

## **Culture and relational contracts in Brazil's agribusiness cooperatives**

**Sigismundo Bialoskorski Neto**

Professor

Department of Economics

School of Business and Economics

University of São Paulo

Av dos Bandeirantes 3900 CEP 14040-900 Ribeirão Preto – SP Brasil

[www.fearp.usp.br/~sig](http://www.fearp.usp.br/~sig) [sigbial@usp.br](mailto:sigbial@usp.br)

### **Abstract**

Brazil's collectivistic cultural orientation influences the contractual design of producer-owned and controlled organizations in agribusiness. The institutional environment consisting of an inflexible legal system, bureaucracy, and hierarchy path dependence also creates a particular contractual design in cooperatives. It is possible to observe more informal and relational behavior in cooperative organizations in Brazil than in cooperatives in others countries, like those in North America, that exhibit more formal contractual relations. This paper tries to explain why informal and relational contracts occur and searches for logic on informal contracts in producer-owned and controlled organizations in Brazil's collectivist society, using a survey analysis to explain the importance of social relations and participation in cooperatives. The work concludes that informal and relational contracts can minimize transactions costs and, in spite of organizational costs of influence behavior, *influence rights* for using residual control rights can be an important tool for informal and relational contracts logic in organizations with "*rights of cooperation*" in collectivist societies.

**Key words:** Relational contracts, Cooperatives, Culture, New Institutional Economics

## Introduction

When uncertainty is high and an institutional environment is unstable, economic actors may desire relatively formal contracts written as thoroughly as possible. However, uncertainty and institutional instability create high transaction costs for writing formal contracts. Therefore, it might be possible to “complete” incomplete formal contracts by relying on informal or relational contracts. Thus, relational contracts may complement, but may also replace formal contracts in particular situations.

Hofstede’s 2001 world survey on culture compares and contrasts differences in culture existing within different societies, showing that Brazil is a relatively collectivist behavior society, and stating that more collectivist behavior call for greater emotional dependence of members on their organizations. Culture has an influence on contracts and transactions, as well as on organizational architecture and design. North (1990) examined different countries and institutional environments to conclude that institutions are the foundations of organizations and business transactions.

From another point of view, Cook (1995) examines the structure of US cooperatives and concludes that formal contracts provide solutions to five “Vaguely Defined Property Rights” (VDPR) problems of cooperatives that occur because ownership rights in cooperatives are restricted to patron-members only, the member’s residual return rights are non-transferable, non-appreciable and redeemable, and the benefits are distributed to the members in proportion to patronage. Simply, VDPR problems exist in traditional cooperatives because the property rights structures of cooperatives are vaguely defined, but these problems resulting from VDPR can be resolved in a way to move cooperatives toward using formal contract relations, as have New Generation Cooperatives in the U.S.

Brazil has a unique culture and institutional environment, which can have an important influence on the nature of contracts in agribusiness organizations; considering enforcement mechanisms in relation to both the informal and formal aspects of the institutional environment and contracts, people have very low trust in the system of justice and people are careful in trusting other people (World Value Survey 2003, Bialoskorski Neto, 2004).

Given the institutional environment of Brazil and the nature of cooperative organizations there, it is expected that people will be more careful in their business transactions and that economic actors will behave in ways to protect their transactions from current and future cases of opportunism. This requires improved forms of contractual safeguards, suggesting that using formal contracts may be appropriate for completing business transactions. Lack of confidence in the legal system and hesitance to trust suggest that another contractual form could be better adapted to this environment. Demsetz (2002) argues that increased risk makes people more hesitant to accept the dependency that comes with specialization and also comes with formal written contracts.

While formal relations could be helpful to promote a resolution of VDPR, according to Cook (1995), Lazzarini, Miller, and Zenger (2002a), there are complementarities and substitutes for formal and informal arrangements. For instance, in social and economic uncertainty, contractors may desire non-committed or non-contractual relations. They conclude that formal contracts facilitate the self-enforcement

of non-contractible dimensions, but they do not find evidence that contracts can be replaced by social norms.

Given this background, this paper examines the nature of cooperative organizations in Brazil in an environment of high justice costs and an uncertainty and instability that causes economic agents to exhibit low trust levels in institutions and others people. Despite this, cooperatives in Brazil are characterized by the limited use of formal contractual relations and a more extensive use of relational contracts. In other words, cooperatives in Brazil are relational organizations.

This is an important topic because cooperatives in Brazil do not currently show signs of evolving towards more defined property rights structures through formal contracts, in contrast to cooperatives in others countries that are increasingly concerned with organizational architecture to improve formal contracts and solve problems of VDPR.

The explanation of these different proportions of formal and relational contracts among cooperative types and among countries may result from culture and institutions (Hofstede, 2001 and North 1990), social and exchange value uncertainty (Lazzarini, Miller and Zenger, 2002b), or the role of formal contracts in improving self-enforcement in relational forms (Lazzarini, Miller and Zenger, 2002a). Additionally, these same proportions of formal and informal rules can be interpreted differently in relation to VDPR and therefore can be differently problematic for different cooperatives as well.

This paper discusses the basis for the use of relational contracts in cooperatives in Brazil and tries to answer whether the current standard is a temporary stage in cooperative organizations until institutions change and law for cooperatives are altered in Brazil, and whether there is a specific reason for Brazilian cooperatives to be relational as a function of culture.

The objective of this paper is to explain the logic of relational contracting in agricultural cooperatives in Brazil. The initial hypothesis is that there is a particular logic in relational contracts and this type of contract reduces transaction costs; trust and social embeddedness are only two of all of the important characteristics, others such as the “*rights of committed relations*” that allow uncommitted relations and raise economic flexibility, or influence right that let members receive benefits in welfare distribution within the organizations resulting from residual control rights, are also important to understand relational contracts in cooperatives.

## **Culture and values**

It is possible to focus on culture and values by level, as a category of people, or individuals, and also possible to analyze the phenomena at the level of groups or organizations as well. Culture is a broad concept formed by various systems, and it is possible to describe culture through anthropological, sociological, and psychological approaches, as well as in economics to understand culture’s influence on contractual characteristics. Hofstede (2001, p212) describes contractual problems between the United States, a more individualistic society, and Japan, a more collectivist society, and states: “*American business contracts are much longer than Japanese business contracts. Unwritten rules represented bones of contention in the negotiations...*”

The same author defines “values” to compare individuals and “culture” to compare societies, and considers basic problems of national societies. For considering cooperatives and contractual relations two specific categories are most important: *Uncertainty avoidance*, uncertainty in front of the unknown future and *Individualism versus collectivism*, related to formation of primary groups. Particularly, the aspect of *individualism versus collectivism* is important to understand cooperatives whereas *uncertainty avoidance* is important to understand contractual design.

Social norms shape institutions that both constrain organizations and present opportunities to them. Thus, organization occurs to access opportunities in a particular institutional environment (North, 1990).

In a cooperative, a collective organization, the degree of interaction among economic agents and the allocation of property rights is important and can determine the organizational design and the probability of economic success. All of these characteristics occur due to culture and institutions.

Hofstede (2001) discusses individualism and collectivism in societies. When collectivist values prevail, there is more moral involvement between members and organizations and more emotional dependence by members on their organizations. Therefore, organizational design can be explained as a result of mutual sympathy, a characteristic of collectivist societies.

In societies where individualism prevails, there is more calculative involvement and self-orientation in organizations, but when greater collective behavior exists, so does a collectivist social orientation. The level of individualism or collectivism may affect the type of people who influence the organizations.

The same author also explains that society in Brazil exhibits more collectivist than individualist attributes as well as a high degree of uncertainty avoidance in societal behavior. Table 1 shows the characteristics of organization in societies with more individualists or more collectivist behavior.

**Table 1** Characteristics of organizations in more individualistic and more collectivist societal behavior. Based on Hofstede (2001)

Type	Individualistic	Collectivist
<b>Concepts for organizational formation</b>	Entity is the means to a specific end Like getting money and business	Entity arises from mutual sympathy Like promoting social welfare
<b>Organizational orientation</b>	Self-oriented	Collectively-oriented
<b>Member involvement in organizations</b>	Member calculative involvement	Member moral and emotional involvement
<b>Communication and business rules</b>	Explicitly through formal Contracts	Self-evident and unwritten informal relations
<b>Type of behavior in business focus</b>	Preoccupation with external elements such as markets	Preoccupation with internal elements of the organization like members

The same author also considers individual behavior as universal within a society, and uses problematic methodology when considering societies and values, by comparing individuals but not differences among nations and cultures. The issue of values can be compared between individuals but not between societies. However, individuals and people form organizations, and individuals adopt and express values as a consequence of

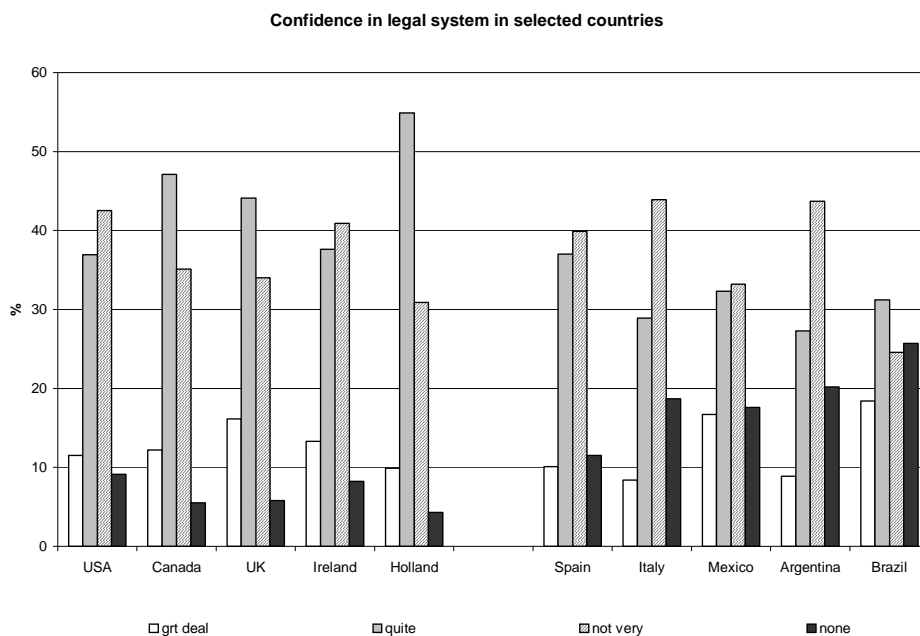
culture.

Other important characteristics of individual behavior that help explain organizational contract design are the confidence in the justice system and the trust among economic actors in society. The hypothesis is that if people have confidence in justice, a formal contractual relation is appropriate because in the case of failure to comply with the terms of a contract, contract law could create original contractual clauses and promote responsibility for economic actors, but should there be a lack in confidence in the justice/legal system, formal contractual relations could be of minor importance because the legal way to improve contractual clauses incurs costs in money and in time and is not the ideal way to resolve conflicts. In this case, relational and informal relations may be more flexible and reliable.

The additional question, if people trust others, is essential to explain the importance of general societal trust or of institutional trust, according Williamson (1996). Institutional trust complements contracts and could replace relational behavior. In other words, it is possible to create contracts with unknown parties while still maintaining a high degree of confidence.

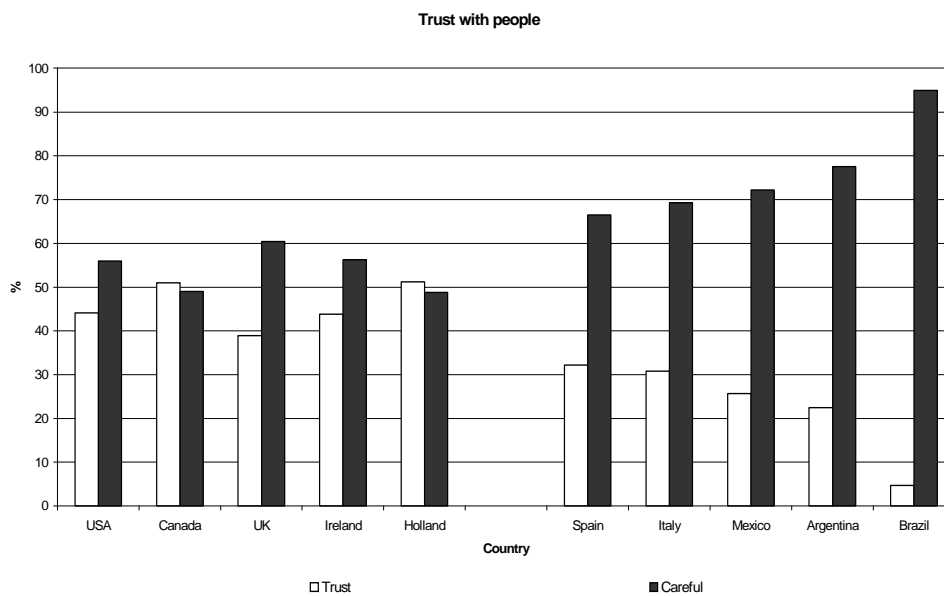
According to the World Values Survey (2003), with a data set that combines answers for the same questions as the data gathered during 1995-1997 on a world survey, it is possible to observe questions, which could explain individual human behavior in different countries. In this survey, the question about the degree of confidence in the justice system could help explain the importance of the individuals' values in creating formal contracts. Figures 1 and 2 show the responses about confidence in the legal system and individuals' trust of others in select countries, from the World Values Survey data set.

**Figure 1.** Confidence in the legal system in selected countries according the World Values Survey (2003) data set.



In comparison with others countries, Brazil have the greatest lack of confidence in justice, figure 1, and has the highest level of caution for individuals trusting others, figure 2.

**Figure 2.** Individuals' trust of others in selected countries according the World Values Survey (2003) data set.



The world survey, presented in Hofstede's (2001) analysis of Individualism Index Values, shows that among the six countries with most individualistic behavior in society there are five English speaking countries, in the following order, the United States, Australia, Great Britain, Canada and New Zealand. On the other hand, in the six countries with the most collectivist behavior in society, there are five Latin-American countries, in the following order, Guatemala, Ecuador, Panama, Venezuela and Colombia. Brazil presented a relatively collectivist orientation in society and figured towards the middle of the list.

In this debate, it is important to note that culture and individual values are important in the construction of an organizational design. The organizational design is adopted to minimize transactions costs and increase organizational success, according to culture, values and institutional constraints. So, there could be varying organizational designs to minimize transactions costs in each particular culture's style.

Cooperatives are organizations that may reflect national culture and institutions because they have a local focus and a closed society aggregation, without influences of foreign behavior. Because of this particular characteristic, the cooperative organization has a different organizational design and governance structure, likely resulting from culture, values and the particular institutional environment.

## **Relational contracts**

North (1990) discusses the importance of institutions to decrease uncertainty and establish a stable background to human relations. Institutions can determine opportunities for the society and organizations are created to take advantage of those opportunities. So, organizations are influenced and created by the direct intervention of institutions.

Institutions are the “rules of the game” and, in organizations, transaction costs increase if there is an inefficient property rights allocation, according to North (1990). On the other hand, Hart (2001) considers the firm as an institution in it arising incompleteness of contracts and need to allocate residual control rights. So, the property rights approach to explain firm logic is important.

Eggertsson (1990) defines property rights as the rights to use assets, to obtain income for assets, or to transfer assets. When the assets or the rights are transferred between economic actors, there are transactions costs. The allocation of property rights, in the presence of bounded rationality and contractual incompleteness, cause residual control rights and residuals claims.

Especially in cooperatives, when the employers or others agents can decide about of how to use assets without a clear formal contractual rule there are residual control rights, and if there are not clear rights on the residual income created by in cooperative organizations’ assets – typically situations in equity redemption or in incomplete patronage refund programs - there are an increasing residual claims situation.

The problems to define property rights in cooperative organizations result from high residual rights of control, decision and claims, and can increase problems with incomplete contracts as well as create difficulties in writing efficient and thorough contracts. Problems in defining property rights also occur because of the bounded rationality of economic actors and the inability to take all future events into account. This contractual incompleteness may expose contractual relations to the risk of opportunism.

Furubton and Richter (2000) state that relational contracts can be understood as contracts that do not try to take into account all future contingencies. Such a contract contains implicit, informal and nonbinding characteristics. Transactions mediated by informal contracts must also contain bilateral dependence of contractual parties. These authors explain that it is necessary to understand bounded rationality to analyze contractual incompleteness. Because it is impossible to agree ex-ante on all future eventualities, the situation of incomplete contacts incurs high transactions costs.

Baker, Gibbons and Murphy (2002) argue that relational contracts, such as informal agreements and unwritten codes of conduct, affect the behavior of individuals within firms. A third party must verify a formal contract, but relational contracts based on outcomes are seen only by contracting parties and are self-enforced.

Lazzarini, Miller and Zenger (2002a) argue that there is a complementary task between formal and informal rules, or that incomplete contracts complement informal dealings. Thus, low cost contracts are an important mechanism to support cooperation. Another important fact is that contracts facilitate the self-enforcement of non-contractible dimensions, and there is not evidence that contracts can be substituted for social norms.

Relational contracts are long-term agreements between contractual parties that do not have a formal writing party and are enforced by the parties in a “private ordering” and

not by a third party or in the presence of a court. Williamson (1996) argues that “private ordering” is used in the environment of incomplete contracts and is self-created and self-enforced.

For informal and relational contracts, self-enforcement and mutual trust are important tools. The first guarantees the enforcement of unwritten rules, and the second guarantees the transaction in the future. In this case, cooperative organizations do not enforce informal relations because of a particular agency problem, (i.e. the member is another party of the unwritten contract and the party to be enforced, but this member has also rights to transact with the cooperative and the ownership rights).

On the other hand, trust can be understood as a *General Trust*, referring to the expectation that people in general will not act opportunistically and *Knowledge Based Trust* referring to the expectation that people one already knows do not act opportunistically (Yamagishi e Yamagishi, 1994, Shapiro, Sheppard, & Cheraskin, 1992, cited in Lazzarini, Miller and Zenger 2002b).

Williamson (1996) refers to three types of trust, *Calculative Trust*, which originates in calculative act and contracts, *Personal Trust*, and *Institutional Trust*, that depends on the social and organizational context within which contracts are embedded.

Granovetter (1985) discusses the “shadow of the past”, which occurs when two parties interact throughout a long period and create norms, attachments and trust. The economic agent’s reputation occurs is built upon information about past behavior.

On the other hand, a “shadow of future” can be created in a present commitment due to uncertainty about future relations and the need of both contractual parties to have the same relationship in future. Lazzarini, Miller and Zenger (2002b) describe the importance of the “shadow of the past” and the “shadow of the future” in preserving relations and cooperation among contractors.

Also, if organizations have social embeddedness, defined by Granovetter (1985) as a social acknowledgment and link among actors, trust is generated and malfeasance is discouraged. This is the case in networks and can be the case in cooperatives as well. Cooperative organizations, on the other hand, may also have an advantage in its social embeddedness, because some of the members of a specific community know the generations of families, past behavior, and the social needs in the future, for each actor or member. Such tight-knit social relations can create social capital according to Glaeser, Laibson and Sacerdote (2000), and in this particular case, a strong social base in cooperative organizations.

This argument enables a reduction in transactions costs, as well as in contractual opportunism, moral hazard, hold up and adverse selection. In the same line of thought, the cooperative is a consequence of social capital and can improve social capital and reduce the asymmetry of information in the community (Bialoskorski Neto, 2001)

Therefore, cooperatives have a particular architectural organization form, a specific contractual logic, and member relations are embedded within the context of individual values and the society’s culture.

In cooperatives, there are formal and informal relations in different proportions, and in Brazil, producer-oriented firms are based on informal relational contracts with a specific logic.

## Property rights and contractual characteristics

Property rights can be understood in accordance with the principles of private ownership; these rights include the right to use, transfer, modify or distribute income from a determined asset. (Furubton and Richter, 2000)

The property rights approach is a fundamental tool to understand cooperative organization in agriculture. Cook and Iliopoulos (1998) point out that ownership has heretofore concentrated on two distinct concepts: residual claims and residual rights of control. Ownership rights for cooperatives are restricted to patron-members; the member residual return rights are non-transferable, non-appreciable and redeemable. In end the benefits are distributed to the members proportionally to patronage. These characteristics result in a “Vaguely Defined Property Rights” VDPR structure, according to the same authors.

Cook (1995) presents a contract design in cooperatives and defines five VDPR problems: a) *Free rider problem*, when cooperative gains can be accessed by a non-member, b) *Horizon problem*, when the outcomes from residual claims do not extend as far as the economic life of the asset, c) *Portfolio problem*, when the investment does not reflect the position of the member, d) *Control problem*, similar to I.O.F. but without market control, and e) *Influence costs problem*, occurs because of the wealth distribution among members.

The property rights arrangements in cooperatives are very important. Ownership rights in cooperatives can vary when the ownership is restricted to patron-members and there is a non-proportional investment, until cases where there is an outside equity in cooperatives in some countries.

This allocation of property rights is a consequence of the cooperative organizational design, a model based on the Rochdale principles that provide an egalitarian voting system and a proportional patronage refund, which creates high residual claim and residual control rights. These characteristics of property rights definition problems occur in cooperative organizations in all countries.

Cook and Iliopoulos (1998) consider property rights problems in traditional cooperatives resulting from open membership characteristics, risk capital generated by retaining earnings from member patronage, and illiquid equity ownership rights. However, cooperatives could potentially present a contractual design to ameliorate the aforementioned property rights constraints through a formal contractual relation.

The same authors say that traditional cooperatives could try ameliorating the problem of vaguely defined property rights by: a) promoting a “*current user alignment*” if the current user is responsible for the current benefits received by the cooperative; b) improving the “*member-retaining idiosyncratic assets*” when is building the cooperative’s image; c) placing the generic solution of the “*control of supply*” when the cooperative controls the input and/or output supply channel; d) offering “*innovative equity capital acquisition techniques*” that refers to financial strategies, or e) providing “*risk measurement transparency*” to separate the capital pools.

Cook and Iliopoulos (1998) also point out five criteria to analyze and mitigate the VDPR problem. They are the singleness of purpose to eliminate the free rider problem, control of supply to encourage acquiring risk capital, incentives for risk capital

investments to reduce horizon and portfolio problems, sense of belonging to reduce agency, and commitment to define responsibility.

All of these problems of property rights allocation in cooperatives organization and all the criteria to develop a more efficient producer-owned firm are applicable to the case of Brazilian cooperatives. There is no difference in these fundamental points, but the intensity and perception of the problem could be different because of the culture, the institutional environment, the legal system, and organizational design path-dependence. In Brazil members do not clearly perceive property rights in cooperative organizations and do not perceive their role as investors in cooperative business. Cooperatives function under the same logic as social organizations do so the question is, “Does this logic represent a organizational design in societies with more collective behavior?”.

### **Relational contracts in producer-owned and -controlled organizations**

In Brazil, cooperatives are organized according to the International Cooperative Alliance principles, i.e., the member is the owner, the member is the patron, and the benefits of the cooperative belong to the members. In this type of organization, any person is able to enter or exit the cooperative. For entry, new members must agree with the cooperative bylaws, and they are given some rights within the organization, such as the right to vote, with one vote going to each member (rather than being proportional to shares or volume of business conducted with the cooperation), and the right to participate at some level of decision making in the general assembly; if the member is selected, he can also participate at management levels.

Cooperative members are free to conduct business with the cooperative, but they are not required to do so. All members have the right to use services, obtain production or other information and technical assistance, and acquire inputs, among others rights. Some cooperatives grant credit to members or provide financial accounts. The income of the cooperative is distributed among all members through the patronage refund, meaning that the benefits of the cooperative are distributed to members based on their volume of business transacted with the cooperative.

In Brazilian cooperatives, the Chairman of the Board and the Chief Executive Officer (CEO) are members and rural producers; only rural producer members form the board. Therefore, there is not a separation between ownership and management, and cooperatives may have a lower percentage of non-member professionals. The board represents a party of active associates and can decide to further their own objectives or present proposals to the entire membership for voting.

Traditional cooperative governance is based on long term relational contracts between members and the organization. The member can put his production in the cooperative and buy inputs through the cooperative or not. The cooperative offers prices and services.

Cooperatives organizations can have two different organizational missions and strategies toward its members. One is an economic results mission. In this case the cooperative pursues the largest possible financial return to refund in patronage the outcome to the members. In this case the cooperative does not provide free services or on-the-spot subsidized prices for producers, because the objective is to maximize financial results in order to distribute among the members later on.

But, in Brazil, the organizational mission is frequently another; it is improving the member “welfare” by offering better prices for the agricultural commodities or for the inputs in the stores. Additionally, cooperatives offer free services such as technical support, market information, credit, special rural development programs, or services at cost like soil chemical analyses, satellite production monitoring, among others. In this case the cooperative tries to improve members’ income - “welfare” –immediately and does not make patronage refunds or distribution of financial outcomes to member. The benefits for the members are evident in prices, services, information and technology, or there are the non-price returns in quality of services and a non-cash return in services.

So, in this case, important relations occur between the member and the cooperative employees. Without boundaries between ownership and management, with the gap between the board and the employees or professional managers, the cooperative exhibits high residual decisions and control rights. These rights pass from the board to the employees, and permit the employee to use the assets without a contractual control and with few monitoring process between the board and the employees, to improve benefits and welfare to a particular member or situation.

This arrangement means that residual decisions and control rights are used as “common” assets. If the member actively participates in general assemblies, councils or committees and participates in the cooperative, as a socially committed member, he also has the right to influence the employees to receive more benefits, attention, priority, or information than the member who is not socially committed and has does not participate.

On the other hand, this commitment to participate incurs costs for the member, such as transactions costs, costs of participation, and costs to create social relations; economic logic implies that the benefits from having influence and being able to exercise the rights to residual decisions and asset control rights must be great and significant enough to encourage the member to adopt such behavior and its associated costs.

In cooperatives, the member “usage” dimension yields only benefits, but the dimensions of the member “ownership”, “control”, and “investment” can yield benefits but also incur costs of participation, uncertainty, and time.

Free cooperative committed relations, (i.e. the member participates only when he wants), benefit the member user dimension and does not imply costs of participation, control, and management, among others. The economic logic puts the member objective in the dimension of “usage”.

But, on the other hand, the benefits of influence rights, defined as the rights to influence the use of residual decisions and asset control rights, are important incentives for forming relational contracts through participation.

This characteristic occurs with more intensity if the cooperative has a larger membership and if the cooperative offers many free services. In this case, the monitoring costs are high, the distribution of services and income (member income may increase as a result of using free services) can be more problematic, and patron influence rights are more important to get priority to use free or at-cost services and access to privileged information,

There are two different focuses on the problem of influence; the first is the influence costs constraint, described in Cook (1995), as a consequence of problems with non-clearly defined property rights. Influence costs are inefficiencies in organizations because decisions are made due to the influence of specific members rather than to

forward the organization's mission and decisions may be taken that benefit only a portion of the membership. Second is the focus on influence rights, described in this essay as the member's informal and relational rights to use the residuals in their organization. This problem may be an incentive or a contractual characteristic in governance design.

Trust is also important to improve the member's relation with the cooperative and the decision in choosing the cooperative organization with which to have economic relations. Parada Junior and Moglia's 2003 survey of more than one thousand members of CAROL, the biggest grain cooperative in the Brazilian state of São Paulo, concludes that for members, the principal reasons to do business with the cooperative are confidence in quality, a reliable scale to verify the grain weight, and confidence in information, among others. The principal reason to not do more business with and commit to the cooperative is competitors' prices.

Members can trust and have confidence in the cooperative organization, but this trust does not represent an obligation for the member to do business with the cooperative, and if possible, the member can look for prices and opportunities and do business with other firms in the market. These informal relational contracts allow the member to do that and minimize transactions costs, since both parties of the contractual relation are familiar with the system.

The influence is strong and increasing in this situation and has a high proportion of informal relational contracts. This type of contractual relation can indicate a special commitment among members. Some cooperative organizations in Brazil approach bankruptcy, request governmental aid, then break informal relational contracts with members causing the inefficient rural producer members to leave the organization.

On the other hand, informal relational contracts can promote a different commitment in proportion to influence rights. If the cooperative shows economic performance efficiency and success and significant informal relational commitment, the member should not spend his time and resources to participate or increase his influence.

The main hypothesis of this essay is that the logic of influence exists because of vaguely defined property rights in cooperatives and in consequence of the significant presence of residual control rights in Brazilian cooperatives. The characteristics of undefined rights and minimal transparency in allocation of property rights exist particularly in societies in which the economic actors exhibit collectivist behavior.

This situation could minimize transactions costs by replacing formal written contracts with informal unwritten relational contracts, based on trust and social embeddedness.

Therefore, it is possible to consider the logic of influence right as a specific arrangement to minimize transactions costs, to permit that the informal relational contracts flow freely. Additionally influence rights serve as a contractual incentive to members' participation in the cooperative organization. This can be considered part of the organizational logic in Brazilian cooperatives.

Influence rights coupled with the right to cooperate is important to guarantee member participation in cooperative organizations and improve stable informal relations. Only informal relational contracts can create this situation, and only vaguely defined property rights can create the logic of the situation. The sense of having collective resources ("commons") and common property rights can explain this organizational

contractual architecture. Maybe the question is, “Is the concept of property rights perceived by societies with more collectivist behavior?”

### **Considerations on perception and definition of property rights**

A survey and interviews with presidents of agricultural cooperatives in São Paulo state show that cooperatives in Brazil increase the member “usage” dimension strategically; the member does not expect refunds or patronage and the conception of rights has to do with rights to commonly held (“commons”) property. Collectivistic behavior does not encourage formal contractual relations, which may be a constraint for members and the cooperative.

A contractual arrangement, based more on informal relational contracts, does not permit an intense perception and clear definition of “private” property rights. The member only seeks out a “usage” dimension in the cooperative organization. Furubton and Richter (2000) explain that Roman law uses the term property rights only for tangible goods - physical objects –i.e. absolute property rights. In the case of organizations and cooperatives in Brazil, it is not clear which “tangibles goods or objects” are considered property in cooperative organizations.

There are cooperatives that do not grant financial correction in equity, and “private” rights to equity over time have the tendency to decrease when compared to the interest rates in financial markets or inflation in the economy. The member does not expect an equity redemption from his cooperative. There are not formal contracts or obligations for member to patronize the cooperative.

In Brazil, with a collectivist orientation among economic actors, the cooperative organization is like a “public good” without definitions in private property rights.

Around the world the logic governing cooperatives can be different. The member can perceive his private rights of “ownership” and private rights to the income and the equity redemption programs can be fundamental to improve the economic relationship between the member and the organization. The economic objective of the cooperative can move the organization towards committed relations when there are pressures to establish formal relations. In this situation, in spite of the problem of contractual incompleteness, contracts are more adapted to mitigate the VDPR problem, like in New Generation Cooperatives (Cook e Iliopoulos, 1998).

The member occupies roles as a “user”, “owner” and “investor” in the cooperative organization. The cooperative has the feeling of being a “private” organization. Furubton and Richter (2000) explain that relative property rights in the widest sense of Anglo-Saxon law include physical goods (tangibles) and non-physical goods (intangibles) in contract rights, patents, copyrights and rights to membership and social entitlements. This conception may serve as the basis for some member’s formal relations with the cooperative.

Characteristics of economic actors’ individualistic orientation promote a clearer situation of owner property rights as compared with societies with collectivist orientation like the case of Brazilian cooperatives. This situation could also imply a value of equity and property, and formal contracts and financial strategies, like shares, try to correct and resolve the portfolio and horizon problems (Hackman e Cook, 1998, Cook and Iliopoulos 1998)

## **Evidence from a Brazilian survey of presidents of cooperatives**

Bialoskorski Neto (2004) presents empirical evidence in a survey with presidents of the largest agricultural cooperatives in the Brazilian state of São Paulo including 37.5% of cooperatives in the 50 largest cooperatives ranking.

In questions with possible scores from 1 (low) to 5 (high), the average response was 4.14 to the question “Do the more active members have a greater influence in the cooperative?” and the question “Do members with more relational behavior have more advantages in the cooperative ” received a 3.14 average score. These questions, among others, show the importance of relational behavior in Brazil.

Only a quarter of presidents of cooperatives were open to the idea of contracts between members and the cooperative to establish commercial obligations or ensure delivery of products to the cooperative for marketing in the future. The presidents, in open ended question, noted that problems with the justice system, price volatility, and rural producers’ behavior – culture – are the most substantial difficulties in establishing contracts in cooperatives. The rural producer in Brazil is risk averse and is not comfortable having formal obligations to cooperatives organizations.

The presidents responded with an average score of 4.25 that members have a “usage” role in the cooperative, a smaller score indicating a belief that member have an “ownership” role, and a score of only 2.50 indicating that members play a role as “investors”. Therefore, the member usage role is most important and gives him the opportunity to use free services or services at cost from the cooperative organization.

The same author shows, in another survey, that 2/3 of cooperatives in São Paulo state do not distribute financial outcomes – patronage – in cash to members and the organization missions emphasize the offering of free services and services at cost to members to improve loyalty. In this situation, the presidents consider that the more committed and relational member could has more opportunities to use free services and commercial advantages in cooperatives, as a result of the relational frequency that improves informational process and informal contracts.

If written contracts exist to guarantee future delivery, in the soybean agro-industrial system, the cooperative contracts have less than half the clauses present in similar contracts with non-cooperative organizations, like ADM or Cargill, with fewer few binding clauses as well.

## **Relational behavior, participation and economic performance**

To try to finding more evidence related to participation, a factor analysis is completed. Factor analysis identify factors, or underlying variables, that explain the pattern of correlations within a large number of observed variables, is also often used to identifying a small number of factors that could show the variance observed in a larger number of variables.

The initial hypothesis is that member participation in *educational committees*<sup>1</sup> on the community level increase relational behavior as well as relational informal contracts. If the cooperative organization improves its economic performance, the cooperative yields greater economic externalities and income to members - welfare - and the member does not have an incentive to create an informal relational commitment to have an influence right to use residual decisions rights, and participation could decrease. A mathematical model, using a game theory approach to model and explain this hypothesis can be found in Bialoskorski Neto (2004)

In the case where the benefits from free services and prices created by the cooperative are sufficient, the costs of participation may be higher than the benefits of participation. But if the cooperative organization has a lower economic performance, the member may need to improve his relational commitment in order to increase his access to free services to better commercial relations. In this situation, the benefits of influence rights could encourage informal relational contracts and stimulate member participation.

This logic explains correlations among economic performance of cooperatives and the intensity of member participation, in the general assembly and/or in *educational committees* at the community level, and the probability of creating relations and informal commitment in the cooperative organization.

Participation can result from member economic activity in cooperative stemming from the intensity of free services like technical assistance from agronomists who are responsible for the direct relations between the organization and its members in rural areas, which can improve participation and relational commitments. Another important function for participation is the proportion of members associated with the cooperative among all regional farmers; this characteristic shows how important the cooperative is locally and can also show the distance between the member and the cooperative organization. A final important function is the proportion of regional agricultural products delivered to the cooperative. If this proportion is high the monopsony power of the organization is also high and can influence participation as well. If there is more monopsony power, there is less need for participation.

The data analyzed is from the Cooperative Monitoring System<sup>2</sup> from the Organization of Paraná state cooperatives. This is one of the oldest systems in Brazil with ten years of experience in monitoring the agricultural cooperatives in agribusiness and collecting data. The data was chosen only from singular cooperatives, excluding all central cooperatives (federated) and only the cooperatives that demonstrated experience in data collection with a coherent data series. These agricultural cooperatives are among the most important in Paraná state, Brazil.

The variables are the proportion of member participation in the cooperative annual general assembly – **PASSAGO**; the proportion of member participation in the educational committee – **PASSCMT**; the proportion of member economically active in the cooperative **PASSATV**; the proportion of free technical assistance to the producers in the economic performance area **PTECASS**; the proportion of members in total farmers number in the performance area **PASSPDT**; the proportion of agricultural products

---

<sup>1</sup> Educational committees on the community level are special local meetings of member s geared towards improving participation, increasing levels of information, and creating a local opportunity to discuss cooperative problems. All local members may participate in committees.

<sup>2</sup> SAC – Sistema de Acompanhamento de Cooperativas – Cooperative Monitoring System

delivered to the cooperative out of the performance area total **PTPDAC**; the proportion of inputs sold by cooperative organization out of the total of the performance area **PINS**.

The financial variables are given by the economic performance of the cooperative represented by the “Kanitz” financial index<sup>3</sup> **KNT** (when this index is high, the cooperative organization has a better financial situation, and if this index is low the cooperative organization has a worse financial situation); by the results – patronage - retention **RETSBRA** and capital retention in cooperative operations **RETKPLA** (represents internal capital or the internal capitalization process).

The statistic method, factorial analysis, shows three different components – factors - or underlying variables -, for this paper the most important component is the third factor, which shows the correlations among some variables and the participation in educational committee at the community level. This participation in committees yields a positive correlation with free services in technical assistance, and with the capital retention (or capitalization process with internal capital), and a negative correlation with Kanitz financial index. Another factor, the second, shows participation in the general assembly with a negative correlation to the Kanitz financial index.

**Table 2.** Factor analysis results - matrix of components with rotation by VARIMAX method, which shows three factors and the variables correlations.

---

Matrix of Rotation Components			
	Components		
	1	2	3
<b>PASSPDT</b>	.865	3,180E-03	1,660E-02
<b>PTPDAC</b>	.827	.380	2,555E-02
<b>PASSATV</b>	.773	-.219	-.128
<b>PTECASS</b>	.630	-8,949E-02	.453
<b>RETSBRA</b>	.106	.829	-7,452E-02
<b>PINS</b>	-.128	.803	.126
<b>KNT</b>	-.161	.663	-.564
<b>PASSAGO</b>	-6,480E-02	-.584	-.278
<b>RETKPLA</b>	.206	.160	.815
<b>PASSCMT</b>	-.241	7,206E-02	.809

Rotation and convergence in 4 interactions

---

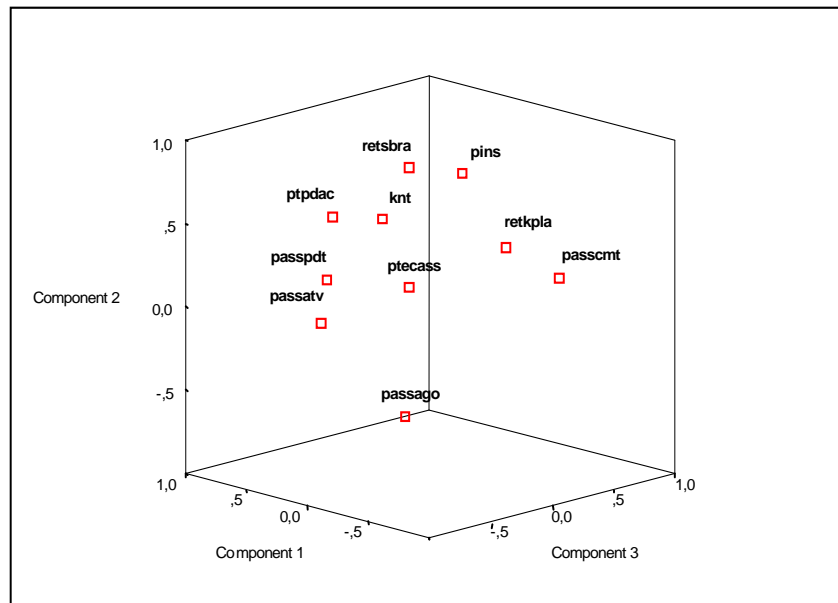
These observations can partly explain the proposition that if the cooperative organization is in better financial conditions and the likelihood of economic performance is high, the benefits are probably high; the member participation goes down in committees and general assembly. On the other hand, if the cooperative organization

---

<sup>3</sup> Kanitz financial index is used, in Brazil, to audit and verify the financial situation of organizations. This index is formed by different financial weight information, as debt ratio, own capital, liquid ratio, among others. This is a variable with continuum value. High value of Kanitz index better is the financial situation of cooperative organization.

economic performance is low, the free benefits to members probably decrease, but the member participation in organization increases. This situation can create influence rights to get free benefits in better conditions.

**Figure 1.** Representation of Variables in three-dimensional space created by calculating 3 factors.

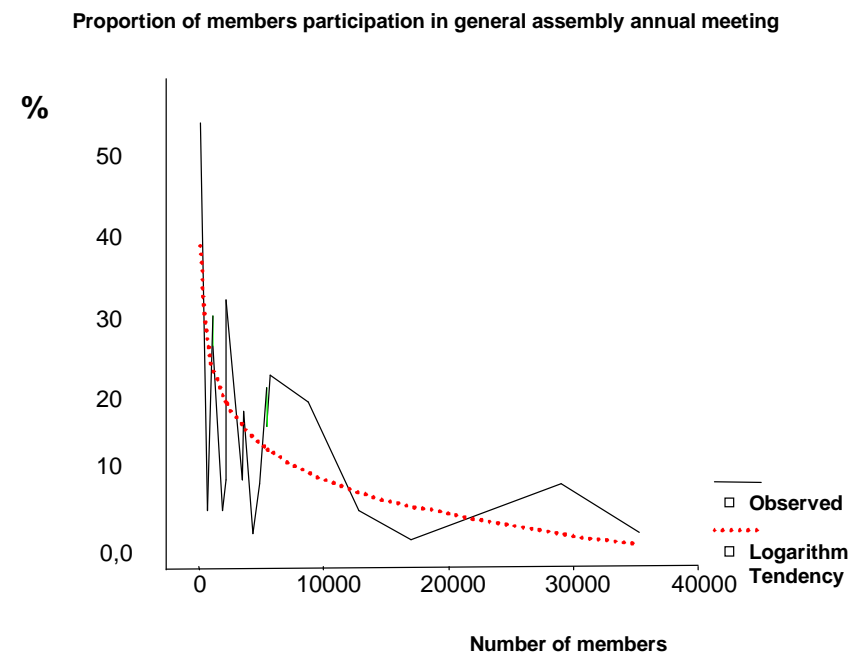


The results show also that the presence of high proportion of agronomists and free technical assistance - rural extension - is very important to create relations and increase participation in local committees. This correlation is important because it could describe the creation of relations in cooperatives, between the member and the rural extension service that encourages relations among members through educational committees.

The number of members is also important. Figure 2, shows the relation between the number of members in cooperative organizations and the relative participation in the general assembly. The relations are a logarithm function and if the cooperative has a larger number of members, the tendency of proportional participation is lower. In this situation, the importance of local area committees is major.

This situation also is probably due to the fact that if the cooperative has a large number of members, the division of decisions rights is high too. Each member has only one vote, but this vote does not have the same value as a vote in a smaller cooperative, with fewer members.

**Figure 2.** Relations between cooperative member participation and number of member in cooperative organizations for the 20 Paraná state, Brazil agricultural cooperatives. The trend line is a logarithm function.



In the case of cooperatives with a greater number of members, there are probably serious problems with monitoring the action of their members. The residual decisions and control rights are greater and the benefits of influence rights are higher too. In this case, a lower participation can create a lower informal relational commitment with the cooperative, and the member that maintains the commitment must receive more benefits from this option. The cooperative organization has the same services and facilities for all members, but only the relational committed member has the rights of influence and the rights to received differential benefits in services or information.

This model shows that there is a logic to relational commitment or influence rights to obtain the benefits to use residual control and decision rights. So, the value of informal relational commitment depends on the benefits of influence resulting from the degree of residual control and decisions rights.

### Considerations

Hofstede (2001) shows that in terms of individualism and collectivism, the Individualism Index Value, Brazil is a more collectively oriented society. This collectivism creates, according to the author, more “moral” involvement of people within the organizations.

Institutions influence transactions, and organizational contractual architecture is a consequence of institutions (North, 1990). In Brazil there is a particular culture and institutional environment that can also influence contracts in agribusiness organizations.

Cooperatives in Brazil are built on a base of informal relational contracts with few formal contracts embedded in an environment of social and economic uncertainty. These organizations show evidence of vaguely defined property rights (Cook, 1995) and few formal contracts, but, in another way, improve informal relational contracts.

The question is: Are relational contracts part of a temporary stage in effect until the society becomes more individualistic as a consequence of the logic and culture of capitalism modifying institutions and contractual architecture in cooperative organizations in Brazil, or is there a specific logic in informal relational contracts that creates low transactions costs?

The initial hypothesis is that there is a particular logic in informal relational contracts; trust and social embeddedness are only two of all of the important characteristics. Others, such as the rights of cooperation, which permit uncommitted relations, and influence rights that permit high organizational benefits for members are important to understand informal relational contracts.

In cooperatives, the member usage role creates only benefits, but the roles of the member as owner, controller, and investor incur costs of participation, uncertainty, time and transactions. Free cooperative committed relations have the advantage of providing the benefits of member usage role without implying costs of participation, control, and management, among others.

The economic logic places the member objective in the role of being a user. On the other hand, the benefits of influence rights to use residual decisions and asset control rights of allocation are important to encourage member participation.

This problem is greater if the cooperative is bigger and has more members. In this case, the monitoring costs are high, the distribution of services and welfare to the member can be more problematic, and the patron influence right are more important to create priority, customer service, access to privileged information and in service distribution. The logic of influence only exists because of the presence of residual decisions and control rights and problems with definitions and allocation of property rights.

On the other hand, relational contracts may promote a different commitment in proportion to influence rights. If the cooperative has a worse economic performance, the member should spend his time and resources to participate or increase his influence.

For these members, influence rights are important to guarantee their participation in the cooperative organization and create stable relations. Only relational contracts can create this situation. Relational contracts permit social commitment in cooperative organizations and the logic of influence benefits to use residual decisions and control rights.

The cooperative organization offers the same services and facilities to all members, but only the relational committed members have the rights of influence and the rights to receive differential benefits in services or information.

This is a special class of members. It is possible to establish this special social relational order, because there is a relational contract with few of the constraints of a formal contract, and because the organizational mission of the cooperative is distributing outcomes to members in services.

So, it is possible to conclude that only when there are vaguely defined property rights, will residual control rights arise to increase influence rights to refund in free services, for a special class of members, that have a special relational commitment. Also, in societies with more collectivist behavior, lower confidence in the legal system and lower trust in people, informal relational contracts may minimize transactions costs. Finally, cooperatives like collective organizations, may have vaguely defined property rights as a strategy to create commonly-held property and increase informal relational contracts based on the social embeddedness of members; this organizational architecture also may minimize governance costs in particular institutional environments.

Cooperatives are organizations that reflect the culture and social characteristics of people in their home countries without foreign influence on organizational behavior.

## References

- BIALOSKORSKI NETO, S Administración cooperativa, capital social y valor de la producción en la agricultura: un ensayo analítico. Revista de Economía Pública Social y Cooperativa. v. 43, p. 9-22. 2002.
- BIALOSKORSKI NETO, S Co-operative development: Changes in the Brazilian Social Economy and institutional environment. Review of International Co Operation. V. 94, n. 1 p. 59-65. 2001.
- BIALOSKORSKI NETO, S Contractual; Incentives and Efficiency: The case of New Generation Cooperatives. Revista de Economía e Sociología Rural. v. 38, n. 4, p. 109-127. 2000.
- BIJMAN, J; HENDRICKSE, G; VEERMAN, C. A Marketing co-operative as a System of Attributes: A Case Study of VTN/The Greenery International BV. 2000. 15p. [www.erim.eur.nl](http://www.erim.eur.nl). Julho 2003.
- CHADDAD, F e COOK, M. Testing for the Presence of Financial Constraints in U.S. Agricultural Cooperatives. Columbia. UM Department of Agricultural Economics Working Papers. N AEWP 2002-05. 2002. 31p
- CHADDAD, F e COOK, M. An Ownership Rights Typology of Cooperative Models. Columbia. UM Department of Agricultural Economics Working Papers. N AEWP 2002-06. 2002. 29p
- COBIA, D. Cooperatives in Agriculture. New Jersey, Prentice Hall. 1989. 445p.
- COOK, M. The Future of U.S. Agricultural Cooperatives: A Neo-Institutional Approach. American Journal of Agriculture. Economics. 77. 1995. 1153-59.
- COOK, M and ILIOPOULOS, C. Solutions to Property Rights Constraints in Producer-Owned and Controlled Organizations: Prerequisite for Agri-Chain Leadership? Proceedings of the Third International Conference on Chain Management in AgriBusiness and Food Industry, Wageningen, The Netherlands: Wageningen Agricultural University. 1998. P541-53.
- DEMSETZ, H. Toward a Theory of Property Rights II: The Competition Between Private and Collective Ownership. Journal of Legal Studies. 2002. pS653-72
- EGGERTSSON, T. Economic Behavior and Institutions. Cambridge. Cambridge University Press. 1990. 385p.

- FURUBTON, E.G. e RICHER, R. Institutions and Economic Theory: The Contribution of New Institutional Economics. Michigan, The University of Michigan Press. 2000. 556p.
- GLASER, E. LAIBSON, D. and SACERDOTE, B. The Economic Approach to Social Capital. NBER Working Paper Series. Working Paper 7728. 2000. 32p.
- GRANOVETTER, M. Economic Action and Social Structure: The problem of embeddedness. The American Journal of Sociology. V91, 3 p.481-510.
- HACKMAN, D. L and COOK, M. Producers as Agrichain Leaders: The importance of the Institutional Environment. Proceedings of the Third International Conference on Chain Management in AgriBusiness and Food Industry, Wageningen, The Netherlands: Wageningen Agricultural University. 1998. p183-198.
- HANSMANN, H. The Ownership of Enterprise. Cambridge. Harvard University Press. 1996. 372p.
- HART, O. Norms and Theory of the Firm. Harvard Institute of Economic Research. Discussion paper n 1923. 2001. 19p.
- HENDRIKSE, G.W.J. Contingent Control Rights and Loss Aversion in Agricultural Cooperatives. Anais: European Research Conference on Vertical Markets and Cooperative Hierarchies: The Role of Cooperatives in the International Agri-Food Industry. Bad Herrenalb. 2003. 10p. [www.flec.kvl.dk/kok/coop03/](http://www.flec.kvl.dk/kok/coop03/)
- HENDRIKSE, G.W.J. BIJMAN, S.J.J. Ownership Structure in Agrifood Chains: The Marketing Cooperative. American Journal of Agricultural Economics. V84, N1. 2000. p104-119.
- HOLFSTEDTE, G. Culture's Consequences: Comparing Values, Behavior, Institutions and Organizations Across Nations. London. Sage Publications. 2001. 596p
- LAZZARINI, S. MILLER, G and ZENGER, T. Order with some Law: Complementarity vs Substitution of Formal and Informal Arrangements. São Paulo. IBMEC, Working Paper WPE 13. 2002a. 43p
- LAZZARINI, S. MILLER, G and ZENGER, T. Moving out of Committed Relationships. São Paulo. IBMEC, Working Paper WPE 20. 2002b. 42p.
- MOGLIA, L.C. Survey on Members Relations in CAROL. FUNDACE MBA-Cooperatives. MBA – dissertation project. 2003 (mimeo)
- NORTH, D.C. Institutions, Institutional Change and Economic Performance. Cambridge. Cambridge University Press. 1990. 152p.
- SYKUTA, M. e COOK, M. A New Institutional Economics Approach to Contracts and Cooperatives. American Journal of Agricultural Economics. Vol 83, n5. 2001.
- OLSON, M. The Logic of Collective Action: Public goods and the theory of groups. Cambridge. Harvard University Press. 1965. 186p.
- WILLIAMSON, O. The Mechanisms of Governance. Oxford. Oxford University Press. 1996. 429p
- WILLIAMSON, O. and WINTER, S. G. The Nature of the Firm: Origins, evolution, and development. Oxford. Oxford University Press. 1993. 244p.
- WORLD VALUES SURVEY. [www.worldvaluessurvey.org](http://www.worldvaluessurvey.org). 2003.