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Enjoying life takes time and needs people, but economic progress runs and offers things

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Abstract

People gain enjoyment from exercising their agency and interacting with others in order to accomplish projects and change reality, as is evident from the successful evolution of *homo sapiens*. Hence, time can be enjoyable in both pursuing and achieving socially valued goals. Since modern economic progress offers products in growing abundance, thus increasingly exploiting individuals' time and interaction, people are tempted to seek enjoyment in another way, i.e. in consumption itself, as *homo economicus* would suggest. On the basis of various evidence, the paper argues that people can choose between these two ways leading to well-being; that the *homo economicus* way is less effective or even perverse; and that economic progress weakens people's skill to undertake the *homo sapiens* way. These arguments help explain why the economy of a country, such as the USA, can grow over decades whereas its citizens become less able to enjoy their lives.

Key words: Time, Skills, Social relationships, Well-being, Human development

J.E.L. classifications: D91, J22, O15

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1. Introduction

Humans are social animals, and their culture is a unique social product. This statement, which few would deny, implies that *homo sapiens* evolved by enjoying interaction with others while conceiving new ideas and making artefacts (Tomasello, 2014; Suddendorf, 2013; Earl, 2013). By doing so, he changed the natural and social environments as well as himself. Therefore, humans do not simply enjoy the moments when they satisfy basic needs; they typically enjoy the passage of time when dealing with others, and when they exercise agency to change reality. Translated into a testable proposition for our times, we might say that people's life satisfaction and longevity depend not only on their economic conditions, but also on their social relationships and their ability to control their own lives (e.g., Helliwell et al., 2018; Giordano et al., 2019; Buddelmeyer and Powdthavee, 2016; Cobb-Clark et al., 2014).

However, *homo economicus*, as conventionally conceived, includes in the utility function neither others' communications and intentions, unless instrumentally to earn consumption goods, nor the exercise of his agency, but only the outcomes. Moreover, when *homo economicus* deals with time, as in the case of work and study time, he considers it a disutility. Therefore, other people, skilful effort and time are used as costly instruments with which to achieve the optimal basket of consumption goods. But in this way, the representation of *homo economicus* lacks the aspects that many studies on human evolution and well-being have found to be most significant.

Despite the ability of *homo economicus* to earn a growing quantity of consumption goods that enable him to lead an increasingly satisfying life, empirical evidence shows that the opposite is true in at least one important case: that of the USA, which has exhibited substantial economic growth in recent decades, but a declining trend in a variety of measures of well-being and mental health of the population (Stevenson and Wolfers, 2008; Herbst, 2011; Twenge et al., 2010, 2015).

This evidence is especially puzzling because recent technological progress has increasingly provided people with opportunities to communicate, move to meet others, and acquire the knowledge and skills useful for conceiving new aims, new projects. The possibilities to further develop the special characteristics of sociality and cultural skills of *homo sapiens* appear to have expanded. Why has the realisation of these possibilities not ensured people to enjoy more well-being?

The present paper proposes a conceptual framework in which to answer this question by recognising that both *homo economicus* and *homo sapiens* are partially successful in interpreting people's actual behaviours. Our basic assumption, in fact, is that people are endowed with a meta-utility function with two options: a sub-utility that includes the special goods arising from relating with others and exercising agency, which is typical of *homo sapiens*, and the standard sub-utility function typical of *homo economicus*. The two options can be viewed as two ways leading to individuals' well-being. Their main difference concerns the use of time in triggering an internal dynamics, while the material goods used are not distinctive, since both options may need the same types of goods.¹

¹ These two ways leading to well-being echo the distinction in ancient Greek philosophy between 'eudaimonia', i.e. living by functioning well and by realising one's potential, and 'hedonism', i.e. seeking pleasure (Pugno, 2019). This distinction has been tested with encouraging results in many psychology studies by capturing the former with measures on purpose in life and personal growth, and the latter with measures of pleasure and comfort (Huta, 2015; Keyes and Annas, 2009). Traces of this distinction can be

Individual choice between the two options is obviously conditioned by the economic, social and institutional context, so that it is possible to study the effects of the process of economic growth on an individual's well-being. In fact, higher income tends to relax an individual's budget constraint for both options, but modern technological progress changes the conditions of time use, thus exerting a different impact on the dynamics of the two options. Study of these changes will reveal that the individual's tendency to specialise in the *homo sapiens* option may be reversed into the tendency to specialise in the *homo economicus* option.

Our final argument is that this substitution is not advantageous for at least one reason: that the *homo sapiens* option develops inner capabilities and culture endogenously, i.e. it produces new resources by itself, whereas the *homo economicus* option essentially needs economic resources, which make an individual's well-being more vulnerable to negative economic shocks.

The proposed conceptual framework thus makes it possible to obtain a number of results. First, *homo economicus* represents human behaviour neither in an essential way, as it appears in mainstream economics, nor in a false way, as argued by various critiques. *Homo economicus* instead represents altered human behaviour, so that he does not represent normative human behaviour either, as claimed in behavioural economics. The second result is that social relationships can be considered under a new light as being able to bring well-being to people as special goods, rather than being instrumental to obtaining more consumption goods. The third result is a linkage between social relationships and the exercising of agency as a pleasant, although effortful, activity which may thus contribute to increasing knowledge and improving culture. The fourth result is a possible explanation of the puzzling fact that economic growth does not guarantee a rising or even a flat trend in people's well-being.

The paper is organized as follows. Section 2 briefly recalls that the model of *homo economicus* inadequately represents the enjoyment gained from pursuing goals and relating to others. Section 3 characterises humans as able to enjoy exercising and reinforcing their own agency and skills in synergy with others. Section 4 identifies the skills that are necessary for human development. Section 5 documents the puzzle posed by the case of the United States. Section 6 proposes to explain the puzzle by observing that economic growth tends to weaken the *homo sapiens* way leading to well-being, and to reinforce the *homo economicus* way, which is less effective or even perverse. The final Section concludes.

2. Does *homo economicus* enjoy time and social relationships?

Homo economicus, or the 'rational economic man', is a fictitious representation used in mainstream economics in order to predict the behaviours of ordinary individuals. More precisely, it is mostly used to predict how ordinary individuals make choices between alternatives. But how does *homo economicus* pass his time? Does he enjoy how time passes?

Homo economicus is usually represented when he makes optimum choices on consumption, work and leisure time, studying and saving, on the basis of well-defined information and probabilistic beliefs. He renews choices at every external shock to these

found in the Cambridge tradition, i.e. between 'activities' and 'wants' in Marshall (1920[1890]), between 'creative' and 'defensive' products in Hawtrey (1926), which then inspired Scitovsky's (1976) distinction between 'stimulating' and 'comfort' activities (Pugno, 2016).

variables, including possible shocks to his preferences, which otherwise remain stable. This representation implies that *homo economicus* should spend his time realising the choices that he has made. He should thus enjoy consumption and leisure, while studying, working, and saving remain instrumental to this goal. He considers the time required for these latter activities to be a cost that he would eliminate if he could. On the other hand, economic growth appears as a positive shock, since it has a positive impact on his monetary income, and therefore on his expected utility.

Enjoying only consumption and leisure thus restricts the proportion of pleasant time. But another and heavier limitation should be underlined. Since *homo economicus* takes consumption and leisure as the final goal, the past and the future are irrelevant when he achieves and enjoys the goal. But enjoying only the present when goals are achieved does not interpret how people attempt to maximize their well-being, as is evident from the famous case of the ‘experience machine’ devised by the philosopher Robert Nozick. In this case, individuals have the possibility to choose to live attached to a fantastic machine able to provide them with the experiences that they would like to have had. It is not at all obvious that people would choose in such a way, because – thus argued (Nozick 1974: 43-45) – “what we desire is to live (an active verb) ourselves, in contact with reality. (And this, machines cannot do *for* us.) [...] we want [...] to be a certain sort of person [...] to *do* certain things [and...] thinking we’ve done them.”

A further limitation of the representation of *homo economicus* when he enjoys time is to ignore the fact that people like to spend time with others. The justification for this limitation may be that people are engaged in so many activities in such diverse circumstances while interacting with others that it is difficult to identify the proportion of enjoyment and costs in each activity (Jara-Díaz and Rosales-Salas, 2017). *Homo economicus* finds it convenient, instead, to consider others as instruments in performing activities like exchanging goods, competing on the market, or even consuming goods in interaction with others. Indeed, the frequent critique that self-interest in *homo economicus* is unrealistic is usually made in terms of inequity in sharing material resources and opportunities. Therefore, when *homo economicus* expects to perform activities that involve others, he ignores the dimension of time, and thus the very sense of human sociality. Even more so, he ignores any social skill that may make the activities shared with others either pleasant or disappointing.

3. How to enjoy time and social relationships

The representation of *homo economicus* is subject to several assumptions that have been extensively discussed in the literature. Two of them are largely ignored, however, while they are rather restrictive. They concern the relationship between means and ends, and the types of goods consumed, which exclude the special public good that individuals produce and consume when they interact. Let us consider the two assumptions in turn.

Ends are normally assumed as distinct, known, and well-defined, so that the solution of the choice problem can be determined. In this case, ends can be called *immediate* to distinguish them from more distant ends, for which immediate ends are means. The more distant ends can be called *intermediate* in that they eventually serve the *final* ends. For example, people not only study to have a good job, or work for pay, or earn to consume; they may also study, work and consume to accomplish specific projects on the job, or with the family, or in other social activities. These are the

intermediate ends that serve the final ends of leading a healthy and satisfying life, and, eventually, of contributing to the successful evolution of the human species.

In non-human animals, the immediate ends are evolutionarily selected to serve the final end of the survival of the species, with no intermediate ends. But the human species has the unique characteristic of having developed the skill to build culture by accomplishing specific projects, which thus contribute to forming intermediate ends. Each individual may have his/her personal projects by following his/her inner talent, and by taking advantage from the opportunities that become available through economic progress and the realisation of the projects of others. Each individual can thus be creative, rather than a simple follower of tradition and socially conformist. In aggregate, people's originality in realising their projects enables culture to evolve.

However, *homo economicus* would encounter two serious problems from this perspective. First, the conditions of choice become fundamentally uncertain (Dow, 2015) because the outcomes of projects may not be known in advance, and also the type and the number of projects may be not known because some of them may become available only after the preceding projects have been undertaken. No intertemporal optimization is thus possible. If *homo economicus* proceeded by optimizing in local settings, step by step, the dynamics would be path-dependent, and no single optimal path to the equilibrium would emerge. Second, some means necessary for the ends, such as certain activities, may cease to be costly if the pursuit of the projects develops *homo economicus*' inner talents, thus making him content with himself.² In this case, the motivation to undertake such projects is called 'intrinsic' in psychology, and it may crowd out the conventional economic motivation, with the consequence of altering the effectiveness of incentive-based policies (Deci and Ryan, 2000; Frey and Jegen, 2001; Bowles and Polanía-Reyes, 2012).³

Homo economicus exhibits another inadequacy, besides being limited in local settings in order to choose optimally: he does not consider that individuals produce and consume public goods in their interaction, thus failing to enjoy social relationships in themselves (Gui and Sugden, 2005; Pugno, 2009). *Homo economicus* instead considers the services of others only as private goods and objects of exchange, so that he normally sees others as sources of costly means in terms of their time and skills.

However, if we recognise that people can pursue projects, we must also recognise that even individual projects are embedded in the community's culture, meaning that individuals produce public goods that they themselves consume and others may consume. Vice-versa, when others pursue their projects, the individuals can consume public goods produced and consumed by others. Such public goods typically arise when individuals learn from others, directly or from the past stock of culture, when they discuss their own ideas with others, when they convert an idea into a project with others' collaboration, and when they offer the successful result of the project to others who may find it useful.⁴

² According to a meta-analysis in psychology, the positive association between successful goal striving and subjective well-being becomes stronger when successful goal pursuit is defined as goal progress, instead of goal attainment (Klug and Maier, 2015).

³ Intrinsic motivations appear to be especially effective when the tasks are complex and creative (Camerer and Hogarth, 1999; Amabile and Pillemer, 2012).

⁴ Some psychologists observe that interpersonal relationships based on interest in others and on the exchange of ideas bring more well-being to people than do relationships based on the need to be simply accepted by others (Lavigne et al., 2011; Pillow et al., 2015).

To be more precise, illustrated by the following informal model is how an individual can produce and enjoy the special public good that arises when s/he creatively interacts with others. The arguments are based on theoretical analysis and evidence gathered in different streams of research in economics and related disciplines (Pugno, 2016).

The inputs of this public good are individual's consumption goods, his/her initial preferences, talents and skills, his/her time, and the skills and time of others, within a certain institutional context. The individual can obviously utilise the available inputs only partially, but all inputs are essential up to some minimum amount, above which they can be imperfectly substituted one with the other.

The outputs are several: an increase in the individual's skills, which may change his/her preferences (Heckman and Corbin, 2016; Bowles et al., 2001); the individual's greater well-being; and, possibly, ideas and things useful for others, thus contributing to others' production of public goods of this type. Such goods are public because new ideas are neither rival nor easily excludable. Since the individual gains advantage from producing these ideas and goods, the typical problem of under-producing public goods does not arise.

The transformation of the inputs into outputs consists of searching and undertaking the activities most suited to the inputs available in order to realise the envisaged project. In particular, the more the activity and its difficulty are suited to an individual's talents and skills, the more satisfying is not only the achievement of the expected results, but also the performance of the activity, which involves the exercise of his/her agency (Sen, 1985A) and a challenge to his/her skills (Csikszentmihalyi, 1990; Delle Fave et al., 2011). This is a learning experience that enables the individual to improve his/her skills. The special property of *endogenous dynamics* thus emerges, because improved skills provide better inputs to the performance of more challenging activities, and the expected satisfaction from doing this provides the proper (intrinsic) motivation. Time and effort are no longer considered simply as costs for the individual, and the development of his/her skills goes together with developing fruitful relationships with others. All this contributes to the enjoyment of a satisfying life. In particular, skills and relationships are resources useful for dealing with adversities.

Finally, the possible output of new knowledge and things, up to discoveries and inventions, becomes the individual's positive externality offered to his/her community. This output, together with the input of others' ideas and knowledge, besides material concerns, makes the individual and his/her community dynamically interactive. If such interaction regards a sufficient number of similar agentic individuals, the community evolves endogenously, by also changing its organisation and institutions, so that the environment changes for the good of the whole community.

The following example helps imagine this dynamics. A girl wants to be a guitar player in a band, confident that she has some talent for this. If she has the opportunity to take guitar lessons, she can explore whether she has the right talent for it, rather than for some other instrument, and whether she can easily face increasing levels of difficulty, as established by conventions and experts. The closer the match between the girl's skill and the difficulty, and the greater her social recognition, the higher becomes her satisfaction, and the greater her improvements in playing the guitar. Time devoted to playing the guitar becomes characterised by both effort and passion. When this undertaking is successful, the girl can even achieve excellence and introduce musical innovations.

These achievements may be facilitated by expert musicians with whom she plays, as well as by favourable musical fashions.

The development of an individual's skills and social relationships, however, is a very uncertain process. Apart from exogenous shocks, the conditions in which the individual chooses how to develop are fundamentally uncertain because of limited knowledge about the skill/difficulty match, which is in fact new and different across people and situations.

Therefore, learning, exploring activities, and interacting with others become a process of searching for the best match so that the realisation of projects becomes fully satisfying. In this case, the individual pursues a way of life which includes effort, uncertainty, challenge, failures, but also realisations, discoveries, increases in knowledge, competence, and others' recognition. Enjoyment arises from the overall package, i.e. from living time as a constructing process that is a part, however small, of human culture.

4. The skills needed to enjoy time and social relationships

In order to pursue life projects, people need skills; and every project requires specific skills. Typically, formal education provides skills useful for finding a good job. But what kind of skills should people develop to ensure positive social relationships and a satisfying life? How can universal and objective skills with which to realise such subjective experience be identified? How is it possible to exclude evil skills like those of certain dictators who, although bloodthirsty, are acclaimed by their community and happy with themselves?⁵

A step forward in understanding this issue has been taken by Nobel laureate James Heckman, who has distinguished two broad categories of skills: cognitive and socio-emotional skills as specified in the psychology literature. The former includes intelligence, problem solving, memory, language; the latter includes social interaction, trust, locus of control, personality traits. Heckman has then found that the lack of one of these two categories of skills determines an individual's negative outcomes, such as school dropout, incarceration, and teenage pregnancy (Heckman and Corbin 2016; Heckman et al., 2006). These results are important for extending the concept of skills to the socio-emotional ones, thus also extending the relevant period of skill formation to the early stage of human life. However, these results are also limited because they mainly focus on disadvantaged people, and are less useful for understanding how culture can evolve.

The second step has been taken by the philosopher Martha Nussbaum, who shares with Nobel laureate Amartya Sen the Capability Approach, i.e. the idea that people's capabilities, besides their material resources, are central for freedom and well-being.⁶ In particular, Nussbaum provides a list of ten central capabilities that should be guaranteed to every human being in order to make greater progress in social justice. She further recognises that some capabilities can be learned, so that they can be developed over the individual's life-cycle (Nussbaum, 2011). However, Nussbaum's contribution is

⁵ The issue of evil skills is under-researched in economics, but it is addressed in the philosophical debate on the Aristotelian 'virtue ethics', i.e. on whether exercising one's most effective skills to pursue some personal goals guarantees human flourishing as the universal goal in life (Haybron 2007; Angier 2020).

⁶ According to Sen (1985B, pp.13-14), "the 'capabilities' of [a] person [...] reflect[...] the various combinations of functionings he can achieve", where 'functionings' refer to "what the person succeeds in doing with the commodities and characteristics at his or her command" (Sen, 1985B, p.10).

limited because it is only normative and not interpretative, and because it does not identify the relative importance of each capability. On the other hand, the contribution of Sen, who thought it unnecessary to provide a list of the most important capabilities, is also limited, because it mainly concerns comparative assessments of quality-of-life, rather than an individual's choice to develop his/her capabilities, so that his approach remains static (Heckman and Corbin, 2016; Pugno, 2017).

The third step has been taken by human need-based approaches. Ian Gough's approach, for example, provides a list of needs that people of every culture must satisfy to avoid serious harm. He distinguishes between 'basic needs', which are the "physical and mental capacities a person must possess to pursue their goals, whatever these goals are" (Gough, 2015, p.1197), and 'intermediate needs', which are goods and services that can satisfy the basic needs, and are thus contingently pursued. Gough identifies two basic needs: physical health and personal autonomy, which is defined as "the ability to make competent informed choices about what should be done and how to go about doing it" (*ibid.*). Therefore, this approach provides a specific and hierarchical list, but it lacks explicit dynamic analysis, which would clarify that the two basic needs differ, and with far-reaching consequences. In fact, physical health is an objective and well-defined state that people want to maintain and re-establish if harmed, i.e. it is a satiable need. By contrast, personal autonomy can be learned and indefinitely developed along subjective lines without being completely known in advance. Humans share the need for physical health with the other animals, but 'personal autonomy' is unique, and it has enabled humans to build a unique culture.⁷

A further step forward in the search for the skills that people should develop to ensure positive social relationships and a satisfying life can be made by drawing from studies on the evolution of the human species, specifically backed by comparison with other animals. This step enables us to go to the origin of all skills that are typically human, while the possibility to satisfy subsistence needs becomes a constraint on such development. The matter is still debated, but an agreement on two skills clearly emerges: the ability to imagine counter-factual alternatives to reality, and the ability to exchange thoughts with others (Suddendorf, 2013; Bulley et al., 2020; Tomasello, 2011, 2014).⁸ Combining these two skills makes the human species able to collaborate in order to create and realise new common goals as a cumulative process. Implicit in the development of these human skills are other more specific skills that work in synergy, like language, and the skills required to travel over time, over situations, and across others' minds. The development of these skills has led the human species to enlarge collaboration from small to ever larger groups throughout human history, although the process has been beset by conflicts and far from smooth.

Much research has focused on the problem of why free-riders, who maintain self-regarding preferences like *homo economicus*, have not prevailed in the course of human evolution, thus destroying social public goods. More than one hypothesis is supported by the available evidence. Some researchers argue that the groups of *homo sapiens* had to collaborate from their origin to raise children, because human babies needed substantial and prolonged care (Burkart et al., 2009). Other researchers argue that more

⁷ Human need-based approaches find theoretical convergence with and an empirical grounding in the psychological Self-Determination Theory (Fellner and Goehmann, 2019). This reveals the complexity of the concept of 'autonomy' and the need for dynamic analysis (Pugno, 2008).

⁸ Earl (2013) notes that humans evolved by thinking creatively and by seeking pleasure in social activities, thus essentially using emotions, besides rationality, to take decisions.

collaborative individuals tended to search for collaborating partners, thus forming homogenous and more successful groups (Barclay and Raihani, 2016). Still other researchers argue that punishing free-riders enabled the selection of collaborating groups (Bowles and Gintis, 2013). These hypotheses do not seem mutually inconsistent, and they may explain why human collaboration is successful, without eliminating self-interest, since collaboration is eventually convenient for all individuals.

We can thus call *agentic and social skill* the core skill that drives human evolution, and that can characterise both the individual and the community. This core skill has cognitive and socio-emotional components, thus confirming the argument of Heckman and many others that human skills begin to develop during infancy. Specific studies on babies in fact show that the skill to imagine counterfactuals and to collaborate with others arises very early, i.e. when the influence of others is at the minimum (Gopnik et al., 2000; Gopnik, 2009). The agentic and social skill then drives human development over the life-cycle, as confirmed by the positive link of some indicators of this skill with people's health, longevity, and life satisfaction.⁹

5. The puzzle

Homo economicus is a fictitious model that does not necessarily have to be able to interpret human evolution because it may have been designed to interpret and predict modern behaviour. In particular, *homo economicus* indicates that his utility will increase if income grows, because his budget constraint relaxes. However, this prediction raises a puzzle if we adopt the long-run perspective, as the following case shows.

The United States is the case considered because it is the leading country in the world for its industrial and technological power, and because it exhibits relatively low intervention by the state in the economy and high economic freedom. This suggests that *homo economicus* is an effective model with which to interpret the behaviours of the US population, relatively to those of other countries. The puzzle is that *the USA has experienced in the most recent decades both substantial economic growth and a declining trend in people's life satisfaction and other indices of their well-being.*¹⁰

The empirical evidence is quite abundant. Specifically, the decline is evident for life satisfaction of (a nationally representative sample of) the population aged 18 or over, distinctly for women and men, in the period 1985-2005 (Herbst, 2011), but it is also evident for happiness¹¹ of the same type of population sample in the longer period 1972-2016 (Stevenson and Wolfers, 2008; Bartolini et al., 2013; Blanchflower and Oswald, 2019). These results are consistent with the *increasing* trend of a number of other measures: two indices of mental depression in college students during the period 1950s-

⁹ The main skill indicators used as evidence are: 'having purpose in life' (Schaefer et al., 2013; Cohen et al., 2016), 'internal locus of control over one's life' (Buddelmeyer and Powdthavee, 2016; Cobb-Clark et al., 2014), and 'trust in others' (Ljunge, 2014; Giordano, 2019; Helliwell et al., 2018).

¹⁰ This puzzle is a stronger version of the 'Easterlin paradox', according to which "at a point in time happiness varies directly with income both among and within nations, but over time happiness *does not trend upward* as income continues to grow. Happiness is used here [...for] subjective well-being, including life satisfaction and the Cantril ladder-of-life" (Easterlin, 2017, p. 312, italics added).

¹¹ 'Happiness' is usually measured by using the following survey question: "Taken all together, how would you say things are these days—would you say that you are very happy, pretty happy, or not too happy?"

2010 (Twenge et al. 2010, 2015),¹² major depressive episodes in adolescents and young adults, in both the lowest and the highest income groups, during the period 2005-2015 (Mojtabai et al., 2016; Weinberger et al., 2018), and some measures of milder malaise, such as ‘having trouble getting to sleep’ and ‘feeling under great pressure most of the time’ in both adults in the period 1985-2005 (Herbst, 2011), and young people in the period 1980s-2010s (Twenge et al., 2015).¹³ The overall trend of the suicide rate among young people from 1975 to 2016 was also increasing, in spite of a decline in an intermediate period (Ruch et al., 2019).

This evidence is heterogeneous because of the limitations of the indicators and because of the underlying possible explanations. But it remains striking, because it points in the same worrying direction despite the increase in resources that could have countered this set of malaises, such as antidepressants (Pratt et al., 2011). The evidence is instead confirmed by the disappointing evolution of physical health and longevity in the US population since the 1980s (see Muennig et al., 2018, and the references cited therein), which surprisingly ranks the USA first within the OECD sample for the share of people suffering from bodily aches or pains (Blanchflower and Oswald, 2019).

Our conceptual framework suggests that an explanation for all this evidence is the weakening of the skills typical of *homo sapiens*. Indeed, a number of indicators capturing the agentic and social skill of the US population show a long run decline. This is in fact the case for the following: the internal locus of control over one’s life among young people, which declined from 1960 to 2002 (Twenge et al., 2004); social and intrinsic motivations at work in young people, which declined from 1976 to 2006 (Twenge et al., 2010B); people’s trust in others, which declined from the mid-1970s to the mid-2000s (Robinson and Jackson, 2001; Bartolini et al., 2013); the network of confidant friends, which declined from 1985 to 2004 (McPherson et al., 2006); a ‘secure’ social attachment, which declined from 1988 to 2012 (Konrath et al., 2014);¹⁴ and even creative thinking in young people, which declined from 1984 to 2008 (Kim, 2011).

With these suggestions in mind, the next section explains, with some details, the puzzle illustrated by the case of the USA, although this may not be the only one.¹⁵

¹² One index of depression used by Twenge et al. (2010) is based on the psychiatric symptoms measured by the Minnesota Multiphasic Personality Inventory scale. Another index of depression used by Twenge et al. (2015) is based on mental symptoms as reported in the survey ‘Monitoring the Future’.

¹³ Consistently with the Easterlin paradox, the USA exhibits both high levels of subjective well-being and high levels of GDP per-capita in cross-country samples (Stevenson and Wolfers, 2008). However, consistently with our characterisation of the USA, some evidence shows that subjective well-being is *positively* correlated with the intervention of the state across countries (Ott, 2011; O’Connor, 2017; Kasmaoui and Bourhaba, 2017).

¹⁴ The indicator of ‘secure social attachment’ is based on the following survey question: “It is easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I don’t worry about being alone or having others not accept me” (Konrath et al., 2014).

¹⁵ The UK seems to follow the US example, because economic growth has been definitely positive in the most recent decades, but a variety of measures indicate a rising trend of mental problems in the population: teenage children of all social classes experienced emotional and conduct problems almost twice as frequently in 1999 than in 1974 (Collishaw et al., 2004); a similar trend emerged for depression and anxiety among British youths in the period 1986-2006 (Collishaw et al., 2010); the rise of such psychological distress for young women in the period 1991-2008 is confirmed by research using the General Health Questionnaire (Ross et al., 2017). Although subjective well-being remained almost constant in the period 1996-2008 (Clark et al., 2012), job satisfaction declined in the period 1994-2012 (Green and Tsitsianis, 2005; Green et al., 2013).

6. How the economic progress erodes the enjoyment of time and of social relationships

If people behaved like *homo sapiens*, modern economic progress would certainly play a positive role in their well-being. That is to say, people would increasingly use the resources and opportunities thus made available to plan more ambitious projects, both at work and in life, and to refine the search for suitable partners to carry them out. As people learn, they further develop their agentic skill, conceive new projects, and are better able to teach their children and others how to do this, thereby helping to develop overall well-being and human culture.

By contrast, *homo economicus* does not need to develop these skills. Rather, he suggests achieving well-being in another more immediate and certain way made possible by the abundance of products offered by economic progress. His suggestion is *to consume as enjoyment in itself*, and to achieve this goal better if specific skills should be acquired.

People are thus faced with two options: devoting time to develop their agentic and social skill, as *homo sapiens* would suggest; pursuing well-being through consumption goods, as *homo economicus* would suggest. One might think of a meta-utility function with two sub-utility functions, which, moreover, may have some goods as common arguments.

Modern economic progress affects people's choice between the two options, i.e. it pushes *homo economicus'* suggestion far beyond the simple relaxation of people's budget constraints, because it makes consumption especially attractive. Specifically, three mechanisms can be identified at the origin of such attraction. The first mechanism refers to the well-known 'Baumol's cost disease' (Baumol 1967; Nordhaus, 2008; Wolff et al., 2014).¹⁶ As seen above, people's interaction in pursuit of life projects can be modelled as an individual's production and consumption of public goods. This is an activity that requires the individual's time as an essential and hardly compressible input, not only because developing the skill of agency and interacting with others unavoidably takes time, but also because this is part of an individual's pleasant life time.¹⁷ If s/he acquired this ability instantly thanks to some magic machine, s/he could not be proud of having accomplished useful projects. By contrast, production- and some consumption-activities can be performed with increasing productivity, i.e. by compressing time per unit of output, mostly thanks to technical progress. Therefore, producing the public good that enables the individual to exercise his/her agency and effectively interact with others suffers from Baumol's cost disease, because it is increasingly costly with respect to the activities that mostly use technology. Consuming market products thus becomes increasingly convenient.

The second mechanism that is driven by economic progress and makes consumption attractive *per se* operates through the special characteristic of an increasing

¹⁶ A consequence of the disease is evident in the surprising decline of the rate of high school graduates in the USA from the 1970s to the mid-2000s (Heckman, 2008).

¹⁷ Time is clearly little compressible in child education, socialisation and mental development (Gopnik, 2009; Herrmann et al, 2010), in effective learning (Immordino-Yang, 2016), and in creative activity (Sio and Ormerod, 2011), because, at least, emotions are necessary in human development, and they especially need the functioning of the physical body (Damasio, 1994).

number of industrial products and connected services: demanding time from individuals to enjoy consumption. The typical modern example is the use of digital devices for entertainment and for living in virtual connection with others. This has been a major change in technological innovations because many products are no longer designed only to relieve effort and to save the consumer's time, like the washing machine, for example. High-tech products become increasingly attractive because they promise certain, immediate, and effortless enjoyment, and because they demand time that the individual may otherwise devote to developing his/her agentic and social skill.¹⁸

The third mechanism is triggered by economic progress but it is psychological in nature. Since economic growth usually proceeds with crises and accelerations, and with an unequal impact on the population, many individuals experience relative impoverishment, either with respect to the past or with respect to others, or both. These economic shocks are made especially painful by the possible deprivations, but also by the effect that Daniel Kahneman called 'loss aversion', according to which "the aggravation that one experiences in losing a sum of money appears to be greater than the pleasure associated with gaining the same amount" (Kahneman and Tversky, 1979, p. 279). In order to alleviate such pain and insecurity in the future, the individuals may concentrate their efforts on attempting to restore their preceding economic conditions, even if any serious deprivation is absent. If the economic recovery is delayed, or if individuals' absolute enrichment does not change their worsened relative positions on the income scale, they persist in the attempt, with the consequence of downplaying their more creative projects, and of depreciating their skills. In these conditions, the consumption of market products appears to be an immediate though limited compensation (DeSarbo and Edwards, 1996).¹⁹

The final result is that the third mechanism triggered by economic progress makes the first two mechanisms mutually reinforcing, so that, together with the further depreciation of individuals' skills, consumption appears to individuals to be the only feasible way to achieve well-being.

However, the consumption way to well-being is not as effective as it promises for a number of reasons. Firstly, people enjoy consumption relatively to the social context. In particular, if the incomes of everyone increase, individual relative income may not increase, so that enjoyment is less than expected (Easterlin, 1995; Guven and Sørensen, 2012; Clark et al., 2008). One could say that in this case *homo economicus* cannot effectively maximise utility because of negative social externality.²⁰ Secondly, when individuals use consumption only to satisfy contingent wants and find it effective, they

¹⁸ Evidence of this time substitution is provided by the use of leisure time, net of non-market work, by the US population. In the period 1965-2003, the most educated people increased the time spent watching TV by 5 hours per week, and reduced the time spent socializing and reading books by 9 hours. The least educated people increased the time spent watching TV by 9 hours per week, and reduced the time spent socializing and reading books by 6 hours (Aguiar and Hurst, 2007). Further evidence shows that young men in the USA used the increase of their leisure time between 2004 and 2015 mostly for recreational computer activities, while maintaining socialising time almost unchanged. Innovations in recreational technology consumption even seem to account for around a third of the surprising decline in youth participation in the labour market during that period (Aguiar et al., 2017).

¹⁹ Indeed, from the late 1970s to the mid-2010s, US workers reported a declining trend in the perception of job security and job tenure (Hollister and Smith, 2014; Fullerton and Wallace, 2007), and psychological studies document that such economic insecurity is a stressor for overall well-being (Butler, 2019), and that the frequent reaction to insecurity is to pursue more ambitious financial goals (Sheldon and Kasser, 2008).

²⁰ If individuals draw utility from relative consumption alone, intertemporal maximisation can achieve constant utility, while generating positive economic growth (Hof and Prettnner, 2019).

tend to repeat the consumption of the same products or, more generally, of the same Lancasterian characteristics. However, this behaviour may push individuals to habituation, which is a psychological effect that to some extent reduces the enjoyment of consuming (Di Tella et al., 2010; Clark et al., 2008).²¹ Thirdly, habituation may degenerate into behavioural or substance addiction. This change can be triggered by a severely negative economic or social shock, so that specific forms of consumption appear as powerful antidotes against the pains of deprivation and disappointments. But once triggered, such consumption becomes a trap, because craving for it alters all other behaviours in individuals' lives, with damaging effects on their health.²²

Harmful addiction triggered by an attempt to self-medicate can become a widespread phenomenon because it includes many forms of consumption (Sussman et al., 2011). It can also become a very serious phenomenon when it takes specific forms, such as the consumption of opioids in the USA (Ruhm, 2018). Individuals' myopia concerning the consequences of addictive behaviours may have a role, as argued in behavioural economics (Herrnstein and Prelec, 1992; O'Donoghue and Rabin, 2001). But such failure of perfect foresight, which is typical of *homo economicus*, is not necessary to explain addiction in the case of self-medication. In fact, people can be well-informed about harmful addiction, but they may fail to foresee the advantages that they are losing, i.e. the resources that their agentic and social skill could have generated.²³

In conclusion, modern economic progress induces individuals to progressively prefer the consumption way to well-being, because the weakening of their agentic and social skill tends to preclude the other way, and because consumption behaviour becomes self-reinforcing. In this case, enjoyment derived from consumption is only focused on the present, because past and future are perceived as costly or irrelevant. But if individuals are able to escape the erosive effects of economic progress and develop their agentic and social skill, such activity itself becomes their central focus, whereas comparing their material endowments with those of others does not attract much interest,²⁴ and habituation is confined to instrumental activities. In this case, individuals enjoy the present together with the past and the future, since they are realising projects conceived in the past, and they are laying the bases for imagining new projects for the future.²⁵

²¹ This adaptation is clearly incomplete when people fall into poverty (Clark et al., 2016).

²² The evidence on this is quite abundant. Popovic and French (2013) find a positive and significant association between job loss during the past year and the probability of an alcohol abuse and/or dependence diagnosis. Pudney (2004) finds that individuals who enter a long spell of unemployment have an 80-90% increase in their expected level of cumulated consumption of cannabis, irrespective of their income. Moschion and Powdthavee (2018) find that, in a sample of disadvantaged individuals, a drop in life satisfaction tends to precede the use of illegal drugs. The experimental study by Rockloff et al. (2011) shows that individuals, previously primed with negative self-reflection, gamble more intensively. Finally, Heckman et al. (2006) find that failing to develop cognitive and socio-emotional skills most likely induces individuals to undertake behaviours at risk of harmful addiction.

²³ As Cutler et al. (2010) show, being informed about the harms of addiction is less important than the ability to process that information, which can be acquired through education.

²⁴ As Clark and Senik (2010) and Bartolini et al. (2020) show, comparing one's own income with that of others seems less important for people who attach less value to success and wealth, and have rich social lives.

²⁵ In support of this conclusion, a psychology study finds that thinking about the past and the future is *negatively* associated with people's self-reported happiness, interpreted as simple needs satisfaction, but *positively* associated with self-reported meaningfulness, interpreted as life purpose (Baumeister et al., 2013).

Conclusions

‘Enjoying life takes time and needs people.’ This simple truth suggests that time and social relationships are resources to be enjoyed in themselves, rather than being only considered as costs or means. By contrast, ‘economic progress runs and offers things’ means that people’s time is used more and more intensively for production, and that consumption products are offered as goals for enjoyment.

This paper has argued that individuals can choose between these two ways leading to well-being, and that economic growth tends to weaken the first and most effective way. Both arguments are rather new, but a variety of empirical findings in support of them has been cited and addressed by drawing on economic and extra-economic streams of research.

The first way to well-being derives from the evolution of humankind, whose success with respect to the other animals is due to humans’ ‘agentic and social skill’, i.e. the skill to imagine and collectively build a reality different from the natural one. Developing such skill in accordance with both individuals’ inner talents and the opportunities offered by the social and economic context provides the special enjoyment of exercising agency in interaction with others. Such enjoyment is special because it is able to self-sustain and is resilient to life’s adversities. The second way to well-being is to pursue the pleasure of consuming market products as the final goal. This is what mainstream economics suggests, and what appears to be a widespread phenomenon.

Economic growth tends to weaken the first way to well-being, and to reinforce the second one, thus making them substitutable. The paper has identified three mechanisms whereby economic growth has these effects. The triggering mechanism starts with the adversities due to the economic crises, inequalities, the material and social deprivations that people suffer. Once triggered, the self-reinforcing mechanisms which can operate during economic progress are two: the reduction in the special production of ‘agentic and social skill’ which is subject to Baumol’s cost disease; the increase of high-tech consumption, which is pleasant but demands an ever greater proportion of individuals’ time.

The policy implications of this interpretation would suggest strengthening people’s human skill, thus making them able to cope with adversities and to flourish, no less than reducing the adversities themselves. This means investing in young children, in cultural goods, and in mental health care no less than counteracting economic recessions, inequalities and deprivations. This extra intervention is particularly needed because of the exceptional positive externalities arising from early childhood development,²⁶ culture,²⁷ and mental health.²⁸

²⁶ Investments in young children have high rates of return, high benefit-to-cost ratios, and they even escape the traditional equity-efficiency trade-off, yet they are in fact far less than optimal – according to Heckman (2008).

²⁷ Culture generates positive externalities because it has social value, option value, existence value, innovation value, and intergenerational value – according to van der Ploeg (2006).

²⁸ Mental disorders have higher economic costs (direct and indirect) than other diseases, and their treatment has a higher cost-benefit ratio, but investments in this field are lower – according to Trautmann et al. (2016).

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