The Complexity of Corruption: Nature and Ethical Suggestions

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ABSTRACT
Corruption is a well-established research topic which increasingly attracts interest, as attested by a growing body of literature. Nevertheless, disagreements persist not only about how to cure it, but even about its definition, causes and consequences. Such a lack of consensus reflects the complexity of the problem, a feature which is often cited but rarely analyzed. This paper aims to fill that gap. In particular, we first address the nature of corruption’s complexity by offering and analyzing an inventory of “generators of complexity” compiled from the available literature. Secondly, our paper draws from the key conclusions of that analysis to shed some light on the complex role played by corporations on corruption. Finally, we suggest that ethical aspects have to be considered in order to clarify many complex dilemmas around corruption and illuminate the corporate role in both domestic and foreign business activity.
I.- INTRODUCTION

Literature unanimously recognizes that corruption is an ancient (Bardhan, 1997), wide (TI, 2004) and pervasive (Sheifer and Vishny, 1993) problem¹, that continues to be a factor in every-day live around the world (Persson, 2002), in both developed (Della Porta and Mény, 1997) and underdeveloped countries (Paldam, 2002; Levin and Satarov, 2000).

Besides being a widespread phenomenon, corruption also has a long tradition as a field of academic inquiry (Rose-Ackerman, 1997). Political science, sociology, criminal law and economics are among the disciplines that contribute to the knowledge of the subject (Jain, 2001). But some fundamental aspects of the problem—for instance, how corruption is generated or how it can be successfully fought—are not fully understood (Clarke and Xu, 2004) and discrepancies remain.

In fact, the surge of research has greatly enhanced the knowledge about simple cause-effect relationships. But, at the same time, researchers, governments and international institutions are becoming aware that partial investigations do not provide a true comprehension of the phenomenon (Goudie and Stavage, 1998) and that a complete theoretical and empirical framework for corruption is still lacking (Ades and Di Tella, 1997). It has even been suggested that generously funded anti-corruption programs have failed on a global scale precisely because partial analyses have encouraged a non-integrated approach (Michael, 2004: Williams and Beare, 1999; Goudie and Stavage, 1998).

Studies with different perspectives agree that the absence of a complete and integrated framework for corruption must be imputed to the nature of corruption as an extremely complex issue. (Aidt, 2003; Bac, 1998). For instance, complexity has been advanced as an argument to explain the lack of a precise and comprehensive definition (Johnston, 2000), which is far from being just a semantic issue, since it determines what gets modeled and what is empirically tested (Aidt, 2003). Complexity has also been pointed out as a reason for the performance differences across countries in fighting corruption (Gaviria, 2002).

The complexity factor is often cited in the corruption’s literature but few researches explicitly examine its nature or details. Developing an effective and practical way of fighting corruption is impossible without understanding its complexity. This paper aims at capturing the main dimensions of corruption’s complexity with the conviction that this analysis may shade light on the intricate patterns and workings of corruption.
hypothesis is that in order to understand the genesis of corruption, so that it can be successfully fought, it is necessary to comprehend its complexity’s nature, including the moral and ethical components.

One of the sectors or institutions most affected by the complex nature of corruption is the business/private sector. According to the TI Global Corrupt Barometer (2004) the corruption index for corporation is 3.4 on a scale where 5 indicates maximum corruption. The corporate sector, interestingly enough, is the most corrupt institution in countries like Hong Kong, Netherlands, Norway or Singapore. In spite of many empirical studies, as well as many legislative and political actions, the role played by corporation in corruption remains confusing. For that reason, this paper also aims to disentangle the intricate business-corruption interaction by relying on our previous analysis of the complexity of corruption.

The rest of the study is organized as follows. First, we illustrate how corruption receives increasing attention and we examine how its complex nature remains the most important obstacle to successfully comprehending and combating the problem. In the third section, we extensively discuss the reasons for corruption’s complexity. The role played by corporations is analyzed in section four. The fifth section points to the need of interdisciplinary research and defends an ethical reflection on the subject. The last section concludes the paper by briefly summarizing the main ideas.

II- INCREASING INTEREST AND COMPLEXITY IN CORRUPTION

Two very different facts—the fall of the Berlin Wall and the Enron’s scandal—have produced a rapid expansion of interest in the manner in which corruption emerges and could be curbed; the amount of empirical and theoretical researches focused on the topic has increased exponentially (Cf. Rose-Ackerman, 1999; Klitgaard, 1988).

The fall of the Berlin Wall in November 1989 symbolizes the collapse and posterior transformation of many socialist economies. Numerous researchers believed that Capitalism would create rapid and sustained economic growth. Nevertheless, strategies for transition from central planning to market economy have not performed as well as many analysts expected (Svejnar, 2002). The dismantling of socialist institutions and the implantation of the new economic and political rules of the game failed for several reasons. Corruption is growingly alluded to as a salient motive (Nwabuzor, 2005). China’s evolution reinforces the hypothesis.
Over roughly the same time that many strategies for transition failed, the most developed countries were shaken by corruption scandals (Lindgreen, 2004) and corporate illegal activity became centre of attention (Daboub et al, 1995). Financial developed markets are still reeling from the effects of Enron, WorldCom, Parmalat and other corporate illegal behaviors. New auditing and accounting regulations have not eliminated the distrust. On the opposite, the consensus increases: wealthy countries with solid democratic institutions, free and developed markets and significant civil society involvement are prone to corrupt practices; everyone is aware that corruption takes place in both domestic and foreign markets. This massive loss of confidence in the old canons of integrity and good governance has also stimulated new research on bureaucratic and private corruption (Argandoña, 2003), as well as illegal corporate behavior.

Affected by both events, corruption’s theoretical background has enlarged and changed. For instance, during the last decade, The Journal of Business Ethics has included about thirty articles focused on corruption. While the number of traditional researches — centered on country and cross-cultural corruption— has decreased, research on the corruption itself —without East/West or developed/underdeveloped references— has flourished (Cadre I).

Simultaneously and animated by generous funding from international organisms and government willingness (Cf. Doig and Marquette, 2005), many academic articles have tried to evaluate the efficiency of traditional anticorruption policies, offering new strategies when needed.
Although the number of specialized researches increases exponentially, neither the comprehension of the phenomenon nor the performance on combating corruption improve at the same rate. Authors actually admit that we are far from fully understand how corruption is generated and how it should be fought (Michael, 2004). Existing theories on corruption have been developed in isolation. Political, economic or cultural approaches have advanced in parallel without convergence and the parochial contributions may distort the comprehension of the phenomenon.

International organisms, independent observers, governments and researchers certify that corruption is a very difficult construct, born and developed in complexity (TI; 2004; Batty and Torres, 2005). They unanimously agree that the problem is far from simple. Research on corruption pays a particularly high price for the absence of common standards. Many of the analytical problems are due to the fact that no satisfactory definition has emerged. Because how corruption is defined determines what elements get modeled and measured, one of the most evident signs of complexity is the absence of a consensus’ definition (Jain, 2001:73).

There have been many unsuccessful attempts at offering a definite, complete, analytic and formal description of corruption. A review of the literature indicates that disagreement about the definition persists (Tanzi, 1998; Vishny, 1993; Senturia 1931). However, literature on corruption across disciplines (Schneider and Enste, 2000; Bardhan, 1996) accepts that three key features are present in every corrupt transaction (Jain, 2001; Klitgaard, 1988):

1. a discretional power over the allocation of resources;
2. higher rents associated with its misuse and
3. high probability of evading regulations/penalties associated with the wrongdoing

While there is a consensus that corruption involves those three elements, an ongoing debate persists over the exact meaning of terms such as discretional power, misuse or penalty in certain contexts. The public or private character of the discretional power, the existence of illicit but legal corruption, or the corruption without monetary rents are several examples of problematic questions.

Most authors confess that there are many problems in the common use of those terms (Bardhan, 1996). Argandoña (2003:255) concludes that it results difficult “to define (corruption) in terms that are clear and universally valid”. Indeed, Jain (2001:104) declares that “everyone that writes about (corruption) first tries to define it”.
Disagreements in the analysis are often explained as result of the involvedness of the phenomenon. The complexity of the issue is cited as a main impediment for a compact and complete framework for corruption (Davis and Ruhe, 2003; Argandoña, 2001). Such framework requires (a) to isolate those activities that must be incorporated and (b) to suggest a complete list of causes and consequences in order to facilitate successful prosecution and deterrence of corrupt practices (Rinaldi et al; 1998).

This old marriage between corruption and complexity has been reinforced in the last decades due to the substantives changes embedded in the “globalization” process. Globalization has become the “potent symbol of the age” (Clark and Knowles, 2003:361). The term has not an exact significance but it is obvious that globalization makes the world more complex. It has also notably changed the background of organizational sciences, justifying the growing interest in complex theories and elements. The deep recognition that the world was complex, which had a remarkable impact on social sciences in the second half of the last century (Lo Presti, 1996), has taken both economics (Krugman; 1996) and management (Kelly and Allison, 1999; Stacey, 2001) to accept that “economic organization is formidably complex and economic agents are subject to very real cognitive limits” (Williamson, 1996:311; Simon, 1961). However, the implications of accepting complexity are enormous and, from the theoretical and empirical points of view, the success in dealing with that complexity has been relative.

Complexity has not always functioned as a spur for wide and interdisciplinary efforts. Too frequently, analysis increased mathematical sophistication and reduced the systemic view, producing stylized studies without practical applications (Vromen, 2001). On the issue of corruption, especially in relation with anti-corruption policies and efforts, the effect of complexity’s integration has frequently been the “despair and resignation on the part of those who are concerned about it” (Bardhan, 1997:1321).

Thus, while the growing literature on corruption offers many and important advances in the knowledge of the simple cause-effect relationships between elements—for instance, links between corruption and stability of democratic institutions, GDP, or foreign investment—, researchers and organisms become aware that the knowledge of the whole phenomenon is brought to a close and that the success of anti-corruption programmes does not increase. The conclusion is that, being corruption a complex phenomenon, the use of lineal regression analysis and the knowledge of simple and independent cause-effect relationship could be not sufficient (Aidt, 2003) and that the
complexity perspective could help to develop more efficient practices against corruption (Michael, 2004).

While complexity is signalled as a justification for the scarce success of the corruption suppression policies, few researches offer details of the nature and consequences of the complexity. Drawing from the framework of complexity, our main argument here is that in order to understand the genesis of corruption and successfully fight the problem, it is necessary to comprehend its complexity’s nature.

In the scarce literature on corruption’s complexity, authors suggest that researchers should select the most adequate tools and concepts to being able to keep up with the ever-challenging issue of complexity. Thus, in order to manage complexity and achieve results against corruption, Michael (2004) attempts to apply the notion of self-organization\(^6\) to the anti-corruption industry, offering a set of recommendations for organizational design of efforts. Boisot and Child (1999) describe organizations as adaptive systems in the complex and corrupt case of China, showing strategies to uncertainty reduction or absorption. Treisman (2000) attempts to embrace complexity by including elements form a broad range of sciences and running multiple regressions\(^7\).

We essentially agree with the literature on corruption’s complexity: knowledge and competences of implicated sciences must be fit to match complexity. But our effort is placed on a previous and necessary phase: how to understand the nature of the corruption’s complexity.

The quality of being complex is not easily described. In general terms, in this paper, we accept that complexity “is concerned with why, in a complex reality, distinctive organizational structures form” (Foster, 2000:370). We conceptualize corruption as one of those structures, being our main goal to identify the elements of the complex reality that permits corruption to emerge.

Complexity is a special attribute that refers to many diverse aspects of the reality and its whole analysis exceeds the goals of this article\(^8\) However, in the vast number of interdisciplinary researches and propositions referred to the “complex reality”, authors have identified a certain number of “generators of complexity” (Richardson, 2005), that is, some remarkable boundaries whose presence increases the impact of the uncertainty and the difficulty of the decision’s problem. The next “complexity’s pyramid” offers a summary of the main complexity’s factors described by complex theory.
A review of the economics and management literature permits to affirm that the existence of those generators of complexity has largely been accepted in our sciences. For instance, in their study about the “aspiration uncertainty”, MacLeod and Pingle (2005) find that complexity is connected with the number of elements (tasks). Brinck et al (2005) link complexity with the number of the “omitted and unobservable variables”. The systemic vision has a large number of followers. For instance, studying the collective problem-solving, Marengo and Dosi (2005) define complexity in terms of interdependencies between the elements of the system. In the same line, Homans and Wilen (2005) place complexity in the type of interactions between elements, which mostly correspond to non-deterministic relationships. Berry et al (2005) suggest size as a source of organizational complexity in ways similar to diversification’s elements.

The discourse on complexity advances so far with the inclusion of the change and novelty. For instance, in their analysis of the Cournot competition in duopoly and the role of learning in organizations, Barra and Saraceno (2005) locate complexity in the manner and magnitude of organizational change to respond to environment’s change. In his article about the decomposability of the system’s elements, Herbert Simon (2002) underlines that the highly complex systems are able to modify their designs through
mutations, crossover and natural selection (business fits in this framework as an organism).

In this vein, reflections about the presence or absence of those generators of complexity in the corruption will permit to bring over the nature of the corruption’s complexity. With this perspective, we have carried out an extensive and interdisciplinary revision of the literature. Economic, political, legal, ethical and sociological sources have been analysed in order to identify the presence of several main generators of complexity which help to align corruption and complexity.

III.- REASONS FOR COMPLEXITY

Literature is plenty of notions and interpretations of the causes and effects of corruption, which are, in some cases, contradictory. International agencies, governments and researchers acknowledge the survival of abundant doubts and uncertainties about the subject, with frequent reservations and intense disputes about many of the researches’ partial conclusions (TI, 2004).

There are large and persistent discrepancies. While there is little discussion about a few questions—for instance, that corruption hinders growth (Cf. Kaufman, 1997)—, doubts are strong and wide in many others. Questions are not simple or trivial details. They arise even in very important matters, like market reforms (privatization or deregulation) or competition (Bjorvatn and Søreide, 2005; Djankov et al., 2002; Ades and Di Tella, 1999).

The role of competition is one of the most debated issues in the literature and a good example to illustrate the existing discrepancies. In her first work on the subject, Rose-Ackerman (1978) suggested that a way to diminish corruption was to introduce competition. Competition could reduce the returns from corrupt activities and, consequently, the degree of corruption. Other authors warn that this solution might be efficient in some cases but inefficient in others, and that centralized corruption could present less adverse consequences for efficiency that decentralized bribes-taking. Sheifer and Vishny (1993) find that the per-unit bribe is higher if independent monopolistic public agencies provide complementary goods than in the case of a single monopolistic agency providing them. When the entry of competitive bureaucrats, who impose independent bribes and try to maximize their individual bribe revenues, into regulation is free, they will drive the cumulative bribe burden on private agent to infinite. Bradhan (1997) explains that in centralized corruption the bribee may
internalize some costs, reducing uncertainty without distorting too many decisions at the margin.

For some authors (cf. Bliss and Di Tella, 1997) competition could be an efficient anti-corruption mechanism in some economic areas but an inefficient one in the political arena. Olson (1993) suggests that, in relation with the incentives to invest and produce, a dictator or “stationary bandit”, who monopolizes and rationalizes theft in the form of taxes, could be a more efficient system of assignment than an uncoordinated competitive theft by “roving bandits”.

In this line, Ades and Di Tella (1999) find beneficial and empirically significant effects from making markets more competitive and from increasing the exposure of firms to foreign competition. But they fail to find identical effects in the realm of political rights.; their conclusions indicate that “countries with low levels of political rights have low corruption” (1999:987).

Ades and Di Tella’s (1999) arguments have been largely tested. In their analysis of economic integration, Ganuza and Hauk (2004) reach conclusions supporting the idea of positive effects associated with foreign competition. On the opposite, Montinola and Jackman (2002) conclude that corruption emerges where there is a lack of competition in both economic and political arenas, and Bohara et al (2004) provide empirical support for the importance of democracy (including the participation in competitive elections) in controlling corruption.

In summary, it can be said that partial conclusions, like those concerning the role played by competition, are intensely disputed. What happens is that the phenomenon is widespread and thriving (Colombatto, 2003) and the lack of understanding is reinforced by the absence of a common or unifying framework.

But, why is it so difficult to offer a compact and complete framework for corruption? There is a collection of reasons. However, the high complexity of the issue—which, in some form, covers many other diverse causes— is argued as a main obstacle for corruption studies (Davis and Ruhe, 2003; Argandoña, 2003). Collier (2002:2) suggests that corruption is “an extremely complex social behavior”. Recently, many authors (Schoenman, 2005; Henisz and Zelner, 2005; Levine, 2005; Nwabuzor, 2005; Cull and XU, 2005; Millington et al, 2005; Rodriguez et al., 2005; Rock and Bonnet, 2004) have underlined the importance of this factor.

Nevertheless, while corruption’s complexity is often cited as a profound and wide obstacle, there are few researches focused on the reasons for —or dimensions of—
complexity. Drawing from the framework of complexity, our main argument is that in order to understand why corruption arises and how to fight it, it is first necessary to comprehend the nature of its complexity. Thus, the starting point for our discussion is to attempt to define what the nature of corruption’s complexity is.

Corruption is well-described as a complex phenomenon, but such a feature is not easily manageable. As it has been indicated, one particular way of scrutinizing it is to regard if the phenomenon comprises one or some of the complexity’s generators, such as a large amount of non-linear interactions among elements (Cilliers, 2005), novelty (Batty and Torrens; 2005; Kaufmann, 1995) or an adaptive and surprising character (Michael, 2004).

We choose that way. With the aim of examining the nature of corruption’s complexity, we have formulated a collection of hypotheses that describe the presence or absence of those generators, from more straightforward to more intricate.

**A) THE SYSTEMIC STRUCTURE**

Literature has largely signalled that corruption is too broad to be satisfactorily analysed by a single discipline. There are two main motives:

a) A purely realistic view of the subject confirms that corruption is a *many-faceted* (Cf. Aidt, 2003) and *multidimensional* (Von Alemann, 2004: Doig and McIvor, 1999) phenomenon. Evidence signals that there are diverse implicated elements on corruption, such as political facets, economic aspects, sociological and cultural characteristics or ethical features.

b) In addition to the plurality of elements, literature suggests that corruption is a *multidisciplinary* phenomenon (Jain, 2001; Michael, 2004). This is a new step that explicitly recognizes that corruption itself is complex because the elements cited in (a) are complexly interactive, so that the connectivity must be associated to understanding.

Because of (a) we have a juxtaposition of elements; because of (b) we have a system. Then, since corruption is a complex systemic phenomenon, systemic descriptions represent the only way to a real comprehension. This leads to our study’s first hypothesis:

*H1*: The first key element of corruption’s complexity comes from the richness of its systemic structure.
A system could be defined as a set of entities which interact forming a whole (Cf. discussion in Backlund, 2000) whose dynamics cannot be described through the dynamics of its elements. The whole cannot be divided into independent parts (Richardson et al, 2001) and, therefore, cannot be simplified by reduction or aggregation.

Social sciences have viewed the complexity of systems as arising out of

(a) the number of heterogeneous elements that constitute a system. Greater number of elements or higher level of heterogeneity among them increase the complexity of the system
(b) the nature of the interactions that take place among elements (Cf. Boisot and Child, 1999). Trivial or linear relationships are simpler than non-linear relationships.

This is expressed in the next sub-hypothesis:

\[ H_{11} : \text{the first signal of the richness of corruption’s systemic structure is the number and strong differences among elements whose relationships are constituted through non-linear interactions.} \]

We proceed by first analyzing the elements that integrate the system. In a second phase, we study the interactions.

a) **Elements of the system.**

The quantitative picture of corruption suggests that it depends upon a host of factors. Theories have related three predictor variables to corruption:

(1) political and institutional elements,
(2) economic bases and
(3) cultural and sociological aspects

which “interact in various and complex ways” (Gaviria, 2002:248).

1.- Political and institutional elements.

From a political point of view (Cf. Williams, 2000a, 2000b; Heidenheimer et. al, 1998), corruption is understood as *official corruption*, that is, as an “illegal and clandestine exchange between two “markets” —the political/administrative market and the economic/social market” (Ades and Di Tella, 1997:4)— intended for personal gain (Shleifer and Vishny, 1993). This approach focuses on the first type of market.

Political focus is based on a large amount of empirical and theoretical research, which confirms the existence of links between corruption and the type and ripeness of the institutional framework (Jain, 2001; Hill, 2003; North, 1990; Williamson, 1985).
underlines the importance of the structure and maturity of government institutions as well as the relevance of the development of the political system (Shleifer and Vishny, 1993, La Porta et al, 1999).

Data show that some countries present much more corruption cases than others. The political approach defends that the structure of both the government institutions and the political processes could explain the diversity of corruption degrees (Bandfield, 1997, Kitgaard, 1988), putting the emphasis on the political circumstances that affect the rules, permitting or preventing the enforcement of contracts.

For instance, it has been statistically demonstrated that, ceteris paribus, corruption is lower in parliamentary systems with long exposure to democracy (Getz, 2001; Brinkerhoff, 2000; La Porta et al, 1999, Rose-Ackerman, 1999); in countries with a high level of political stability and a high development of the free press (White, 1996), and in those with common law systems (Treisman, 2000).

Essentially, the political approach believes in the existence of an efficient and “good social law”. It centers all the anti-corruption work in the reinforcement of institutions by simplifying bureaucracy and increasing transparency and accountability.

2.- Economic bases

While the political approach analyzes one of the agents involved in the transaction, i.e. the political/administrative system, the economic approach to corruption studies the second, that is, the economic/social market.

In this approach, corruption is understood as a market distortion, as a form of economic risk and uncertainty (Glynn, Kobrin and Nain, 1997; Elliot, 1997). For instance, in his analysis of extortion, Demsetz (1967; 1971:444) argues that this practice would be an economic problem only if there was no competition on the supply side. Based on this hypothesis, economic discourse focuses on the organization of the exchange, and especially on the function of the economic forces —supply and demand— in non-competitive or semi-competitive market conditions.

In the economic approach, a demand-side point of view has been mainly adopted (Beets, 2005). Official corruption has been studied as if the bureaucrat had a monopoly over the service (parochial corruption) and as if the bureaucrat could compete with other bureaucrats or services (market corruption) (Cf. Lambbsdorff, 2002).

The literature on the economic causes of corruption suggests, ceteris paribus, relationships between corruption and the type and degree of development of the national
and international markets’ rules (Ades and Di Tella, 1999), the level of government’s intervention in markets (Acemoglu and Verdier, 2000; Bardhan, 1997) or the bureaucratic interference in the economy (Kaufmann and Wei, 1999; Shleifer and Vishny, 1993). Empirical research confirms significant connections between corruption and economic development (Bardhan, 1997; Kaufmann, 1997; Wei, 1997, 2000; Ehrlich and Lui, 1999; Tanzi, 1998), growth (Volkema, 2004; Husted, 1999; Mauro, 1995), foreign direct investment (Wei and Shleifer, 2000; Mody and Wheeler, 1992), level of unofficial economy (Johnson et al, 1998) or level of economic competition (Bliss and Di Tella, 1997).

The economic approach is not essentially different from the political view as long as both propose an environmental analysis, focused on the connections between corruption and the political, social and legal rules of the game that establish the basis for production, exchange and distribution (Kurer, 2005; Brinkerhoff, 2000; Davis and North, 1971; Williamson, 1993). Both study the same topic from different, although related, points of view. For instance, Mauro (1995) underlies the importance of economic rents for corruption. The economic approach studies, as a key element, how rents emerge in semi-competitive or non-competitive circumstances while the political approach analyses how public officials have discretion in allocating those rents, and how the process of allocation becomes corrupt.

3.- Cultural aspects

The political (economic) perspective suggests that there is a kind of institutional (market) structure that is able to produce economic growth and civil welfare. Institutions (markets) of underdeveloped and in-transition countries will evolve until being replaced by the “efficient” institutional framework.

Contrary to this conventional political wisdom, sociology and comparative economics present an argument favorable to diversity. Both disciplines support that, although sharing a wide body of coincidences, there are also differences among welfare states, which are revealed in institutional structure (Cf. Hicks and Kenworthy, 2003). Diverse institutional structures may coexist in a way that is remarkably consistent with progress.

The thesis that each country—or, at least, each type of capitalist regime (Cf. Esping-Andersen, 1999)—presents a certain degree of diversity has been largely applied to the topic of corruption.
Several papers have showed that cross-country differences in sociological, cultural, and ethical bases should offer possible explanations for differences in corruption levels (Cf. Davis and Ruher, 2003; Khera, 2001). Corruption is socially constructed and reproduced by individuals, whose actions are constricted by economic and political forces (Husted, 2002). Therefore, corruption cannot be fully and properly appreciated unless the beliefs, customs and social norms of human actors are considered (Husted, 1999).

Institutions, such as law or government, shape some clean and objective international principles. However, in the real world, and at least in the description of acceptable models of behavior (Cf. Donaldson and Dunfee, 1994), institutions are also affected by local influences in lifestyles, beliefs, customs and values which differ across nations and are organized around extra-law institutions. From Weber (Cf. Stulz and Williamson, 2002), culturally-diverse view of institutions cannot be ignored, neither in examining corruption because “long-lived aspects of countries’ cultural or institutional traditions affect the level of perceived corruption more significantly that current state policies” (Treisman, 2000: 439).

In some occasions (Cf. discussion in Husted, 2003), literature has employed culture as an independent variable explaining corruption (Cf. Putman, 1993). In most cases (Cf. Collier, 2002; Husted, 1999), the cultural analysis has shaded general models with analysis about the social foundation and functioning of institutions. Thus, ceteris paribus, cultural idiosyncrasy (Husted, 2002; Winch and Millar, 1997), familial prototype and colonial tradition (Treisman, 2000) or religion (Guiso et al, 2003; Paldam, 2001; Treisman, 2000; La Porta et al 1999; Lipset and Lenz, 1999) have been correlated with perceived corruption.

This approach suggests that efforts against corruption from political or economic authorities are always incomplete strategies (Cf. Banerjee, 1997) if cultural factors are not included. If culture is understood as social ambient (Cf. Williamson, 1996), then this third approach, like the political and the economic ones, could also be qualified as environmental, since the role of individual behavior is neglected or depreciated.

b) The behavior of the system

Due to the fact that corruption is affected by a set of factors, which arise in a wide variety of contexts, efforts to identify political, economic and cultural elements, as well as to understand the associated sub-problems, are needed. However, the corruption itself
resists being disciplined by just one problem-solving approach, even if it includes new information, sophisticated analytic and intra-sciences methods, or wide computer software (Cf. Boisot and Child, 1999).

Corruption is simultaneously a political, economic and cultural subject, with intricate paths connecting all the elements. Historically, the inner development of the topic in each formalized body of knowledge has gone over the way of separation and specialization rather than the way of mutual interconnections. Specialization has been highly productive in many other topics. But corruption must be considered as an informal hybridized topic (Cf. Klein, 2004) because none of those formal disciplines may wear out the problem, offer efficient solutions or regularized changes. Corrupt activities develop in a dynamic matrix with unpredictable synergistic relationships. Therefore, corruption is not the result of the aggregation of institutional weaknesses, market distortions and corrupt social forces. Corruption emerges and is reproduced in an environment built up with economic, political and social forces, with all the elements maintaining non-trivial relations among them (Cf. Richardson, 2005).

In order to capture the dynamics of the phenomenon in a way consistent with the objective of curving corruption, the identification of elements and linear relationships among them needs to be completed with a systemic vision. Links between corruption and political, economic or social elements must be integrated in a single scenario. However, the great problem of that scenario is that all the elements are related and the relationships among them are more important than each element itself or than the whole set of elements.

Corruption is an issue of relevance to all cited sciences, but none of them can fully grasp the phenomenon. Consequently, any parochial view of the subject is not adequate and cross-disciplinary analysis must be introduced. It is also necessary to admit that replacing the unity of criterion and the disciplinary isolation by a complex network among sciences is itself extremely complex. This is expressed in our second sub-hypothesis:

**H12:** The complex nature of corruption can not be captured by any single science. A holistic interdisciplinary approach is needed in order to build a comprehensive framework of corruption’s complexity.

As parts of the system, the corruption’s elements share certain characteristics. However, the main characteristic is diversity; the very richness of the system comes from heterogeneity (Batty and Torrens, 2005). Such heterogeneity permits re-creation and
novelty but generates, at the same time, a broad problem. How to define a framework that may contain such diversity without employing the linear aggregation model?

Each discipline that analyzes one of the system’s elements makes different assumptions, emphasizes certain aspects, attempts to impose its own language, methodology, hypotheses and, even, its own slant. As a result, there are wide variations in the definition of preferences and values of decision-makers and in the process of electing among alternatives. Some times, diversity signifies complementary hypotheses; and some times it means contradictory premises.

The vision of individual behavior and goals, the nature of control systems, the role of penalties, etc., used in political science and sociology are much different from those applied in economics (Cf. Kiser, 1999). As Ades and Di Tella (1999:982) show, “the economist’s approach to corruption is to appeal to the concept of competition”, while the political approach and the cultural methodology are to urge legal advance or social consensus (Cf. May and Pauli, 2002). La Porta et al (1999) suggest that the term “good” applied to “good governance” is used in a very different sense in each science. Thus, in economics, the term suggests good for economic development; in politics it refers to equality or human rights, and in sociology it is related to tolerance or trust.

In his analysis focused on opportunism, Williamson (1997) distinguishes between legal ordering and private ordering. Legal ordering employs contracts and monitoring as principal means of constraining opportunism, while private ordering uses incentives and cooperation based on self-interest (Cf. comments in Nooteboom et al, 1997). There is not dissonance but complementarily between both. Nonetheless, strategies are very different.

Actually, differences among sciences are reflected on the strategies’ emphasis. Political science, which presents honest individuals with a good sense of public activity and personal ethical codes, focuses on rent-seeking as essential factor. Economics, which portrays a self-interested agent, centers on the sources of the discrecional power. The sociological approach pays great attention to the social legitimacy of individual conducts, focusing on the circumstances of the interested use of the discrecional power. As a result, evaluating corruption from one or another perspective determines many essential elements and principles.

From all the above, it is clear to us that the interdisciplinary method could improve the effectiveness of any efforts to understand and curve corruption. Of course, beyond this
verification of the need of an interdisciplinary approach, we know that providing good guidance to unify divergent approaches is itself far from simple (Cf. Michael, 2004). An interdisciplinary program of investigation, which allows to extend the analysis to a systemic view of the phenomenon, presents many and difficult requisites. In our opinion, rather that directly trying to organize interdisciplinary programs, calls for interdisciplinarity on corruption should aim to eliminate those barriers that explain disagreements among sciences.

In this regard, the extension of the principal-agent methodology is good news. Literature from political science, criminal law, economics and sociology has accepted that corruption can be regarded as a specific manifestation of the principal-agent conflict (Cf. Aidt, 2003; Rose-Ackerman, 1999, 1978; Bardhan, 1997; Ades and Di Tella, 1999; Luis and Ehrlich, 1999; Klitgaard, 1988; Banfield, 1974; Becker, 1968).

Unfortunately, many barriers stand and have so far prevented cross-disciplinary studies. In this sense, we would like to underline one obstacle, which affects specially to the management discipline: the monopolistic application of a judicial approach

The first main reason for a lack of real understanding in the management analysis on corruption has to do with the judicial focus. A legal approach has often been adopted as the monopolistic view, putting the emphasis on the illicit character of corrupt practices just from a judicial point of view (Cf. Kurer, 2005). However, the relationship between corporation and law, and the relationship between political or economic institutions and law, differ. Not whichever corrupt behavior evokes violation of the judiciary rules (Cf. Bardhan, 1997). For instance, Thompson (1993) suggests that mediation —politicians taking money from contributors, who hope to receive favors from them when elected—, which is a legal practice in many countries, could be corruption. Favoritism (Prendergast and Topel, 1996), voluntary lack of monitoring from supervisors (Bag, 1997), seeking self-interest with lie or deceit (Williamson, 1985) and other organizational practices have often been qualified as corrupt practices, even if they are legal practices.

Actually, no every intra-firm transaction is governed by court-enforceable contracts (Cf. Crocker and Masten, 1988) but by the implicit law of forbearance (Williamson, 1994; 1991). “While courts will routinely hear disputes over prices, delivery, quality, etc., in transactions between firms, these same courts will refuse to be drawn into identical disputes between divisions within a single firm. In effect, hierarchy becomes its own court of ultimate appeal” (Williamson, 1994:153).
The judicial focus has often propitiated that literature uses interchangeably the terms fraud and corporate corruption and that the analyzed cases of corruption inside organizations (corporate corruption) have been mainly associated with criminal practices (Beasley et. al., 2002), neglecting the analysis of those legal but unethical corporation practices.

From organizational control, it is largely suggested that fraudulent and illegal practices are often preceded by some forms of questionable practices (Merchant, 1987). Moreover, evidence advises that questionable but legal actions, that include the intent of the parties to deceit, produce strong costs for corporations and societies (Trevino and Victor, 1992; Rosanas and Velilla, 2003).

In summary, H1 maintains that the first constituent in corruption’s complexity comes from the systemic character of the phenomenon, which involves many and very different elements. Scholars from different disciplines have produced specialized pieces of research, developing and refining knowledge of lineal cause-effect relationships. But without a comprehensive understanding of the subject, the global performance does not increase. The parochial view must be supplanted by an interdisciplinary approach able to eliminate unnecessary barriers among sciences. In our opinion, the elimination of the judicial focus as the monopolistic view would mostly permit to advance in the right direction.

B) CORRUPTION AS A DYNAMIC PHENOMENON

The systemic character is the first ingredient for complexity, but not the only one. In this vein, Richardson (2001) suggests that complicated and complex systems must be distinguished. Both types present an assembly of elements and both include the connectivity, the non-linear interactions and the impossibility to reduce a system to two or more distinct and independent sub-systems. However, both differ in how they develop. Richardson (2005) conclude that the key division between the two categories depends critically upon how the system changes and is transformed.

Complexity theory distinguishes two types of changes (Cf. Lo Presti, 1996; Richardson, 2005):

1. Firstly, changes that are responses to exogenous perturbations from the environment. Those changes show the evolution of the system. Depending upon how the system evolves, two categories should be distinguished:
a. Systems with observable logic links between their past events and future. The future is, by definition, unknowable, but it is still possible to employ past evidence to make reasonable accurate forecasts.

b. Systems where the future can not be predicted in any reliable way. Normally, this is due to the fact that the system can respond in more than one way to environmental perturbations. The system can surprise the observers, displaying a wide-range of different qualitative behaviors.

2. Secondly, endogenous changes emerging without exogenous stimuli, that is, the novelty of the system. This dimension describes the self-transformation of the system, which responds creatively to any new internal behavior, preferences’ changes or new knowledge (Cf. Allen and Torrens, 2005).

Literature on corruption has largely analyzed the corruption’s dynamics. The description of corruption as an evolutionary phenomenon is generally accepted. Bardham (1997) portrays corruption as a tenacious problem whose structure evolves with times and places. Ades and Di Tella (1997) express an identical conclusion for political corruption. Andving and Moore (1990) suggest that, because corruption takes place on scenarios formed by legal, economic, cultural and political elements, the phenomenon is necessarily opened to institutional dynamism (Cf. Hodgson, 2002). Analyzing tax collection systems, Hindriks et al. (1999) show how the intensity and form of corruption follow the changes in the design of the effective tax collection mechanisms. That is, a large amount of research permits to suggest that

**H2:** The second key element of corruption’s complexity is that corruption keeps on changing in an adaptive process in order to survive in an evolving environment.

The literature has neglected the analysis of the evolution’s typology, which results very important when evaluating complexity. We suggest that corruption does not offer simple recipes of changes to the environmental perturbations, which is expressed in the next sub-hypothesis:

**H21:** the corruption system is able of surprising behaviors, by responding in more than one way to any change in its environment.

Corruption is embedded in a society. Societies suffer economic, political and cultural changes that affect the basis of strategies of calculation and behavior, impacting in the development of the corrupt behavior. To survive in an evolving environment, corrupters’ capabilities must keep on changing, attempting to take up opportunities by offering new answers: that is an adaptive process (Nelson and Winter, 1982). Corrupters
will persist if they can learn from changes and act more efficiently than governments and markets. Because short-term fluctuations in the overall system are intrinsically unpredictable (Friedman, 1950), corrupt behavior survives in a changing society. And corruption adds complexity since the answer of corrupters to changes cannot be predicted in the short and medium-term.

Authors seem aware of this fact. For instance, Nelken and Levi (1996:4) affirm that “regarding corruption and anti-corruption as independent phenomena” is wrong because there are cycles of mutual dependency among them. Passas (1996) thinks that scandals represent spontaneous (unpredicted) opportunities to reform. Thompson (1993) concludes identically in relation to the “mediated corruption”. In this same line, Lui (1986) and Bicchieri and Rovelli (1995) define an evolutionary corruption cycle.

Moreover, as it has been largely demonstrated (Klitgaard, 1988), corruption comes in many guises. Bribery (Williams and Beare, 1999), extortion and evasion (Hindriks et al, 1999), fraud, trafficking (Tocker, 2001; Bowles et al, 2000), embezzlement (Peterson and Gibson, 2003), nepotism and cronyism (Prendergast and Topel, 1996), etc., are different manifestations. Campaigns to minimize the opportunities and incentives of a concrete form of corruption may induce the growth of another form because corrupters may quickly adapt their behavior in order to minimize the cost of penalties or social pressures. Thus, fight against corruption and corrupt efforts may be correlated (Lui, 1986) and the “absolute integrity” results impossible (Anerchiarico and Jacobs, 1996).

Because the legal system seems unable to keep pace with corrupters, corruption may continually expand its capacity to answer.

Globalization has deepened the phenomenon. The international or supra-territorial economic integration based on increased market openness (Cf. Husted, 2003b; Bartlett and Ghoshal, 1989; Segal-Horn and Faulkner; 1999) has changed global structures, and it is creating new and dynamic rules of game. The incorporation of many developing and in-transition countries to global markets has largely affected the corruption’s phenomenon. The concentration of the grand corruption in countries that present institutional weaknesses, underdeveloped market structures and, many times, high social tolerance to illegal behavior, has changed the scenario, globalizing the problem.

In addition to the adaptive character —for which reason some corrupt strategies are abandoned and replaced with new ones— literature has timidly noted that, without the influence of exogenous perturbations that might cause a reaction, the corrupt system itself changes (Choi and Thum, 2003; Aidth, 2003; Rinaldi et al, 1998; Bichelli and
Rovelli, 1995). We consider that the description of corruption as a self-transformed and creative phenomenon is essential to understand the nature of its complexity as long as this factor is able to produce a high degree of behavior complexity. This dimension is the basis of the second sub-hypothesis:

**H22**: *The corruption system is capable of novelty, by emerging into states that are not apparent from its constituents.*

Literature on corruption has showed two different sources of novelty: the historical and the hierarchical character of corruption. Both are consequences of the social character of mankind. Corrupt individuals desire or need to interact with other corrupt individuals in the same society or organization, creating a particular history for the corrupt system.

In his “Theory of Moral Sentiments”, Adam Smith (1759:II,2) pointed out the economic influence of social values, affirming that man naturally desires to be loved, dreading to be hated by others. “Nature, when she formed man for society, (…) rendered the approbation (of the others) most flattering and most agreeable to him for its own sake; and their disapprobation most mortifying and most offensive”. In this sense, man requires others to maximize utility. Some authors (Aidt, 2003; Tirole, 1996; Acemoglu, 1995) have emphasized this factor in relation with corruption, suggesting that the level of corruption depends, for given institutions, on history. Wirz (1998) shows how the acceptance of a bribe depends on the size of the bribe and the punishment as well as on the behavior of peers and colleagues. Tirole (1996) supports that any society or organization presents a collective reputation which, spontaneously formed, may modify the incentives of its insiders to be corrupt. Thus, a spontaneous and inner change on the “social pressure” or on the ethical values may provoke novelty on corruption.

Aidt (2003:647) suggests that the history, understood as past corruption levels, becomes an important determinant of current corruption levels “in the presence of dynamic strategic complementarities”. This dimension is largely connected with the hierarchical character of the corruption’s phenomenon. The incentives of an individual to be corrupt are affected by others not only because of the desire of approbation, but because that individual is not an isolated element.

Although it is from the decisions of self-interested individuals that finally corruption stems (Husted, 1999), the phenomenon presents a social nature. A decade ago, political and sociological studies were focused on the broad range of individual behaviors (World Bank Groop, 2001) and the official vice, acting or not in “organized” (Cf. Celantani ad Gauza, 2002) or mafia groups (Gambetta, 1993). For instance, Hillman
and Katz (1987) showed the extra social costs and complexities when modest official is obligated to pay a part of his bribes to his superior. Nowadays, most of the economic analysis on corruption focuses on collective corruption entailing voluntary collaboration among self-interested accomplices. This social nature is viewed as a hierarchical nature (Mishra, 2002; Bag, 1997; Bac, 1996; Mookherjee and Png, 1995; Kofman and Lawarree 1993; Basu et al, 1992). Controlling corruption in hierarchies introduce new complexity in the analysis of this unethical behavior (Brass et al., 1998; Bag, 1997; Bac, 1996) because (a) supervision procedures must be added (Bac, 1998) and (b) models must include dissemination mechanisms working from upper levels to lower levels, and vice versa since corruption can extend in both directions (Goudie and Stasavage, 1997).

If corruption came up not only from the aggregation of corrupt isolated individual acts but also from any specific form of organized corruption (Celantani and Ganiura, 2002; Sheifer and Vishny, 1993) then the bad apple analysis should be completed with a bad barrels dynamic analysis (Nielsen, 2003), centered on elements such as bad bureaucracy or corruption networks (Cartier-Bresson, 1997) which are able to revolve, innovating its own structures and creating potential “new states” (Richardson, 2005:619).

In summary, corruption must be considered as a complex phenomenon because of the number and heterogeneity of its elements that, when they meet, form non-trivial links that in turn pave the way to creative changes following the environment’s evolution. Whichever efficient strategy to curve corruption must become aware of this complexity. It is possible to affirm certainly that corruption is a symptom of bad governance but the problem’s complexity makes it impossible to report with identical degree of certainty what its causes and consequences are and which the best policies to combat this endemic social problem could be (La Porta and Mény, 1997).

IV.- CORPORATIONS, CORRUPTION AND COMPLEXITY

Literature has conceptualized firms as a key player in the global scenario for corruption (Rose-Ackerman, 2002), a phenomenon which has been previously presented as an extremely complex reality. Being one of the agents involved in corrupt practices, corporation perceives complexity, is affected by complexity and affects complexity. Theoretically, corporate law is called to guarantee that firms are managed, in free hand, for the benefit of their stakeholders, including community (Cf. Carson, 2003). However,
shadow economy and corruption become the ordinary norm in a growing number of world regions (Beets, 2005; Schneider and Enste, 2000). In fact, many countries often present rules of the game that restrict freedom, creating perverse incentives for firms to engage in corruption.

There are not clear hypotheses or conclusions about how firms are impacted by complex corrupt practices and how they respond to complexity. Actually, literature is not unanimous in defining the role played by corporation in corruption. On the opposite, two contradictory discourses may be distinguished.

Fundamentally framed on a political reasoning, part of the literature presents corporation as a powerful, predatory and self-interested agent (Cf. Beets, 2005; Rodriguez et al, 2005), who contributes to illegal activities by active adaptation mechanisms, like pressuring government officials or encouraging and facilitating corrupt behavior of bureaucrats (Daboud et al, 1995, Needleman and Needleman, 1979). Those discussions understand corruption as an opportunity and a source of profit for firms.

Other discourses (Cf. Boycko, Shleifer and Vishny, 1996), especially those corresponding to an economic approach, give a picture of corporation as an actor that is forced to pay a cost of doing business in many imperfect markets (Wilhelm, 2002) and has no exit option (Hirschman, 1970; Rose-Ackerman, 1999:257; Ades and Di Tella, 1997:502). Thus, the adaptation mechanism is presented as an obligated answer to environment and corruption is understood as an additional business cost.

Both points of view are often mixed in the literature. For instance, Rose-Ackerman (2002) explains that getting business is the justification of global firms for paying bribes and, at the same time, she signals the net cost of the grand corruption. In an experiment with a group of marketing managers, Fritzscle and Becker (1984) pose the ethical dilemma regarding the payment of bribes as a form to penetrate in the Asian market. They found that, even though 39% of the asked managers tended to reject extortion because paying bribes was viewed as an unethical behavior, 41% of the sample seemed in favor of paying because bribing does not hurt and is an acceptable practice in some countries.

A clear understanding of corruption requires clarifying the role played by businesses. However, a comprehensive survey about the role of corporations on corruption is still lacking in a growing literature centered on separate aspects of corruption rather than on an inclusive treatment of the subject as a whole. In our opinion, the confusion that
surrounds the topic is another side effect of corruption’s complexity. Concretely, we suggest that it is a direct consequence of H1, as stated in this study’s fourth hypothesis:

\textbf{H3: the confusion about the role played by corporations in corruption may be explained by the interdisciplinary and holistic essence of a phenomenon which is analyzed from isolated and parochial perspectives.}

In the first of our hypotheses, we connected complexity with the diversity of elements, distinguishing among political, economic and cultural factors. It may be showed that each cited discipline takes a different hypothesis about the corporation’s role, derived from its own methodology and premises. The literature focusing on cultural factors pays very little attention to firms, but the dichotomy is very strong when the economic and political approaches are compared.

Both political and economic approaches focus on the transaction’s scenario, so that they may be considered as environmental approaches to official corruption, that is, the “illegal and clandestine exchange between two “markets”: the political/administrative market and the economic/social market” (Ades and Di Tella, 1997:4). But differences are remarkable. The political approach tries to understand the public face of corrupt transactions by investigating the institutional rules of the political and administrative framework. Economics emphasizes the private side of the transaction, focusing on the analysis of the operating market forces. It may be affirmed that the political approach, more oriented to the “bribe-giver” side, underlines the transactions profits. Meanwhile, the economic approach seems more interested on the transactions costs, adopting a “bribe-taker” view.

1. \textbf{Corruption as an opportunity for profit: the political framework.}

Perhaps with the equivocal thought that moral reflections cannot possibly have a significant role in business (Cf. Melé, 2003; Hausman, 2002), the definition from a political point of view of the firm’s self-interest is not ambiguous: corporation pursues profits and is governed in consequence. Corporations tend to overweight economic performance, refraining from many ethical considerations, and they will accordingly be bribe payers if bribe is an efficient price mechanism (Cf. Clarke and Xu, 2004).

Rose-Ackerman (2002) argues that firms pay bribes to assure present and non-risk benefits as well as to obtain future preferred treatment. On the first aspect, corporation pays concrete sums of money

(a) To get favoured treatment in contracts, licences, concessions and privatization processes. Some times firms may believe there is a non-competitive market
where only the bids of bribe-payers are considered for contracts; some other times, they know markets are non-competitive (Weber and Getz, 2004).

(b) To affect the terms of the contract in advance, removing illegality
(c) To obtain information relevant to success.

On the second aspect, in the bargaining game between politicians and firms, corporation attempts
(a) To influence directly on the future regulatory environment in whichever of its aspects
(b) To influence indirectly by charging prices significantly below costs in some products in order to win future political support (Shleifer and Vishny, 1994)

It has been described that the petty bribery is often the result of extortion driven by low-to mid-level civil servants, who demand side-payments in order to complement their low wages (Goudie and Stasavage 1997; Rose-Ackerman 1999). On the opposite, in the grand bribery, the payment is offered by greed-driven firms to high-level politicians driven by the desire to consolidate power (Rose-Ackerman 1999; World Bank 2000). Beck et al (2005) find that, in this line, the firm size is very important.

The general argument is reinforced in global corporations (Cf. Ricks, 2003), which engage in operations across numerous legal jurisdictions and highly variable ethical standards (Luo, 2004). Their strategy (Husted, 2003), specially in the multinational enterprise with sub-units and global hierarchies, is designed to optimize firm-wide performance (Cf. Rangan, 1998). Thus, the inefficiencies associated to business conduct in the context of corrupt environment are contemplated from the “bribe-giver” side and, in the end, the main hypothesis is that susceptible officials are bribed by corporations.

Framed explicitly in this hypothesis, the political approach, which has served as a base to the Foreign Corrupt Act or the OCDE convention against bribery, proposes to establish national legislation to criminalize the payment of bribes by national corporations to foreign governments or to their agents.


Economics accepts that corporation enters markets—either corrupt or non-corrupt— in order to exploit opportunities of profit, which are normally menaced by risks. Markets involve always a long-rang risk of economic failure. However, the adverse impact of risk increases in corrupt environments (Van Wyk et al, 2004). The “excess” of risk must receive a managerial response in order to anticipate and mitigate uncertainties (Johnson
et al, 2000). Paying bribes may be an answer mechanism to market and government failures (Cf. Acemoglu and Verdier, 2000; Becker and Stigler, 1974; Leff, 1964). In this sense, and in opposition to the political view, economics suggests that the business conduct must be contemplated as an answer to corrupt bureaucrats, and, therefore, it supports the “bribe-taker” view.

Controlling risks when accessing to non-transparent markets is very expensive. In corrupt environments, corporation supports many direct and indirect costs (Cf. Doh et al, 2003). It must be noted that the monetary amount that firms must pay (and the uncertainty about it) is just a small part of all the costs. Corruption essentially increases transaction costs in every stage of the contracting process. Information gathering and contract negotiation become much more expensive

1. Information gathering.

While the bureaucrat has pre-contractual information in advance, the corporation needs to look for expensive information. Corporation is obligated to identify opportunities for benefits, needs to seek for the corrupt official able to offer the source of benefits (usually with non-verifiable information) and has to find the relevant prices, which increase with the secrecy of the agreement and the risk of being denounced or discovered by authorities, bureaucrats or other corporations (Cf. Lambsdorff, 2002).

For instance, Clarke and Xu (2004) find that de novo private corporations pay higher bribes than other firms because they have less political information and influence. When relationships between corporations and bribe-takers are consolidated over time, the information cost and the amount of bribes are reduced. Della Porta and Vannucci (1997, 1999) show how corporations invest in the creation of hidden channels of communication in order to reduce adverse selection and moral hazard. Those channels include the figure of the “middleman” who makes possible a multiplicity of relationships between him and both principals.

2. Negotiating contractual conditions.

Firms must employ much time and many expense resources to enter negotiations with the recipients of the payment. On the one hand, firms are unable to specify an exhaustive list of the future states of the world. In their study about the uncertainty in science for policy, Funtowicz and Raventz (1990) distinguish among three levels of uncertainty: inexactness, unreliability and border with ignorance. In the two first cases, the uncertainty can be reduced by means of quantification, that is, by accumulating information or increasing the technique refinement. However, when the uncertainty
borders the ignorance, the quantification is impossible and complexity is not deterministic. Ignorance hinders predictability, prevents the connection between the past and the future, and removes the efficiency of memory and social prudence. Hellström and Jacob (2001: 15) suggest that the true uncertainty is “a more fundamental state of ignorance than risk”. In states of partial or total ignorance, especially in businesses whose development requires high installation costs, real investment (i.e. plants, specific equipment, etc.) or actives with high degree of specificity (Williamson, 1985), the costs of designing the contract greatly enlarge (Husted, 1994).

On the other hand, corporation is unable to write contracts which prevent opportunism. In “Markets and hierarchies” (1975:7) Williamson suggest that “is not uncertainty or small numbers, individually or together, that occasion market failure but it is rather the joining of these factors with bounded rationality on the one hand, and opportunism on the other that gives rise to exchange difficulties”. In a simple corrupt situation, there is a property right whose capture can produce a wealth source for the firm. This property right can be transferred from public domain to private corporation. In this case, firms face a dichotomous decision: whether paying a bribe or not (or whether making or not a corrupt proposal to bureaucrats). Because the transference of the property right will occur to their mutual advantage, it can be argued that transaction costs will mainly consist of searching for potential partners and negotiating conditions. However, corruption include arbitrariness and pervasiveness. Because of both, official’s ex—post opportunism arises (Choi and Thum, 2004) and bureaucrat can often change the accorded conditions. Corporation wants the contract to be secured, but its enforcement is difficult and untrustworthy. Moreover, the cost of enforcement is the most severe impediment from the corporation’s point of view because of the potential strategic behavioural uncertainty (Williamson, 1999) and the unavailability and instability of the legal resource (Mauro, 1995)

Literature on corruption has largely signaled that “ruler’s corruption introduces an additional element of uncertainty into the investment climate”: the lack of credible commitment mechanism (Rose-Ackerman, 1999:32). Officials and firms who receive or pay illegal bribes are exposed to legal penalties and public disapproval, if it exists. Minimizing some costs of corrupt agreement is possible by some specific features in relationships based in a “quid pro quo” (Cf. Crocker and Masten, 1988). But the dynamics of corruption creates problems of ex-post opportunism (Williamson, 1985) without legal resource or renegotiations. Choi and Thum (2004, 2003) consider the
arbitrariness as the main problem that corporation often faces in a corrupt environment. Doh et al (2003:118) emphasize the arbitrariness of the disorganized corruption networks with agents that act “independently and capriciously”. Rodriguez et al (2005:385) add the pervasiveness, that is, “the degree to which a firm is obligated to address corrupt behaviour”. Gaviria (2002) underlines that the power of the bureaucrat does not finish with the concession of the license, because he can change ex post conditions and exigencies.

Lambsdorff (2002b) suggests that the difficulties to enforce deals can act as a deterrent for corruption. Nevertheless, it is in general true that the lack of confidence can be overcome by ascending the public hierarchy. In this sense, if the probability of ex–post opportunism is high, firms are motivated to abandon the agent-bureaucrat in favour of the structure where she is embedded, by paying bribes to superiors in the agency, like politicians or top government’s directors (Aidt, 1998).

Della Porta and Vannuci (1997) suggest that, due to agent’s arbitrariness, corporations tend to get as close as possible to public powers, looking for a reinforced monopoly position, for instance, with invisible and illegal entry barriers. The “protection for Sale” model (Grossman and Helpam; 1994) underlines that gifts made by corporations are not so much used as instruments but rather as a sign of influence upon governmental policies. The ability of politicians to supply or sell protection against bureaucratic arbitrariness can be employed by corporations to reinforce monopolistic situations (Cf. Alesina and Rodrik, 1994).

It is clear that corruption is not only confined to the level of official hierarchy but also extends to the entire structure, including the elite (Rose-Ackerman, 1999; Guillespie and Okruhlik, 1991). In the end, the net result is that the arbitrariness of public bureaucrats is limited by high-level connections between corporations and politicians. Politicians remain engaged with corporations and accommodate political goals to corporate profits (Cf. Levi and Nelken, 1996)

And it is in this point that political view suggests that every strategy for curving corruption must include actions from both participants: elite and corporations. There is a need for a two folded strategy to meet this challenge, including political development and the corporate intolerance for corruption. For instance, the philosophy subjacent to the Foreign Corrupt Practices Act is that an efficient prevention of corruption requires ethics to be defended in the whole corporation beyond any differences between the parent company and its foreign subsidiaries (Cf. Hines, 1995; Graham, 1984).
Making a crime for any American corporation to offer, promise or make illegal payments or gifts to foreign officials or politicians, United States government recognizes that economic development, market efficiency, democratization and extension of moral values (Cf. Lamsdorff, 1998) —which are distorted or inhibited by corruption— are more important for societies than the profit of businesses. In this sense, corrupt corporation is conceptualized as a main agent of an evil. Its activity is motivated by self-interest and little, if any, economic motivation to seek alternatives (Cf. McChesney, 1997; Thompson, 1995).

Kirzner (1997) suggests that entrepreneurship should be a mechanism that makes possible the discovery and mitigation of economic inefficiencies and consequent failures. In this sense, for instance, paying bribes may be an answer mechanism to market and government failures (Cf. Acemoglu and Verdier, 2000; Becker and Stigler, 1974; Leff, 1964). “In general —Rose Ackerman (2002:1891) says— firms, both, domestic and foreign, justify their behaviour as a means to their greater goal of the creation of economic value and as a necessary, if unpleasant, response to the weakness and venality of governments”. This economic approach neglects and scorns any judgement about unethical practices, so that it omits the interplay between internal ethical decision-making and corruption.

From all the above, it can be stated that the political and economic approaches, despite being contradictory in some respects, lead to conclusions that seem to be perfectly logic. However, it is not possible to totally accept both without applying a more comprehensive analysis. We suggest that political and economic views are at least incomplete, if not misleading, visions of the role played by corporations. Each approach offers just a partial view of the process because it observes only one of the facets of corruption. Nevertheless, the phenomenon itself is simultaneously a political and an economic process. Both dimensions are dynamically interacting with complex connections whose analysis has largely been neglected. In order to combat corruption, the whole process must be contemplated, and both discourses must be integrated.

V.- INTERDISCIPLINARITY, CORRUPTION AND ETHICS
We believe that if the complex essence of corruption (H1) is forgotten, and if interdisciplinary efforts and elements are neglected, the role played on corruption by
corporations will remain obscure (H3). However, as it has been exposed, interdisciplinarity poses some difficulties of its own such as conciliating a methodology, a set of hypotheses or a common use of the terms. Looking for some pieces of unanimously accepted knowledge would be the starting point for organizing the knowledge stemming from diverse disciplines (Max-Neef, 2005). As explained above, the acceptation of the principal-agent methodology for most of the implicated sciences has been an important step in the advance to a real comprehension of the subject, but it is not sufficient. Other pieces of general agreement must be added.

In this sense, we suggest that ethical principles could help establish new guidelines, at least, in order to clarify the role played by corporation in corruption. Thus, the study’s last hypothesis is as follows:

**H4: Ethical considerations permit to clarify the inherent complexity of business corruption.**

H4 is a risked hypothesis, because such pronouncement clearly departs from the mainstream literature on corruption. The economic and cultural approaches to corruption have conceptualized corporations as a “black-box”, whose behaviors are shaped by the “environmental” factors, neglecting the study of the organization itself (Svensson, 2000; Calhoun; 2002). According to both points of view, corruption suggests a conflict of interest between society and market agents due to a misapplication of the rules of the game. Consequently, the ethical business problem is not broached.

In the organizational literature, the same environmental approach has been admitted. In its inner operations, corporation thinks of an ethical problem when there is a conflict of interests whose results can violate its own set of moral principles or values; that is, when the conflict provokes an inner alignment problem. If a corporation pays a bribe to a bureaucrat, corporation itself does not present or suffer apparently an inner alignment problem. The corporation’s agent who acts illegally or unethically is understood to be “serving his principal’s interest,” (Carvajal, 1999; Bandfield, 1975). In spite of the fact that firms may pay official, bureaucrats or high politicians to gain access to market supplies, those actions occur without violation of the firm’s principal-agent contract. The implicit hypothesis is that behavior, attitudes and rules of both corporation and its employees, are congruent so that the corrupt strategy does not create any alignment problem.
Our hypothesis H4 will be rejected unless we link *ad extra* and *ad intra* corruption, connecting ethical climate at both societal and organizational levels. Actually, our last hypothesis requires to probe that there are some points of coincidence between market and business ethics, which could be employed as pieces of accord against corruption.

Ethical rules for business are imposed by three diverse sources: government (through legal rules), society (through cultural uses) and business itself, through its own —formal or informal— codes of behavior. This last source of rules has traditionally played a major role in determining the firm’s standard for ethical practice (Boatright, 2000). However, two main challenges occasioned by globalization are diminishing its role, promoting an exclusively legal or cultural ethics, which is supported by environmental analysis. From one standpoint, globalization has deepened ethical relativism (Velasques, 2000) and cultural uses from host countries are being employed to justify some doubtful business behavior (Cf. Donaldson, 1996). From another standpoint, it has been observed that globalization diminishes managerial discretion, reducing the role played by the internal codes of behavior (Buller et al, 2000).

Certainly, the existence of cross-national and cross-cultural differences among ethical reasoning processes (Cf. Cullen et al, 2004) represents an unavoidable challenge, specially due to the cultural dimension of corruption. If the acceptable model of behavior varies within a given nation; if ethical beliefs significantly fluctuate from culture to culture; if there is any dichotomy in ethical attitudes of entrepreneurs and managers; and if many enterprises are unable to capture the moral truth in a corrupt environment, then the possibility of employing ethics as a common thread of interdisciplinarity results doubtful.

The cardinal point is to find a set of universal ethical principles, if it exists. Donaldson and Dunfee (1994) are among those authors who have discussed the possibility of describing universal ethical concerns in business. They have suggested that, beyond the cross-country diversity in cultural factors, there are *hypernorms*, that is, prescriptions generally accepted by all cultures and organizations, because they “entail principles so fundamental to human existence that they serve as a guide in evaluating lower level moral norms”. Any discordance between behaviour and hypernorms suggests immorality, that is, a behaviour which “is not only devoid of ethical principles or precepts but also positively and actively opposed to what is right or just” (Carroll, 2000:38).
Are there immoral facets in corruption and, specially, in the role played by corporations in corruption? Donaldson and Dunfee (1996) argue that bribery typically violates local norms as well as hypernorms, so that this corrupt practice constitutes an universally unacceptable behaviour. Argandoña (2005) suggests that extortion —openly demanding or soliciting any such payment— is immoral because it forces the company to make a payment that is not included in the terms and conditions attaching to the service, for the exclusive benefit of the official. We share the belief that both paying and demanding bribes violate some of the hypernorms that converge in general ethics —the set of principles and values that govern behavior in accord to a notion of morality—. Nonetheless, we think that links between societal and organizational ethical principles occur in a much primary level, where the inner and outer behaviors of the organization must be firmly anchored. This is the level of truth versus deception, freedom versus restrictions, or justice versus caprice.

The idea can be developed in further detail if we think that, when faced with a corrupt market, corporation is coping with two typical trade-off or dilemma:

1. An external or environmental dilemma: if firm does not pay the bribe, then it risks losing the contract; if it accepts to pay bribes, it breaks law and enters in a potential extortion’ spiral, taking the complex decision without knowing if other companies will refuse or accept to engage in the corruption process.

2. An internal or derived organizational dilemma: if firm pays bribes, the corrupt payoffs help the firm obtain business; because profit and incentives are liked, in the short term, the corrupt payoff benefits both employees and firm. However, in the long term, by paying bribes, employers and employees enter in an ethical ambivalence, which destroys trust.

Through socialization, control and incentives, managers develop internal norms which prevent members of the organization from acting corruptly. With those norms, managers attempt to develop the voluntary acceptance of self-constraint on opportunism, understanding that opportunism —seeking the self-interest with guile and deceit (Williamson, 1975)— damages the future of the firm. Nevertheless, opportunistic actions by employees are facilitated if top management is perceived as being unethical. For instance, after observing any organizational attitudes that tolerate or instigate corrupt behaviors, employees will seek to make sense and justify their own deceit.
If a firm accepts to adapt its ethics to unethical market-entry conditions, it can destroy its internal consistence, creating a dissonance between inward and outward behaviors. Facilitating or authorizing their subordinates' bribery while remaining ignorant of the details, the employer encourages actions in ways that employees would consider immoral in personal and organizational life (Rose-Ackerman, 2002). If, through this dissonant behaviour, the deceit is institutionalized, a harmful effect upon organization has been accepted. Asforth and Anand (2003: 37) defend that when bad apples produce a bad barrel through institutionalization, the barrel itself must be repaired. For the shake of the firm’s long-term existence, deceit must be eliminated. To eliminate the deceit, an anti-bribery policy must be acquired and maintained, resolving the environmental prisoner’s dilemma. Thus, the firm’s outward behavior is voluntarily adapted to the inward ethics, trying to avoid any contagion which could modify its own set of internal norms. (Cf. Hansen and Glinow, 1985).

Ethical principles can help to clarify the complexity of corruption if organizations do not try to build two (inner and outer) insulated ethical compartments, but only a coherent one. They must ask themselves which part of the external corrupt action the firm does not admit for its inner functioning. The answer would represent the basis for a hypernorm to be abided by in all circumstances.

The unethical elements of corruption have exactly the same roots than the element which are rejected in the internal organization of the firm, even if they are not illegal. A robust knowledge of those elements could greatly help the interdisciplinary efforts to grasp the complex nature of corruption. In fact, interdisciplinary studies must be oriented to discover the different facets of those elements. A profound analysis of guile (Williamson, 1985:30), deceit or betrayal of trust (Elangovan and Shapiro, 1998), for instance, would undoubtedly be more far-reaching in their implications for significant improvements in the understanding of -and fight against- corruption than any study of its illegal character.

Summary and conclusions
Corruption is an ancient phenomenon which has been always with us. Even though many empirical and theoretical studies from diverse disciplines have analyzed the issue, disagreements about its definition, causes, consequences and policy remedies persist. In
this paper, we have argued that the complexity of corruption is in the origin of such discrepancies. Our main goal has been to analyze the nature of that complexity, as a previous phase to any attempt to combat corruption. We understand corruption as a extremely rich system, with many and very different elements connected through complex non-linear interactions. Moreover, it is a system that changes both endogenously and exogenously in order to survive. This complex nature can be captured only by a holistic interdisciplinary approach. We strongly believe and suggest that ethical principles could help establish new guidelines for successful interdisciplinary studies about corruption and the role played by the private corporation.

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NOTAS

1 There was a period where—in the long tradition in economics about the potential efficiency of corruption and the second-best solution (Cf. Romer, 1994; Aidt, 2003)—some scholars defended corruption as a promoter of business investments (Nye, 1967; Leff, 1964). At the present time, most academics, politicians, journalists and international organizations support that corruption is a pervasive factor that hinders development. (Cf. Rose-Ackerman, 1999)

2 The field of corruption has been gaining attention over the last years (Abbink, 2004; Hillman, 2004; Ganuza and Hauk, 2004; Weippert, 2004; Bose, 2004). A survey from The Economist, The Financial Times, and the international coverage of The New York Times revealed that articles mentioning “corruption quadruplicated between 1984 and 1995” (Leiken, 1997).

3 It would be agreed that corruption has an extensiveness in their elements as the incomplete description of. Besides the difficulties in obtaining a manageable definition of corruption, the problem of measuring it (Jain, 2001:76) must be cited. As a part of the shadow economy (Friedman et al, 1999; Schneider and Enste, 2000), corrupt activities are unregistered and take place on unofficial roads. The habit of selective disclosure of information that characterizes illegal activities is here a vital instrument to conserve rents (Mauro, 1998) obligating to involve the least possible number of individuals.

In this sense, despite international (World Economic Forum, Business International, Transparency International) or private (Kaufman et al, 1999; Mauro, 1995) attempts to measure the phenomenon, the level of opacity remains high. Following Richardson’s terminology (1972), we can know “what”—facts and often relationships—but we cannot know “how” because “the ability to perform the appropriate actions to achieve a desired result” (p. 895) is far. Even data about dishonest behavior are very hard to obtain and, if there are links between corruption and crime or international theft, the complexity increases (Schneider and Enste, 2000).

4 Geographically, globalization of markets, virtual transactions or communication technologies (Yeniyurt et al, 2005; Grant, 2000) have scratched out national frontiers. Knowledge has displaced labor as the primary production factor (Pinker, 1998); intangibles and services are now the main sources of value (Rodriguez and García, 2005). The great and alone corporation’ action has been supplanted by a networked action both inside and outside the organizations (Osborn and Hagedoorn, 1997). Cited changes prompt the impossibility of long-term planning
and the limitations of the present organizational models, justifying the growing interest of organizational sciences in complex theories and elements.

Efforts focus on the formal and analytic description of both uncertainty and limits of knowledge (Hodgson and Yokohane, 2001; Ormerod, 1999) which would permit to supplant the simple model of rational agent able to process complete information (CF. Colander, 2000).

During the last three decades, the notion of complex system has been explored with different perspectives and scientists have offered many propositions, even though there is still no generally accepted definition of complexity (Chu et al, 2003). After Arrow works (Arrow, 1974; 1988) in economics, there has been a rapid expansion of interest in complex structures (Foster, 2000; 1993) and some elements of complexity theories are being applied to the difficulty of coordination of large numbers of interdependent elements (Dosi et al, 2003); to decision making with limited information (Knott et al, 2003); to behavioural problems associated with bounded rationality and opportunism (Foster, 2000); to learning processes in a market for preferences (Earl and Potts, 2004); to entrepreneurship (McKelvey, 2004) or to the dynamics of the contracting process in public service provision (Hefetz, 2004).

Endogenous tendency of both, organization and complexity, to increase together, which completes the notion of Darwinism evolution (Kaufmann, 1993)

Treisman (2000) cannot be included in the strict complex perspective, but in a soft perspective.

For an introduction to the study of complexity, see Holland, 1995; Waldrop, 1992; Kelly and Allison, 1999.