Co-operation as coordination mechanism:

a new approach to the economics of co-operative enterprises

Carlo Borzaga

University of Trento, Department of Sociology and Social Research

carlo.borzaga@unitn.it

Ermanno Tortia

University of Trento, Department of Economics and Management

ermanno.tortia@unitn.it

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Abstract

We consider co-operative enterprises as a specific form of entrepreneurial action. In this we start from the definition of the enterprise as coordination mechanism of the economic activity, which is geared to the organized production and exchange of goods and services. We accept a wider conception of entrepreneurial action that cannot simply be reduced to a nexus of contracts informed by the profit motivation, but includes as well collective action in the pursuit of mutual and social benefit objectives.

We start from the widely acknowledged observation that, as any other enterprise form, co-operatives exist to overcome the presence of some specific type of market failure. In such cases, the ownership of enterprise is assigned to the group of patrons that undergoes the highest contractual costs due to asymmetric distribution of information and control power. However, market and contract failures represent, in our perspective, only one part of the total explanation of why co-operatives can become sustainable entrepreneurial ventures and spread in the economy. This explanation depends also on their internal working and governance, which, by relying on co-operation and reciprocity, can allow the generation of higher social welfare than what is achieved by conventional (public and private) enterprises.

We achieve new and more general understanding by combining different theoretical streams in economics, namely the institutionalist, the behavioral and the evolutionary. The relevance of voluntary or spontaneous co-operation as further coordination mechanism of the economic activity, to be added to the more traditional mechanisms of market exchanges and authority, is scrutinized. We maintain that co-operative enterprises represent the organizational form in which spontaneous co-operation as coordination mechanism becomes dominant, though not necessarily exclusive.

Key words: coordination mechanism; private enterprises; co-operatives; co-operation; market exchanges; hierarchy; trust; reciprocity; institutional economics.

JEL classification: D21, D23, D70, I31, J54, J81, L21, L23, L31, L33, P12, P13, P14

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1. Introduction

The institutionalist literature in economics, starting from Ronald Coase (1937), explained the existence of enterprises on the basis of the necessity to overcome specific typologies of market failures and imperfections, which in the most simple cases cause transaction costs to rise: "The main reason why it is profitable to establish a firm would seem to be that there is a cost of using the price mechanism. ... The cost may be reduced, but it will not be eliminated by the emergence of specialists who will sell this information. … the operation of a market costs something and by forming an organization and allowing some authority (an "entrepreneur") to direct the resources, certain marketing costs are saved" (Coase, 1937, 390-92; cfr. also Milgrom and Roberts, 1990). That is, the presence of perfect markets would make the existence of all organizational types superfluous. All inputs of production would be contracted in the presence of perfect information, zero transaction costs, and complete contracts. In these conditions co-operatives would be superfluous as well and especially so, since the absence of imperfections would eliminate any role for organizations governed by patrons other than investors. In the presence of imperfections on the market for capital only organizations controlled by investors, not by other stakeholder groups, would be left with an efficiency enhancing role. Affiliates of this viewpoint usually add that market failures can be overcome thanks to competition and regulation, which allow approximation of the socially efficient competitive solution. However, imperfections on capital markets would be more difficult to overcome, since asset specificity gives rise to non reducible and non-contractible asymmetries in information and to a clear incentive to behave opportunistically towards investors. These conditions underpin investor ownership as the dominant organizational solution in contemporary economies. Investor ownership is complemented by hierarchy in intra-firm relationships between the firm owners and managers, and between employers and employees when these relations are themselves characterized by imperfections due to contract incompleteness, diverging interests and asymmetric information (Coase, 1937).

Other types of contractual failures, for example in labor contracts, are comparatively less relevant than failures on the market for capital, and do not lead, as a norm, to the creation of organizations controlled by non-investor stakeholders. In new institutional economics, non-investor owned organizations would emerge when imperfections in the relation between non-investor stakeholders and the organization are more serious than imperfections on capital markets, a situation that is considered as exception more than the rule (Hansmann, 1996). This relative unimportance of imperfections on markets other than capital can be questioned, since the absence of idealized market conditions is also able to explain the emergence of the different typologies of co-operative enterprises, which give control over the organization to non-investor stakeholders, and also of non-profit organizations (Hansmann, 1996). Control rights given to different typologies of stakeholders can allow the overcoming of concentration of market power ex ante, contractual power ex post (lock in), asymmetric distribution of information, and the internalization of relevant external effects. Organizations controlled by groups of stakeholders other than investors appear to be part of the rule, not exceptions. For example, when the most strategic investments are not carried out by investors, as it happens in professional partnerships, we can think that mutualistic forms of governance become more suitable and effective in maximizing welfare and in sustaining growth. Or, when agricultural production is characterized by high fragmentation of ownership and uncertainty on the output market, the association of small producers in agricultural co-operatives can become the most effective way to tackle the failures of agricultural markets (Tortia, Valentinov, Iliopoulos, 2013). Furthermore, when wage rigidity limits employment stability, worker co-operative can be able to correct negative effects on employment levels by making worker remuneration more flexible (Navarra and Tortia, 2014; Albanese, Navarra and Tortia, 2014; Pérotin, 2014). These examples show that co-operatives pursue objectives more complex than simple profit maximization and necessitate the development of more advanced analysis.

In the remainder of this Chapter, Section 2 discusses the state of the art in economic theory concerning “market” and “hierarchies” as dominant coordination mechanisms of the economic activity, and how the theory of co-operative enterprises is positioned within this realm. Section 3 introduces the conception of the enterprise as mix of different coordination mechanisms, among which co-operation can achieve prominent role. Section 4 discusses the specific nature of co-operative enterprises, which are characterized by the dominance of co-operation as co-ordination mechanism of the economic activity. Section 5 discusses some applications of the new framework and concludes.

2. The state of the art in economic theory

Contemporary theory of the firm, starting from Ronald Coase (1937) and in the contributions by Oliver Williamson (1973, 1975, 1985) and Herbert Simon (1951), identified in market exchanges and hierarchy the two dominant coordination mechanisms in economic systems. Following these initial contributions, authors have evidenced the central importance of authority in defining the relationship between the controllers of the organizations (owners or managers) and other relevant constituencies. A second stream, starting from the contributions by Armen Alchian and Harold Demsetz (1972), Michael Jensen and William Meckling (1976), stressed instead the contract-like nature of firms. In this stream, the firm is understood as a self-contained market (Doeringer and Piore, 1971; Heat, 2006) or complex set of contractual transactions among individuals or groups of patrons (e.g. investors, financial institutions and intermediaries, employees, customers etc...) in which no hierarchy is necessarily detected. Incentive systems are mostly based on highly powered monetary exchanges and are coextensive with the functioning of the market as dominant coordination mechanism. The lively debate between the two conceptions of the firm as nexus of contracts and the firm as hierarchy allowed the accomplishment of crucial theoretical contributions and of a wide array of empirical tests. Without underrating their importance, we submit that both streams have tended to exclude the existence or undervalue other coordination mechanisms, such as spontaneous co-operation, which impact on the working of real world firms and on other types of organization (Heat, 2006; Borzaga, Depedri and Tortia, 2011).

Property rights and governance have been crucially brought into the picture as well. Ownership is defined as the residual right to control the organization and to appropriate its net surpluses (Hansmann, 1988). Governance is instead the system of formal and informal rules that find compatibility between individual behaviors and organizational objectives, which, in orthodox economics, are conceived exclusively as a function of competitive relations and as pursuit of profit maximization. This logic, when applied to co-operative enterprises, is not fully convincing since in this case control rights and governance are not only functional to external agency relations, but also to involvement directed to the generation of enhanced welfare for non-investor stakeholders (Bacchiega and Borzaga, 2001; Borzaga and Tortia, 2006; Hansmann, 2013).

New institutionalism applied to the study of mutual benefit organizations delivered important contributions and received wide consensus by showing, first, that co-operative enterprises most often emerge in the presence of strong concentration of market power, that is monopoly in the case of consumer and user (demand side) co-operatives and monopsony in the case of agricultural, producer and worker (supply side) co-operatives. Second, mutual benefit organizations can be the most effective solution when strategic investment plans are not carried out by investors, but by other classes of stakeholders, as it happens in professional partnerships. Third, mutual benefit organizations are evidenced to be well performing enterprises when characterized by homogeneous membership, since this feature is understood to lower organizational costs in terms of decision making costs and enhance the pursuit of common goals by a self-organized group of members. This is the case in various forms of producer led co-operatives, such as the agricultural ones. The overlooking of these aspects by most economics literature on the firm led to the widespread idea that these non conventional organizational solutions are transitory in the face of completion of markets. The tendency to consider mutual benefit organization as marginal and inferior solution complements the dominant idea that sees in market exchanges and authority the only relevant coordination mechanisms. Coherently, also economic analysis tended to limit or exclude in depth analysis of co-operative enterprises (Kalmi, 2007).

On the contrary, we evidence, first, that non investor-owned forms of enterprise are able to survive and spread in many sectoral and regional contexts in the absence of pronounced market failures, like in the case of agricultural and producer co-operatives. This shows that market imperfections may be only one of the possible causes of the spread of these organizational forms and calls for new research evaluating what is the growth potential of such organizations, for example concerning the governance forms that better support this potential. Second, new institutionalism has not evidenced enough what are the benefits, not only the costs, that this kind of organization is able to generate. As it has been noticed by some authors, higher costs do not necessarily imply inefficiency, as they be functional to increased value of production and to increased non-monetary welfare (Borzaga and Tortia, 2010; Birchall, 2010, Birchall, 2013b). Coherently, recent contributions call for more intensive research concerning the governance structure and mode of operation of co-operative firms because governance is the key dimension connecting individual behaviors and organizational objectives, and can explain the different ability of different organizational forms to increase benefits, while keeping costs under control (Hansmann, 2013).

The new-institutionalist approach, like orthodox economics, finds its main limitation in the idea that the working of co-operatives follows the same organizational logic of investor owned companies, which are dominated by market exchanges and by hierarchical control. Contrary to this point of view, we maintain that co-operative enterprises show marked differences with respect to other dominant organizational types in terms of their internal working mechanisms and the way in which they generate welfare, and interact with the surrounding environment and other economic actors. In order to overcome the new institutionalist approach, we study, first, under what conditions market failures cannot be overcome neither by increased market competition, nor by improved regulation and, second, how market failures can be overcome thanks to coordination mechanisms different from market exchanges and hierarchy.

We consider co-operation as coordination mechanism of associative nature that is based on the mutual benefit of the participating actors, and is to be added to market exchanges and hierarchy. The latter two mechanisms are well present in the institutionalist literature, as epitomized in the works by Oliver Williamson (1973, 1975, 1985). On the other hand, the recognition that collective action based on co-operation can be as effective as market and hierarchies in achieving efficiency spread in economics only by the end of last century, thanks to the pioneering works by Elinor Ostrom (1990, cfr. also Ostron and Basurto, 2011).

In our approach, mutual benefit is obtained when reciprocating behaviors can be sustained overtime individually and collectively by exploiting existing trust relation, or by generating new ones. In building a new theoretical frame we take advantage of recent developments in behavioral and evolutionary economics, and their applications in game theory and experimental economics, as they represent emerging streams of thought that more closely focus on individual and collective behaviors including not-fully self-interested motivations and preferences (Fehr and Gächter, 2000; Degli Antoni and Sacconi, 2010), on organizational routines, and on institutional change related to the emergence and development of new organizational forms that can internalize such behavioral traits in their objectives and in organizational protocols (Nelson and Winter, 1982; Hodgson, 2003; Borzaga, Depedri and Tortia, 2011, 2014). When the uniqueness of co-operatives and of their identity is considered, it appears clear that new governance solutions need to be developed, since these solutions serve in a unique way to reach compatibility between control rights, members' motivations and mutualistic objectives (Nuhanovic, 2015).

3. Co-operation as specific kind of coordination mechanism

This section discusses co-operation, besides market exchanges and authority, as basic coordination mechanism of the economic activity. We start from the observation that business enterprises can be conceived, to different extents, as mixes of different mechanisms of coordination. While most institutionalist literature has considered market and hierarchies in an exclusive way, we add spontaneous co-operation as third fundamental mechanism.

The nature of market exchange is represented by gain from trade of either goods or services against money, or barter. Goods and services are exchanged at equivalent economic values at the end of the production process. This implies that the purchaser is able to evaluate with adequate precision the quality to price and the benefit to cost ratios. Authority is instead taken to imply that contractual constraints or exchanges allow one contractual party to take relevant decisions, which are binding also for the other parties. In the writings by Herbert Simon (1947) on *Administrative Behavior*, authority in the organizational context is defined as the ability and right of an individual of higher rank to determine the decision of an individual of lower rank. The actions, attitudes, and relationships of the dominant and subordinate individuals constitute components of role behavior that may vary widely in form, style, and content, but do not vary in the expectation of obedience by the one of superior status, and willingness to obey from the subordinate. Authority is highly influential on the formal structure of the organization, including patterns of communication, sanctions, and rewards, as well as on the establishment of goals, objectives, and values. In more general terms these definitions can be applied also to relations between groups of individuals, for example between owners or managers, and employed workers.

Voluntary or spontaneous co-operation, as evidenced in the works by Joseph Heat (2006, p. 315)[1] is characterized neither by exchange, nor by authority. Exchange, as above defined, is excluded in spontaneous co-operative coordination because the parties do not exchange property rights on goods

[11] Heat (2006, p. 315) specifies "… five different mechanisms of co-operative benefit…", which "... represent different ways in which individuals can help each other to achieve each others' objectives, whatever those objectives may be". The five mechanisms are (a) economies of scale; (b) gains from trade; (c) risk pooling; (d) self-binding; and (e) information transmission. The same author also evidences that market exchanges represent just only possible mechanism for obtaining co-operative value. Excluding other co-operative mechanisms can limit our understanding of the potential of co-operation. Furthermore, different co-operative mechanisms may not be fully compatible with each other, that is each mechanism carries with it an opportunity cost relative to the utilization of other mechanisms. As a result, an exclusive focus on market exchanges may result in limiting the positive effects of other co-operative mechanisms.

or services, but act on the basis of common projects or objectives including the expectation of positive reciprocity by other parties. Similarly, authority in the definition given above is excluded as well since co-operation is understood as horizontal coordination and, in its basic working, cannot be reduced to vertical relations between a dominant and a subordinate individual or group.

In co-operative interaction two or more economic actors pursue common objectives by exploiting the benefits deriving from mutual coordination. This form of social interaction is able either to increase the total surplus produced (the production function is super-additive), or to reduce possible costs that would arise in the absence of coordination, for example the costs of conflict, of opportunism and negative externalities. Co-operation leads to collective action based on positively reciprocating behaviors by mutually dependent, co-interested, and co-motivated actors. Co-operation can deliver adequate coordination even in the absence of authority, or by resorting to authority in a functional and limited way.

Co-operative effort or contribution is arranged in advance of the achievement of the expected results. Insofar as the results are not controllable ex-ante, co-operation is only partially enforceable and requires coordination based on trust and reciprocity. Reciprocity implies that positive or negative actions by one party are followed similar actions of the other parties. A significant degree of trust is necessary to support the ex-ante expectation that co-operative interaction will lead to positive outcomes. As trust acts as facilitator and transaction cost reducing behavioral predisposition in horizontal co-ordination, it is as a norm necessary condition to partake in collective action. Positive reciprocity, on the other hand, has been envisaged as the main mechanism which is able to preserve, sustain, and invigorate trust over time (Zamagni, 2005). Absence of reciprocity stunts trust and reduces expected payoffs since failure to reciprocate positive attitudes and behaviors implies inability or unwillingness to co-operate.

Co-operation as crucial coordination mechanism in the organization of production has already been evidenced in various contexts. For example voluntary work cannot be managed by way of hierarchical control or market exchange in order not to dampen the intrinsic and pro-social motivations of volunteers (Titmuss, 1970; Deci, 1971, 1975; Rose-Ackerman, 1996; Frey, 1997; Ryan and Deci, 2000). Volunteer work requires spontaneous co-operative effort as driving force. The relevance of co-operation is implicitly evident also in the case of donations, where horizontal coordination of donors is unavoidable if the aimed results are to be reached at all. Collective action and voluntary co-operation based on mutual or collective benefit, not exclusively on self-interest, emerges as the crucial coordination mechanism in the literature initiated by Elinor Ostrom (1990)on the management of common pools of natural resources. Collective action and co-operation have been crucial also in the development of open-source software, and publicly available online resources such as Wikipedia and Creative Commons, which lowered production costs and made the software industry less concentrated (Rifkin, 2014).

3.1. Co-operation within organizations

We contextualize co-operation within the boundaries of organizations. The overcoming of contractual failures and the concomitant reduction of transaction costs has traditionally been interpreted as a move from “markets” to “hierarchies” (Coase, 1937; Williamson, 1973). When market failures cannot be overcome by resorting to further contractual agreements, the emergence of hierarchy, which has been often identified with organization *tout court*, has been interpreted as the most relevant course of action. In our perspective, instead, the overcoming of market failures does not necessarily entail the emergence of hierarchy, but may instead lead to collective action and co-operation.

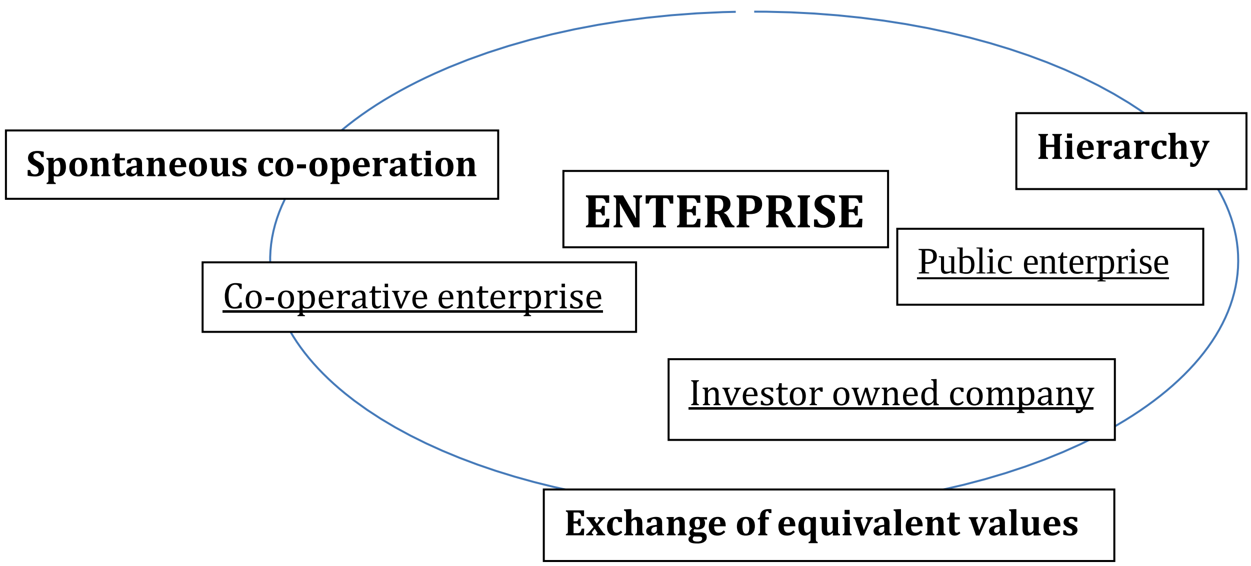
Like market and hierarchies, co-operation exists in all organizational forms: public, private for-profit and co-operative, though to a different extent and with different functions in each individual form. In publicly owned organizations a weak relation of transactions with the market value of exchanges as main allocative mechanism is observed. Coherently, authority is to be considered as the dominant coordination mechanism. Decisions are taken by the controllers of the organizations, without necessary relations to the real or presumed market value of the involved resources. Publicly owned organizations, on the other hand, are characterized also, though at less fundamental level, by market exchanges and co-operation. Market exchanges can have an important role either directly through the exchanges that the organization entertains with input suppliers and service users, or indirectly through the shadow market value of the resources administered or the output delivered by the organization. Co-operation intervenes as facilitating and transaction cost reducing mechanism, which can be functional to overcoming cost-inducing organizational rigidities and failures, to ease labor and industrial relations, and to facilitate the sharing of objectives by the different involved constituencies.

Related arguments can be put forward in the case of private for-profit firms. This organizational form is more strongly dependent on relations based on gains from trade and systems of monetary incentives than publicly owned firms, since in its case the working of input and output markets have direct bearing on the way the organization sets its objectives and implements production plans, and ultimately also on its survival and expansion potential. While market exchanges dominate the working of private for profit firms, hierarchy enshrined in principal agent-relations between owners and managers, and between employers and employees has a crucial role too, as spelled out in the Coase (1937) argument. Co-operation in private firms has a similar function as it is found in publicly owned firms, since it serves to reinforce trust and reduce organizational costs. Its importance has been widely stressed by managerial disciplines, especially in the relation between workers and managers, as related to the correct working of human resource management (Aoki, 1984; Roos, Womack, Jones, 1991; Appelbaum, Bailey, Berg and Kalleberg, 2000).

In co-operatives, spontaneous co-operation (or collective action) is not only functional to the reduction of organizational costs, but becomes the most fundamental coordination mechanism able to increase members' welfare beyond what would be guaranteed by independent production and simple market exchanges. This fundamental role informs also the way in which strategic and operational objectives are set through organizational governance, efficiency is achieved, and the produced surplus is distributed. However, elements of authority in the realization of strategic decisions and in the implementation of production plans cannot be excluded. Similarly, co-operatives are less dependent on market exchanges than private for profit firms because they tend to develop specific organizational mechanisms and accumulate resources that are directed to shield the membership against negative shocks and market fluctuation. To elucidate our intuition, we stress that, in many countries, co-operatives accumulate common resources in terms of indivisible reserves, which cannot be exchanged on the market, but, at the same time, cannot exist without relying on market exchanges in the acquisition of inputs and sale of output phases.

Figure 1 shows how market exchanges, hierarchy/authority and spontaneous co-operation concur in creating the space of entrepreneurial activity. The interaction between the three coordination mechanisms defines the three main enterprise forms: public, private for profit and co-operative. The co-operative enterprise is closer to spontaneous co-operation than any other organizational forms, but does not coincide with this coordination mechanism, since market exchanges and authority are present as well. Similar conditions are found in the cases of public enterprises and private for profit firms, in which authority and market exchanges play, respectively, the most relevant but not exclusive role.

Figure 1. Different coordination mechanisms of the economic activity, and corresponding organizational forms



4. Co-operative enterprises: Co-operation as dominant coordination mechanism

Taking co-operation as the basic and dominant, though not exclusive, mechanism of coordination of the economic activity allows the development of a radically new theoretical approach in light of the fact that existing theories reduced co-operatives to the basic working mechanisms - market exchanges and hierarchy - of other dominant organizational forms.

4.1. Limitations of the traditional approaches to the study of co-operative enterprises

Traditional economic approaches to the study of co-operative enterprises, mainly the neoclassical and the new-institutionalist, do not consider the fundamental role of co-operation as coordination mechanism of the economic activity. Neoclassical economics concentrated almost exclusively on worker co-operatives and evidenced preeminently the possible limitations of this organizational form by assuming self-seeking and non co-operative attitudes of economic agents. The Ward (1958) model evidenced the so called “perverse effects” concerning the reactions of Yugoslav style worker controlled enterprises to market stimuli (e.g. variation in product price and interest rate). Co-operatives would react to increased output prices by reducing supply and shedding labor, and to increased cost of capital by increasing production and employment. These perverse effects have never been confirmed by empirical tests (Bartlett et al., 1992; Craig and Pencavel, 1992, 1994; Bonin Jones and Putterman, 1993).[2]

Within the same research stream, Furubotn and Pejovich (1970) and Vanek (1970) followed a dynamic approach to the study of different property right settings evidencing, in worker co-operatives, the phenomenon of underinvestment leading to undercapitalization, which is caused by the presence of non-recoupable assets conjugated with the truncated temporal horizon that characterizes the permanence of workers as members of the co-operative. Ever since the publication of these seminal works, the study of the financial structure and of the process of capitalization in co-operatives has occupied a central place in research. No clear results have been singled out concerning the undercapitalization hypothesis, though worker co-operatives have been found, when compared to conventional enterprises, to rely onthe credit market (Bartlett et al., 1992) and to concentrate in labor intensive sectors (Podivinsky and Steward, 2006) more than conventional firms. Financial difficulties, also in accessing financial markets, represent the *leit-motive* of many critiques accusing co-operatives to be non-sustainable or inferior entrepreneurial ventures.

The main limitation of the neoclassical approach is found in the tendency to apply to co-operatives the same logic applied to the study of conventional corporations, without factoring in the different and additional features of co-operation as coordination mechanism. In the Ward model, the inability to explain the absence of perverse reactions to market stimuli can be overcome by hypothesizing the existence of reciprocating and non self-seeking attitudes. This possibility allows worker co-operatives to develop formal and informal rules based on procedural fairness and reciprocating behaviors, for example by including employment stability for all members among the main objectives of the organization. These rules, when conjugated with the possibility to have members' income fluctuate to absorb demand fluctuations, can align individual self-interest to collective objectives by excluding lay-offs and by stabilizing employment in the medium to long run (Navarra and Tortia, 2014; Albanese at al., 2014). Such rules and outcomes, which better reflect the ICA principles and the behavior of real world co-operatives, can be better conducive to efficiency in production than unrestrained pursuit of individual gain (maximization of average per member income in the Ward model), since they allow the retention of the whole stock of human capital in the organization in good as in bad economic

[2] While the Ward (1958) model assumes labor to be perfectly flexible in the short run, this assumption contradicts the pronounced tendency shown by worker co-operatives to protect employment levels, as testified by several empirical tests (Craig and Pencavel, 1992, 1994; Bartlett et al., 1992; Pencavel, Pistaferri and Schivardi, 2006; Burdin and Dean, 2009).

conditions. On the financial sustainability side, it is possible to state that the financial structure of co-operatives shows radical differences relative to investor owned firms, as capital in co-operatives has exclusively an instrumental role to the pursuit of members' objectives, implying that profits do not need to be maximized as in conventional companies. Furthermore, capital in co-operatives is, as a norm, more similar to a common than to a private good. Members in co-operatives are often found to pay attention to collective goals and intergenerational solidarity by investing financial resources in the co-operative even in the absence of relevant private returns to build collateral guarantees and insurance funds for the whole membership, and to hand over the existing stock of capital to future generations of members. Hence, a different theoretical frame and different tools of analysis more similar to the analysis of the accumulation and management of common resources may be called into question (Tortia, 2015).

New institutional economics has had the great merit to enlarge the scientific perspective to non worker-owned typologies of co-operatives. NIE evidenced and discussed the typologies of contractual and ownership failures that are connected with the working of co-operatives, this way singling out the strength and weaknesses of this model. New institutionalists demonstrated that co-operatives can be the most efficient organizational solution at least in some cases, for example when they allow the overcoming of monopoly and monopsony power, and when the most strategic (asset specific) investment projects are not carried out by investors (Hansmann, 1996). The conclusions defended by new-institutionalism can change substantially when co-operation as coordination mechanism is accounted for. Co-operation becomes not only a cost increasing and constraining institutional device that is used to overcome market failures, but it allows also the achievement of positive outcomes outside the reach of other organizational forms, such as higher standards of procedural and distributive fairness (Tyler and Blader, 2000; Tortia, 2008), or the production of a higher surplus due to better circulation of information and creation of firm specific knowledge. In this new perspective Elinor Ostrom (1990, cfr. also Poteete, Janssen and Ostrom, 2010) dealt with the management of common natural resources, evidencing how cooperative effort in terms of collective action can represent a more efficient alternative to both public and private ownership (Ostrom and Basurto, 2011). This approach has been applied more recently to the study of entrepreneurial forms of organization in a stricter sense (Ottone and Sacconi, 2015; Sacconi, 2014; Tortia, 2015). Other authors dealing with third sector research in the institutionalist tradition considered the social advantages of associative and communitarian forms of governance

(Valentinov, 2007).

4.2. The main emerging advantages of co-operatives enterprises

Participatory governance in co-operatives emerged historically as the typical way in which mutual benefit organizations align members' individual preferences to organizational objectives in a continuous two-way process of adaptation. Participatory governance and involvement in decision making can favor the implementation of common entrepreneurial projects that foster intrinsic and pro-social motivations corresponding to intrinsic, more than extrinsic and monetary incentives. It should also be able to dampen the danger of opportunistic behaviors thanks to involvement mechanisms and horizontal control (Bacchiega and Borzaga, 2001). Coherently, while opportunism is taken by prominent authors to be one dominant behavioral trait in principal-agent interactions and in conventional enterprises (Williamson, 1975, 1985; Alchian and Demsetz, 1972), it is instead to be understood as exception to the rule in co-operatives.

The direct linkage between control rights and governance with the objectives of non-investor stakeholders may imply that co-operatives do not in fact maximize net monetary residuals, but instead they are better able than conventional companies to fulfill the complexity of human motivations. Conversely, capital does not set any more the objectives of the organization, but becomes instrumental to the pursuit of members' objectives.

In strictly monetary terms, returns on investments and net residuals need to be positive in order to guarantee financial sustainability in terms of coverage to investment plans and building up reserves of capital with insurance and collateral functions (Tortia, 2007; Navarra, 2010). However, positive residuals are not equivalent to profit maximization. Complementary, members' objectives are pursued not only through monetary returns, but also by increasing their welfare by means of better non-monetary conditions and incentives (Bacchiega and Borzaga, 2001).

The fulfillment of a plurality of needs through monetary and non-monetary incentives implies the existence of a complex overall objective of the organization, which is hardly amenable to excessive simplification and whose equivalence to profit maximization may be the exception more than the rule. Standard monetary objectives, as represented in more orthodox theories of the firm, may not be absent because they are functional to firm survival and expansion and represent integral part of the process of needs satisfaction that drives the working of the organization. Involved constituencies may accept to participate in the common endeavor only if the organization is economically sustainable in the medium to long run, and if it delivers adequate economic returns. However, while such objectives tend to exhaust the behavioral spectrum in profit oriented enterprises, co-operatives tend to take care of further objectives that are based on their mutualistic structure and are relational in character. Individual objectives need to be conjugated with collective objectives through the development of appropriate contracts and working rules. Overall, co-operatives pursue complex welfare functions, whose arguments and behavioral implications await finer definition (Thompson, 2015). Also social objectives, once thought to be exclusive feature of nonprofit organizations, are not alien to the development of co-operatives, as testified by the spread in several countries of social and community oriented co-operatives. Finally, the different objective function has implications also in terms of distribution and benefits that accrue to the different stakeholders.

In the process of revision of the economic theory of co-operative enterprises, newer and emerging approaches, such as evolutionary and behavioral economics, are showing to be better compatible with the institutional features and behavioral complexities of this entrepreneurial form, and promise to add crucial insights and results when co-operation as coordination mechanism of the economic activity is factored in the analysis. Evolutionary economics can evidence as structural change informed by adaptive behaviors can lead to the emergence and sustainability of new organizational routines and institutions supporting mutual benefit as an evolutionarily progressive and stable organizational solution. On the other hand, behavioral economics can add trust, reciprocity and fairness as crucial emergent dimensions in the organizational context. While such dimensions can be widespread at the societal level, the conditions under which they emerge, and are sustained and strengthened within organizations need deeper enquiry (Tortia, 2008; Borzaga, Depedri and Tortia, 2011).[3] Indeed, the plea for stronger focus on the governance of co-operatives is reflected also in recent new-institutionalist contributions (Hansmann, 2013).

Positive features in the operation of co-operative enterprises have been found in their tendency to pay higher prices to producer members in producer co-operatives, to pay higher wages to members and improve working conditions in worker co-operatives, to deliver safer products in consumer co-operatives, to reduce credit rationing in credit co-operatives (Erdal, 2011).

The absence of profit maximization does not imply inability to produce adequate value added. If

[3] This approach is anticipated by contributions dealing with group selection (Bowles and Gintis, 2011).

co-operatives were assessed using the same efficiency criteria applied to investor owned firms, the tendency of producer led co-operatives (worker, agricultural and other producer co-operatives) to increase members' remuneration would be considered source of inefficiency, as this tendency increases increases costs, this way reducing profits and shareholder value. Profit maximization, however, is not equivalent to value added maximization. While the latter requires that the remuneration of producers is maximized, the maximization of profits requires it to be minimized. The two criteria (profit maximization and value added maximization) are equivalent in terms of social welfare only when any distributive variation involving the remuneration of capital and the remuneration of producers does not have any efficiency implication. As for demand led co-operatives (consumer, user and banking co-operatives) their tendency to minimize profits and introduce better contractual conditions for clients and users can lead to maximum consumer surplus even in the absence of sustained market competition. In more general terms, profit can be a misleading measure of efficiency since it does not account for the whole dimension of the value produced by the organization.[4] Conversely, the value added may not always be the best measure of performance in investor owned companies, since they may tend to squeeze the remuneration of the contracted factors of production and consumer surplus in order to maximize profits.

When the new-institutionalist approach is considered co-operatives have been accused to be less efficient than conventional enterprises because of their tendency to inflate organizational costs in terms of decision making costs, the more so when they are characterized by heterogeneous membership (Hansmann, 1996). On the positive side, however, co-operatives can be thought to increase both monetary and non-monetary benefits accruing to their membership by exploiting participatory governance, better circulation of information, fair organizational protocols, and by supporting, not stunting, the intrinsic motivations of members. When they are set to pursue social objectives over and above mutualistic objectives, co-operatives are also reported to reduce social costs (Borzaga and Sacchetti, 2015), also by means of price discrimination, and to increase the amount of resources devoted to social purposes (Borzaga, Depedri, Tortia, 2010). In these cases, co-operatives can be found to reduce, not inflate the total amount of costs connected with their operation.

4.3. Other coordination mechanisms in co-operative enterprises

We will now account for authority and market exchange in co-operative firms. Participatory

[4] In monopolistic and monopsonistic markets the large dimension of profits does not account for efficiency and welfare losses imposed on other groups of stakeholders.

governance, epitomized in the “one member, one vote” rule, is expected to guarantee economic democracy by guaranteeing decision making power to all members. However, co-operatives, in instances, may need to resort to authority and market exchanges to achieve their mutual benefit

Typical cases are represented by the relation between the membership and managers, and between managers and employed workers. Managers are appointed to respond to the decisions taken by the assembly of members, or by the board of directors, while workers, who have to carry out the production plans worked out at the managerial level. Authority is introduced as part of the governance structure to improve enforceability of contracts, and effective implementation of investment, production and distributive plans. The required intensity of authority can vary widely with the type of co-operative enterprise, scale of operation, type and sector of operation, and other features of the production process. Market exchanges are present as well most of the times and in most types of cooperatives, though their importance is lower than in investor owned companies. Co-operatives acquire their inputs and sell their output on the market, and this obvious connection makes them integral part of decentralized, market led economies. However, over and above interaction with the market, co-operatives can be interpreted also as mechanisms that shelter their members against too direct connection with market fluctuations and shocks. Controlling stakeholders can create co-operatives just to escape too harsh competition on the market, and contractual relations based on positional power. Co-operative emerges, in these cases, as organizational solutions able to overcome market failures and exploitative contractual relations. As notable example, the asset lock is often introduced to increase financial independence, reduce patrimonial dependency and to buffer the organization against financial shocks. As a second example, worker cooperatives emerged historically as organizations directed to overcome negative contractual conditions characterizing the labor market, such as exploitatively low wages and arbitrary lay-offs. As a third example, credit cooperatives are created most often to eliminate usury and reduce credit rationing against small and financially “opaque” producers. Finally, co-operatives can implement transactions starting from non-traditional premises, for example by means of multi-stakeholder governance, and by involving groups of non-controlling stakeholders.

The non-traditional role of authority and market exchanges in cooperatives shows, again, that we are dealing with a typology of organization based on non-conventional premises. The logic of development of their governance, organizational routines, and systems of incentives needs to follow such different nature, as embodied in the different control rights and in the different coordination mechanisms steering their activities.

4.4. The limitations of co-operative enterprises

The main limitations of co-operative enterprises are usually found, first of all, in the difficulty to reach large dimension. This feature is, as a norm, connected with the necessity and desire to keep alive interpersonal relations based on trust and reciprocity, since reciprocal relations favor increased organizational welfare, better circulation of firm specific information, the creation of new firm specific knowledge, the reduction of opportunistic behaviors thanks to horizontal control, and to favor the accumulation of localized social capital (Sabatini, Modena and Tortia, 2014). Small dimension has other positive sides to it: it can improve the flexibility of organizational protocols and of production, and resilience and adaptability to a changing social environment. It can also keep the interests, preferences and objectives of the membership homogeneous, this way reducing organizational costs in terms of decision making costs. However, limited dimension is usually considered to put co-operatives at a disadvantage relative to large private and public corporations due to lack of scale and scope economies, ability to control large shares of input and output markets, ability to enter capital intensive sectors, and ability to develop innovative products and services thanks to intensive investments in research and development. For example, the development or acquisition of unique pieces of material equipment and other technologies tailored to their specific mode of operation can be foreclosed to co-operatives when they operate at too small a scale and in labor intensive sectors. While counterexamples to the dominance of small dimension in cooperatives exist[5] , these limitations can be also contrasted by introducing market and authority, besides co-operation, as coordination mechanisms. Hybrid systems of ownership allow cooperatives in most countries to create or otherwise control investor owned companies characterized by centralized governance and more direct access to financial markets (Spear, 2012). Other authors argue, instead, that limited dimension may not necessarily be a shortcoming of co-operatives. The concept of “critical mass” is introduced by Michele Grillo (2015) to evidence that efficient dimension does not need to correspond to large dimension. Dimensional growth may not be the solution that always maximizes production efficiency, but instead be in many instances functional to increased market power. In this understanding co-operatives, by not pursuing dimensional growth, can favor increased competition and social welfare.

A second set of potential limitations has to do with the difficulty to guarantee adaptability, that is

[5] Cfr. the large scale of operation achieved by the Mondragon Cooperative Corporation in the Basque Region, where heavy investments in research and development are routinely carried out.

effectiveness, flexibility and resilience of their governance structure in the presence of pluralist and participatory decision making. We evidence that this critique appears effective only when co-are not able to develop effective working rules and procedures. The process of adaptation of organizational rules to participatory governance is a long and perilous one. As Elinor Ostrom (1990, p. …) puts it: “Dilemmas nested inside dilemmas appear to be able to defeat a set of principals attempting to solve collective-action problems through the design of new institutions to alter the structure of the incentives they face. ... But some individuals and/or communities have created institutions, committed themselves to follow rules, and monitor their own conformance …”. In other words, complex processes of institutional adaptation in terms of creation and implementation of suitable governance are expected and probably required if co-operatives are to keep the promises they have been created for. Governance emerges as the context in which co-operation can accomplish its objectives and overcome the social effectiveness of other organizational forms, but in which co-operation can also most easily break down. Hansmann (2013, p. 8) himself states that: “… the principal question regarding enterprise ownership is which class(es) of patrons will be made the owners. The answer depends heavily on the governance structures that firms can and do adopt, which in turn depends on the legal and institutional environment. … The full potential of cooperatives should become much clearer when scholarship regarding their governance becomes both broader and deeper.”

5. Concluding remarks and applications of the new framework

When co-operation is understood as coordination mechanism of the economic activity, the whole understanding of the nature of co-operatives and of the nature of the business enterprise itself is renewed and widened since, in this new entrepreneurial form, the working of the organization is based not only on trade and authority, but also on the collective ability of the involved patrons to carry out co-operative projects by devoting effort and resources to them. We saw that the implications are stringent: the dominance of the co-operative mechanism implies lower opportunism in intra-organizational relations. Furthermore, due to their participatory nature, co-operative enterprises require that high levels of involvement in organizational and decision making processes are supported by similarly high standards of distributive, procedural and interactional fairness (Tortia, 2008). Given the presence of weak hierarchical relations, fairness becomes the fundamental dimension of governance and management that can allow proper delegation of strategic decision making to elected representatives and to professional management, limit different forms of opportunism and misbehaviors by different constituencies, limit the risk of confrontation and organizational break-downs concerning, for example, the distribution of resources. Market and hierarchy can still be useful to pursue these objectives, for examples when dimension grows and wide delegation of decision making is needed, or when co-operatives expand by acquiring conventional corporations, but these mechanisms are expected not to be dominant any more.

The implications of this new organizational structure can be better highlighted by resorting to the working of real world co-operatives. Contrary to the ideas defended by isomorphism theories, these examples make clear that the different control rights, objectives and governance impact on their behavior. . Coherently with Williamson (2000), we can state that the impact of co-operation runs all the way up from the most fundamental institutional layers - control rights and governance – to the surfacing levels – working rules in terms of regulation and managerial models, and the deployment of technology.

We start from producer co-operatives, which are reported by new-institutionalism to emerge mainly to overcome monopsony power held by intermediaries and industrial companies acquiring inputs and factors of production. As most notable example in this field we consider agricultural co-operatives. In the food industry monopsonistic power can be present both upstream and downstream the activities carried out by farmers and growers and this phenomenon can push farmers to create co-operatives in order to have direct control over the market. However, the economic weight and the duration of agricultural co-operatives in many countries[6] can hardly be explained by resorting to market failures alone. Reference is needed also to the efficiency gains that are generated by letting farmers retain independence in production. The non standardized nature of production in agriculture, which is connected with weather and environmental fluctuation and instability, and with the intrinsically uncertain nature of its quality, implies the necessity to pool resources to overcome economic risk and to create specialized know-how, whose production requires direct farmers' involvement, since it is strictly connected with their activity. The associative nature of agricultural cooperatives defines a context in which high product quality and scale of operation, while retaining independence, are reached. Also, the stabilization of farmer expectations about market outcomes allows the averaging out of fluctuations in production and prices, this way maximizing farmer revenue both in the short and in the long term

[6] In countries such as Finland and the Netherlands, the weight of agricultural co-operatives is reported to overcome 70% of the whole sector.

(Tortia, Valentinov, Iliopoulos, 2013). These objectives can be more easily achieved through involvement of farmer members, while market exchanges and authority are able to guarantee a level of coordination implying lower effectiveness and resilience.

A second example we take worker co-operatives, which have been reported by various authors to achieve at one and the same time stable employment and adequate worker remuneration (Craig and Pencavel, 1992, 1994; Burdin and Dean, 2009; Burdin, 2014). In other words, worker co-operatives are evidenced to resort to lay-offs less often than investor owned companies. The reasons for this strikingly different behavioral outcome are to be searched in the overcoming of profit maximization as main objective of the organization, and in involvement processes within organizational governance. Since worker-members set the objectives of the organization they can decide to choose employment stability as one of the most relevant goals and, to this end, be willing to accept lower and/or fluctuating wages that absorb unpredicted demand and cost shocks. Internalization of the same contractual effects would not be possible in investor owned companies since, in their case, the existence of contrasting interests between owners and workers would prevent the setting of employment stability as central objective of the organization, and the introduction of a substantial degree of wage fluctuation to pursue this objective (Miyazaky and Neary, 1983; Navarra and Tortia, 2014; Albanese et al., 2014). Wage flexibility in participatory forms of enterprise has been claimed long ago to improve resilience to negative shocks and to increase employment levels for marginal categories of workers (Weitzman, 1984). Involvement has also been connected to higher productivity, thanks to a weaker need to implement control mechanisms (Appelbaum, Bailey, Berg and Kalleberg, 2000; Bartlett et al., 1992; Bonin Jones and Putterman, 1993). During the recent financial and economic crisis started in 2007 co-operatives in general, and especially worker cooperatives, resorted to lay-offs much less often than conventional corporations, revealing job protection as one of their most dominant objectives (Pérotin, 2014; Euricse, 2015).[7]

Third, co-operative banks, as examples of user controlled enterprises, are reported to fundamentally reduce usury in developing countries and credit rationing in developed economies,

[7] In Italy, since the deflagration of the economic crisis in Fall 2008, co-operatives increased overall employment by 80 thousand workers, while employment in private enterprises shrank by about 473 thousand units (over a national total of about 22 million). Still more remarkably, in co-operatives the number of permanent workers increased by 100 thousand, while short term contracts fell by about 20 thousand. About 50 per cent of total increased employment in co-operatives is accounted for by socially oriented co-operatives, the so-called social co-operatives (Euricse, 2015).

especially in peripheral economic areas. Credit co-operatives act as community banks in supporting small producers, which would be credit rationed by commercial banks. To do so they exploit their embeddedness in terms of ability to gather and process soft information at the local level, to implement implement relationship banking based on trust and on the utilization of such privileged information, and to exploit local social capital in terms of social norms, trust and peer monitoring (Birchall, 2013a, 2013a, 2013b). Again, the reduction of credit rationing is made possible by the substitution of profit maximization with wider community oriented objectives set by members or required by their statutes. This different goal setting process positively contributes to endogenously driven socio-economic development (Borzaga and Tortia, 2009). Net operating surpluses are reduced to increase members' welfare through lower interest rates on loans, and higher interests paid on deposits. This reduction translates in increased consumer surplus and in the creation of positive external effects in terms of economic and social value directed to the benefit of the community.

As final example we discuss the pattern of institutional evolution that stemmed from the inclusion social aims in the objectives of mutual benefit organizations. Social co-operatives were introduced for the first time in Italian legislation in 1991. Thanks to the imposition of the nonprofit distribution constraint and the socialization of the ownership of assets by means of the asset-lock, to the requirement to make the social goal of the organization explicit in statutory rules, and to the introduction of multi-stakeholder governance, social co-operatives are able to involve a wide variety of different constituencies in the definition and pursuit of public benefit objectives. Non conventional ownership rights and aims allow the widening of the entrepreneurial activity beyond the traditional tasks of the business enterprise by including community and social goals on the basis of collective action, and by reducing social costs connected with different types of contractual failures (Borzaga and Sacchetti, 2015).[8] Social co-operatives can be thought to have completed the pattern initiated by more traditional co-operative models by pursuing social aims over and above other non-monetary and mutualistic aims (Borzaga, Depedri, and Tortia, 2011, 2014). The achievement of these non-traditional objectives is made possible by innovative control and governance mechanisms based on the presence of a relevant amount of non-self-seeking preferences, not on monetary incentives and direction. Indeed, the non-distribution constraint itself can be thought of not as exogenous and unexplained institutional feature, but more properly as the standard that underpins the choice to prefer collective to private action

[8] Social enterprises, as defined by UK and Italian legislation in 2005 and 2006 respectively, followed a similar pattern, though they are not required to endorse the co-operative form of business.

and aims. This institutional solution became widespread in the working of co-operative and social enterprises in many countries, in a way similar to nonprofit organizations. Thanks to this salient process of institutional variation, the activity of social cooperatives and social enterprises became complement and in some cases substitute of the public sector. These new organizational forms the supply of social and public benefit services beyond what the public sector itself and private providers had been able to achieve. In this, co-operatives are candidates to partake the process of reform of welfare systems, which is awaiting accomplishment in a long list of countries (Borzaga, Depedri and Galera, 2015).

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