instincts is allowed, to most of the individuals, through the large economic markets[449]. Therefore, the selfish economic human, as we have been arguing all along this manuscript, is an institutional characteristic of a specific society.

Therefore, it is inappropriate to conceive a human as an isolated, selfish, rational calculator, because he is only so under two very specific and limited conditions: 1) due to belonging failures; and 2) when social institutions specifically allow him/her to behave as such in a particular setting, like in contemporary societies in large markets, or in some sports or other game competitions. Besides these two conditions, the selfish instincts are always guided by the belonging instinct, otherwise *social order* would be impossible and social life would not occur. *Social order* can never just be imposed by the power system – no State has the required resources to do it[450]. Social order must be legitimate and accepted by an individual, that must internalize the social values and be willing to adopt a way of living that promotes social behavior. This is the role of the belonging instinct, which starts with the mother teaching/socializing the baby not to behave aggressively towards others.

[449] Poverty may not allow some individuals to express their selfish interest through the market.

[450] See Obregon, C, 2019. Social Order, Harmony, and Conflict in Human Societies. Amazon.com. Research gate.com

Social Order in Distinct Societies

As societies became larger, hierarchical and functional duty differentiations were required. Therefore, individuals were differentiated with respect to their obligations. These enlarged societies of course are composed of smaller groups, such as the extended family and others, in which the limbic connection remains – and these groups are key for social stability. That is why Confucius put so much emphasis on the importance of the family. The abstract rational concepts, however, provide a weaker tie than the limbic connection – therefore, the potential for conflict is created between the diverse small groups that constitute the larger society. Moreover, as conquests took place, traditional societies encompassed groups belonging to distinct cultures, and additional layers of conceptual, ideological, cultural, racial, and religious conflict were generated. Religions started in the traditional societies; they are an outcome of the differentiation of the individuals based on his/her duties.

We can identify at least six main routes of differentiation in the traditional societies (each one of them of course having many sub-routes; almost as many as there are real distinct societies): 1) The Indian South Asian; 2) the Neo-Confucian North Asian; 3) the Greek-Roman rationality; 4) the Christian; 5) the Muslim; 6) the Western Society; 7) hybrid routes. In what follows we will briefly describe each one of these routes, and as the reader will appreciate, they became clearly distinct from one another, as to their conceptual representational construction of human life and the existential universe.

1) The Indian South Asian route is closely related to the magic of the primary societies. The main driver is existential belonging. In the Indian religion there is not a personal God, there is reincarnation and everything that exists has a defined order. The social order is defined by the integrative system that gives each social class very well-defined duties. But in contraposition to the primary society, the differentiated individual is responsible to obtain by himself existential significance. In Buddhism, existential significance is individually obtained through illumination. The illuminated individual, is the one that through individual meditation (usually socially assisted), understands at a non-rational mystical level the two fundamental principles of the universal existence: a) that everything that exist is interde-

pendent and that it started to exist in its interdependence; and b) that therefore, the individual existence is just an illusion. Illumination then, is the mystical recognition of the ordered universe previously alluded to by magic; in which living and not living things exist in an orderly way, and in which death has no particular significance. The Indian religion has been and still is highly influential in many countries in South Asia.

2) The origins of the neo-Confucian North Asian route go back to Buddhism traveling north to China. China was becoming a big empire, holding together many cultures that lacked the Indian social order based on the strict definition of the classes' obligations, and Buddhism was a personal religion – therefore, social order had to be based on something else. Confucianism provided the answer with its rational definition of social obligations. The most important social relationships for Confucius are five: ruler and ruled, father and son, husband and wife, elder and younger brother, and friendship. The objective of the ethics of Confucius is to develop social harmony between individual interests and those of society, always giving priority to the common interest. China already shows the need of a more abstract rational social order. Neo-Confucianism was, and still is, highly influential in many countries in North Asia such as China, Japan, and Korea. In Neo-Confucianism social order (social belonging) is defined by Confucius' obligations, while existential belonging is defined by Buddhism and Taoism. Communist China's social order is to large extent still explained by Neo-Confucianism, which makes it very different from Russian communism.

3) The Greek-Roman rationality arose in an historical stage when, given the relevance of iron in arms production, Persia forbade the private production of iron, which became an exclusive prerogative of the State. The consequence was the emerging production of iron outside of Persia in small factories, which was the beginning of Greece and its democracy, as the new factory owners needed to design a new form of government – given the lack of a traditional one. The answer was, as in China, a social order based on rationality. However, it was a different rationality than the one of China. Plato's rationality provided the basis of what would become the Greek-Roman-Western

civilization. Social order in Plato's and Aristotle's social theories was given by reason, they mistrusted the consequences of a non-rational democracy. The power of the senate in Rome (elected by the minorities) was consequence of their view. The Greek-Roman rationality defined social order, but existential belonging was defined by a magical mysticism in which the living and the dead, and the gods and the humans, enjoyed all kind of magical powers and confronted each other. Hercules, a semi-god son of Jupiter, for example, is famous for choosing to be a human instead of a god, and for winning, as a human, battles against some gods. The demise of Rome gave rise to the powerful Christian church of the feudal times.

4) The Christian route of differentiation was eminently defined by Saint Agustin and particularly by Saint Thomas, who stated that reason - through mystical faith - could read the rational essences (Plato's) which were conceived as being contained in the mind of the creator (God). The church was the route for individuals to access the understanding of the true essential world. Reincarnation was substituted with eternal life, and magic with religious mysticism. Christianity gave an enormous social power to the Church, which became one of the main guarantors of a social order based on the moral-Christian behavior of the individuals. The kings' power was thought of as of a divine origin. And divine kings shared with the church the social power. Kings however were for the most part feudal lords fighting other feudal lords for the throne. It is not until the emergence of the cities that kings became truly powerful, since the control of the cities allowed them to out-power other feudal lords. In the Western countries the all-powerful kings did not last very long; because eventually the growing power of the cities challenged them, and democratic forces brought them down. However, in some countries like Russia democracy never came, instead they entered a communist State in which autocratic rulers remained all powerful. Communism in Russia has been to some extent a continuation of the all-powerful czars; and because of this, it is very different from the kind of communism practiced in China.

5) The Muslim route is characterized by the fact that, instead of Christ, Muslims believe in Muhammad. The Muslim religion

is a modified version of Christianity, adapted to the military needs of the times of a particular Arab culture. The Muslim religion gives more precise obligations to the individuals; and glorifies military actions, giving eternal life to the military heroes. The religious State is still highly influential in many Muslim countries today.

6) The Western contemporary societies are a differentiation of the Christian route. In Western societies individuals, in addition to be differentiated by their duties, are also differentiated by their rights. I have called the conceptual system that underpins the way these duties and rights are established, "harmony". Harmony is a form of rationality; in which reason has access to the understanding of the whole existential world, except the social order – which instead of being understood by reason, is the consequence of democratic participation. Protestantism is highly influential in some Western societies. In Protestantism the power of the church is diminished because individuals can have access to God's will directly through their work for the community. In Protestantism then, existential belonging is obtained through social significance – working for the community. As we mentioned before, harmony is derived from rationality, because the individuals' rights are differentiated by a rational method. Human rights are conceived as being in God's mind, and humans as having the capacity to understand them with their reason. Human rights, the rights of the children of God, include individual freedom which covers: the political freedom to vote and choose social authorities, to express ideas, and to own, produce and exchange economic goods and services.

7) Hybrid routes. Today, most of the remaining traditional world is under the influence of the Western culture. Most countries have been under the influence of Western democratic values, and some others have been influenced by Western communist ideals. Most routes today are hybrid. India in addition to the Indian religion has been influenced by the Western democracy, mainly through the English occupation, and it has also been influenced by the Muslim tradition. China is a hybrid result between neo-Confucianism and communism. Russia is a hybrid result of the all-powerful czars and communism. Ja-

pan and South Korea are a hybrid result of neo-Confucianism and Western democracy. Africa is a hybrid result of primary "magic" and Western democracy. Latin America is a hybrid result of many influences: the authoritarian old Spanish culture, Latin America's indigenous people's primary culture, the primary culture of imported African slaves, Western democracy, and Western communist ideas.

The previous paragraphs do not pretend to summarize the history or actual diversity of the conceptual systems and their corresponding institutional arrangements that have existed in the world. The goal has been rather to show the enormous diversity of these conceptual systems. Each one of the mentioned seven routes is very different from the others, and additionally, in each route there are innumerous variations. This complexity in the humans' representational understanding of reality is an evolutionary source of social conflict, the resolution of which is provided by envelope conceptual systems and institutional arrangements, that become however more and more fragile as they get larger. Today most big countries, as did many old empires, include diverse populations with distinct cultural backgrounds. And the world is extremely diverse, making it very complex to design global institutions and acceptable international conceptual systems.

SOCIAL CHANGE

There are many theories of social change. We shall mention four of them. The classics' stationary state, Marx's, Veblen's, and North's.

For Marx, the economic system explained social and institutional change. For him the changes in the relationship of humans with the material universe define the changes in the social universe. For him history is a teleological process which at the end will bring about the humanitarian communist society, in which the human needs of the individual will be satisfied.

Veblen agreed with Marx in many ways, but he points out that the social institutions created by the previous technological process will enter in conflict with the new institutions, consequence of the new – most recent – technological process. And that the result of this conflict varies from society to society, and it is different in diverse historical times. Therefore, it is not, as in Marx, a teleological process. According to him we can study the historical past, and he did, but we cannot forecast the future.

In North, social change happens anywhere in society. For him individual creativity not only changes the technological process of production, but also the social process by which individuals interact. There is a permanent questioning and redefining of the conceptual system and its corresponding institutional arrangement, which in turn modifies the three belonging relationships. And since it modifies social significance, it also changes the three social systems of interaction. For him change can start at any social instance. Individual creativity may modify the integrative system, which then will have repercussions in the other two systems of social interaction, as well as in the conceptual system and its corresponding institutional arrangement. North's point is that social creativity occurs at any social instance, and not only in the technological process of economic production. North, however, warns us, as Veblen did, that old institutions are resilient and difficult to change. This is how he explains why exporting Western institutions to developing countries has been so difficult and unsuccessful.

Finally, the classical economics' stationary state argued that, as the population grows, less productive land is used, therefore the cost of producing food goes up, the salaries go up, rent of the land goes up (because it is defined by the less productive land), and profits go to zero. Different economists designed distinct ways to escape the stationary state fatality; Malthus recommended policies to maintain population growth under control (which are still critical for many developing economies), Ricardo recommended importing food (which is also useful for developing economies). But the true way out of the stationary state is technological development. Technology applied to food production and other goods increases productivity and allows for both salaries and profits to go up. That is why for Smith technology was so crucial in his thinking. And what does technology depend upon? Mainly on mass production brought about by the enlargement of the markets. The positive cycle of economic development implied in the West is as follows: 1) international trade increased due to both, gold from the Americas and species from the East; international trade meant access to cheaper imported food. 2) Countries that were not involved in trade neither in gold nor in species had to develop mass production; 3) this implied that the burgos-cities grew; and this, by the way, was the best possible policy to reduce population growth, because having children in cities became more expensive and difficult. 4) As cities grew, the middle class grew, democracy came along, and the consumption of the middle class provided a new, sub-

stantial, and decisive enlargement of the markets. Along this process the enlargement of the markets required mass production, which fostered technological development both in food production as well as in other goods. Smith's main contribution is to have understood the relationship between large markets and technological development.

The two critical points to understand about social change are: 1) that although it occurs, as North argues, at any place in the social system, its main determinant is technological development, and 2) that by its very nature, social change is slow, particularly due to the opposition of the old institutions. Once we understand that institutions are not only physical arrangements of actual institutions, but also the conceptual systems that they represent, we can see why social change is so difficult; values and concepts remain attached to societies, on occasions, for centuries. The Western capitalism and the Asian capitalism have been exceptions, and even in them social change in certain areas is still slow. In some other regions like the Arab countries, South Asia, and large parts of Africa and India, the conceptual systems have prevailed, and social change has been very slow.

Social change is the consequence of old institutions, technological development, and individual or group creativity all through the social system. Notice that democracy and individual voting is only one of the components in all this process. Can we change our social world, in any desired direction? Yes. But at a slower pace that we may wish. Democratic choices must cope with the fast social change produced by technological development which has a dynamic of its own. Moreover, democratic choices are embedded in old institutions – many of which clearly delimit how far democratic choices can go. Societies are the reflection of their own history, strongly embedded in values and institutions, that necessarily, to some extent, constrain today's social choices whether they are democratic in nature or not.

CONCLUSION

The relationship between the individual and the society is defined by the conceptual system and its corresponding institutional arrangement, both of which define the three ways of belonging. Social significance happens through three social systems: the integrative, the power and the economic. Individuals have selfish instincts, but they are guided by the instinct of

belonging, and that is what makes it possible to have social order which is a prerequisite for the individual and group survival. But although this general scheme is applicable to diverse cultures and societies, the specific way in which the social order is established differs between distinct societies. Western individualism is just one of the several routes of differentiation of the traditional society, there are others that have been also very relevant such as: the Indian South Asian route, the North Asian Route, and the Muslim Route. Real societies diverge nor only due to the differentiation route to which they belong, but also by the path of social change that each one takes. Moreover, many large societies today, as many empires before, are composed of populations belonging to distinct differentiation routes. Thus, the main characteristic of the world is social diversity. Social change happens at any level in society, but a critical determinant of social change is technological innovation. Social change however is usually slow because of the resilience of the old institutions that usually resist changes. Social change however happens in a unique way in distinct societies in diverse historical times. In China, for example, after having been very slow for centuries, and although there is still resistance from the old institutions, social change has accelerated a lot in recent decades.

CHAPTER ELEVEN: CI THEORY OF SOCIAL CONFLICT AND ITS INSTITUTIONAL RESOLUTION

Social conflict is endemic to human societies, consequence of its evolutionary origin. Social conflict is both a blessing and a curse. It is needed for proper social change and therefore it is required for the society to adapt efficiently to endogenous and exogenous shocks. Yet if it is not well managed, it may cause unlimited social destruction. There are only two ways that can be proposed to manage social conflict: ideologies and institutions. Ideologies assume that there are universal values that are shared by all human beings and that the role of the ideology is to make humans aware of them; it is assumed that awareness of these universal values will lead to a proper social behavior that will end up in the lack of social conflict. Examples of ideologies are Christianism, RI (Marxism), and RL. As we have seen however, neurobiologically, and scientifically it is not possible for humans to have access to such universal values. Thus, ideologies differ among them because their universal values are philosophical preconceptions assumed from the start (in Derrida's sense). Therefore, ideologies become one additional source of potential conflict – as the preconceived philosophical proposals as to the "ideal" human life confront each other. So, the only way left to solve social conflicts are institutions.

Institutions do not, as ideologies, offer a general solution. Institutional arrangements change all the time to allow for social order, despite the continuous pressures that permanent social conflict and social change represent; but institutions are always imperfect solutions. The process is a never ending one: conflict, change, institutionalization of the social life. And it leaves many social problems unresolved, but it is the only true social process available for social conflict resolution.

In this chapter in the first section, we discuss social conflict and present a simplified general framework for analyzing conflict. Conflict may arise in any of the three belonging ways. And in social significance, it can

start in any of the three social systems, the integrative, the power and the economic system. Economic conflicts always require for their solution either one or both of the other social systems. Integrative system conflicts may or not have a resolution within its same system, and when they do not, the power system is required. Power conflicts never have a solution of their own, and always require at least of the integrative system, but the economic system may also be required. Power conflicts may end up in the construction of a new positive integrative system, which may be better or worse than the previous one in several dimensions. But the risk is that the result is never known beforehand, and it may involve substantial social destruction. In the second section we discuss theories of conflict resolution. We show why RL and RI (Marxism) do not work. And introduce other theories of conflict resolution and conclude that a CI multifactorial theory is required.

SOCIAL CONFLICT

Social conflict in human societies is part of our mammal heritage. Although Bowlby was right, and the belonging instinct guides and redirects the survival instincts, the process by its very nature is always far from perfect. The individual exists, he is different from the group and there will always be belonging failures. Belonging failures are, however, both a weakness and a strength of human societies. They are a weakness because they foster violence, aggression, and crime. They are a strength because they are needed for social change. A society that did not have belonging failures would be too rigid, too homogeneous, and would not have the diversity which is needed to confront external and internal shocks. Social survival requires some degree of belonging failures. Thus, both Bowlby and Freud were right. Bowlby's concept of belonging explains why most of the time *social order* prevails and why social life is possible. But since there are always belonging failures, Freud's selfishness and aggression are also a constant in human societies. Harmony and conflict always coexist.

Social conflict may be due to personal, economic, political, ideological, religious, racial, sexual, conceptual, or power-strategic differences. It happens at the individual level, between groups within a society, or between societies. There is always a difference between in-group and out-group members that creates conflict. Conflict is a natural characteristic

of human evolution and may have the positive influence to promote social change. Conflict resolution, however, not always ends in a positive note; it has the potential to go wrong and be highly destructive. Positive conflict resolution involves belonging. Social conflict resolution involves love and social significance. However, both love and social significance are prone to belonging failures; because the individual is always distinct from the social group, and because diverse groups interact towards one another within a frame of in-group versus out-group antagonism. In large societies, the envelope conceptual system and institutional arrangement is abstract and fragile.

A Simplified General Framework for the Analysis of Conflict

Conflict in human societies is evolutionary built-in for four reasons: 1) The need of individuality of the genetic pool, to maximize life survival chances; 2) the competition for scarce resources; 3) that we were evolutionarily designed to belong to small groups; and 4) the representational nature of reality in the human mind.

The individual is born as a social being which is linked to the society through a conceptual system and its corresponding institutional arrangement, which is particular to a social group or society. The conceptual system defines conflict resolution through the three ways of belonging: love, social significance, and existential significance. Social significance defines the three social systems: the integrative, the economic and the power one.

Belonging failures occur in any of the three belonging ways. Love belonging failures create insecure personalities and all sort of psychological and sociological pathologies. Social belonging failures may be rooted in any one of the three social systems. Economic conflicts are due to scarce resources, and they can only be partially solved in the economic system, the integrative and/or power systems are always required. Integrative system conflicts are due to the representational reality of the human mind, and they are political, ideological, religious, ethical, legal, racial, sexual, and so on. Power conflicts may be consequence of preventing deviant behavior within an in-group or society, or of confronting outgroups or other societies. Power conflicts cannot last forever, and some sort of integrative and economic solution is required, even if it is in the form of limited peace agreements. Therefore, power confrontations and

diplomacy frequently go together. Existential belonging failures generate individual anxiety and may create unsustainable relations of humans with the rest of the universe – as the global climate crisis shows.

Social conflict increases as the societies get larger and encompass more diverse social groups with distinct conceptual systems. The envelope conceptual systems become more fragile. Social conflict also increases as the global population increases; competition among different societies for scarce resources becomes more frequent. Figures 11.1 and 11.2 summarize the general framework of conflict analysis and key definitions for the benefit of the reader.

FIGURE 11.1 REASONS FOR EVOLUTIONARY CONFLICT

1) The need of individuality of the genetic pool to maximize life survival chances; 2) the competition for scarce resources; 3) that we were evolutionarily designed to belong to small groups; and 4) the representational nature of reality in the human mind.

FIGURE 11.2 SOURCES OF SOCIAL CONFLICT

Love Failures: psychological conflict

Social Significance Failures:

Scarce resources – economic conflict

Representational reality – integrative system conflicts: Political, ideological, religious, ethical, legal, racial, sexual, and so on.

In-group versus out-group – power system conflicts: violence, social protest, social warfare, wars, diplomacy

Existential Failures: Individual anxiety and psychological problems, global climate crisis

If the three belonging ways are satisfied, the individual's selfish instincts are guided and redirected to an adequate social life. However, if there are belonging failures in love – family ties -, in social belonging – social roles -, or in existential belonging – perceived sinful status -; the individual becomes isolated and, dominated by his selfish instincts, he becomes aggressive and destructive not only of others but even of himself. Thus, there is a very fine equilibrium between belonging and selfishness, which normally works well, but on occasions goes wrong and social conflict is produced. Social conflict is produced once the integrative

system is broken – or does not exist – and there is reason to distinguish between *Us* or *I* and *Them*. Isolated killers shooting at masses are usually the outcome of severe belonging failures (often associated with severe genetic problems), which end up in a sharp distinction between *I* and *Them*.

Most of the time the integrative system can hold the society together, but since the society is in a state of flux and social change is always happening, there are new values and new lifestyles arising and there is always social conflict. The faster the change produced by the economic system, the more difficult it is for the integrative system to hold the society together. That is why in contemporary societies, with fast economic growth and with rapid technological change occurring, it is of the most importance that the integrative system is both strong and flexible. The flexibility can be obtained by having a very rapid moving envelope conceptual system, and its corresponding institutional arrangement; and the strength comes from the degree in which the groups that constitute the society satisfy properly the required emotional belonging that the individual requires for his adequate psychological development. Therefore, particularly in rapid changing societies, *social order* cannot be maintained if two conditions are not satisfied: 1) the existence of solid small groups that satisfy emotional belonging and 2) a flexible social belonging system that ties the groups together and that is modified as needed by the rapid changes occurring.

The power system in most societies is not allowed between individual members, unless some of the members are *them,* like slaves. The power system, the use of force is reserved to the State or its representatives; and it is only a complement to the integrative system to preserve social order. No society could be established only using force, the main component of social bonding are the values of the integrative system that are instilled in the child by the mother's education, it is this socialization process which produces a social individual that only on occasions must be controlled by force. Huge social repressions occur mainly when the State is unable to allow the individuals to obtain the basic things needed to satisfy their survival needs; such cases often end up with mass rebellion, and often with the substitution of the representatives of the State. In addition to its subsidiary role of helping the integrative system to maintain *social order,* the key function of the power system is to defend/expand the interests of the *in-group* in relationship to the *out-groups*. This explains not only the "robbers cave" study mentioned earlier, and other more recent social psychology findings, but also why military conflicts have happened so of-

ten in human history; and why, even today, global military expenditures are eleven times higher than the value of international aid.

The economic system in the Western societies has acquired a dynamic of its own, and it is critical to understand social change. And despite its virtues, however, it does produce social problems and social conflict. The economic system is not an integrative system, individual economic relations are basically competitive. In developed economies, the economic systems' success has been paralleled with a rapid expansion of the integrative system – the participation of the governments in the economy has grown very fast – from 10% to 40% of GDP in the last century, and social expenditures from being almost nil to be about 25%. But the economic system tends to globalize itself rapidly; and it has not been followed by the expansion of the global integrative system. The consequence has been a rapid deterioration of the income distribution between countries that belong to the global process of production and countries that do not. While it is true that the global income distribution between countries has been improving in the last years, it only does so because of China and India, which do participate in the global process of production due to the ICTR. If we exclude these countries, the income distribution between countries has been deteriorating[451].

Numbers are very clear as to the irrelevance of the integrative system at the global level. International aid over global GDP is only 0.2% (compared with 25% social expenditures as percentage of GDP in developed economies); while the global economic system is large, global trade over global GDP is 52.3% (which means that international aid over global trade is only 0.4%). Since the global economic system is not supported by a global integrative system, it must be based on a strong power system, global military expenditures as percentage of global GDP are 2.2% (or 4.3% of global trade)[452].

Since the main characteristic of the economic system is that it is competitive and based upon the individual's selfish instincts, it does not have any component of belonging. In developed economies the growth of the economic system has been accompanied, as we said, by a rapid expansion of the integrative system and this has mitigated the potential psychological damage of the individual isolation that the economic system produces. However, the integrative system has been contaminated by the economic system, social status is more and more related to economic success; and the problem is that the individual may fail in obtaining the desired socio-

[451] *Globalization Misguided Views.,* op. cit.

[452] Ibid.

economic status. Moreover, the need of individual displacement for economic productive purposes has produced a rapid disappearance of the unicellular family: between 1960 and 2000 the divorce rate doubled, babies of unmarried parents sextupled and cohabitation without marriage increased sevenfold.

The disappearance of the unicellular family is particularly troublesome because societies cannot substitute efficiently with other forms of social belonging the more emotional and chemical belonging that the love of the family provides. Failures to obtain the desired socio-economic status, the disappearance of the family and the increasing weakness of the existential significance – which has also become an individual responsibility, have created significant socio-psychological problems. As it is shown in a rapid increase in psychological patients that exhibit personality disorders; the fact that clinical depression more than tripled in the last three generations in the United States; and that between 1960 and 2000 the teenager suicide rate tripled, crime rate quadrupled, and prison population quintupled.

Evolutionary survival requires both social functionality and social change. Functionality is required for daily survival, and social change to be able to cope with the endogenous and exogenous shocks that characterize social life. Among the endogenous shocks we may find scientific discoveries, technological advances, population growth, and new ways of living and thinking. The exogenous shocks are related to weather changes, epidemics, earthquakes and so on, and the interaction with other societies – "out-groups". Social change implies social conflict within the society and between societies. It includes among others independence movements; revolutions; racial, sexual, and other rights movements; and wars.

Social conflict will never end because it is an evolutionary requirement for social change and survival. But functional stability is also required for survival. Thus, conflict is always, one way or the other, resolved; and gives rise to a new functional structure. But this process may happen in distinct ways, some more optimal than others in terms of human suffering. Rigid institutions will force open conflicts, including wars, which are very costly in human terms. Flexible institutions, on the other side, may be able to accommodate conflict, and allow for social change while minimizing human cost. We propose that the reason why we have had so many wars is the presence of rigid ideological essentialisms, which ideologically justify a military balance of powers strategy, that is oriented to protect long-term economic interests of the nations involved. Wars are the ultimate consequence of a selfish, scarcely institutionalized global

game, that, in contemporary wars fought in a globalized world, result in a lose-lose solution. In contemporary wars everybody loses. Contemporary wars are, in fact, fought to see who loses less. That is why strong, credible, international institutions are essential for global peace and they necessarily need to imply ideological tolerance.

Different social groups have formed different conceptual systems and institutional arrangements, in which the power to define the social changes that are needed to adapt to external and internal shocks may reside either in democratic decisions (made by the free Western individual), in group decisions (like in primary societies) or in a selected group chosen by the elites (like the Roman senate).

Individualism is only one of the many social differentiations in human history, and even today it is not of general acceptance. Around eighty seven percent of the population of the world today lives in societies where social stability and social change are defined by traditional conceptual systems and institutional arrangements that have diverse characteristics amongst them – but which have the commonality that the individual differentiation of human rights is not the axis of social stability and change.

Scientifically we know that rock technology played a decisive part in the evolution of human beings, because it allowed extended groups to exist and the development of an erected human that used the hands, a larger brain, a sophisticated language, and the capacity to read other's emotions. Thus technology, as Marx, Veblen and North argued, is a fundamental element of social change. But we also have enough evidence that humans since the beginnings have constructed conceptual systems, burial ceremonies are documented at least two to three hundred thousand years before the *Homo sapiens*. Therefore, symbolic interactionism is also right, individuals interact with one another to create symbolic worlds, and these worlds influence the individual's behavior. These individuals are already social individuals, not isolated individuals. There is no doubt that conceptual systems do exist in human societies and that they have a dynamic of its own, as North has argued. And that, independently of who takes the decisions, social engineering responding to external and internal shocks is a required survival characteristic of human societies.

Social conflict must happen within an institutional arrangement that provides unity and functionality. If social life were only guided by social conflict, nothing would guarantee social survival. Thus, although on occasions social conflict destroys the old institutional arrangement and creates a new one, an institutional arrangement is needed for the functional-

ity of the society, in this point functionalism is right. Naked power cannot provide social stability for long. To provide long-lasting stability social power must be functional. But the differential characteristics of the agents that constitute the society (whether individuals or groups) do play a key role in social conflict, which is a fundamental element in the process of social change. Social change based on social conflict may on occasions end in the destruction of a particular society, but in most cases, this does not happen because social conflict is guided by social belonging, and therefore, at the end, a new form of functional stability is institutionalized.

Social stability and social change happen in different ways in distinct societies, in this ethnomethodology is correct[453]. We have used the abstract categories of the primary society, the traditional society, and the Western society to exemplify this diversity. But in the real world there are, of course, many different societies within these abstract general categories; and the boundaries between these abstract categories are not clearly defined either. However, an undeniable scientific fact is that the social differentiation made in in the West, particularly as it relates to human rights and democracy, is only one of the several routes of differentiation historically taken.

Social stability and change happen in different ways in distinct societies. There are however some common features: 1) social belonging and social conflict always exist; 2) social belonging in general guides social conflict; 3) all societies develop functionality; 4) social change is the consequence of external and internal shocks, among which social conflict is an important one – because it provides social flexibility in the response to the shocks suffered[454]; 5) all societies develop a conceptual system and an institutional arrangement that adapts and changes through time; 6) social change happens both at the level of the institutional arrangement and at the level of the conceptual system; 7) because of evolutionary individuality the agent of change has to be the individual; but in all cases, even in Western individualism, the individual is always a social individual.

Diversity and conflict in the society are welcome, as they make it more plural and flexible. But too much conflict without institutional functionality results in social chaos. Therefore, what is needed for proper social change is a strong institutional setting, which however is flexible enough to incorporate changes fast; changes due to the social diversity allowed, and to the conflict of ideas that propose distinct paths to accom-

[453] See Obregon Carlos., 2022. *Social Power*. Amazon.com. Also available at Research Gate.com.

[454] Ibid.

modate to endogenous and exogenous parametrical changes. The flexible institutionalization of diversity is a critical element for a society to have the capacity to have an adequate process of social change. Social conflict is a consequence of our evolutionary makeup. The main reason is that humans are individuals, and as such they have individual instincts to preserve life. There is conflict between a child and his/her mother, between an individual and the near ones that he/she loves, between the individual and those other individuals that compose the in-groups to which he/she belongs, between the in-groups and the out-groups. Large societies are composed of many distinct social groups which are tied together by an envelope conceptual system and institutional arrangement. But this envelope is fragile and easily subject to failure, by its very nature of covering very distinct groups (many of which may act towards one another with in-group/out-group antagonism).

Moreover, conflict is "not just real"– it involves the representational perception of reality; and therefore, it does not necessarily have real solutions. Reality for the human mind is representational; therefore, there may not be solutions. And in these cases, the best that can be achieved between distinct groups are treaties of no aggression that define territorial and other prerogatives.

Economic conflicts cannot be solved within the economic system alone because, as we have seen, there are multiple equilibria; thus, the intervention of the integrative and/or the power system always is required. Moreover, the integrative system, given the representational nature that reality has in the human mind, has its own sources of conflict. Ideological, political, religious, ethical, racial, sexual conflicts, among others, are to a large extent consequence of the fact that reality in the human mind is representational. And, when conflicts cannot be solved through the economic and integrative systems the power system will become necessarily involved in the resolution.

Can scientific knowledge reduce social conflict? Since we have pointed out that a source of social conflict is the representational nature of reality in the human mind, it would be natural to ask whether scientific knowledge can reduce or eliminate this source of social conflict. The answer in short is that it cannot eliminate it, but it may contribute to reduce it. The advance of science does limit the areas in which conceptual conflict occurs. Science is also based upon the representational reality of the mind, in mathematical or other models in the mind, but it has the unique characteristic that it must interact with reality empirically or experimentally,

so that actual observed facts and experiments can show that the scientific hypothesis cannot be proven false (using Popper's terminology). Because of this characteristic, scientific knowledge accumulates, and through time humans' ability to interact with the outside reality has increased substantially. However, science is restricted to explain certain phenomena of reality. It does not pretend to cover the whole range of philosophical questions covered by the conceptual systems and institutional arrangements that define the three ways of belonging. Science cannot answer questions like: What is the meaning of life and death? What happens after we die? Is there reincarnation? Is there eternal life? Is there a God or Gods? What is the source of social truth? How should the relationship between the individual and the society be? And so on. Although science can help in precising these questions and in delimiting the nature of some of the answers, it will never be able to answer them fully. Therefore, the conceptual diversity of representational reality will always be a source of conflict in human societies.

Belonging failures are frequent and therefore resolutions through the economic and integrative systems are not always achieved; in these instances, power confrontations occur. The goal of humanity is to create societies that cope with social conflict as a positive source of social change, while preventing conflict to end up in power confrontations that may result very expensive in human terms, although unfortunately in certain historical cases they are unavoidable.

The three systems interact between themselves, and the three are often required in conflict resolution, no matter in which system the conflict originates. Behind the simplest economic transaction there are always the institutions of the law of the integrative system and the law enforcement institutions of the power system. Conflicts generated within the integrative system do not necessarily find a resolution within the integrative system. Think for example of racial discrimination, while it is true that, to fight it, changes in the legislation and in the cultural attitudes in the integrative system are required, it is also true that historically racial rights were won through social struggle in the power system. And it is also true that free markets make racial discrimination more difficult because selling to anyone increases profits, which is a powerful reason not to discriminate racially in the markets.

Power conflicts cannot be fully solved within the power system. The reason is that there is no way for the winner to maintain its position indefinitely based only on the use of force. Personal and group fights are re-

solved through mutual voluntary agreements or by legal resolutions, wars are always accompanied by diplomacy and end up in peace agreements. The resolution of power conflicts often requires the three social systems.

As we have been saying, the reality of the human mind is representational, therefore distinct societies create different conceptual systems with their corresponding institutional arrangements; and therefore, they often lack a common integrative system, which is a direct cause of power conflicts. Distinct societies have different perceptions of social reality and therefore they often defend controversial solutions which may cause open conflict. The solution thus cannot be found exclusively through the power system, it requires ties between the distinct societies which must be based on common economic relations and a mutual integrative system, even if it is not fully developed. Understanding conflicts and their resolution requires a multifactorial theory.

Power Conflict and Resolution

Power conflicts may arise: 1) When an economic conflict cannot be resolved by the economic and/or the integrative systems; 2) when an integrative system conflict cannot be resolved by the integrative and/or the economic systems; and 3) when it is originated within the power system itself and cannot be resolved by the integrative and/or the economic system.

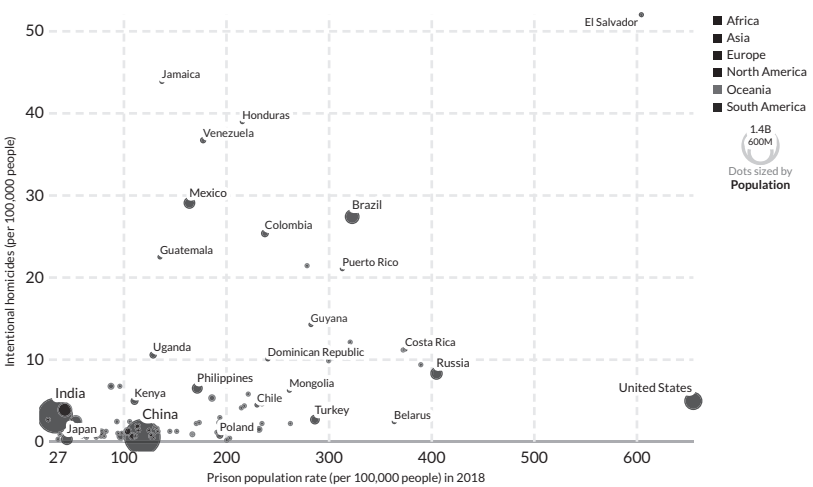
A power conflict occurs whenever there is unwelcome or unlawful violence, or the threat or menace of it, by one partner or group towards another or others. Power conflicts may happen in a school, a family, or a couple or in any other human relation. All criminal and unlawful activity towards others constitute a power conflict. Moreover, often power conflicts occur within the criminal groups themselves.

The power system has a dual role: a) Punish deviant behavior; within a social group or a society it has the role to punish deviant behavior that does not comply with the rules established in the integrative system; b) Establish a relation based on power; between groups and societies that do not share an integrative system, relationships are based on the power system. In the absence of an integrative system, the economic system must be backed by the power system to operate.

In the first role of punishing deviant behavior, the social power system is guided by the integrative system. However, there might be failures

within the social power system itself that may occasion new forms of power conflicts. As an example, recently in a very well-known case in the US a policeman, who did not follow the protocol, asphyxiated a black man kneeling on him while the black man was helpless. Another example is a policeman who associates with criminals. In this first role of punishing deviant behavior, the power system is complementary, it works better whenever the integrative system and the economic system are strong, and deviant behavior is minimal. The power system cannot substitute the integrative system, I have discussed this point at length in my book on social order[455]. A simple statistic illustrates this fact. Figure 11.3 shows homicide rates vs prison population rates, and we can appreciate that there is no correlation worldwide. Which means that the use of power to put people in prison does not reduce the crime rate. Figure 11.4 shows homicide rates vs GDP per capita and, again, there is no correlation. The two results together suggest that homicides are rather a consequence of belonging failures in the integrative system. A thesis that has been fully documented in my book on social order[456].

FIGURE 11.3 HOMICIDE VS. PRISON POPULATION RATE

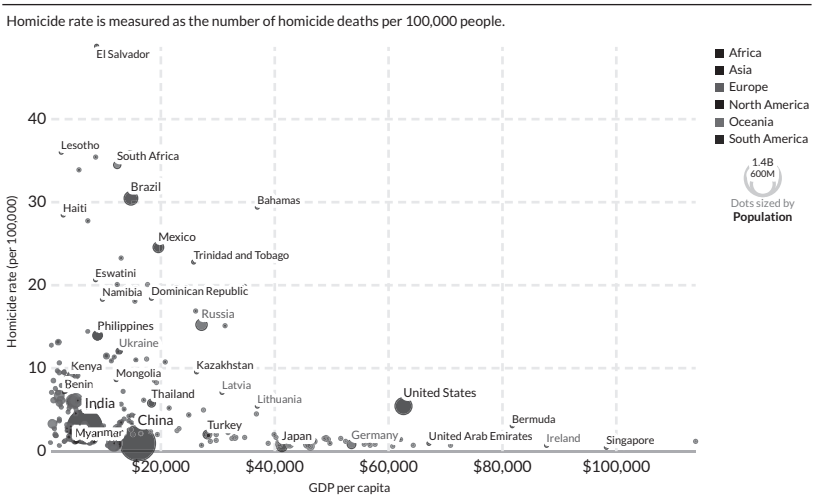


Source: UN Office on Drugs and Crime (via World Bank), World Prison Brief (2018)

[455] Obregon, C. *Social Order, Harmony, and Conflict in Human Societies*. 2019. Amazon.com. Also available at Research Gate.com

[456] Ibid.

FIGURE 11.4 HOMICIDE RATE VS GDP PER CAPITA, 2019



Source: IHME, Data compiled from multiple sources by World Banktable 4.1.
Note: To allow comparisons between countries and over time this metric is age-standardized.

The thesis can be visually reinforced by looking at table 11.1. Notice here that the use of force (putting people in jail), even in richer countries, does not necessarily mean less violence. As a region, Latin America and the Caribbean is more than twice as rich as South Asia, and has more than five times prisoners, yet it has more than seven times South Asia's homicides. The OECD is almost three times richer that East Asia, and has more than twice the prisoners, yet it has more than five times East Asia's homicides. From the point of view of our central interest in here, what all of this means is: that the power system cannot substitute the integrative system, it must be guided by it. The first role of the power system to prevent deviant behavior is always complementary to the integrative system.

TABLE 11.1. GDP PER CAPITA (2017 PPP $)

	Prisoners	*Homicides*	*GD Per Capita*
	(per 100000)		*2017 PPP$*
Regions			
Arab States	126.0	3.3	16487.0
East Asia and Pacific	131.0	1.0	14848.0
Europe and Central Asia	230.0	3.1	18337.0
Latin America and the Caribbean	253.0	22.3	15808.0
South Asia	49.0	3.1	6623.0
Small Island Developing States	456.0	8.9	19770.0
Organization for Economic Cooperation and Development	265.0	5.6	44701.0
World	142.0	5.6	16980.0

Source: Human Development Reports. Last data available. https://hdr.undp.org/en/indicators/194906

The second role of the power system of establishing a relation based on power, may be performed though direct aggression, through the threat or menace of using power, or by creating power that deters the use of someone else's power against us (deterrence). Diplomacy may be used with several goals: 1) Create a common integrative system, even if it may end up being rather limited; 2) to establish the threat or menace of using power if certain conditions are not satisfied by the counterpart; and/or 3) to announce deterrent power.

The power system is always required because: 1) economic conflicts cannot be solved within the economic system itself and therefore require the integrative system and/or the power system; 2) sometimes the integrative system generates conflicts of its own that require a complementary power system, this is for example the role of the police; 3) the lack of a functional, mutually integrative system makes indispensable the power system. The power system's role is to solve power conflicts or avoid them (though deterrence for example). The role of the military may be to force the solution of an economic or an integrative system conflict through aggression or the threat of it, or to deter aggression from others.

The danger of open power confrontations is that frequently their result is not known. They can end in the construction of a new positive integrative system, like the case of Japan after the Second World War, or in negative destruction and genocides like what happened in the former Yugoslavia.

THEORIES OF CONFLICT RESOLUTION

I) RL Theories, and RI (Marxist) Redistribution Theories

Both RL and RI – Marxism -, assume that power conflicts can be solved by economic means. RL argues that individual political and economic freedom brings progress, which in turn produces peace. RI defends that the proletarian revolution will mean a more egalitarian society which will have progress with peace. Under the logic of RL one would expect that developed countries should have less violence. And from RI that both a better income distribution and a higher income for the more needed should mean less violence. While these school's assumptions are partially correct, and their economic policies may help, CI argues that the resolution of power conflicts always also requires the integrative system.

RL Theories

A significant literature has been defending that democracy and economic freedom generate progress, which conduces to peace, and justice. Therefore, they argue that power conflicts can be eliminated by implementing political and economic freedoms. In this assertion there are three problems. The first one, as we have been discussing, is that freedom does not always generate progress or justice (the case of Mexico and Latin America), and that on the other side progress can be obtained without freedoms (the case of China and East Asia). The second one is that progress does not always reduce power conflicts. The third one is that democracy is not necessarily associated with peace.

Since the ultimate sign of personal violence within a society is the homicide rate and given the long-term international availability of data on this indicator, in what follows we will use it to represent social violence. In the West, in the very long run as GDP per capita improved, violence was reduced. However, the reduction in violence was also due to changes in the integrative system and not only to the improved GDP per capita. This thesis is supported by several facts: 1) As we can see in

Table 11.1 Latin America and the Caribbean is more than twice as rich as South Asia and yet has more than seven times the number of homicides; and the OECD is almost three times richer that East Asia and has more than five times the homicides. 2) In England, for example, the homicide rate was already 1.0 in 1775, with a GDP per capita of only $2,895 (2011 international dollars), while in the US in 2019 the homicide rate was 5.6 with a GDP per capita of $55,335 (2011 international dollars)[457]. Therefore, a higher GDP per capita does not necessarily relate to less violence.

The use of regression analysis, introducing the West in the sample, creates a causality illusion between variables that correlate among themselves. In the long run, in the West GDP per capita goes up, homicide rates go down, income distribution improves and so on; therefore, any sample data that includes the West is dominated by the fact that in these countries GDP per capita is high, the income distribution is relatively more equal, and the homicide rate is low. But we should not take a pair of these variables, find correlation, and then argue causality; because what has changed in the West, through time, is the whole integrative system. Therefore, policies aimed at changing one variable (whether it is economic growth, poverty, or income distribution) do not produce the desired results of diminishing violence in the short to medium term; violence is related to the whole integrative system.

One could ask: do economic growth policies reduce homicide rates? And the answer is that they do not necessarily do it. Using the same sample of twenty-three countries of my previous work *Three Lessons from Economists That Policy Makers Should Never Forget*[458] I have estimated for the period 1990 -2018 whether economic growth policies were associated with lower homicide rates. The countries were divided into three groups: High growth (HG) countries, defined as those in which economic growth during the period is at least 1.1 times more than the sample's average. Neutral growth (NG) countries defined as those in which economic growth is between 0.9 and 1.1 times the sample's average. And Low growth (LG) countries defined as those in which economic growth is less than 0.9 times the

[457] Homicide rates come from https://ourworldindata.org/homicides. GDP per capita comes from Maddison 20, for the US the data corresponds to 2018 which is latest year available.

[458] Obregon, C. 2020., *Three Lessons from Economists That Policy Makers Should Never Forget*. Amazon.com, also available at Research Gate.com

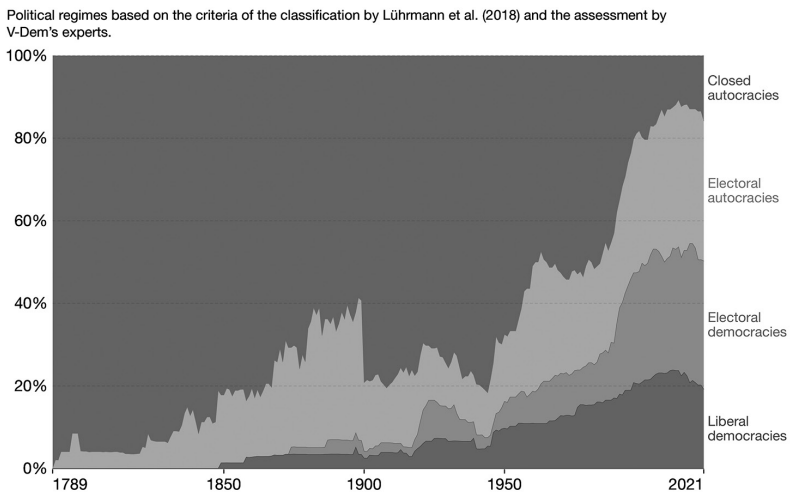
one of the sample's average. In the sample, homicide rates decreased during the period. For the RL thesis to be corroborated, homicide rates in relative terms to the sample should have decreased more in HG countries than in the NG countries, and in these more than in the LG countries. The result however was that the best performing were the NG countries: reducing homicide rates 42% more than the sample. They were followed by the HG countries that reduced homicide rates 6% less than the sample; and then by the LG countries that reduced homicide rates 27% less than the sample. Therefore, the thesis that successful economic growth policies reduce homicide rates is not sustained by the data.

While there is a long run positive relation between economic progress and a reduction in the homicide rate; this relation is intermediated by long run changes in the integrative system. This explains why there are significant regional and country differences. Therefore, as I have concluded in my book about social order, in addition to economic growth policies, integrative system policies should be adopted to strengthen the social order; and short-term results should not be expected.

Is it true that democracy generates peace? The first problem to answer this question is: what do we mean by democracy? In general, democracy has to do with electoral rights. We follow a classification of countries into four categories proposed by Anna Lührmann, Marcus Tannenberg, and Staffan Lindberg: 1) Closed autocracies: in which there are no electoral rights. 2) Electoral autocracies: with electoral rights to choose the chief executive of the government and/or the legislature through multi-party elections. 3) Electoral democracies with additional freedoms like freedom of association and expression that guarantee meaningful, free, and fair multi-party elections. 4) Liberal democracies in which citizens are equal before the law, there are further individual and minority rights, and the actions of the executive are constrained by the legislative and the courts[459]. Based on this classification figure 11.5 presents a long history of democracy.

[459] This classification comes from: The Regimes of the World (RoW) classification by political scientists Anna Lührmann, Marcus Tannenberg, and Staffan Lindberg. Lührmann, Anna, Marcus Tannnberg, and Staffan Lindberg. 2018. Regimes of the World (RoW): Opening New Avenues for the Comparative Study of Political Regimes. Politics and Governance 6(1): 60-77.

FIGURE 11.5. SHARE OF DEMOCRACIES, WORLD

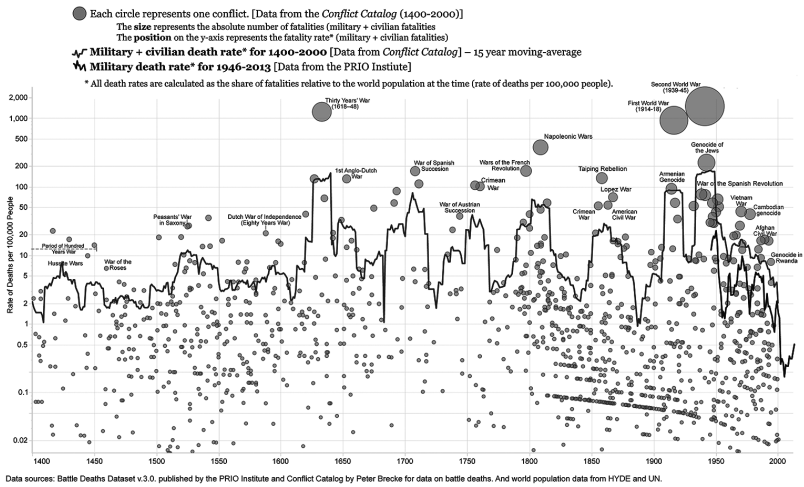


Source: https://ourworldindata.org/democracy

Whatever one wishes to call democracy, it seems clear that the percentage of countries in the world with electoral and democratic rights has increased since 1820. Thus, democratic, and electoral rights increased in the two waves of globalization. But the first wave of globalization led to the First World War, the hyperinflation of the 20's, the 1930' GD (Great Depression), the Second World War, and a growing number of deaths in conflicts per one hundred thousand inhabitants. While the second wave of globalization is related not only to a higher global progress than the first wave, but also to relative peace, as the decrease in the number of deaths in conflicts per one hundred thousand inhabitants shows, see figure 11.6.

The RL literature has mainly focused on the second wave, in which both democracy grew and peace (mainly between large, developed countries) was achieved; but a longer-term view does not support the RL thesis. In the first wave increased democracy was associated with less peace. Moreover, if one looks at figure 11.6 one can appreciate that the very low number of deaths in 2000, is like many historical periods in which all the countries were closed autocracies.

FIGURE 11.6. GLOBAL DEATHS IN CONFLICTS SINCE THE YEAR 1400



Data sources: Battle Deaths Dataset v.3.0. published by the PRIO Institute and Conflict Catalog by Peter Brecke for data on battle deaths. And world population data from HYDE and UN.

Source: https://slides.ourworldindata.org/war-and-violence/#/6

The argument that it is in the nature of a democratic culture to settle conflicts by peace, as opposed to the authoritarian culture, is unconvincing. The historical fact is that the European democratic countries and the US have started many wars against other countries to protect or expand their imperial interests. From 1801 to 1922, Great Britain participated in 94 wars (excluding the First World War), and from 1922 to the present in 41 wars (excluding the Second World War); and most of these wars were fought against countries that could never have invaded Great Britain[460]. The US participated in 57 wars between 1801 and 1922 (including many Indian wars, and excluding the First World War), and in 30 wars from 1922 to the present (excluding the Second World War); all of them against adversaries that could not invade the US[461]. While China only participated in 10 wars between 1801 to 1922 and in 14 wars from 1922 to the present[462]. Thus, democracies are not necessarily peaceful.

[460] See Laycock, S. (2012). *All the Countries We've Ever Invaded – And the Few We Never Got Round To*. The History Press. ASIN 0752479695. See also https://en.wikipedia.org/wiki/List_of_wars_involving_the_United_Kingdom

[461] See https://www.thoughtco.com/american-involvement-wars-colonial-times-present-4059761. See also https://en.wikipedia.org/wiki/List_of_wars_involving_the_United_States

[462] Graff, David Andrew, and Robin Higham, eds. *A military history of China* (University Press of Kentucky, 2012). See also https://en.wikipedia.org/wiki/List of_Chinese_wars_and_battles

We maintain that the empirical fact that recently less wars are fought between democracies is not explained by the argument that democracies are peaceful, but by other factors such as: 1) The Second World War created a singular leader, the US. 2) The lessons of the First World War created the possibility of creating global institutions in the West. 3) The Marshall Plan, conceived for the recovery mainly of Europe and Japan. 4) The new nuclear power prevented a confrontation with the USSR, thus instead of a military war, a Cold War with the USSR started which was a reason for the consolidation of NATO, which largely explains why less confrontations between democracies have happened.

Democracy is nationally bounded. And democracies do go to war whenever their national interests are at jeopardy. Moreover, even if the RL thesis was true (which is not the case); it still would not be a practical guide for international policy. In real life, the ideal of a world of only democratic countries is not achievable. In 2021 only 19% of all the countries of the world were liberal democracies; and only 13.3% of the global population was living in liberal democracies[463]. Democratic values are far from being universal, there are many distinct ideologies and ways of living in the world; and therefore, one of the keys to global peace must be ideological tolerance.

Redistribution Theories

Many empirical studies have found a positive correlation between Gini coefficients and homicide rates[464]; and there are several theories that argue that social violence is produced either by unjust inequalities or by poverty. Among these theories we find: Conflict Theory, Human Needs Theory and Structural Balance Theory. Let us briefly describe each one of them:

Conflict theory: It sees the State and other institutions as obeying the interest of the most powerful. C Wright Mills argues that the interests of the elite were opposed to those of the people. Alan Sears[465] argues that for

[463] If we include both liberal and electoral democracies: 48.7% was living in democratic countries in 2021; but still the population living in these countries was only 29.2% of the world's population.

[464] For example, Fajnzylber, Lederman, and Loayza (2002) suggest that there is a strong positive correlation between Gini coefficient and homicide rates.

[465] Sears, Alan. (2008) *A Good Book, In Theory: A Guide to Theoretical Thinking*. North York: Higher Education University of Toronto Press, pg. 34-6

critical theory consensus is a euphemism for ideology, because the more powerful can impose their conceptions on others. The State serves the interests of the most powerful. Therefore, consensus entrenches stratification that generates social conflict. The disadvantaged have structural interests that run counter to the *status quo*. This conflict based on inequality can only be overcome through a fundamental transformation of the existing relations in the society. Franz Fanon argues that decolonization is liberation. It is only through liberation, which is necessarily violent, that the colonized "thing" becomes fully human.

Human needs theory: It argues that violence happens when certain groups or individuals are deprived of basic human needs. John Burton[466] argues that when an individual or group is denied its fundamental need for identity, security, recognition or equal participation within the society, protracted conflict is inevitable. To resolve such conflict, it is required to restructure the social system in a way that the needs of all individuals and groups are accommodated. Rubenstein[467] argues that the human needs theory provides the study of conflict with a more objective basis which goes beyond local or cultural differences.

Structural balance theory: John Galtung argues that social violence arises from a social structure or institution which harms people by deliberately depriving them of their capacity to satisfy their immediate human needs[468]. Institutionalized racism, classism, sexism, and discrimination against migrants are forms of structural violence. Inequalities in wealth, power, privilege, access, and opportunity breed injustice. This theory encourages to look beyond these structural inequalities and discriminatory behavior to find connections to dismantle structures which permit these injustices. The purpose is to deconstruct conflict in today's world.

What these theories have in common is that they argue that power conflicts – violence – can be solved in the economic system by reducing poverty, satisfying the basic human needs, redistributing income, and

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[466] Burton, John W., ed. 1990. Conflict: Human Needs Theory London: Macmillan and New York: St. Martin's Press. Burton, John W. 1997. Violence Explained: The Sources of Conflict, Violence and Crime and Their Prevention. Manchester and New York: Manchester University Press.

[467] Rubenstein, R. E. (2010). Basic Human Needs: The Next Steps in Theory Development. *The International Journal of Peace Studies, 6* (1), 51-58.

[468] Galtung, J. (1969). Violence, Peace, and Peace Research. *Journal of Peace Research, 6* (3), 167-191

reducing or eliminating inequalities in general. In what follows we will discuss whether redistribution policies or poverty eliminating policies can reduce significantly or eliminate homicides.

Redistributing Income and the Homicide Rate

In the West, in the long run, the income distribution improved, and homicide rates were reduced. However, the positive correlation between better income distributions and lower homicides is a long-term phenomenon mediated by the transformations in the integrative system, as it is shown on the fact that there are many regional and country differences[469]. Moreover, cross section studies also show a positive correlation between a better income distribution and a diminution of the homicide rate, mainly because of the prevalence of the West in the sample data.

Table 11.2 shows those countries in which the top 10% have a share of income higher than or equal to 30%. Observe that at 30% to 35% share, the homicide rate varies a lot per region. It goes from 1.51 in Oceania and 2.38 in the West, to 22.03 in LA & Caribbean. In fact, per country, the homicide rate varies even more; it goes from 0.40 in Singapore and 0.49 in the UK, to 47.1 in El Salvador and 36.52 in Honduras. This shows the influence of the integrative system in the determination of the homicide rate. Notice also that per region the homicide rate does not necessarily increase as the share of the top ten percent increases, this happens because the countries are different in each one of the regions.

Even though some studies[470], in certain cases, have found a positive correlation between high poverty and high homicide rate, it does not seem to be the general case. Table 11.3 shows the poverty rate at $ 1.90 international dollars a day (extreme poverty) and the homicide rate. As it can be seen as extreme poverty goes down the homicide rate goes up. Notice how low is the poverty rate in LA & Caribbean and how high the homicide rate is, exactly the opposite than in the twelve poorest countries.

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[469] In the US Chintraken and Herzer 2012 found a negative correlation. In Canada a negative correlation was also found by

[470] See for example, Baomin Dong , Peter H Egger , Yibei Guo, 2020. *Is poverty the mother of crime? Evidence from homicide rates in China*. PLoS One. doi: 10.1371/journal.pone.0233034. eCollection 2020.

TABLE 11.2. SHARE OF TOP TEN PERCENT AND THE HOMICIDE RATE BY REGION

	REGIONS											
	Africa		Asia		Europe		Middle East		Oceania		LA & Caribb.	
	Share	Hom. Rate	Share	Hom. Rate	Share	Hom. Rate	Share	Hom. Rate	Share	Hom. Rate	Share	Hom. Rate
30 to 35	32.08	7.80	30.64	5.40	30.87	2.38	31.22	1.51	30.49	7.43	32.33	22.03
35 to 40	37.69	4.36	36.41	5.33			36.79	11.73	38.37	48.80	37.78	16.33
40 to 45	42.68	12.86					42.23	1.77			42.49	27.55
45 to 50	47.54	10.43										
55 to 55	50.36	31.68									51.40	21.68
Av. 30 to 40	34.88	6.08	33.53	5.36			34.01	6.62	34.43	6.11	35.05	19.18

Source: Share UNU-WIDER. World Income Inequality Database (WIID). Version 31 May 2021. https://doi.org/10.35188/UNU-WIDER/WIID-310521
Hom.Rate https://ourworldindata.org/homicides

TABLE 11.3. POVERTY AND THE HOMICIDE RATE

Regions	Poverty %	Homicides
Latin America and the Caribbean	3.7	22.71
Sub Saharan Africa	40.4	9.05
12 poorest countries	59.65	8.48

Source: https://data.worldbank.org/indicator/SI.POV.DDAY?locations=CO&name_desc=false&view=map&year_high_desc=true
https://ourworldindata.org/homicides

Short term policies aimed at improving the income distribution or the income of the most needed do not seem to have a positive impact on the homicide rate as the following two results indicate:

1) Using the same sample of twenty-three countries of my previous work *Three Lessons from Economists That Policy Makers Should Never Forget,* I have estimated 1990 -2018 whether income distribution policies were associated with lower homicide rates. The countries were divided in three groups: High Distribution (HD) countries defined as those in which the lowest quintile (q1) income increase at least 1.1 times more than the sample. Neutral Distribution (ND) countries defined as those in which q1 income increase between 0.9 and 1.1 times the increase in the sample. And Low Distribution (LD) countries defined as those in which q1 income increase less than 0.9 times the increase in the sample. The HD countries did reduce homicide rates 7% more than the sample, and the LD countries 6% less than the sample; but awkwardly the ND countries reduced homicides 44% less than the sample. Thus, the relationship between better distribution and less crime was not found as ND countries reduced crime 50% less than LD countries.

2) Using the same sample as on 1) above, countries were divided in three groups. Hq1 countries defined as those in which the absolute income of q1 in real international dollars increased more than 1.1 the increase in the sample. Nq1 countries defined as those in which the absolute income of q1 in real international dollars increased between 0.9 and 1.1 the increase in the sample. And Lq1 countries defined as those in which the absolute income of q1 in real international dollars increased less than 0.9 the increase in the sample. The Hq1 countries reduced homicide rates as much as the sample despite having a higher absolute increase in their income. The Lq1 countries did reduce homicide rates 28% less than the

sample. But awkwardly the Nq1 countries reduced crime rates 33% more than the sample and that the Hq1 countries. Thus, the positive relation between more absolute income for q1 and the reduction in homicides was not found, as Nq1 countries reduced homicide rates more than the Hq1 countries.

While in the long run a better income distribution is associated with lower homicide rates, there are many regional and country differences that indicate that this positive relation is intermediated by changes in the integrative system. Since the integrative system in the short term does not change with redistribution policies or with policies aimed at increasing the income of the more needed, there does not seem to be a short-term impact of neither of these policies in reducing the homicide rate.

Redistribution theories were trying to point out a single real factor as the cause of violence in all cultures. But this is inappropriate, distinct cultures have different integrative systems, and therefore equal income distributions and equivalent levels of poverty can be associated in distinct cultures with very different homicide rates. The argument of conflict theory - that a necessary conflict between the elites and the rest of the population explains violence in all the societies - is mistaken (although in very specific cases it may be an explanation, it is not true as a general case). It is not true either that human needs theory provides the study of conflict with a more objective basis which goes beyond local or cultural differences. As Park[471] has argued, there are not universal needs. Since for the human mind reality is representational, needs are necessarily socially constructed; and they diverge between distinct societies.

It is not real inequality, but perceived inequality within a specific integrative system what is relevant. This point has been made by relative deprivation theory[472]. This theory focuses on the value expectations which need to be met within a certain society. A state of poverty does not necessarily translate to violence. However, when individual expectations of poor people become transformed as a group identity, they become a political force that will not hesitate to use violence to combat their perceived discrimination. Relative deprivation theory focuses on the key as-

[471] Park, L. (2010). Opening the black box: reconsidering needs theory through psychoanalysis and critical theory. *International Journal of Peace Studies*. Retrieved from https://www.gmu.edu/programs/icar/ijps/vol15_1/PARK15n1-IJPS.pdf

[472] Walker, I., & Pettigrew, T. F. 1984. Relative deprivation theory an overview and conceptual critique. *British Journal of Social Psychology,* 23, 301-310.

pect: expectations, which come from a specific integrative system; and it is right, a change in expectations does increase social conflict[473].

As argued by Park and by relative deprivation theory there are not real basis of social conflict. The human mind's reality is representational and therefore, while reality matters, the same reality can be perceived differently by distinct societies with different integrative systems. While from certain ethical perspectives in any given society it could be argued that certain human needs must be satisfied, from another ethical perspective in other societies they do not have to.

II) Other Theories of Conflict Resolution

In this section we will briefly comment on some of today's most relevant conflict and resolution theories and discuss how do they relate to the views expressed in this manuscript. We can classify conflict and resolution theories in six main groups: 1) RL theories (already discussed). 2) RI distributional theories (already discussed). 3) Ethical theories: those theories that assume that a resolution always exists in all conflicts (or in a significant part) on ethical grounds. 4) Interest theories: those in which there is a conflict of interests between individuals, groups, or nations; and therefore, what is needed is to find resolution methods. 5) Representational theories: those in which the conflict is ideological, religious, or conceptual; and therefore, the resolution may exist or not. 6) Multifactorial theories: those in which the conflict is multifactorial; and therefore, the resolution must also be multifactorial. Let us briefly discuss groups 3 to 6.

Ethical Theories

There is a long tradition in human thought that sees the resolution of social conflict through the application of general, essential ethical principles. These essential principles can be learned through: reason (the ethics of reason – Kant); praxis (the ethics of virtue – Aristotle); illumination (religious Buddhism); mystical reason (Christianity, Islam); the historical

[473] See for example, Meghan L. Rogers, W. Pridemore. 2020., Perceived Inequality and Cross-National Homicide Rates. *Law, Justice Quarterly*. OI:10.1080/07418825.2020.1729392. Corpus ID: 216187561

analysis of the values of a particular society, in which case they are only applicable to this society (Rawls); reason that may differ between societies, but there are always certain minimum fundamental ethical principles common to all societies (Sen's ethics). But what is sustained by all the ethical theories is that ethics can solve social conflicts[474].

While it cannot be denied that ethics is a fundamental element in the avoidance and solution of social conflicts, the reality of the human mind is representational and thus it does not have access to universal ethical truths; therefore, belonging ethics is relative and distinct for different societies. The only common element between distinct belonging ethics is that all of them serve the purpose of the evolutionary survival of the social group. A specific belonging ethics is required to establish social order, because the individual ethical behavior is needed since no State can be vigilant of everybody's behavior all the time. And this specific belonging ethics in each society does play a key role in conflict resolution. But three points must be emphasized. First, two specific belonging ethics may be very different amongst them – therefore between societies there may not be a common ethics; and in fact, different ethical perspectives may be a source of conflict between these different societies. Second, even within a society there may be competitive ethical views that have to be resolved through a common accepted legal framework (although the distinct ethics continue illuminating the application of the law, the law provides a framework to settle ethical differences). Third, ethical principles and the law are insufficient to resolve all the conflicts that happen within a society. There are many other factors required for conflict resolution. Ethics and the law are only one of the components of the integrative system, there are others which are also extremely relevant like group belonging, family education, social integration, social functionality, social acceptance and management of conflicts, social capacity to deal with technological and other external shocks, and so on. In fact, for conflict resolution the three systems: the integrative, the power and the economic system are required; and furthermore, the whole conceptual system and institutional arrangement, and the way in which it implements the three belonging ways becomes relevant. Conflict resolution is by itself a multifactorial phenomenon that goes well beyond the world of ethics and the law.

[474] For a discussion on ethics, justice and the ethics of belonging see Obregon, C. *La ética y la justicia, fundamentos científicos*. 2014. Amazon.com. Also available at Research gate.com

Interest Theories

Interest theories have the argument in common that social conflicts are consequence of agents' interests and that they can always be resolved through negotiation. Amongst these theories we will discuss the theory of cooperation, the theory of principled negotiation, and the theory of conflict transformation.

The theory of cooperation: It was first developed by Deutsch[475]. He argues that cooperation creates an atmosphere of trust and eventually leads to mutually beneficial options for settlement; while competition intensifies animosity and distrust between parties and is generally destructive. He points out that when the goals of both parties are negatively interdependent, a party's success automatically means the other's failure; but when they are positively interdependent, as it is most often the case, one party's success/failure is correlated with the other party's success/failure. With positive interdependence, cooperative relationships can be maintained to secure a win-win outcome for both parties to a conflict. He recommends that both parties agree to adhere to universally accepted norms and values such as: respect, honesty, responsiveness, forgiveness, and acknowledgment of responsibility.

Theory of principled negotiation: Fisher and Ury put forward four principles for effective negotiation[476]. 1) Separate people from their problem. 2) Focus on interest rather than position. 3) Generate a variety of options before settling on an agreement. 4) Insist that the agreement be based on objective criteria. At each stage of the negotiation process, the above principles should be observed. Developing a method for reaching good agreements is central to this model.

Theory of conflict transformation: Bush and Folger's theory of transformative mediation[477] and Lederach's model of conflict transformation[478] look for a fundamental change in attitude and/or behavior of individuals and/or the relationship between two or more disputing parties. They ar-

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[475] Deutsch, M. (1985). *Distributive justice: A social psychological perspective*. New Haven, CT: Yale University Press.

[476] **Fisher**, Roger; **Ury**, William. *Getting to yes: negotiating agreement without giving in*. 1st ed. New York: Penguin; 1981.

[477] Bush, R. A. B., & Pope, S. G. (2002). Changing the quality of conflict interaction: The principles and practice of transformative mediation. Pepperdine Dispute Resolution Law Journal, 3(1), 67-96.

[478] John Paul Lederach, *The Little Book of Conflict Transformation,* Goodbooks 2003.

gue that a solution that satisfies each country's interests and needs could be reached through these models. Some theorists have argued for conflict transmutation using a set of contemplative practices that transform deeply encrusted feeling and thoughts that fuel destructive conflict behavior.

Interests of course are a key element in social conflicts, but that does not mean that social conflicts can be solved by clarifying each party's interests and their likely interdependence as the theory of cooperation argues. Because as game theory has shown, even giving in advance full information to the agents as to the moves that would take them to a common optimum, this will not be achieved. This happens because there are potential moves of each agent that would leave him better off by fooling the others as to what he will do. The right move by both agents requires trust; that depends upon an institutional arrangement that must built the bases that trust to be possible. The theory of cooperation is very simplistic, social conflicts are very complex. There are uncertainty and information problems, lack of trust, institutional failures, and all sort of complexities that cause that even with interdependence a common optimum goal would most likely not be achieved.

Moreover, even though interests are an important element in social conflicts, they are not the only one. There are religious, ideological, and ethical reasons for a social conflict which cannot be just negotiated away. Moreover, there are also tactical power reasons associated with a balance of power between the agents which imply the possibility of penalizing each other if the agreements made are not fulfilled.

Negotiating strategies such as cooperation, principled negotiation and conflict transformation are welcome as they may sometimes be a relevant aid in conflict resolution. But in real life social conflicts are very complex and their resolution requires to go well beyond negotiating techniques. It often involves new institutions and concepts, psychological freedom and stability of the agents involved in the negotiation, and the involvement of the integrative, the economic and the power systems.

A theory of conflict must describe the whole set of relations that happen between individuals, groups and societies and the many causes that may produce social conflict. A social conflict regularly involves psychological characteristics of the agents or group leaders, an economic situation of each one and between them, previous institutions, and the possibility of new ones to be created, a conceptual system, and the involvement of the three social systems: the integrative, the economic and the power systems.

Representational Theories

Almost all the sociological tradition, starting with Marx, has recognized the real-life fact that there have been and there are distinct institutional arrangements and conceptual systems in different societies and cultures. But most of these sociologists were writing at a time when philosophical essentialism was predominant; and therefore, they had the firm belief that the human mind was able to discover the "real truth". Thus, most of these writers' historical analysis took them to the conclusion than the Western culture not only was the most sophisticated and humane of all, but that it was the implicit destiny of other cultures. Marx bought into this argument, but for him the Western culture was only a necessary passage towards communism. Recently, however, the scientific and empirical advances in neurobiology and cognitive psychology have made it clear that the mind cannot know the external reality, and that the human mind's reality is representational. These discoveries have huge implication in sociology, because they mean that there is no way for the human mind to discover the essential path of human history. In practical terms, it means that there is no way to know that the Western culture is the destiny of other cultures, nor that after the Western culture communism will necessarily come. In philosophy, Derrida has proposed deconstructionism, which is a method to unveil the initial non-scientific preconceptions that were used historically by philosophers and sociologists to be able to reach their essential conclusions. In simple terms, their essential conclusions were not the result of a philosophical inquiry or a scientific analysis, but the consequence of initial philosophical preconceptions of these thinkers that already assumed implicitly the essential conclusions they were looking for. Few authors have escaped this philosophical essentialism, which has been, and still is, predominant in social thinking. We will discuss in what follows two of them: Thorstein Veblen and Michael Foucault.

Thorstein Veblen: Veblen sees history as the confrontation between the leisure and the industrial classes, which represent the conceptual systems and ways of life associated with the old and the new technologies. Changes in technology are the driver of social changes. And as other sociologists, Veblen discusses different historical epochs which end up in the Western society. But two contributions distinguished him from most other authors: 1) That he acknowledges that the result of the confrontation between the old and the new way of thinking is not known. Which implicitly means that societies may remain in any one of the previous an-

nounced historical stages; and 2) that he asserts that individual freedom in the sense understood in Western culture is a historical genesis of a particular historical stage of the West, and not an essential characteristic of human beings.

However, despite the relevance of the two contributions mentioned above, in Veblen there are still reminiscences of philosophical essentialism. His historical stages clearly reflect the history of the Western culture, and there is not an attempt to understand the routes taken by other societies. Therefore, the conceptual diversity that characterizes the actual world is not properly understood by Veblen. In Veblen there is also a technological determinism of the process of social change, that takes no account of the role of social engineering in creating new institutions, new concepts, and therefore new ways of living[479].

Michael Foucault. His thinking is post Derrida's deconstructionism, and therefore it is no longer under the influence of philosophical essentialism. He proposes the archeological method and the genealogical analysis. "The key idea of the archaeological method is that systems of thought and knowledge (epistemes or discursive formations, in Foucault's terminology) are governed by rules, beyond those of grammar and logic, that operate beneath the consciousness of individual subjects and define a system of conceptual possibilities that determines the boundaries of thought in a given domain and period"[480]. "The point of a genealogical analysis is to show that a given system of thought (itself uncovered in its essential structures by archaeology, which therefore remains part of Foucault's historiography) was the result of contingent turns of history, not the outcome of rationally inevitable trends"[481]. 'Each society has its regime of truth, its "general politics" of truth: that is, the types of discourse which it accepts and makes function as true; the mechanisms and instances which enable one to distinguish true and false statements, the means by which each is sanctioned; the techniques and procedures accorded value in the acquisition of truth; the status of those who are charged with saying what counts as true'[482]. These 'general politics' and 'regimes of truth' are the result of scientific discourse and institutions and are reinforced (and re-

[479] This has been pointed out by Douglas North.

[480] https://plato.stanford.edu/entries/foucault/#MajoWork

[481] Ibid

[482] Rabinow, Paul (editor) (1991) *The Foucault Reader: An introduction to Foucault's thought,* London, Penguin.

defined) constantly through the education system, the media, and the flux of political and economic ideologies. In the lecture series *The Birth of Biopolitics,* he analyzes neoliberalism as a historically novel form of govern-mentality. Neoliberalism is understood as a governmental form to ensure that capitalism works. It aims to create social conditions that not only encourage and necessitate competitiveness and self-interest, but also produce them. In Foucault distinct societies have different conceptual systems and institutional arrangements that are not necessarily compatible.

Representational theories are important to understand that ideological and conceptual differences may be source of conflict between societies, and that in fact that the conceptual differences may not be reconcilable. That does not mean however, that a power conflict will necessarily occur, as Samuel Huntington implied in *The Clash of Civilizations;* because there are many levels at which a relationship between two cultures is established. Sen has argued that diversity is a feature of most cultures in the world[483]. Paul Berman argues that distinct cultural boundaries do not exist in the present day. He argues that the evidence for a civilization clash is not convincing, especially when considering relationships such as that between the United States and Saudi Arabia[484]. Yuval Noah Harari called the clash of civilizations a misleading thesis. He wrote that Islamic fundamentalism is more of a threat to a global civilization, rather than a confrontation with the West[485]. Instead of focusing on the clash of civilizations, some people argue we should focus on promoting the dialogue between civilizations[486].

The criticisms against the argument of the necessary clash between civilizations point out the multi-factors that must be considered in the analysis of conflict resolution. Two cultures may diverge in their fundamental conceptual systems and institutional arrangements; but they are not isolated, they are under the influence of other cultures, and therefore in real life - as Sen points out - they are more hybrids. Moreover, they do not only relate to each other in ideological terms alone, but also in economic terms, environmental and humanitarian issues, shared control

[483] Sen A (1999). "Democracy as a Universal Value". *Journal of Democracy*. 10 (3): 3–17. doi:10.1353/jod.1999.0055. S2CID 54556373.

[484] Berman, Paul (2003). Terror and Liberalism. W W Norton & Company. ISBN 0-393-05775-5.

[485] Harari, Yuval N. (2018). *21 lessons for the 21st century* (First ed.). New York. ISBN 978-0-525-51217-2. OCLC 1029771757.

[486] Dialogue Among Civilizations United Nations University Centre.

mechanisms of international crime, health issues, geo-military politics, global use of energy, and so on. Thus, there are many levels within each one of the three social systems that relate one culture with another. Conflict resolution must be understood as a multifactorial phenomenon.

Multifactorial Theories

For the previously held arguments, conflict resolution must be understood with multifactorial theories. In what follows we will discuss systems theory and CI multifactorial theory.

Systems theory: it seeks to understand conflict by looking at how several elements located in a social system interact with one another. Violence, according to systems theorists, should be viewed from the level of: (1) individuals; (2) dyads; and (3) subsystems (family, community, religious groups, and general society). Subsystems are organized in a manner which could either encourage, deter, or regulate violence. Direct efforts at changing elements of the system will not prosper since the system will immediately provide a replacement for the missing element. Hence, ending violence, which is a systematic problem, requires a coordinated and comprehensive approach. The general systems theory is useful in uncovering relationships and interactions which contribute to violence from different levels.

The contribution of system theory is that it points out the multifactorial dimension of conflict resolution. But it has the limitation that it does not propose a theoretical understanding of why and how conflict arises in individuals and dyads, and how it arises in the diverse subsystems that constitute the society. And therefore, there is not a clear path for the resolution of conflicts.

CI Multifactorial Theory

CI conflict resolution theory studies conflict from the general framework of the individual-social relation presented in the last chapter. It starts by understanding that the individual is always a social being, and that the human society is inserted in the whole existential universe. Therefore, there is always a conceptual system that relates the society to the whole existential universe and the individual to the society, and indirectly the

individual to the whole existential universe. The conceptual and institutional arrangement differs between societies and may be a source of conflict between them. But, as we said before, societies interact with one another also in many other dimensions. The conceptual and institutional arrangement define the three belonging ways required for the evolutionary survival of the individual and the society. Conflict in general can be understood as a belonging failure. A belonging failure in the first way of belonging (love) produces individual psycho-social-pathologies A belonging failure in the second way of belonging (social belonging) creates individual socio-pathologies and group conflicts along many dimensions. Social belonging expresses itself through three social systems: the integrative, the economic and the power system. Conflicts may arise, as we have been discussing, in each one of these three systems and their resolution often involves the other two systems. The relationship of the individual with the society always implies a social solution for the third way of belonging (existential belonging). A belonging failure in the third way of belonging creates individual stress and anxiety and can create anomie and psychopathologies. Religious and existential beliefs can also be source of conflict between distinct societies. However, as we said before, contemporary societies are not homogeneous in their religious or ideological frameworks, and they interact with other societies in many additional dimensions. Between two or more societies that interact with each other there is always a common integrative system (which is weaker than within a society, but that must be there to allow the interaction), an economic relation and an implicit or explicit power relation.

Conflict resolution always implies creating belonging ties. But how to do it has to be institutionally tailored to specific conflict situations.

CONCLUSION

Social conflict is a consequence of human's evolutionary origin. Social conflict is needed for the society to adapt efficiently to endogenous and exogenous shocks. There are only two ways that can be proposed to manage social conflict: ideologies and institutions. Ideologies assume that awareness of universal values will lead to a proper social behavior that will end up the social conflict. Examples of ideologies are Christianism, Radical Institutionalism (Marxism), and Radical Liberalism. Neu-

robiologically, and scientifically, however it is not possible for humans to have access to such universal values. Thus, ideologies differ among them because their presumed universal values are only philosophical preconceptions assumed from the start. Therefore, ideologies become one additional source of potential conflict – as the preconceived philosophical proposals as to the "ideal" human life confront each other. So, the only way to solve social conflicts is institutions.

Institutional arrangements change all the time to allow for social order despite the continuous pressures that permanent social conflict and social change represent; but institutions are always imperfect solutions. The process is a never ending one: conflict, change, institutionalization of the social life. And it leaves many social problems unresolved, but it is the only true social process available for social conflict resolution.

Social conflict may occur in the three belonging ways – love, social significance, and existential significance, and in the three systems of interaction of social belonging the integrative, the power and the economic. Social conflict may be due to personal, economic, political, ideological, religious, racial, sexual, conceptual, or power-strategic differences. It happens at the individual level, between groups within a society, or between societies. Therefore, social conflict resolution requires a multifactorial institutional response like the one proposed by CI[487].

[487] In other works, I have applied CI to the resolution of the Russian-Ukraine war. See Conflict and Resolution., op. cit.

CHAPTER TWELVE: A CI SYNTHESIS, AND ITS NOVEL EXPLANATION OF TODAYS WORLD PROBLEMS

CI is required because the relationship between the individual and the society goes well beyond an "economic relation"; and therefore the "economic relation" must be placed in the perspective of what we know of the relationship between the individual and the society by other disciplines such as evolutionary biology, neurobiology, contemporary psychology, anthropology, and other sciences. CI represents a new synthesis between institutionalism, liberalism, and other schools. In the first section of this chapter, we will discuss the main characteristics of CI and how by synthesizing it brings a new point of view. CI separates ideological preconceptions from scientific discoveries, integrates the scientific discoveries of diverse schools and brings a new perspective that particularly focuses on the quality of the institutional arrangement associated with the socio-economic phenomenon under study. In the second section we will review the contributions of CI to our understanding of the most pressing problems of the world today.

CI: TOWARDS A NEW SYNTHESIS

CI is a novel institutional theory which, without denying the contribution of other theories, provides a comprehensive perspective of scientific discoveries in social sciences, neurobiology, evolutionary biology, psychology, and other sciences that provides a general framework of reference to describe the general relationship between the individual and the society, which is relevant for diverse cultures and distinct historical times

This general framework allows for the placement of the contributions of other schools in the right perspective. It allows the distinction between ideological proposals and scientific discoveries.

CI argues that since the quality of the social-economic equilibrium obtained depends crucially on the quality of the institutional arrangement,

it is always necessary to perform an institutional analysis of any social problem. But at the same time since CI recognizes the scientific contributions of other schools, CI defends that institutions cannot substitute the efficiency of the markets in transmitting information. Large markets and free trade are key elements of the fast economic growth of capitalism, that must be incorporated in any theory of economic growth, and in any economic activity that requires high degree of efficiency.

CI incorporates from other schools their scientific discoveries but has several distinct features of its own: 1) It incorporates knowledge from evolutionary biology, neurobiology, psychology and other sciences, 2) it deconstructs other schools' social proposals into their ideological preconceptions and their scientific contributions, 3) it incorporates other schools' scientific contributions which, once they are detached from their ideological preconceptions, become compatible, 4) it focuses on analyzing the quality of the institutional arrangement and its consequences, 5) it maintains an evolutionary-historical perspective that allows the understanding of the distinct diversification paths taken by diverse cultures in diverse historical times, 6) it pays attention to the relevance of Western individualism in both the Western growth model and the Asian growth model, 7) it pays attention to the understanding of the world economy as a particular institutional arrangement that differs from the Western model, 8) it insists in decomposing diverse social problems that stand on their own like economic stability, economic growth, social justice, income distribution, economic development, poverty, the world economy and so forth – because each one of these problems requires the proper institutional arrangement, 9) due to its comprehensive perspective, and its special focus on the quality of the institutional arrangement, CI generates conclusions of its own in key economic and social problems.

As we have seen, social conflict is a consequence of the evolutionary characteristics of humans and it is required for the society to be able to adapt to exogenous and endogenous shocks, and it will always be there. And it cannot be solved through ideologies with preconceived universal values -which conflict amongst themselves. Therefore, since social order is required for individual and group survival, social conflict must have an institutional response capable to reestablish social order. Institutional responses however are not optimal responses, they make many mistakes. Therefore, to focus on the quality of the institutional response is critical.

CI provides a different perspective, it forces us to pay attention to the ideologies' preconceived assumptions, it stimulates us to understand

the limits of the scientific contributions of distinct schools which may be relevant for a particular historical social situation, and it forces us to focus on discussing the quality of the institutional response.

Societies are always in conflict, and there are only two ways out: ideological solutions and institutions. Since ideologies are based on philosophical preconceptions with no scientific support; there is only one scientific way out to resolved social conflicts – institutions. CI brings a new perspective by 1) focusing on leaving out the ideological preconceptions of the distinct schools and centering on their scientific contributions; and 2) focusing on the required institutions. These two points however always stand together. If we focus only on 2) we fall into naive institutionalism – the idea that institutions can do it all. But one of the critical scientific discoveries in 1) is that private markets are extremely efficient to transmit information and that large markets are critical for technological development, which is the key for the fast economic growth in capitalism. Therefore, institutions and markets should work together. Once we leave out the ideological components, the scientific contributions of the diverse schools in economics, social sciences, and other disciplines result quite complementary. As we said in the introduction, the scientific contributions of my two mentors and friends Kenneth Boulding (a well-known institutionalist), and Paul Samuelson (a well-known neoclassical economist) result complementary. This explains why the title of this book is Institutionalism and Liberalism, instead of Institutionalism versus Liberalism; the title points out the fact that their scientific contributions are complementary.

CI removes the ideological components and presents a comprehensive view of the scientific contributions of distinct schools, and by doing so brings a new perspective into how to understand and tackle the most pressing social and economic problems of the world today.

The critical contribution of classical economics was that large private free markets foster rapid economic growth, and the key contribution of neoclassical economics is that, through prices, private markets transmit information very efficiently. CI adds that the middle class has played a key role in the enlargement of the market. What all this means is that global free markets are required for the world to be able to enjoy the benefits of the ICTR. But to be able to do it, CI adds that strong global institutions and ideological tolerance are required.

CI requires us to leave behind the fallacies that ideologies produce in the conclusions of social and economic schools of thought.

Take for example some of the fallacies of RL.

1) On the one side, RL argues in favor of free global trade but, on the other side, for the promotion of democracy in all the counties in the world. In the name of democracy then a battle is established with authoritarian States which implies protectionism and if necessary, war – which are of course opposed to global free trade and instead favor populist nationalisms. The benefits of global free trade have been scientifically established, but the benefits of the promotion of democracy are ideological and do not have scientific support[488]. CI argues that while free global trade is required for fast economic growth, the promotion of democracy should be accomplished with political tolerance and the acceptance of the promotion of other political ideologies.

2) RL argues that free trade will bring: A) stability to developed countries, B) fast economic growth to developing countries and C) it will resolve the problem of global poverty. These three proposals are ideological and do not have scientific support. A) Scientifically we know that a market equilibrium depends upon the institutional arrangement, therefore economic stability will not be obtained without the correct institutional arrangement – CI focuses on the need of proper financial and governmental institutions in developed countries. B) Fast economic growth in developing countries requires high savings which the neoclassical model assumes will be the result of high foreign capital inflows, but these inflows do not materialize due to institutional cultural barriers that cannot be removed in the short run and to the ICTR. CI argues that middle-income countries should integrate themselves to the ICTR with the Asian growth model, and that very poor countries will not be able to do it by themselves and they require a new global Marshall Plan. C) Lucas and others' argument has been that the fast growth in developing countries due to free trade will increase urban life, reduce population growth, and foster a more egalitarian global society eliminating the problem of poverty[489]. This is ideological wishful thinking, because as we have seen the economic growth

[488] *The Economics of Global Peace.,* op. cit.

[489] Lucas, R.E., Jr. (1988): "On the Mechanics of Economic Development", *Journal of Monetary Economics* 22-1, pp. 3-42.

does not occur in the first place. CI agrees that to resolve global poverty the accelerated economic growth of the very poor countries is required but argues that very poor countries will not be able to develop without a new Marshall Plan.

Now take some of the fallacies of RI (Marxism):

1) It is a scientific fact that capitalism may be unjust, which does not mean that it will necessarily be unjust. Marxism, however, elevates to ideological truth the fact that capitalism is unjust. Therefore, what is needed is social justice. So, governments must focus on public health and income distribution policies, with the implicit assumption that a larger middle class will foster economic growth because the internal market will be larger. Once and again leftist governments promote income distribution strategies that close the economy to the exterior 'unjust' capitalism; and the consequence is spurious economic growth based on obsolete technology[490]. The lack of proper economic growth in most of these cases condemns the future of these countries to be noncompetitive and to fail in terms of economic growth. They do achieve more equal societies, but at the cost of everybody being significantly worse. CI recognizes that well-implemented income distribution policies and poverty reduction problems can be successful, but they always must be conceived within the correct economic growth strategy which will always necessarily involve participating in the frontier technology of the open global capitalist markets.

2) In the name of fighting the 'unjust' capitalism, nationalistic populist authoritarian militarist States justify themselves. An ideological proposition that does not have any scientific support. CI argues that these countries will be much better off by integrating themselves to the global economy.

Removing the ideological fallacies and focusing on the scientific contributions allows us to distinguish the limits of the contributions of distinct schools of thought. Liberalism, once freed from the ideology of RL has had critical contributions that we have already discussed, but we will stress again some of them: 1) the relevance of free trade large markets for economic growth, 2) the efficiency of the price system, 3) contemporary finances: modern portfolio theory, index funds, derivatives, corporate finance theory and so on, 4) public finances theory, 5) competition theory,

[490] *Globalization Misguided Views.,* op. cit.

monopoly, oligopoly and so on, 6) monetary theory, 7) macroeconomics and the theory of the business cycles and the great depressions, the list is large indeed. However, when applying each one of these theories, CI insists that the relevance of the institutions must be remembered- this is the great legacy of institutionalism. We already reviewed the distinct explanation of the 2008 CFC and the 2020 GP that CI provides.

Marxism has been relevant to stimulate theories of justice, poverty, and income distribution. But CI insists that these theories must be always compatible with a proper economic growth strategy. Sen's economics has been already extremely useful in focusing our attention to the problems of poverty and development; but it is not out of ethical behavior that these problems will be solved. CI insists that the problem of poverty is related to the development of the very poor countries which requires a global institutional solution like a new Marshall Plan.

What has CI Learnt from Other Schools and How Does it Differ from Them?

To list the scientific contributions of the distinct schools will certainly require many volumes and will be the task for a large group of social scientists for several years, and its contribution will be doubtful. The purpose here is simply to provide insight as to the way to decompose ideological preconceptions from scientific contributions, and to emphasize the contribution of CI by forcing us to adopt a comprehensive view that considers what we know scientifically in distinct disciplines, while focusing on the quality of the institutional arrangement related to the socio-economic problem studied.

Neoclassical economics and RCI are extremely useful to understand the large markets in the Western economies; and have been key for the realization of the enormous importance of free trade for economic growth. The present functioning of today's large Western financial markets and the ICTR revolution owes a lot to neoclassical economics' careful description of the theory of prices in large economic markets. However, the ideological proposals of RL that political and economic freedom produce economic growth, peace and justice do not have any scientific basis. The neoclassical model has failed to produce economic growth when applied to non-Western countries. And at the world level, while capitalism has brough economic growth, it certainly has not delivered neither peace nor justice.

Marxist economics has inspired many theories of social conflict, social change, and social justice and in that sense, it has already been highly fruitful. But its ideological claims of the imminent destruction of capitalism and the unquestionable future arrival of the international communist humane society does not have any scientific basis.

Veblen's institutionalism's scientific contributions are threefold: his insistence on the need to take into account the scientific knowledge in other disciplines, his insistence that the neoclassical free individual is an institutional characteristic of a particular history, the one of the West, and his view that technological changes generate social conflicts, which may or may not result in social changes that properly incorporate the new technologies, because old institutions are resilient to change. However, there is in Veblen an unwarranted dismissal of the importance of social engineering and, in general, of the social dynamics that occur in the conceptual system. Veblen also never understood the relevance of free markets and of individualism in the economic growth of the West. Many of Veblen's categories of analysis while insightful due to his genius, lack scientific support.

NIE has critical contributions as to the need of institutions for the actual workings of the economy. And North's view of history provides an unvaluable account of the role of the institutions of private property and others in Western economic growth. North is also very insightful in his distinction between the formal and the informal system and the resistance of the second to change, And North's insistence on the relevance of social engineering is a solid contribution. But North's insistence that the creative individual is the real cause of economic development is an unwarranted ideological proposal.

SI has solid contribution showing the importance of institutions in defining individual behavior. But it is unable to explain both the role of free markets and individualism in Western economic growth model and of free markets and social engineering under the leaders in the Asian economic growth model. Whether as citizens or as leaders, individuals do make a difference beyond what SI can explain.

HI has a solid contribution showing how path dependency limits the present choices of the society. But again, it undermines and cannot explain social engineering. The fast economic growth in a selected group of Asian countries cannot be explained with HI.

EI's proposal that economics should learn from evolutionary biology is unwarranted, it may or not do it in the future, but the argument that it

should does not have any added scientific value. Evolutionary biology, however, as we have seen, is a critical element of the general framework of reference to understand the relationship between the individual and the society

Let us provide some examples of how CI differs from other schools:

- The economic development of the West is due to several factors such as: 1) technology, as Veblen and Marx state; 2) free markets, as the neoclassical thinkers defend; and 3) individual innovation, as North argues. But CI argues that it is also consequence of the consolidation of the middle class, which was the one "institution" that definitively enlarged the market and whose dynamic preferences guided and fostered technological development[491]. Thus, CI defends that social change is always the consequence of a complex interaction between the three social systems: the integrative, the power and the economic system.
- The price system as a transmitter of information does not have a specific relevance in Veblen. In North instead, it is essential to transmit incentives for individual creativity. In CI, the price system is crucial to transmit the changing needs of the middle class, which provide the central guidance for the fast technological development in capitalism[492].
- Underdevelopment and poverty are not being resolved by RL; the neoclassical model did not work as expected. Underdevelopment in North is the consequence of institutions that do not promote individual creativity and innovation. In Veblen it is explained by obsolete institutions that do not allow technological development. In CI underdevelopment is the consequence of a) a non-competitive local institutional arrangement; and b) an inadequate global institutional arrangement[493]. CI points out that the only countries that have improved are the ones linked to the Asian growth model and the ICTR. CI argues that for very poor countries the only way out would be a new version of the Marshall Plan [494].

[491] See Obregon *Teorías de Desarrollo,* op. cit. and see also *Globalization Misguided Views.,* op. cit.

[492] See Obregon Carlos., 2022. *Social Power*. Amazon.com. Also available at Research Gate.com.

[493] Ibid.

[494] *Globalization Misguided views.,* op. cit.

- The economic development of Asia is not well explained neither by Veblen nor by North. CI explains it in terms of institutional policies that: a) reflect the institutional strengths of these cultures; b) recognize the need for an endogenous savings policy; and c) establish an investment policy aimed at producing for the mass consumption of the Western middle class – and therefore requires using the world's frontier technology[495].
- The world's global problems are explained in Veblen by the prevalence of old habits of life and thought, in North they are the consequence of not having proper institutions that free human individual creativity in all the countries; for CI they are the consequence of an improper global institutional arrangement. See next section.
- International relations cannot be based on RL and neither on realism, a CI perspective is required. Free markets, strong global institutions and ideological tolerance are the key ingredients for a better global social economy. See next section.
- As we saw in chapter three, RL's rational expectations cannot explain major financial crises like the 2008 GFC or the 2020 GP. And Keynes' economics is insufficient to explain them also because the irrational volatility of investors' expectations appears magical out of nowhere. In sum, if economic actors are rational, we should not have crises, but in the real world we do; and if they are irrational, we should have very frequent crises, but in the real world we do not. To escape this dilemma while accepting rational economic actors we need to include institutions and their mistakes. In CI's view, therefore, financial crises always have an institutional cause[496]. CI explains the 2008 GFC as the consequence of the institutional mistakes of the Federal Reserve, other US financial authorities and the European financial authorities[497]. Financial crises in emerging markets are explained by CI as due both to wrong economic policies in these countries and to an inappropriate global financial institutional arrangement[498]. CI defends that the 2020

[495] Ibid.

[496] *Globalization Misguided Views.,* op. cit.

[497] Ibid.

[498] *Teorias del desarrollo economico.,* op. cit.

GP was partially due to an inappropriate global institutional health system. And that the inflation we are living today has been created by two factors: 1) Keynesian policies directed to stimulate the demand side of the economy and the lack of proper stimulus to the supply side – and notice that we lack the institutions required to stimulate the supply side[499]; 2) The Russian-Ukraine war, which is in part consequence of the lack of a proper global institutional arrangement- see next section[500].

- While RL argues that the private health market will properly resolve the global health issues, CI defends that a stronger global institutional health arrangement is required. CI argues that the 2020 GP was partially consequence of the lack of such institutional arrangement. The budget of the WHO (World Health Organization) is ridiculously low, just like the one of a large hospital in the US. And the WHO has never been involved in health issues in developed countries – not even during the 2020 GP[501].
- The global climate crisis has not been resolved with RL's private markets, and neither with voluntary agreements between the governments that do not fulfill their commitments. CI argues that strong institutions with punitive capacity are required[502].
- Global crime is a good example of the failed policies of RL. CI argues that besides other causes, the rapid growth of global crime has an important explanation in the lack of a proper international institutional financial system. Fiscal paradises facilitate the movement of criminal financial resources which clearly support international crime's growth[503].

[499] See *Supply Side Keynesianism.,* op. cit.

[500] See *Economics of Global Peace.,* op. cit.

[501] See Obregon, C., and J. Mariscal 2020. *Covid 19 a Self-Inflicted Tragedy*. See also Obregon, C 2020. *The Ethics of Mandatory Masks*. At amazon.com. research gate.com

[502] See *Globalization Misguided Views.,* op. cit.

[503] Ibid.

CI: A NOVEL EXPLANATION OF CONTEMPORARY PROBLEMS[504]

In this section we will provide insight into how CI changes our analytical perspective as to the pressing problem of global economic growth and global peace. CI focuses on the institutional causes of the problems and its institutional resolution, incorporating other schools' scientific knowledge, avoiding ideological confrontations, and proposing pragmatic solutions.

The ICTR, Global Economic Growth, and Global Peace

In less than fifteen years, the world has experienced the worst financial crisis since the 1930's, the worst global pandemic since the flu pandemic in 1918, and the largest war fought since the Second World War. These crises are not isolated events. The global economy of the twentieth first century must be understood as the consequence of the global clash between technology and ideological nationalisms. The three crises happened due to this global clash, which also explains the world's climate crisis, and the uprising of international crime. We are experiencing the first technological revolution that has truly globalized the world, the ICTR (Information -Communication-Technology-Revolution); and a backlash against it, led by nationalistic, protectionist, populist tendencies. The future of the global economy during this century will be defined by the outcome of this global clash.

The ICTR is the third wave of globalization in recent times. The first wave started in the industrial revolution of the1820's and accelerated with the steel revolution of the 1870's. Due to the absence of strong international institutions, this first wave resulted in the confrontation between national interests that led to the First World War, the 1920's hyperinflation, the 1930's Great Depression and the Second World War. The second wave of globalization started after the Second World War, driven by the technological advances that started during the war - such as computation and chip technology. This second wave of globalization happened under the auspices of the strong institutions established in Bretton Woods and produced higher global productivity and higher GDP per capita growth than the first wave. The third wave of globalization, the

[504] See *Economics of Global Peace.,* op. cit.

ICTR, starts in 1990 and accelerates global productivity and economic growth. But after the 2008 GFC (Global Financial Crisis) a growing populist nationalism slows down the ICTR and its benefits. During 2020 and 2021 the world suffered the 2020 GP (Global Pandemic) and global trade slowed down even further. And in 2022, as we are leaving behind the worst part of the COVID pandemic, instead of going back to a globalized economy capable to fully reap the productivity benefits of the ICTR, the world is under the menace of a global depression. The main reason for this threat has been the Russia-Ukraine war, that has brought about the risk of inflationary expectations, forcing the central banks to aggressively rise interest rates which may cause a recession, whose future dimension is still unknown.

The world is trapped in all kinds of nationalistic tendencies that have prevented the expected quick economic recovery. The US-China trade confrontation and China's unwarranted policy of zero Covid have unnecessarily prolonged the supply-chain disruptions generated during the 2020 GP. In addition, the world has entered a XIX-century-like war between Russia and Ukraine, that has generated rapid global price increases in energy and food. The inevitable outcome of these two supply shocks has been global inflation, and the rising risk of inflationary expectations. The excess demand (due to the Keynesian adjustments applied during the pandemic and the lack of supply side stimulus) was meant to stimulate a fast recovery of the global economy which could have been associated with transitory inflation, due to temporary supply bottlenecks. Instead, the two mentioned supply shocks have extended the inflationary phenomenon and raised the risk of inflationary expectations. Therefore, the central banks are rising interest rates rapidly and a global depression seems unavoidable, as the stock markets are forecasting. The key message to understand is that, in a globalized world, nationalistic policies have global spiral effects. The two previously mentioned supply shocks are a consequence of nationalistic policies; but they have changed the global economic panorama drastically, from one characterized by a fast recovery with transitory inflation, to one defined by stubborn inflation, the risk of inflationary expectations, and a global recession which might be mild or prolonged depending upon how the supply shocks are resolved in the future.

The disruptions associated with the 2020 GP have been very expensive; for example, car makers' cash flows have been hardly hit and Apple estimates that in the last quarter Covid-associated bottlenecks could re-

duce sales up to 10%[505]. Companies are losing faith in the international authorities' capacity to avoid future supply shocks. Therefore, there is a growing fear that future wars, extreme weather, or another new virus could create future supply disruptions. This environment is generating a new assault on globalization, based on a flight to security. Some companies, to avoid the large costs associated with the potential disruption of the fragmented production chains are undoing the ICTR, bringing more production back home. This tendency would only aggravate inflationary tendencies by drastically reducing global productivity.

In the history of the world, technological revolutions have always been opposed by nationalistic tendencies, therefore today's global clash between the globalization forces of the ICTR and nationalistic policies is not new. In the long run, at the global level, the outcome of the clash between new technologies and old nationalistic ways of thinking always favors the technological revolutions. But the result may imply severe short to medium-term global crises, as it happened in the first globalization wave, or may be relatively smooth, as it happened in the second globalization wave. Moreover, the countries that oppose the technological revolutions always lose their international leadership in the long run and are surpassed by those that promote the technological revolutions. For the future of the global economy, it is critical that policy makers and the general societies understand and accept the globalization of the ICTR and its benefits.

Improperly, the recent populist tendencies have been associated with income redistributions in the countries that have participated in the ICTR. The advanced economies' populism is mostly an outcome of the 2008 GFC which was globally mismanaged. And in Latin America populism has been a consequence of the failed economic models adopted which produced nil economic growth.

The world, as we mentioned before, has been experiencing several recent global crises which, we argue, are due to of weak global institutions that have mismanaged the globalization brought about by the ICTR. And these global crises have created social discontent, that has stimulated nationalistic populist movements. Populism however is not the required solution. It will only aggravate the situation. It will only generate more global crises and exacerbate the social unrest that prompted it in the first place. Populism in a nation is a desperate measure that only worsens the situation; it is like a person who is depressed because he/she

[505] The Economist June 18th, 2020 "Reinventing Globalization".

is fat, and eats because he/she is depressed, and only gets fatter. There are no adequate national populist remedies in a globalized world. Attempts to impose populist solutions will only isolate the countries involved and increase their economic problems.

The history of the world can be seen as the clash between technological advances that have pushed for the formation of larger human groups, and the local ideologies of smaller groups that wish to prevail. In Veblen's terms, the fight between old modes of thinking and new ideologies. In fact, we became humans due to the enlargement of the social groups of our predecessors, due to the advances in rock technology. Copper and bronze technological revolutions created the Egyptian empire, the iron revolution created the Persian empire, the monopolization of iron production by the Persian State gave rise to Greece and its democracy, which later led to the Macedonian and the Roman empires. The maritime transportation revolution created the Spanish empire, and the manufacturing revolution the English empire. In all cases old ideologies opposed technological advances. And although in certain regions and countries old ideologies have prevailed for a long time, in the world at large the technological revolutions always win the battle, and those that oppose them lose. Persia disappeared because it opposed the private production of iron, which was industrially very useful. France lost against England because it did not join the manufacturing revolution properly. If the US promotes nationalistic policies that oppose the ICTR, in the long run it will lose its global technological leadership over China.

It is time to create consciousness, particularly among global leaders, of the critical juncture the world is living. The old RL globalization ideals do not work any longer in an ICTR world. capital will not flow into the developing economies, as the neoclassical liberal model requires, and liberal democracies will clearly not be established soon in most of the world. Therefore, promoting freedom, as RL proposes, instead of fostering global economic growth, creates conflicts, wars, protectionism, and a serious disruption of the global economy. RL is not compatible with the globalization required by the ICTR. RL, in practice, becomes nothing else than nationalism in disguise. Excluding non-liberal countries from international organizations, like NATO, the WTO, or the EU, serves the mistaken purpose of maximizing the economic interests of the group of radical liberal countries that form the international organization, in a zero-sum game. The problem is that this zero-sum game seriously penalizes global productivity and global growth by imposing protectionist bar-

riers against the non-liberal countries, the consequence is that it reduces global trade and seriously slows down the ICTR. Therefore, although in relative terms this group of radical liberal countries defends and may even improve in the short term its relative position against other countries, in absolute terms it also ends up worse off versus the wealth it could potentially generate, by allowing the ICTR to operate freely.

It is in everybody's interest to have a global economy that integrates all the economies in a functional ICTR global economy. This will imply a huge change in the Western mentality. It will require the radical liberal countries to become ideologically tolerant, to promote strong international institutions (that include authoritarian countries) and to be willing to increase global economic interdependence, If the Western world does not move in this direction, it will end up in a global zero-sum game in which it will maintain in the short run its relative leadership at the cost of enormous foregone wealth opportunities; and in the long run, it will lose its technological leadership against the authoritarian China.

We argue that international relations should not be guided by ideological RL any longer, and that the alternative is not a pragmatic realism focused on the balance of power approach either. CI proposes strong global institutions and ideological tolerance is the only viable solution for the world to be able to fully reap the benefits of the globalization that the ICTR has brought about.

The ICTR has created a new digital world that has changed the way we live, think, consume, process information, produce goods and services, and participate both socially and politically. This new digital world puts together devices like the computer, the TV and the telephone with a powerful wireless network that makes them "smart" and allows communication between them at the global level. The ICTR has drastically changed the geography of economic production. Fragmented production in developing countries, managed centrally in developed economies, has increased global productivity drastically, lowered global inflation, produced the largest reduction in global poverty in decades, and changed income distribution globally and in selected countries. However, the recent movement towards protectionism, mainly an outcome of the 2008 GFC, has decreased the benefits of the ICTR.

The RL of the 1980's failed in its claims that: 1) developed countries would not experience financial crises; and 2) developing economies would develop following the neoclassical recommendations of the Washington Consensus. Nationalistic populism all over the world can be seen

as the result of the failure of the RL promises. RL wrongly started the dismantling of the international institutions like the WTO (World Trade Organization).

The societies' integrative system is always conservative and resists the technological changes occurring in the economic system. Paradoxically, the globalization's failed claims of RL have ended up strengthening national populism. Populist nationalism in the developed countries is a direct outcome of the 2008 GFC. In the developing countries, particularly in Latin America, populist nationalism is due to the lack of proper economic growth. Nationalism produced the 2008 GFC and gave rise to a mistaken explanation of its causes; nationalism explains the mismanagement of the 2020 GP; nationalism explains the Russia-Ukraine war; and nationalism is behind the global environmental crisis and the rampant growth of international crime.

The RL theory of social change does not properly explain the consequences of large technological revolutions, such as the ICTR. The RI (Marxist) theory does explain social change based on technological revolutions, but it has two main drawbacks. The first one is that it does not consider the resilience of the old modes of living and thinking that necessarily oppose the new ways of living and thinking produced by the technological revolution. The second one is that it superimposes upon its theory of social change an ideological teleology that fully defines the final social outcome of such technological revolutions. The CI theory of social change also explains social change based on technological revolutions, but it does not have neither of the two drawbacks of the Marxist theory. Additionally, the CI theory is capable to explain social change also because of social engineering, which is an important feature of today's societies.

RL, RI (Marxism) and Realism (the balance of powers political theory) correspond to old ways of thinking about globalization that are incompatible with the new ICTR. The Marxists predicted that the proletariat revolution would be global, instead in the real world the leftist movements are constrained to national states which isolate themselves from the global economy and end up producing with obsolete technology. For RL, capital was supposed to modernize those low-wage countries that adopted neoclassical policies, while liberal policies would maintain stability and progress in the developed countries. In the real world, neoclassical underdeveloped countries did not have proper economic growth; and developed countries entered the 2008 GFC and are now enduring the

consequences of the 2020 GP. The outcome of the failed old ways of thinking about globalization is the resurgence of nationalistic populism. We need new ways of thinking about globalization. I have recently written another work called *The Economics of Global Peace*[506], in which I argue that global peace requires a) increasing economic interdependence, b) strong global institutions, c) ideological tolerance, and d) a global, credible program of denuclearization and demilitarization. To fully enjoy the productivity benefits that the ICTR can bring about, the world must change its mentality – ideological tolerance will be required. To envision the future of the world as a fight between democracies and autocracies is inappropriate. If the world ever gets to be one consisting of only democratic countries, this is certainly very far away (likely as far away as the global proletariat revolution promised by Marxism, because both are ideological idealisms); and today it is an impractical and untenable goal. Today only thirteen percent of the global population lives in electoral democracies. The globalization of the ICTR is already here with us, and it requires a workable solution. Ideological tolerance and strong global institutions are required if the increasing economic interdependence is going to work. To reduce economic interdependence, sacrificing global productivity, is a mistake for the future of the global economy. The correct answer lies in strong global institutions, ideological tolerance, peace, and the inclusion of every country into the global, interdependent economy.

Globalizing idealisms like RL and RI (Marxism) will never prosper in a world of powerful nations. And the political theory of balance of powers does not provide a solution for the globalized economy of the ICTR world; and even the political and military solution that it offers is very unstable. Nations are rooted in the history of mankind and are a natural consequence of our evolutionary heritage of belonging to small groups. There are no historical antecedents of a truly global life. However, the ICTR is globalizing the world and a solution is required. Given the resilience of powerful nations, CI argues that the answer lies in strong global institutions that, while recognizing the national interests, are capable to establish a social order for the world at large.

In Veblen's terms, the problem of the world today is that the old habits of life and of thought have not yet adapted to the new technological changes brought about by the ICTR. In the CI language, while the ICTR has globalized the world, the international institutional arrangement has lagged. The old conceptual systems still used today are no longer useful

[506] Obregon, C., 2022. *The economics of global peace.*, op. cit.

to understand the reality of the contemporary world's society, that has been globalized by the ICTR. RL belongs to the conceptual system of the modern Western society; but it is ill suited as a reference for today's globalized world and its future dynamics. Realism rightly points out the difference between distinct national interests and national points of view; but its proposal, of maintaining a balance of powers between nations, is restricted to the power system and is unstable and insufficient. Although nations constitute an undeniable reality, and any global perspective must deal with the interest of powerful countries, the view of a world defined by national interests is conceptually behind the globalized reality imposed by the ICTR. CI defends that the only way to move forward is to strengthen global institutions capable of responding to the needs of the global economic interdependence; to foster ideological tolerance and to enter a credible demilitarization program of the world. If we do not do it, the unresolved conflicts between national interests, within the intense international interaction brought about by the ICTR, will continue to be the cause of continuous acute global problems and suboptimal solutions.

The three main negative events of the last twenty years that have jeopardized the global performance of the ICTR (the 2008 GFC, the 2020 GP and the Russia-Ukraine war) did not have to happen. The US-China trade war did not have to happen. The protectionist policies in so many countries are clearly a mistake that could be avoided. All these negative events have slowed down the ICTR and reduced its global benefits. And what is not often realized is that all these events are not isolated independent events, they are linked by a common causal root – national interest and the lack of strong international institutions.

The 2008 GFC's international potential impact was underestimated by years, because policy makers did not realize the rapid internationalization that the financial sector had suffered before 2008. Isolated markets do not exist in a world globalized by the ICTR. The US' adjustable-rate subprime market that started the 2008 GFC was interlinked through securitization not only to the financial safety of the US banks, but also to the financial safety of most of the banks all over the developed countries that had bought the securitized paper. The US Federal Reserve by first decreasing and then increasing rapidly the FED's rate created a crisis in the adjustable-rate US subprime market; and it further assumed that this market was going to self-correct itself through the private banks' intervention. Instead, the US banks and other international banks, owning the securitized paper, collapsed; and therefore, we had the 2008 GFC.

The 2020 GP was a consequence of the globalization of the ICTR's process of production that interconnected China with the rest of the world; but was badly mismanaged by a WHO which has had a total budget smaller than the one of a large private hospital in the US. The 2020 GP was largely confronted by each nation's own policies: which was highly inefficient in an interconnected world.

The Russia-Ukraine war did not have to happen. It was the consequence of an isolated nationalistic Russia, looking backwards to a world of isolated countries, instead of forward to a globalized world; and of a stubborn West playing a zero-sum game against Russia, instead of a collaborative game - as it should be done in an interconnected world.

The US-China trade war is inappropriate in an ICTR world, in which both economies have become interdependent. And the nationalistic protectionism in so many countries has only exacerbated the difficulties for the world to enjoy the benefits that the ICTR can provide.

The ICTR is the third wave of globalization in modern times. The first wave was due to the increased global productivity consequence of the 1820's industrial revolution and of the steel technological revolution (also called the second industrial revolution) in the 1870's. This first wave lacked an appropriate global institutional framework and ended up in the open confrontation between nations fighting each other to decide how to divide amongst themselves the new globalization benefits. The consequence was the collapse of the first wave of globalization into the First World War, the national protectionist policies in the 1930's that caused the 1930 GD (Great Depression) and the Second World War. The second wave of globalization initiates after the Second World War and lasts until 1990 (year in which the ICTR starts). This second wave was successfully managed in the Western world, under the leadership of the US, due to the strong international institutions established in Bretton Woods. This second wave was however mismanaged in the USSR, which isolated itself and collapsed at the end of the eighties. The third wave of globalization, the ICTR, was relatively well managed until the 2008 GFC; but it is now under the threat of nationalisms - just as it happened in the first wave of globalization. The global leaders must be very careful. The ICTR has globalized the world to a point of no return, in which the nationalistic rhetoric becomes awfully expensive.

It is true that the nationalisms are deeply rooted in human history; and therefore, most certainly they will prevail in the future to come. But what is not true is that nations must interact with each other under a

weak institutional international arrangement. The good results of the second wave of globalization in the Western world, versus the disastrous results of the first wave, testify to the importance of strong international institutions.

In fact, the three most recent waves of globalizations are not the first instances where nationalisms are confronted by a globalizing tendency. Many of the old empires were built with a globalizing view. This was the case of the Macedonian empire under Alexander the Great, the Roman empire, and so on. All the old empires must deal with the nationalistic tendencies of the smaller conquered regions. And although it is true that these small regions were conquered by force, it is also true that the empires were built under a global embracing ideology that was looking forward to building common values. The Mayas, the Egyptians, the Persians, the Chinese, the Greeks, the Macedonians, the Romans, the Spaniards, the French, the English – all of them were building a larger culture than their own initial nation. Nationalisms will not disappear in the future, but world leaders must understand that these nationalisms must be made compatible with the globalizing reality brought about by the ICTR. Not doing it will be awfully expensive for the world.

Today's assault on globalization is not new. Technologies have always enlarged the world and have always been confronted by tribal, regional, or national political forces. Thousands of years ago, already the copper and bronze technological revolutions gave rise to the Egyptian empire, as large urban centers consolidated themselves through warfare to bring down the regional barriers that opposed the enlargement of the production process. In the long run, all the forces that oppose the enlargement of the production process brought about by the technological revolutions lose their power base. There are many historical examples that in the long run the technological revolutions always prevail. When Persia declared the private use of iron illegal, authorizing it only to be used by the State, the consequence was the iron production by small producers in the offshore Greece, the eventual confrontation of Greece and Persia, the later invasion of Persia by Alexander the Great, and the birth of a new larger empire – the Roman. France, due to the vested interests of the king, the nobility, and the church, did not fully join the manufacturing revolution that started in the thirteenth century and ended up in the 1820's first industrial revolution. The consequence was that France lost its European leadership; and in 1870 it lost the war against Germany and had to give up the two key European steel production centers, Alsace,

and Lorraine. Due to this, France was unable to join the steel industrial revolution of the 1870's, and by the First World War France had become a second-class military and economic power, that was easily invaded by Germany. The USSR isolated itself from the technological revolution occurring in the West after the Second World War, and it collapsed at the end of the 1980's. Whoever isolates itself in the future from the ICTR will lose. The technological revolutions always triumph in the long run. This is a key message for the Western world, and particularly for the US – any protectionist policies will backfire in the long run by diminishing the involved countries' global competitiveness.

Neither RL, nor political realism, are proper guidelines for international policies in a globalized ICTR world. We need a new perspective. CI proposes allowing and promoting the global interdependence brough about by the ICTR; strong global institutions, built around the interests of powerful nations, but establishing clear and fair global rules; ideological tolerance; and a reliable and sustainable internationally agreed de-militarization; as the key ingredients of the new international policy guidelines. The establishment of this novel CI perspective will not be an easy task; it will take major changes in the actual global conceptual system and institutional arrangement. But it is the only way out for a world that is already being globalized by the ICTR. Not doing it will be awfully expensive in terms of future global crisis, wars, and losing the full benefits that the ICTR can bring about.

Some foreseeable dangerous trends for the future, consequence of the Russia-Ukraine war, can already be identified such as: 1) the remilitarization of Europe; 2) the possibility of losing control of the global nuclear plan, particularly in countries like Iran and North Korea, due to the heightened US-Russia confrontation; 3) Russia's isolation strengthens the Russia-China economic relation, which creates further partitions of the global economy; 4) Russia's isolation increases the dictatorial power of Putin, and increases the likelihood of future military problems in the region; 5) framing the confrontation as a fight between "freedom" and "autocracy" is the wrong approach, that will only serve to increase the ties between the so-called dictatorial autocracies.

The Russia–Ukraine war has multifactorial causes[507]. Among them, we consider the following as the crucial ones: 1) A conflict created with the fall of the USSR because Russian-speaking population and Russian economic interests remained in other ex-USSR countries. 2) Russia's

[507] See Obregon. C. 2022., *Conflict and Resolution.,* op. cit.

long-term involvement in Ukraine's and Georgia's history. 3) Eastern Ukraine's political support of Russia. 4) The pro-Western populations in ex-USSR countries looking to become NATO members, to create a line of defense against future Russian military invasions. 5) The pro-Western populations in ex-USSR countries looking to become EU members to reduce their economic dependency on Russia. Thus, there was an acute conflict in Ukraine's relation with Russia and with the West that required solution. But the questions are: 1) Why did it result in the Russian military aggression to Ukraine? 2) Why was the conflict not managed diplomatically and in democratic terms – for instance, as suggested, holding elections in conflicting zones? Why, even after two previous Russian invasions to Georgia and to Ukraine in Crimea, the world could not find a diplomatic-democratic solution? And 3) Why after the fall of the USSR, the West did not help Russia and the rest of the former USSR countries to recover, integrating them to the West's economies? Why did the West isolate Russia? Why did it not accept Russia to become a NATO member in 2001, when Putin proposed it to Clinton?

The answer to the first question is that the Russian aggression is a consequence of an authoritarian military empire in Russia, with a ruthless powerful leader. And there is no doubt that the main responsibility of the war lies in Putin and the Russian government. But then the question is: How did Putin become so powerful? Why is Russia relatively isolated from the Western economies? Why was Russia unwilling to listen to the West? Putin became very powerful because, after the failed attempt of the neoclassical economists to rescue the Russian economy in the nineties, he led the Russian economic recovery based on an inward-looking, populist old communist model, that isolated Russia and in appearance was successful. Russia was unwilling to listen to the West because of three reasons: The West did not have an orchestrated negotiating voice, the isolated Russia did not depend enough upon the West's economy, and there persists an ideological battle with the West.

The answer to the second question is that it was a minor problem for the West, and the weak international institutional arrangement was uncapable to negotiate peacefully the international conflicts. There were no powerful international institutions capable to intervene on time in a diplomatic negotiation.

The answer to the third question that: "the West did not help Russia's and the former USSR's recovery because of an ideological battle" must be rejected, because the Marshall Plan after the Second World

War helped Nazi Germany and the Imperial Japan, with which there also had been an ideological battle. The real answer is that the West followed the neoclassical model in its advice to Russia in the 1990's, and the model failed; and nobody even raised the question of the relevance of a second Marshall-like plan to help the USSR to recover, because it was not in the cards of the accepted neoclassical economic vision of the West at the time. The West did not understand the consequences of isolating Russia. Isolating a country only fosters stronger local authoritarian dictators like Putin.

If the world had had a strong integrative system – defined as powerful international institutions – and another vision of global economics, it would have understood the opportunity to help Russia and the other ex-USSR countries in their economic recovery in the 1990's. Economic integration of cultures with different ideologies is a good beginning to establish a common –even if restricted- integrative system. It happens today between the US and China and between the US and Saudi Arabia; and it happened with Germany, Italy, and Japan after the Second World War. Old enemies may become new friends and allies. However, instead of promoting an integrated global economy, the West left Russia alone, by itself. And after the crisis of the lost decade 1990-2000 Russia's economic recovery was inward-looking, with the consequence that it reinforced Russia's autocratic, imperialistic tradition, which in turn made it more difficult to achieve an effective international diplomatic solution to the real conflict happening in Georgia and Ukraine.

Power conflicts are a consequence of weak integrative systems. The collapse of the USSR destroyed its integrative system and left many unresolved, real conflicts in the ex-USSR countries. The war, the people killed on both sides, and the human tragedy in Ukraine is a responsibility of Putin and of Russia; but the West's diplomacy could have done better than it did. Three times, in 2008, in 2014 and in 2022, the conflicts have had the same outcome, a military confrontation – both Russia and the West should have learnt from the first and the second experience. If good diplomacy had happened in the first two cases, the 2022 Russia-Ukraine war would not have happened. This third war will not improve the negotiating position of any of the participants. It is a lose-lose game with no winners. Russia will lose a lot. Ukraine's losses will be enormous. And the Western world will also lose. It is a tragedy that we have been unable to understand the enormous cost of not having a better developed global integrative system.

CI argues that the world can in fact do better. That the best path to obtain global peace is economic interdependence; and that for this, it is required to have stronger global institutions.

CI economics of global peace proposes that: economic interdependence is the key to global peace; that for the global economy to work properly, trust between the economic agents and the nations is required; that such a trust requires common, strong, global institutions – including the ones directed at expanding the global middle class; and that for these global institutions to operate properly, ideological diversity needs to be tolerated.

In the aftermath of the Second World War, peace among the main developed countries was kept due to several factors such as: the absolute leadership of the US in the non-USSR world, and the advances in nuclear warfare technology, which transformed a potential military confrontation between the US and the USSR into the Cold War. Today, the leadership of the US is greatly diminished due to the economic recovery of Europe and Japan and the emergence of China as an economic power. However, instead of replacing the lost US leadership with stronger global institutions, the world has been weakening the functions of the ones it used to have. The IMF and the World Bank have lost global relevance in the developed world and have become more and more involved with developing countries. The WTO has become so weak lately that no serious candidate would accept being nominated to lead it. The weakness of the WHO has been appreciated with the COVID pandemic. And NATO, which was created to confront the powerful USSR and should have disappeared with its collapse, survived and now it is being used as mechanism to isolate Russia. But NATO is no longer uniquely lead by the US, and the isolation of Russia happens in the new world of relatively higher economic interdependence mainly between Russia and Europe – and therefore its isolation has high global economic costs.

The disarray of the world's international institutions is particularly costly due the rapid increase in economic interdependence due to the ICTR, which has fragmented the industrial production in several developing countries, while maintaining in the developed countries the management control. Such growing global economic interdependence should have required stronger international institutions, instead they have become weaker.

Moreover, since the 2008 GFC (Global Financial Crisis) the world has experienced a new wave of nationalism, that manifested itself in the elec-

toral winning of populist governments around the world, which promised protectionism. The most significant of which was Donald Trump's, in the US. And it is remarkable that the Biden administration has remained protectionist on several fronts such as: 1) its trade confrontation with China; 2) the new trading rules regarding electrical cars, for which the US is being sued by Canada and Mexico; and 3) its policy that the US government will only buy goods made in America. And unfortunately, this rising protectionism, both in the US and in the EU, happens with the WTO losing its former leading role.

Rising economic interdependence due to recent technological developments, growing protectionism to stop it, weak international institutions and the absence of a clear worldwide economic leader is not a good mix for global peace. The First World War was a consequence of growing economic interdependence, the UK losing its previous economic leadership, and the lack of global institutions. The Second World War was a consequence of growing nationalism and protectionism. The stability of the world today is at risk, and global political leaders have shown that they do not have a clear vision of what to do. For the first time, the Russia-Ukraine war has made the risk of a nuclear war to be non-zero; and has created economic tensions that will reduce economic global trade, with the high costs in global economic productivity and global economic growth that it entails.

CI argues that today, the world does not have a proper strategy for global peace. The dominant RL proposal, that global peace and progress will be reached by exporting political and economic freedom to all the countries of the world, is not only scientifically incorrect, but unattainable in practical terms. And the RI (Marxist) alternative is based on untenable views about the actual dynamics of human history.

CI defends that the economics of global peace must be based on four pillars: 1) Allowing the ICT technology to display its beneficial potential through maximum possible economic interdependence. Which entails restraining economic protectionism, and creating a new, reinforced WTO. 2) Stronger international institutions (including the ones directed at expanding the global middle class) capable of guaranteeing mutual trust and to serve as a forum to negotiate national economic interests. Which implies, amongst other institutions, crafting a common legal framework: including the law, the judges, and the enforcement mechanisms. 3) Ideological tolerance. Peace will not be built by imposing an ideological perspective on others. Peace must be the consequence of economic

interdependence that fosters global economic growth, with trusted global institutions and ideological tolerance. 4) A global demilitarization and a nuclear control strategy that guarantees safety, and a balance of powers at a low economic cost.

CI argues that, due to the fast speed of the drastic changes that the ICTR has brought about, the global conceptual system (and its corresponding institutional arrangement) has lagged. Against a nationalistic background, and without proper global institutions, these drastic technological changes have generated all kind of global conflicts, such as: global financial crises, global crime, a global health crisis, a global climate crisis, unresolved poverty and underemployment, and wars – of which the largest since the Second World War is the one between Russia and Ukraine.

Nationalism is here to stay for the foreseeable future; but at the same time, the globalization in communications, lifestyles and economic production processes is already a reality due to the ICTR. Moreover, the advances in nuclear technology have made nuclear wars impossible, or at least awfully expensive. And fighting traditional wars involving nuclear-power countries, like Russia, is extremely risky for the world. It is in the interest of all to reduce the likelihood of a nuclear confrontation to almost zero.

Economists have learned since Adam Smith that economic interdependence can certainly foster economic growth, because the enlargement of the market is decisive for technological development. However, economic interdependence must be promoted with the right economic model – it must be based on using worldwide frontier technology and directed towards increasing savings and local production in developing economies. It implies a reversal in national protectionist policies in developed countries; and the compensation of losers in these countries (affected by the new trade scheme) through tax, transfers, and educational redistribution policies.

The economic interdependence must include all the countries in the world. Isolating economies only fosters local authoritarian dictatorial regimes. A worldwide economic interdependence implies involving everyone, regardless of distinct ideologies or a different level of economic development. What the Marshall Plan after the Second World War showed is that there are no economic enemies – the economic development of imperial Japan and of Nazi Germany finally made them Western allies. The strategy of a global economic interdependence implies a new look at international economic relations, in which global poverty and underde-

velopment must be addressed given the potential benefits in global productivity and economic growth that they entail.

CI defends that Keynes' global views were in the right direction, he was right in the sense that an intentional, proper global institutional arrangement is required. When one compares the consequences of the institutional arrangement of the post First World War with the ones of the post Second World War, one realizes that Keynes was visionary. As he argued in *The Economic Consequences of the Peace,* the work that made him famous, the arrangements after the First World War were inappropriate, and in retrospective they proved to be very costly for the world. Instead, the arrangements made in Bretton Woods, partially under Keynes' influence, were more adequate and produced significantly better results for the world.

In the world to come of high economic interdependence, due to the ICTR, stronger global institutions capable to inspire trust in global relations will be a key ingredient for peace. There must be a commonly accepted international law, globally recognized international courts, and acknowledged enforcement mechanisms. In a purely rational world, with full information, and in which agents trusted each other, wars would not exist. Wars are basically a consequence of mutual distrust, lack of information and poor institutions. Strong global institutions will never fully resemble a rational world, but can certainly increase trust, provide information and a stable framework for international relations; and therefore, they are a key ingredient to foster peace.

The prevalence of a unique global ideology is contrary to the evolutionary makeup of humans, it will not happen. Ideological diversity is a human reality, and the only way out to establish global peace is to foster ideological tolerance. There are already many examples of such an ideological tolerance; Saudi Arabia being an ally of the US, India being a partner with Russia, China being so economically interdependent with the West, and so on. In fact, without ideological tolerance the world's functionality would be at risk. CI emphasize the need of basing ideological tolerance on the scientifically known fact that none of the ideologies is essentially right. The economic isolation of authoritarian states is a mistake, which ends up in radical nationalisms that very often create dictators. Today the world is at a critical crossroads because the ICTR is rapidly globalizing the international life. And this globalization is happening within the historical reality of an international arrangement based on nations with interests that belong to diverse cultures with distinct ide-

ologies. The world's conceptual system and institutional arrangement is ill-prepared for the technological changes brought about by the ICTR. That is why we need to build strong international institutions capable to serve as arbitrageurs of national interests and of developing mutual trust between the nations. Global institutions capable to ensure the nations, as far as possible, that whatever is agreed will be respected – a globally accepted international law, global judges and penalty mechanisms must be developed. But mutual trust cannot be established based upon ideological intolerance, which creates the distinction between "us" and "them", between the "in-group" and the "out-group". Such distinctions create mistrust and invite conflict, as several experiments and theories in social psychology have shown. To see the world as divided between humanistic democracies and non-humanistic authoritarian states is incorrect. Only 13 % of the global population lives in liberal democracies, and it is not true that the other 87% is not humanistic and must be liberated. In distinct cultures there are diverse conceptions about what human freedom means. We all should learn to be more ideologically tolerant, nobody has the final truth, and we can all learn from each other. And above all, ideological tolerance is a must if we want to stand a chance to properly manage the globalization brought about by the ICTR.

We understand that CI's proposal will not be accepted soon. Nationalistic interests and ideologies have predominated in human history, and they will continue to do so in the foreseeable future. However, what is new in human history is that there are critical global forces that question the viability of the nationalistic approach. Forces such as the globalization of information, communication, office technology, lifestyles and economic production brought about by the ICTR, and the rise of the powerful nuclear technology. The nationalistic approach does not guarantee anymore global stability and functionality. For the functionality of the world to be supported something must change. CI's proposal must be understood as providing directional guidance for the long run, and not as offering short-term policy recommendations; but CI defends that this kind of guidance is becoming an imminent necessity for the proper functionality of the world to come.

The ICTR has created a critical opportunity for the world to increase its productivity and its economic rate of growth; to be able to seize this opportunity free trade in the world is a must. The importance of free trade for economic growth was discovered by Adam Smith and has been extensively documented by the neoclassical school, it is a solid, well known

empirical and theoretical proposition. It is unfortunate that after the 2008 GFC the world has seen a revival of nationalism and protectionism, that is shown in the trade battle between China and the US, the US policy for the government to buy "made in America", Brexit, and so forth. As I have written elsewhere, the 2008 GFC did not have anything to do with the increase in global trade and the large savings of China and other countries[508]; the world was in the right track before 2008 and should have continued in it. Losers due to the ICTR should be compensated through tax and government transfers policies, and not through protectionism. Nationalism and protectionism are bad news in terms of global peace, they were critical causes of the two world wars of the twentieth century.

But free trade, while critical, is not enough to obtain global economic progress, there are also other fundamental issues involved, such as: the growth of the middle class, the role of the governments in increasing savings and promoting science and technology, the quality of the global institutions, the use of large social expenditures, the economic model adopted by large middle-income developing economies, the recovery and developing plans to incorporate developing economies to the global economy, and so forth.

The success of the Western model of growth is undeniable, but global progress cannot be based on reproducing such a model in the developing economies; because they do not have the historical institutions that the West developed, and because the presence of the West in the global economy changes the global conditions under which an economy must develop. The neoclassical model was a failure in developing economies, while the Asian model was a success.

The Asian growth model is based on a managed economy. The model has two historical phases. The first one was led by Japan and the second one by China. In the first one, the keys to its success were: the use of frontier technology guided by the exports to the West, high local savings, management of the exchange rate, protection of local industries and development of champion local companies able to export to the West in competitive terms. In the second wave, in addition, it was critical to be properly integrated to the ICTR by creating all sort of facilities for the foreign investors to produce the fragment of production that they chose to do in the developing economy.

The Asian growth model's main goal was not to generate a national middle class, in fact in some countries it was associated with a worsening

[508] Obregon, C. 2018. *Globalization: Misguided Views.,* op. cit.

of the income distribution; but in the long run, the fast rate of economic growth of these countries has created an economic middle class, and in some of them even a political middle class.

Economic progress must be based on increasing trade and growing economic interdependence in the world, but within a proper institutional framework that must accommodate distinct models of economic growth, such as the Western, the Asian and the development model that could result from aiding the poorer countries on earth.

The goals for the world are progress and peace. But they will not be achieved with promoting unreachable ideals such as: 1) the RI (Marxist) proposals of a global proletariat revolution; or that the income distribution will produce national economic progress, justice, and national peace, or 2) the RL thesis that economic and political freedom will create progress in all the nations, which will then live in peace with one another.

In the real world, the global proletariat revolution never came, and the income distribution policies which are not part of a proper economic growth program are condemned to fail, like all the inward-looking models have failed such as the communist model and the import-substitution model. And in the real world, a world of only democratic nations is an ideological proposal which does not have any foreseeable possible pragmatic implementation, moreover nothing guarantees that such a world of democratic nations would be peaceful.

World progress and peace require free trade. Free trade is one of the key ingredients needed for progress, and it has the advantage to bring people from different nations together. But bringing people from diverse nations together may end up in conflict like in the first wave of globalization, or in peace like in the second wave of globalization. The difference were strong international institutions. Thus, institutions and trust are required for progress with peace. And for trust to be developed ideological tolerance is needed.

Economic progress, given strong national divergent interests may become unstable and lead to military conflicts. The only way out of this is to build solid international institutions that foster mutual trust. Thus, the WTO, the WB and the FMI must be supported by an international law and international accepted courts and mechanisms for enforcement. It is under an accepted common legal framework that a new Global Security Agency must operate, with the aim of establishing an adequate balance of powers directed at reducing the military armament and the nuclear power of the diverse countries in the world. And it is under an accepted

common legal framework that problems like global health, global climate and international crime can be addressed.

The novel CI guide for international relations is not an ideal proposal, it is a required response to the globalization brought about by the ICT technology. We live today in a globalized world; the ICTR has globalized the economic system, and the nuclear technology has globalized the potential consequences of a traditional war. The Russia-Ukraine war must alert all of us that something is going awfully wrong in the way we manage the world. Not only today everybody around the world can watch the war and the killing of innocent people in their home's TVs. But everybody is suffering the consequences. Many people around the world are starving because of the food scarcity produced by the lack of exports of Ukraine and Russia. Many others are suffering the inflation caused by increased energy prices. People in Washington are buying food to store home, afraid that Putin may decide to launch an intercontinental missile; and they are not crazy – although is unlikely, it is for the first time a possibility with a probability higher than zero. Moreover, the increase in energy prices and of food brought about by the war add up to the supply-chain problems consequence of the 2020 GP and the high global demand created by the expansionary government adjustment programs, also due to the 2020 GP. The increase in energy prices and of food triggered by the war have been the last drop that spilled over the glass of water and created the possibility of inflationary expectations and force the central banks to an aggressive increase interest rates, that may take the world into a recession, that would be absurdly costly. We are just too interdependent in the modern world. And even crisis in relatively isolated countries like Ukraine and Russia may have all sorts of negative consequences for the global economy and maybe even for the global peace. We do not even want to imagine what could occur if China invades Taiwan.

The CI's guide to international relations does not ignore the difficulty of creating strong international institutions, given the prevalence of the national interest of powerful nations. There will never be an optimal solution for global progress and global peace. The pragmatic question however is: What should be the guide for international relations? Marxism should not even be mentioned, not only because it does not stand any real possibility, but because it is also scientifically indefensible. RL has failed, it is too idealistic, and it does not stand a real chance in a world in which only 13.3% of the population lives in liberal democracies. Realism is restricted only to the power system, the solution it proposes is not

stable and will lead to vey suboptimal solutions, with frequent military confrontations and the consequent damage to economic progress. Thus, we need to do something else, something new. We need to change our minds, to understand that we truly live in a globalized world. One that will never be dominated by just one ideology; thus, a world in which ideological tolerance is required. We should move in the direction of strengthening the international institutions. It will be a slow process, and it will take a long time; but it is the only possible pragmatic route for a world whose technology is growing so fast, that it is becoming ever more interconnected, in economic, cultural and military terms.

Philosophical essentialism, characteristic of the nineteenth century Western philosophers, was built around philosophical preconceptions that cannot be deducted from their philosophies (as Derrida's deconstructionism has argued), nor can they be based on sound scientific discoveries. These preconceptions gave philosophical validity to their ideologies. But at the end, despite the philosophical sophistication of these thinkers, the preconceptions are themselves contained within the ideologies. Ideologies that developed due to specific historical characteristics – those of the West. The differentiation of the individual based on his rights did not happen in other traditional societies that followed their own routes of differentiation like: Hinduism, Buddhism, Confucianism, or Islamism. Each one of these different conceptual systems has its own preconceptions of humanism, which is as valid as the one of the West. Marxism goes back to the traditional view of humans as social beings –the critical preconception introduced by Marx is that humans are a "species being". That is why, as we said, Marxism, which was not successful in the West, was easily adopted in traditional societies like Russia and China. Marxism, as all the other philosophies, has its own way to understand humanism.

There is not one ideology that can be called superior to the others, and none of them will ever prevail in the whole world (although most of them have aimed to do so), because ideologies are simply conceptual systems formed with specific institutional historical characteristics. Conceptual systems developed bottom up, from small groups to larger societies, and once they consolidate into "a grand ideology" they remain in human thought influencing societies for a very long time. The future will certainly bring new ideologies with new conceptions of humanism. There is no end to human history, both Marx and Fukuyama were mistaken.

Today the world is at a critical crossroads because the ICTR is rapidly globalizing the international life. And this globalization is happening

within the historical reality of a global arrangement based on nations with strong interests, that belong to diverse cultures with distinct ideologies. The world's conceptual system and institutional arrangement is ill prepared for the technological revolution brought about by the ICTR. Proper international relations are more critical than ever, but they cannot be guided by an essentialist-universalist ideology that pretends to unify the world's ideologies, the diverse conceptions of humanism and the distinct lifestyles in different cultures. Therefore, RL cannot be the guide for international relations. Ideological diversity is a historical reality; and therefore, any pragmatic guide for international relations must include ideological tolerance.

The world's ICTR is not yet fully understood by the dominant ideologies. On the one hand, due to the ICTR, the West's productive alliance is with China. On the other hand, China's political regime is condemned as authoritarian and illegitimate. On one side, freedom reflected in free trade is praised, on the other, the WTO is dismantled, and nationalistic and protectionist policies are on the rise in the West. On one side Europe first increases trade with Russia, on the other rejects Russia from becoming part of the European Union and of NATO. All these inconsistencies can be explained by the fact that the global conceptual systems and their corresponding institutional arrangements are lagging the technological reality imposed by the ICTR.

Global progress does not necessarily bring global peace, nor is it necessarily self-sustainable. We must not forget that the first wave of globalization resulted in the First World War. Thus, as we learnt then, whenever global institutions do not rise to the challenge of the new global technological changes, progress may be followed by dark ages. We already have had three major crises in the last decade and a half: The 2008 GFC, the 2020 GP and the Russian-Ukraine 2022 war – which is the largest one since the Second World War. It is not fortuitous, the ICTR started in 1990 and rapidly accelerated globalization, and the global institutions are not up to the task. In the 2008 GFC the globe's financial leaders thought that the sub-prime crisis in the US was a local crisis, that would be solved by the local markets – this was, for three years, the official statement of the Economic Report of the President. They never understood the deep globalization of the financial flows brought about by the ICTR, and their potential to generalize the crisis to the whole developed world[509]. The 2020 GP was consequence of the interconnectedness between China and the rest of

[509] See Obregon, C., 2018. *Globalization Misguided Views.,* op. cit.

the world and was confronted by a WHO with a budget like a large US hospital – which was just not up to the task. In the Russia-Ukraine war, people all over the world are following it through the web and the TV networks. President Zelensky has spoken to many parliaments around the world asking for help and has been heard by millions of people. And therefore, politicians are facing political pressure, from the public in their countries, to intervene in favor of Ukraine, beyond what they would do otherwise. A local war, consequence of Russia's invasion of Ukraine, has been internationalized, and has risen to a global dimension that creates for the first time the risks of a nuclear war. It is true that the risk is still low, but it is no longer near to zero as it used to be, and this is very worrisome.

Despite all its virtues, the ICTR creates risks that the world needs to confront such as: the changes in the global climate, or the exploitation of natural resources in developing countries with polluting industries, or the rapid growth of international crime due to the ease of global communication and transportation.

However, instead of witnessing the building of strong global institutions to confront the challenges of the ICTR, we have seen an international rise of populist nationalism that explains the Brexit movement in the UK, Trump's influence in the US, Brazil oscillating between the right populism of Bolsonaro and the left populism of Lula, López Obrador winning the elections in Mexico, Le Pen's recently renewed popularity in France, Italy's recent elections won by the extreme right, and Biden's policy that the US will only buy "made in America". This is not good news for the world. At best, a populist nationalism will endanger progress, and hinder the world of reaping the benefits of economic growth that the ICTR could produce. It will reduce global trade and worldwide economic interdependence, and delay substantially the growth possibilities of a large global middle class. At worst, a populist nationalism will seriously endanger global peace.

If we do not act decisively, the globalization brought about by the ICTR will likely continue exacerbating all kind of global problems. And new, serious global crises will occur, which will foster new waves of populist nationalisms, and may create the negative vicious cycle that brought about the world's dark age between 1914 and 1945. Strengthening the global institutions, as CI proposes, is not an option, it is a must – it is the pragmatic way for the world to face the ICTR.

We have presented CI's reasons for which, given the globalization brought about by the ICTR, both liberalism and realism are ill suited

as guides for international relations. CI is a third viable option to guide international relations. But CI is not a panacea either, there are no ideal solutions. The promised humane global communist society of RI (Marxism) will never come. And the RL world with progress and peace brought about by free markets and democracy in all the countries will not be the future of the world. There is not and end of history[510]. Strong global institutions are likely the best possible replacement for the lack of a truly global political system (like for example, the impossible dream of a worldwide democracy). But they never will work in an optimal way; they will always be challenged by the interests of the powerful countries. CI's proposal is not an ideal nor an optimal solution. It will not end military conflicts around the world, and global progress will continue to be challenged by populist nationalisms. But CIs proposal is a call for a change of direction. It is a call to leave aside ideological proposals that only serve, at best, to guide us to wrong global policies, and at worst to disguise national imperialistic interests. It is a call to be congruent with the globalization brought about by the ICTR. The world is facing a gigantic technological opportunity, and it must reap as much as possible its benefits. CIs proposal is a call to free us from rigid ideologies, and to promote ideological tolerance.

[510] Like Marx and Fukuyama asserted, although for opposite reasons.

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