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# THE DEVELOPMENT OF TRADE UNION THEORY AND MAINSTREAM ECONOMIC METHODOLOGY

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## ABSTRACT

The pre-war approaches to trade unions were mainly based on the theoretical and methodological viewpoints of early institutional economics. Trade unions were conceived of as politico-economic organizations whose members were motivated by relative comparisons and also were concerned with issues of equity and justice. In the post-war period, there was a major theoretical and methodological shift towards the idea of unions as optimizing economic units with well-defined objective functions which are optimized subject to purely economic constraints. This conceptual transformation took place mainly through the Dunlop-Ross debate, in which John Dunlop conceived unions as analogous to business firms, which was contrary to Arthur Ross' institutional and political approach. The emerging post war mainstream methodological framework with its mathematical formalism and the exclusion of sociological, political and psychological elements from economic analysis was the main reason for the prevalence of Dunlop's ideas. However, after decades of analytical developments, the current state of trade union theory has not produced very impressive theoretical results. The paper traces the historical development of the economic analysis of the trade unions from a methodological perspective. It examines the methodological reasons for the dominance of Dunlop's approach and also the current state of, and the contemporary criticism towards, the established theory. Furthermore, it discusses the contemporary efforts to build a more comprehensive approach to trade union theory and to trade union objectives, also incorporating Ross' institutional and political insights.

JEL codes: B, J5

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## **I. Introduction**

The economic analysis of trade unions has a long presence in the history of economic thought. Ideas concerning the nature, role, and function of trade unions, can be found in the 19<sup>th</sup> century economic literature. However, the marginalist and early neoclassical economists did not devote much attention to the economic analysis of trade unions. The basic reasons for this, was their conception that the study of institutions like unions, were outside the standard domain of economic analysis (Jevons 1882), and that their institutional presence hampers the application of formalism to economics (Edgeworth 1881). On the contrary, contemporary non-mainstream theorists such as the Webbs and early Institutionalists, had paid considerable attention to the study of trade unions, conceiving them as politico-economic organizations and emphasizing their wider role as social institutions (McNulty 1980). The gradual dominance of the orthodox approach after the WWII, also affected the study of trade unions. In particular, the establishment of orthodox microeconomic analysis combined with mathematical economic methodology, led mainstream theorists to incorporate trade unions in this conceptual framework. Mainstream theorists started to view trade unions as purely economic units analogous to firms, which can be studied by applying the standard tools of microeconomic analysis (Kaufman 2002).

John Dunlop's work was the main representation of the orthodox approach, while Arthur Ross's ideas were much closer to the institutional-political approach to trade unionism. Thus, the well-known Ross-Dunlop debate reflects the two streams of economic thought towards the nature and role of trade unions. The post war history of trade union literature demonstrates that Dunlop's ideas eventually prevailed. The

emerging post war mainstream methodological framework with its mathematical formalism and the exclusion of sociological, political and psychological elements from economic analysis, was the main reason for the prevalence of Dunlop's ideas. This meant that the post-war mainstream approach conceived trade unions as economic decision units which maximize a union utility function subject to various objective constraints. Thus, the behaviour of the trade union could be described by applying the normal mathematical apparatus that was used in standard microeconomics (Boyer and Smith 2001).

However, after decades of analytical developments, many labour economists have started to express serious concerns about the current state of trade union theory, mainly in terms of its theoretical and predictive results. Given this state of affairs, there are increasing signs of reconsideration of the pre-war emphasis on other aspects of trade unions. This is manifested by a re-evaluation and a re-appreciation of Ross' line of thought in the relevant literature (e.g. Manning 1994; Fleetwood 1999; Kaufman 2002).

The paper examines the development of trade union theory and the methodological reasons for the dominance of Dunlop's approach. It also examines the current state of, and the contemporary criticism towards, the established theory. Furthermore, it discusses the contemporary efforts to build a more comprehensive approach to trade union theory and to trade union objectives, also incorporating Ross' institutional and political insights. The paper will start with a brief discussion of the pre-war period concerning union function and objectives. The following section will concentrate on the post war methodological shift which greatly affected the theory of unions. Sections IV and V will discuss the Ross-Dunlop debate and the dominance of Dunlop's line of thought. Section VI will present the criticisms of the established

approach and also the main signs of the re evaluation of Ross' ideas. Finally, a concluding section will close the paper.

## **II. Union Objectives: The Pre-War Period**

Trade unions are almost as old as industrial revolution and the ensuing industrialization process. However, the early economic literature on unions and their objectives was rather short and incomplete. “The alleged antipathy of the classical economists to the idea of unions is the implied reason for the (...) neglect of unions (...) Economists of the period [were also] conservative with respect to social change, [considering] unions dangerous and unworkable” (McNulty 1980: 82; brackets added). But it seems that classical economists' attitude towards unionism was also influenced by their views on “the nature of economics as an inquiry” (Ibid.: 83). In particular, classical economic thought advocated free labor markets and considered the relationship between capital and labor to be non-competitive. Thus, classical economists, by stressing the monopolistic nature of trade unions, had serious doubts regarding their beneficial role in economic life.

Marginalists and early neoclassical analysts claimed that the existence of institutions, like unions, renders the labor market problem mathematically indeterminate (Edgeworth 1881, Jevons 1882). Accordingly, practical issues regarding labour have nothing to do with economic science (Jevons 1882: 154-55). However, the gradual increase of the magnitude and power of unions in western economies induced some non-mainstream economists to carefully examine the nature of unions (Ely 1890). In the 1880's and 1890's there were numerous studies which analyzed in detail individual unions, or issues related to unions' management and

organization or the subject of strikes and the potential benefits of workers from their participation in unions (see the first volumes of QJE, JPE, AER, PSQ).

The first thorough and systematic study of an economic analysis of trade unions seems to be Sidney and Beatrice Webb's work *Industrial Democracy* (1897). Webbs described their methodological approach as follows:

“We then analyze the economic characteristics, not of combination in the abstract in a world of ideal competition, but of the actual Trade Unionism of the present day in the business world as we know it” (1897: viii).

Their analysis was divided into three parts: first, they investigated the structure of trade unions, emphasizing the political aspect of “unions as democracies”. Second, they attempted to analyze, through empirical facts and with the aid of statistics, how trade unions work, a methodological approach which was favourite to Webbs. Third, by seeking to develop their own theory, they strongly criticized the free competition hypothesis adopted by classical and early neoclassical writers, characterizing its nature as utopian. Webbs were in favour of the “method of collective bargaining”, which in combination with the “method of legal enactment”, could strengthen the position of labourers in the labour market. Therefore, they held that the main union objective is the increase of labourers' bargaining power against employers.

In a similar vein, early institutional economists, such as John Commons, were proponents of collective action through unionism. Besides the economic purpose of unions, viz. the improvement of working conditions and labourers' living standard or the redistribution of wealth, Commons also attached great significance to “the more general function of unionism – responsibility for representative democracy in industry” (M. Perlman 1960: 341; see also Kaufman 2000). Furthermore, the first generation of institutional economists – Robert Hoxie, Selig Perlman and George

Barnett – did not try to formalize their ideas on trade unions, but instead, they adopt a more sociological-historical approach, which clearly demonstrates the interdisciplinary character of their studies. In general, they conceived unions as politico-economic organizations whose members were motivated by relative comparisons and also were concerned with issues of equity and justice (Drakopoulos 2011: 8). They also sought to place unions into different categories according to their structure and their specific purpose or their social function. Furthermore, they describe in details the various duties and responsibilities of unions, and explain the factors which influenced the development of unionism.

Apart from the above, some mainstream theorists made their first attempts to model union economic behaviour. John Hicks in *The Theory of Wages* (1932) developed a model of bargaining between the trade union and employer, which constituted the basis for future theoretical approaches like the “efficient bargaining” model or the “right-to-manage” model. During the same period, Frederik Zeuthen in his *Problems of Monopoly and Economic Warfare* (1930) also formed a model of bargaining under bilateral monopoly. Hicks, in his theoretical model of industrial disputes, showed that a union can compel an employer to pay wages higher than the competitive level, because the employer faces the credible threat of a strike and tries to avoid the ensuing losses from a stoppage.

Zeuthen and Hicks’ works seem to be the first and preliminary attempts towards constructing a theoretical model with respect to unions’ activity and objectives, and may also be regarded as precursors of the developments occurred during the next decades in trade union analysis. In particular, after the World War II, there was a gradual shift from an institutional and holistic approach towards a more

neoclassical and formalized approach by constructing formal analytical models of unions within a specific microeconomic framework (Drakopoulos 2011).

### **III. The Post-War Methodological Shift**

The post war theoretical and methodological developments in economics are essential for the understanding of the formation of the current neoclassical economic theory of the trade union. The orthodox approach towards the economic analysis of the trade unions was heavily influenced by the established mainstream economic methodology. This clearly implies that in order to understand the development of the trade union analysis, a brief methodological based discussion is necessary.

Mainstream economic methodology during the period of interest was characterized by two basic features: a) the increasing dominance of mathematical formalism and b) the strive to exclude sociological, political and psychological elements from economic analysis. This methodological approach had its conceptual roots in the late 19th century marginalism. The development and the gradual establishment of marginal utility theory was associated with the adoption of mathematics as a basic instrument of economic analysis. The methodological propositions of the majority of economists at the end of the 19th and the beginning of the 20th centuries were driven by the idea that the scientific character of economics could be accomplished through the adoption of the mathematical approach. For example, Jevons, Edgeworth, Walras, Pareto, J. N. Keynes (and Marshall in regard to the use of geometry), Wicksell, Cassel, Fisher, etc. recognized and emphasized the advantages of mathematical formalism in economics (Dow 2002). Thus, the methodological conceptual framework, in which the post war theoretical discussions

of trade unions were formed, was clearly changing in favour of abstract theorizing and the incorporation of the mathematical analysis in economics.

The exclusion of sociological and psychological aspects from economics had also its origins in the same period. In particular, towards the end of the 19th century, the first clear signs of the tendency to expel philosophical, psychological and sociological issues from economic theory, were observed. The increasing dominance of positivism and physicalism, with their emphasis on the rejection of all allegedly non-scientific elements from scientific theory, was the main cause of this tendency (Seligman 1969; Wisman 1978). The trend was reinforced by the growing prestige of physics among scientific disciplines. Many economic theorists saw the method of classical physics as the ideal model for a scientific discipline (for discussions of the influence of physics on economics see Mirowski 1989 and Drakopoulos 1994). The influence of L. Robbins was critical in this respect. More specifically, Robbins was strongly opposed to the idea that economics should adopt findings from other social sciences. His view concerning the role of psychology is indicative of this attitude: 'I doubt whether anything which has yet been written by psychologists has the slightest value for the economist' (quoted by Howson 2004: 430; see also Robbins 1932: 83-84). Even before Robbins, V. Pareto had also argued against incorporating psychology or findings from other social fields to economics. However, there are grounds for attributing the subsequent negative attitudes towards employing findings from related social fields of many contemporary mainstream economics, to Robbins's methodological stance on this issue (Bruni & Sugden 2007). This tendency to separate economics from other social sciences, including psychology, has been linked to the idea of economics as the most advanced of the social sciences, and hence the one that is closest to the physical sciences (see Dow 2002: 170-75).

In the post war period, logical positivism, the modern version of 19th century positivism, became the dominant methodological stance among the vast majority of mainstream economists. In particular, they were content to follow the so-called hypothetico-deductive model of scientific explanation, which emerged in the first decades of the 20th century mainly from the work of the Vienna circle (Blaug 1980: 1-4; Caldwell 1982: 11-18; Redman 1993). To a large extent, these ideas were brought in economics by T. Hutchison (1938) and eventually they became the established view. A clear indication of the powerful influence of logical positivism in economics was the great popularity of the term “positive” among economists which became widely known mainly from M. Friedman’s (1953) work on economic method. Although Friedman’s argument was rooted in economics rather than philosophy, it summarized the “mature positivist” approach (Backhouse 1994: 182 and Caldwell 1982: 173). The irrelevance of the assumptions thesis expressed in M. Friedman’s (1953) well-known paper was basically a methodological justification for isolating economic research from other social sciences. The central idea here is that the realism of behavioural assumptions in economics does not matter as long as aggregate data behaves as if these assumptions were accurate (Friedman 1953). This widely accepted methodological position provided a “valid” reason for the exclusion of psychological and sociological elements and also support for the pure ‘economic’ approach to human behaviour, which is seen as extremely successful and superior compared to other social sciences. It also served as an additional shield from criticism by non-orthodox theorists.

Given the above, the post-war mainstream approach conceived trade unions as economic decision units which are characterized by a well-defined union utility function. This function is optimized subject to various objective constraints associated

with the firm in which they operate. Thus, the behaviour of the trade union could be described by applying the normal mathematical tools that were used in standard microeconomics. Furthermore, the sociological and political dimensions of trade unions were deemed to be irrelevant for union model-building given the prevailing methodological framework of excluding “non-positive” elements.

#### **IV. The Ross-Dunlop Debate**

During the 1940s, a debate arose among labor economists over the incentives underlying the behaviour of unions. “At the roots of this controversy was the fact that while microeconomic theory provided a model for the behavior of the firm based on profit maximization – essentially the same model appears in textbooks today – labor economists had no such widely accepted theory of labor union activity” (Mitchell 1972: 46). The leading figures of this debate were Arthur Ross and John Dunlop. The former was closer to institutional-political approach, while the latter adopted a more neoclassical point of view.

In particular, Dunlop in his book *Wage Determination under Trade Unions* (1944), by conceiving unions as analogous to business firms, developed a formal analytical model of trade union behaviour relied upon the microeconomic theory of the firm. Dunlop held that union is a “decision-making unit” which tries to maximize some objective, considering “wage bill for the total membership” to be the most appropriate union’s goal, subject to various constraints such as the firm’s labour demand curve (Dunlop 1944: 4, 44; Kaufman 2002). In the words of Dunlop:

“An economic theory of a trade union requires that the organization be assumed to maximize (or minimize) something. Although not the only possible objective, maximization of the wage bill may be regarded as the standard case” (1944: 4-5).

However, Dunlop, besides wage-bill maximization, also referred to other union objectives such as the guarantee of the largest possible union employment or the maximization of the “*collective wage ‘rents’* of those employed” (Ibid.: 41; italics in original). Moreover, he maintained that wages and employment level are also influenced by the different positions of the membership function (Kaufman 2002).

On the other hand, Ross, through his works *The Trade Union as a Wage-Fixing Institution* (1947) and *Trade Union Wage Policy* (1948), strongly criticized Dunlop’s “economic” union model, placing emphasis on the nature of the union as a political agency. In his own words:

“The trade union is a political institution which participates in the establishment of wage rates. To conceive of the union as a seller of labor attempting to maximize some measurable object (such as the wage bill) is a highly misleading formulation. Although comparable with a business firm in some respects, it is so dissimilar in other respects that the analogy is of questionable value” (1947: 587).

Ross turned against Dunlop’s thesis of a well-defined microeconomic-based union objective function. First, he asserted that unions try to maximize a non-measurable variable, viz. the economic welfare (wages, hours and conditions of work, etc.) of their members, in contrast to firms’ goal of maximizing their stockholders’ profits. In addition, trade unions’ feature of the heterogeneity of their members, implies that individual union members often have conflicting preferences and interests due to differences in age, seniority, wages and other related factors. These features render the aggregation of the individual preferences of union members an extremely difficult task. Significant differences also exist between the union leaders and the rank and file, as long as the former often behave according to their personal ambitions, having also as a main purpose the survival and growth of the organization. Hence, the trade union

wage policy is not actually formed through the rank and file decisions, but it is a leadership function (Ross 1947: 582, 584). Finally, another important factor of unions' behaviour is the distribution of authority between the local and national (or international) level (Ibid.: 578). The locus of the decision-making power can range from very centralized to highly decentralized level, placing different political pressures on various union leaders and affecting the union objectives in the collective bargaining processes. "Since the constellation of political pressures felt by the union leadership will vary greatly depending on the locus of bargaining, so will the objectives pursued by the leadership in collective negotiations (...) Thus, rather than treat the trade union as akin to a business enterprise, the union is instead modelled as a body of government, such as the U.S. Congress, and wage policy is treated as the outcome of a political process much as foreign policy of a nation is so considered" (Kaufman 2002: 117).

Despite the fact that Dunlop and Ross models emphasized different aspects of union behaviour, we should also note that there are two converging points of view. First, both writers advocated an "interdisciplinary 'industrial relations' approach to studying unions" (Ibid.: 118). Even Dunlop, who was engaged in theory-building and strongly criticizes institutional and historical methodological approaches, rebutted neoclassical contention that economic theory can explain all aspects of human behaviour related to markets. Second, it is misleading to assert that Dunlop rejected the hypothesis of a union as a political institution or that Ross totally neglected the influence of economic factors on unions' activity (Borland 1986).

In the following decades, however, the differences between Dunlop and Ross's viewpoints became more and more profound, thus establishing the dichotomy between analytical labor economics and institutional labor economics as these two

approaches are often called (see also Rees 1976). The widespread methodological framework of positive economic theorizing can be seen as the main cause of the dominance of Dunlop's basic theoretical apparatus: just as firms are maximizing profits, unions maximize an objective utility function (see also Mitchell 1972). In contrast, Ross' more institutional and political approach was clearly losing ground, given that it did not fit the above mentioned methodological requirements (see also Kaufman 2002).

## **V. The Dominance of Dunlop's Framework**

Dunlop's pioneering work marked the commencement of a considerable literature that keeps accelerating up to the present time. Dunlop's maximizing wage bill framework was also adopted by some other writers such as Hieser (1970) and Johnston (1972) who formulated a labour market model of wage determination under bilateral monopoly. Rent maximization is another union objective which is quite close to wage bill trade union objective (see Rosen 1969; de Menil 1971 and Calvo 1978). In particular, de Menil (1997) assumes that the union cares about the 'real wage surplus', that is, the difference between the real wage bill in the union sector and that in the perfectly competitive sector" (Booth 1995: 90). However, both the wage bill and the rent maximization objective lost their attractiveness in the course of time. Thus, in more recent literature, viz. during the 1980s and 1990s, the union is assumed to maximize some utility function which is often the sum of the utilities of its individual members. Specifically, the union maximizes either a utilitarian utility function (see Oswald 1982) or an expected utility objective function (Booth 1995). Alternatively, the union maximizes a "general quasi-concave union utility function, usually of a specific structural form" (Oswald 1985: 162) such as a Stone-Geary

utility function (Dertouzos and Pencavel 1981) or an addilog objective function (Pencavel 1984).

The tradition of Dunlop's maximizing union continued in one of the early basic models of unions' behaviour, the "Monopoly Union Model" (Fellner 1949; Cartter 1959). In this model, the union is assumed to set wages unilaterally and then the firm freely determines employment according to its downward sloping labour demand curve. The monopoly model predicts that the organization of workers into trade unions gives them the market power to raise the wage above the nonunion level. The original monopoly union model relied upon the hypotheses of identical individuals with homogenous preferences and a fixed membership level. Hence, some authors attempted to extend the model by assuming either heterogeneous preferences in the objective function (Farber 1978) or permitting union membership to be endogenous by developing dynamic formulations of the monopoly model (Booth 1984; Kidd and Oswald 1987). More precisely, Farber constructed a model of union behavior based on maximization of the expected utility of the median-aged union member who "is assumed to have a utility function which depends on the level of compensation he receives" (1978: 925). On the other hand, Booth (1984) developed a "median voter" model (see below) with endogenous union membership conceiving trade unions as (political) organizations which include heterogeneous individuals. Furthermore, she held that the model should explicitly take into consideration the influence of union wage policies on the membership level. In a similar vein, Kidd and Oswald (1987) argued that "the trade union is assumed to solve an intertemporal maximization problem in which it bears in mind that the way to have higher membership tomorrow is to have higher employment today. If the union has utilitarian preferences, the steady-state level of employment lies above that in the

usual static model. In this sense, conventional models overstate the distortionary effects of trade unions” (1987: 363).

Furthermore, the monopoly union model is closely related to the so-called “right to manage model”, according to which the union and the firm bargain about the wage rate, and the firm then fixes employment unilaterally taking wages as given (Nickell & Andrews 1983). It is obvious that the monopoly model is a special case of the “right to manage” one, where the firm’s bargaining power is equal to zero. The latter approach seems to be closer to reality, since wages are usually determined through collective bargaining and agreement and not merely set by trade unions (Oswald 1985). Moreover, the “right to manage” model also differs from models where unions and firms bargain over both employment and wages to the same degree. According to Nickell & Andrews (1983: 184), the latter framework is “unappealing a priori on the basis of the observation that firms are continuously adjusting the size of their labour force without any intensive bargaining with unions except in the rare cases where the adjustment involves compulsory redundancy”.

Another popular model in the analysis of union behaviour is the “median voter” model which is closely linked to social choice theory and public finance literature (Black 1948; Arrow 1950). This model relied upon the assumption that the leadership is democratically elected by the voting population. Thus, the union leader will try to maximize the utility of the *median voter* in order to be re-elected (Booth 1995). This model “is a very powerful tool for aggregating the preferences of union members into a coherent objective function for the union as a whole. However, its applicability is limited due to the restrictive set of assumptions required” (Farber 1986: 1078). The most fundamental assumption is that the union is conceived as a perfectly democratic organization, “in the sense that the leadership would be defeated

immediately and costlessly if they strayed at all from the voting equilibrium wage” (Ibid).

On the other hand, some other models put emphasis on the differences between unions’ members and their leaders following Ross’ approach. For instance, Berkowitz (1954) and Atherton (1973), like Ross, recognized the significance of imperfections in the democratic process of unions and the accompanying differences in the goals between the leadership and the rank and file. Moreover, Farber (1986) tried to examine the constraints that the union leadership faces. “The primary constraint on the union leadership is that they remain in power because otherwise they would not be able to pursue their objectives, whatever they might be (...) Essentially, limits will be set on how far the leadership can deviate from the interests of the membership, perhaps as reflected in a voting equilibrium. These limits will depend crucially on the friction in the democratic process” (1986: 1080). In addition, Ashenfelter and Johnson (1969), by seeking to provide a more “realistic” approach to the problem, developed a model in which they assumed that there are not two but three parties involved in labor-management negotiations, viz. the management, the union leaders, and the union members. Accordingly, they explicitly assumed that the union leadership and the union rank and file do not have similar goals and expectations. Finally, Faith and Reid (1983) reformulated the problem by using principal-agent theory. In this case, the union leadership acts as a collective agent for the individual members. “An agent (...) can promote efficiency first by helping solve public goods and asymmetric information problems in the workplace or by achieving economies of scale in coordination and communication and second by facilitating a monopolization of the labor supply and thereby capturing rents for workers. [Faith

and Reid] conclude that both reasons are plausible but that the monopoly effect typically dominates” (Kaufman 2002: 128; brackets added).

Finally, there are the bargaining models including the efficient contract (bargain) model (Leontief 1946; McDonald and Solow 1981), and other more recent bargaining models which have employed the game-theoretic framework of the 1980s (e.g. Booth 1995; Manzini 1998). These approaches tried to fix the monopoly model inefficient (not Pareto optimal) outcome, by assuming a process of negotiation between unions and firms with respect to both employment and wages. Thus, the efficient bargaining model assumes that firms and unions jointly bargain on wages and employment. Employment is then determined efficiently, since the marginal product of labour is equal to the labourers’ opportunity cost. Furthermore, two types of modelling bargaining behaviour have widely been used. The first is the “axiomatic Nash approach”, which supposes that bargaining is a cooperative game and that the outcome must satisfy specific fundamental principles or axioms stated probably as requirements by an unbiased and fair arbitrator called in to resolve the dispute between the two parties (Kaufman 2002). The second approach relates to game-theoretic noncooperative models of bargaining formulated in the early 1980s (Rubinstein 1982; Binmore, Rubinstein and Wolinsky 1986; Binmore and Dasgupta 1987). These models sought to establish more sophisticated behavioral foundations in order to remedy the “neglect of the bargaining process (as opposed to the outcome), and [to strengthen] (...) the ability to generate testable hypotheses (...). The advantage of this approach is that it explicitly models the objective functions of the bargainers, specifies the resources of the bargainers and the rule structuring the negotiations, and permits inclusion of common negotiating tactics, such as bluffing and recourse to strikes” (Kaufman 2002: 132).

## **VI. Criticisms of the Current Theory and Signs of Re-Evaluation of Ross' Ideas**

As was mentioned above, the post war developments in the union objectives literature is characterized by the dominance of the Dunlop's line of thought with the gradual marginalization of Ross type approaches. Most of the above mentioned formulations which are broadly based on Ross' conception, are also characterized by the extensive use of formalism. More specifically, the application of constraint optimization method developed in tandem with the first appearances of specific union utility functions (wage bill and rent maximization). The mathematical framework of game theory also dominated the more recent formulations of union bargaining theories. The conceptual framework of formalism also includes the econometric techniques employed to test the various predictions of the models. This methodological trend is closely connected to model union theory along the lines of the standard neoclassical theory of the firm (Kaufman 2002).

However, in the last two decades, an increasing number of specialists have started to express serious concerns and doubts for the current state of the theory. More specifically, commencing in the 1980's, some influential labor economists started casting doubt to the fruitfulness of the standard approach. In an early book, Freeman and Medoff (1984) maintained that labour economics had produced little quantitative evidence concerning the effects of unionism other than wages. In a similar tone, Ulph and Ulph (1990) examining two of the most widely used union models, the right-to-manage and the efficient bargain models, admit that neither of them conform to the available data. The criticism continued in the 1990's when some prominent labor economists expressed reservations regarding the theoretical usefulness of the dominant approach. For instance, in an 1994 article examining the

robustness of the trade union economic theory, A. Manning argued that the foundations of the economic theory of the trade union are very fragile (1994). Denny and Nickell (1992) also acknowledged the fragility of the standard theory when they concluded that the predictions based on union models, rely heavily on the assumptions which underline them. Similarly, Pencavel expressed serious doubts regarding the theoretical progress in the understanding of the wage, hour and employment aspects of unionism (1991: 160). Pencavel argued that the standard modelling of union behaviour is the main cause of this state of affairs. Furthermore, Addison and Chilton, in their review (1997: 187) of trade union literature, emphasized again the fragility of union models and the disappointing theoretical results of the standard approach (see also Fleetwood 1999; Boyer and Smith 2001).

In general, there are many signs that the dominant post war trend of developing the Dunlop approach combined with increasing formalism, has started to be questioned by influential figures in labor economics. This seems to be linked to the gradual realization of the serious shortcomings of Dunlop's "pure microeconomic" framework and thus to the re-examination of Ross' views on unionism. This has led to the re-appreciation of the political and institutional aspects of unions behaviour and in general of their multi-dimensional character. For instance, the Rossian conception implies that unions, among other concerns, pay attention to protecting relative income positions, and maintaining fairness or equity norms. This means that contrary to the mainstream economic theory preoccupation with independent preferences, union preferences might be interdependent (Kaufman 1999; Drakopoulos 2011). One manifestation of interdependent union preferences is wage imitation or wage interdependence. A number of authors have realized the potential of this idea for enriching union theory in the sense that they might offer additional

explanations for higher than optimal wages, wage rigidity and inflationary bias (Pencavel 1991; De la Croix 1994). Furthermore, the idea of fairness as a union concern, has also been explored by some theorists with interesting insights. In an early book, R. Solow argued that the idea of fairness in labor markets undermines the standard textbook treatment (Solow 1990: 9-10). Since then there have been attempts to investigate the role of fairness in union decisions (see for instance, Rees 1993; Clark and Oswald 1998; Skott 2005). In the same tone, there have been attempts to take into consideration the political dimension of unions, which again was one important aspect of Rossian approach. This has led a number of labor economists to introduce concepts and ideas taken from public economics, public choice, political theory and also from the new institutional economics. The median voter model, the view of unions as bureaucracies or governance structures are examples of this trend (see for instance, Inman 1987; Pemberton 1988; Furubotn and Richter 1997; Kaufman and Levine 2000).

Finally, there is a further indication of a revival of Rossian approaches in the growing interest concerning the nature and role of unions in contemporary behavioral economics. The multi-dimensional character of the trade unions, combined with ideas such as the heterogeneity of workers, the influence of cultural trends, social forces and collective emotions on unions, are present in these discussions (see for instance, Berg 2006).

All of the above imply that the orthodox “microeconomic” approach to union behaviour which prevailed in the post war decades, has started to be seriously questioned. Important reasons for this, were its theoretical fragility, poor predictive results and its weakness in explaining many aspects of unionism. They also indicate the gradual realization for the need for looking more carefully at the Rossian

approach which necessary implies a re-examination of the standard methodology of union analysis and also of the benefits of an interdisciplinary viewpoint. The more recent developments in the literature, seem to confirm this conceptual turn in the study of unionism.

## **VII. Concluding Comments**

The paper discussed the historical development of the economic analysis of trade unions from a methodological perspective. As was observed, the pre-war approaches to trade unions were mainly based on the theoretical and methodological viewpoints of early heterodox and institutional economists. Thus, trade unions were conceived of as politico-economic organizations whose members were motivated by relative comparisons and also were concerned with issues of equity and justice. In the post-war period, there was a major theoretical and methodological shift towards the idea of unions as optimizing economic units with well-defined objective functions which are optimized subject to purely economic constraints. This conceptual transformation took place mainly through the Dunlop-Ross debate. In particular, John Dunlop conceived unions as analogous to business firms, and developed a formal analytical model of trade union behaviour based on the microeconomic theory of the firm. This was contrary to Arthur Ross' institutional and political approach. The emerging post war mainstream methodological framework with its mathematical formalism and the exclusion of sociological, political and psychological elements from economic analysis was the main reason for the prevalence of Dunlop's ideas.

However, after decades of analytical developments, the current state of trade union theory and also of trade union objectives has not produced very impressive theoretical results. In particular, many influential labour economists have expressed

doubts concerning the theoretical fragility, poor predictive results and the weakness in explaining many aspects of unionism of the standard theory. In addition, there are increasing signs of re-evaluation of Ross' line of thought in the relevant literature, as a possible way to tackle the above problems. More specifically, the Rossian approach means more emphasis on the political and institutional aspects of union behaviour including concern for protecting relative income positions, and maintaining fairness or equity norms.

Thus, the examination of the development of the trade union literature indicates the problematic character of the dominant methodological position of mainstream economic theory as applied to the study of unions. It seems that this area of economics research can be seen as a good example of the shortcomings of the uniform application of orthodox methodology to every aspect of economic discourse.

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