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# How We See Them Versus How They See Themselves

## A Cognitive Perspective of Firm– NGO Relationships

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The present study complements current firm–nongovernment organization (NGO) literature by emphasizing the influence of managerial cognition on organizational behavior. In particular, I find that NGOs confront or seek to collaborate with other NGOs or with firms to appear as legitimate actors before selected third parties and as a way to access various sources of funds. By contrast, firm managers interacting with these NGOs are fundamentally concerned with achieving social stability so that their organizations can operate undisturbed. These different goals give rise to considerably dissimilar mental representations of the same reality—representations that subsequently inform strategic action by both types of actors.

**Keywords:** *managerial cognition; cross-sector organizational interactions; organizational field perception; MNE–NGO relationships; non-market strategy*

The context in which firms and nongovernment organizations (NGOs) interact has changed in two important ways during the last decade. First, the organizational performance of firms and NGOs has become increasingly dependent on each other's actions (Vogel, 2006). Second, sources of income for NGOs have become increasingly competitive and tightly linked to documented achievement of results, pushing them into undertaking novel strategies to satisfy their founders' desire for palpable outcomes. The combined effect of these forces has made it increasingly manifest for firms and NGOs that they often populate the same "area of institutional life," that is, that they belong in a common organizational field (DiMaggio & Powell, 1983).

Witness to the relevance of this transformation in the organizational landscape of firms and NGOs is the growing body of academic research exploring the interactions between these two types of organizations. For example, considerable efforts have been dedicated to investigating the

factors that are more likely to spark NGO actions against firms (Eesley & Lenox, 2006), the strategies used by NGOs to effect changes in corporate practices (O'Rourke, 2005), the most effective ways for firms to respond to challenges by a variety of stakeholders (Spar & La Mure, 2003), or the role played by NGOs in the adoption of voluntary regulation by firms (Bartley, 2007; Marx, 2008).

For the most part, this research views managers as perfectly rational actors who make decisions with full information about their environments and whose cognitive capabilities are completely unconstrained. This approach, akin to casting interactions between firms and NGOs as a matter of "social physics" (Bourdieu & Wacquant, 1992), is problematic in view of recent empirical studies in the managerial cognition tradition that emphasize the interaction between cognitive and structural elements (Lamertz, Heugens, & Calmet, 2005; Nadkarni & Barr, 2008) in explaining strategic action at the organizational field level. These same studies, however, could be critiqued for holding an exceedingly narrow view of what constitutes the relevant environment influencing managerial decision making. In general, they focus exclusively on competitors within a given industry and ignore that the organizational field (DiMaggio & Powell, 1983) is formed by multiple types of actors, including NGOs, that may have a fundamental influence in determining organizational behavior and field dynamics.

This article attempts to contribute to both strands of research by exploring how the cognitive representations that NGO managers (NGOMs) and firm managers (FMs) develop of their common organizational field inform interaction between firms and NGOs, and among NGOs. To do so, I first elicit the mental maps of NGOMs and FMs in a particular organizational field. Then, I aggregate these individual maps across NGOMs and across FMs to produce an NGO-sector and a corporate-sector representation of the field. Next, I interpret the structure and meaning of these two maps based on accounts provided by these same managers of what the main forces driving the interactions among NGOs and between firms and NGOs are. Finally, I formally compare the degree of overlap between the maps both in terms of their structure and the heuristics that each group of managers employed to produce them. The reason for concentrating on these simple "classification" or "primary" maps (Huff, 1990) is that they constitute the foundation of more sophisticated managerial cognitive structures and are the primary basis for managerial decision making (Fiske & Taylor, 1991; Laukkanen, 1994; Nadkarni & Barr, 2008).

The empirical setting for this research is the Ecuadorian Amazon—an area where the fortunes of upstream oil firms and NGOs have been tightly intertwined for the best of the last two decades.

The results of this study indicate that the main concern of NGOs operating in this setting is to secure funding and to achieve high levels of legitimacy before very specific sets of stakeholders. Firms, by contrast, predominantly see NGOs as a conduit to attain a level of social stability that allows them to carry out their industrial activities undisturbed. It is the pursuit of these sometimes conflicting goals that drives competition, collaboration, and confrontation both among NGOs and between firms and NGOs. Contrary to the implicit assumptions in extant research, these forces are neither directly observable nor unambiguously derived from a firm or an NGO's organizational attributes.

The remainder of this article is organized as follows. First, I briefly position this study within the related literatures. Second, I present the empirical setting and the methodological aspects of this work. Next, I present the results of my analysis. The article concludes with a discussion on the implications of these findings.

## Positioning the Article

Management scholars have approached the relationships between firms and nonmarket actors such as governments, interests groups, NGOs, and public opinion from two competing perspectives (Mahon, Heugens, & Lamertz, 2003): strategic issue management (Ansoff, 1980) and stakeholder theory (Donaldson & Preston, 1995; Freeman, 1984). Despite the differences in paradigm conceptualization, basic objectives, and research questions investigated by these two schools of thought, empirical studies in both traditions share a strong objectivist approach. That is, they have traditionally seen the world as an uncontroversial, readily observable and neutrally measurable reality where events and information had the same exact meaning for all actors involved. As a result, organizational field dynamics are conceptualized as the interaction of social artifacts devoid of interpretive resources. While some scholars in this tradition have recognized the importance of meaning attribution in explaining Firm–NGO interaction (Dutton, Fahey, & Narayanan, 1983; Dutton & Jackson, 1987; Mahon & Waddock, 1992; Rowley & Moldoveanu, 2003), little of this subjectivist perspective has trickled down to *empirical* assessments of the interactions

between firms and other nonmarket actors (but see Wolfe & Putler, 2002 for an exception).

In stark contrast to the strong structuralist/objectivist approach in non-market studies, increasing attention has been paid in the mainstream strategy and organizational behavior literatures to what happens "inside the head of the strategist" (Mintzberg, Ahlstrand, & Lampel, 1998). Cognitive approaches to individual and collective decision making stem from the realization that the capacity for individuals to process information is considerably limited (Cyert & March, 1963; March & Simon, 1958). To make sense of the informational maze derived from their environment, managers develop simple information-processing rules that help them categorize the different bits of information they receive, filter out those deemed irrelevant, and highlight those that appear most influential for their organizations' survival. Through the use of these cognitive shortcuts, managers develop a stable and simplified portrayal of the environment where their organizations operate. These lower dimensional representations of reality (Gavetti & Levinthal, 2000) have been variously referred to as mental maps, cognitive maps, worldviews, and frames of reference (Walsh, 1995).

Research on how managers develop their mental maps has highlighted the influence of multiple organizational-field level mechanisms. Indeed, managers' mental maps derive as much from the technical constraints experienced by all participants in an industry (Porac & Thomas, 1990), as from experiences, beliefs, norms, and regulations shared with other individuals in their social milieu. That is, both the "technical environment" with its logic of efficiency and the "institutional environment" with its logic of legitimacy play a fundamental role in shaping managers' mental maps and, as a consequence, on the interactions among the organizations populating the organizational field (Orru, Biggart, & Hamilton, 1991; Scott, 1991).

It is interesting to note that while the theoretical literature on managerial cognition strongly emphasizes the role of a broad array of social forces in shaping managers' mental maps, empirical studies in this field have had a considerably narrower focus. Indeed, much of the literature in this area focuses on the factors driving the competitive behavior among firms in tightly defined industries. For example, Porac, Thomas, and Badenfuller's (1989) seminal paper on the Scottish knitwear sector focuses on how mental maps shape and are shaped by the structure of that industry; Reger and Huff (1993) explore the existence of strategic groups within the banking industry in the Chicago area; Hodgkinson and Johnson (1994) challenge the existence of cognitive consensus among the grocery retailers in the United Kingdom; more recently, Nadkarni and Barr (2008) have studied the

interaction between environment structure, managerial cognition, and strategic (competitive) action in the context of high vs. low velocity industries.

In summary, studies that investigate Firm–NGO relationships have emphasized the increasing interdependence between these two types of organization and the various kinds of relationships that they establish. Their research approach, however, has been essentially structuralist in nature. Scholars in the managerial cognition tradition, by contrast, have highlighted the relevance of subjective interpretations of the environment but have paid limited attention to phenomena such as simultaneous cooperation and competition among organizational actors or the interactions between different types of organizations populating the same organizational field. By eliciting, interpreting, and comparing the mental maps of FMs and NGOMs forming part of the same organizational field, this study represents a first step at merging both strands of literature and provides new insights on the drivers of collaboration and competition among NGOs, and between firms and NGOs.

## Empirical Setting

The setting chosen to carry out this study is the eastern region of Ecuador, an area known as *Oriente*. The Oriente comprises the westernmost section of the Amazon forest and is of particular relevance to NGOs committed to the preservation of the natural environment, the protection of indigenous peoples' rights, and the economic development of the communities living in this region. However, it is also of capital importance to a handful of oil companies that explore and extract the area's crude oil.

The reason for choosing the Oriente for this study is that, because of its characteristics, it is extremely easy for actors operating in this setting to develop highly homogeneous representations of the composition and structure of their organizational field. This is desirable for the goals of this study on two accounts. First, the behavior reported by FMs and NGOMs will reflect the normal pattern of activity at their organizations, not their behavior in times of crisis. Second, if significant differences appear between the mental maps of FMs and NGOMs in this domain, they are likely to be even larger in other contexts where the elements leading toward cognitive homogeneity are not as salient as they are in the Oriente. By contrast, if the empirical setting was less conducive to cognitive homogeneity and we found considerable differences between FM and NGOM's representations, it would not be possible to determine whether these observed differences

were a consequence of the environment or to some fundamental difference in the way each type of manager makes sense of their common environment. As a consequence, the part of this study concerned with the degree of similarity between FMs' and NGOMs' maps represents a "hard" test of the limits of cognitive homogeneity between these two types of managers.

Probably, the most important trait leading to the appearance of pressures for cognitive uniformity in Oriente is the great deal of influence that firms and NGOs have on each other's capacity to achieve their organizational objectives. The very nature of the activity of oil firms represents a large threat to the goals pursued by environmental and human rights NGOs trying to preserve the Amazon forest and its peoples. Unfortunately, these threats have materialized on numerous occasions in the last 30 years in the form of water and air pollution caused by oil exploitation (Kimerling, 1993; Varea, 1995) and mistreatments of the indigenous populations by the security members of oil companies (Kimerling, 1996; Maldonado, 2004; Maldonado & Narvaez, 2005). However, oil companies' wells and pumping stations have been periodically taken hostage by the local communities, in coordination with NGOs (Bravo, Martinez, Yanez, & Boedt, 2006; Maldonado & Almeida, 2006). In some areas, the power of communities and cooperation organizations is such that companies that won the bid to exploit new oil blocks have not yet been able to start exploration activities. At the time of the field work for this research, for example, neither Burlington nor Tripetrol had been able to start operations in their blocks due to the opposition of local communities and NGOs.

In addition to influencing each other's performance, a number of attributes of the Ecuadorian Amazon make it possible for firms and NGOs to be very knowledgeable about each other's actions and relationships. The most relevant are the long history of interaction between these two collectives, the relatively small and well-bound geographic area where firms and NGOs interact, the existence of just three major urban centers in Oriente, the lack of any recent trend change in the institutional make-up of the region, and the fact that most of these organizations' headquarters are located within a two mile radius area in Quito. According to the literature reviewed above, all these elements increase the chances for organizational and social interactions between FMs and NGOMs and, as a consequence, lead to the development of similar worldviews.

While the characteristics of the environment just described facilitate exchange of information and awareness of what other actors in the field do, it is important to acknowledge that pressures for cognitive heterogeneity between FMs and NGOMs are likely to be always present due to the very

different organizational missions pursued by firms and NGOs. As such, the degree to which FM and NGOM maps resemble, in equilibrium, is an empirical question that this article tries to address.

## Data and Method

A total of 51 managers—19 from oil firms and 32 from NGOs—were interviewed for this study. Most of the NGOMs were the managing directors of their organizations or had been working with that particular NGO for at least 3 years. FMs were, with the exception of two CEOs, the individuals responsible for “community relationships management.” Each interview consisted of two clearly differentiated parts. The first part consisted in the elicitation of the interviewee’s mental map (explained in detail below). Then, and in sight of the mental map just produced, I asked them to explain in detail the interactions between firms and NGOs, and among NGOs in the Ecuadorian Amazon. An extensive semistructured interview guide was followed to assure consistency across respondents. The average length of an interview was 2.5 hr, and all but 2 were recorded.

To elicit the mental maps held by these FMs and NGOMs, I employed a modified pilesorting technique (Bernard, 1995). Pilesorting has been consistently employed by anthropologists to depict cultural domains (Borgatti, 1996; Boster & Johnson, 1989; Boster, Johnson, & Weller, 1987; Burton & Nerlove, 1976; Weller & Romney, 1988). This technique is particularly adequate to capture the internal structure of the items being sorted and presents the added advantages of ease of administration, extremely low risk of cuing from the interviewer, and the possibility to aggregate individual responses.

The mechanics of pilesorting vary depending on the object of study and the research question. In this case, I wanted to capture how each manager represented the structure of the NGO sector. Therefore, I interviewed all 51 FMs and NGOMs individually. Respondents were presented with a deck of cards. The same deck of cards was used in all interviews. Each card in the deck had the name of one NGO operating in Oriente. Respondents were then asked to classify the cards following a two-stage process. First, they had to make two piles—one with those organizations that they were familiar with and another one with those they did not know. Then, the respondents were asked to split the pile of the organizations they knew into several piles according to how similarly they perceived these organizations to behave. Respondents were allowed to make as many or as few piles as

they needed, and they could also make single-card piles. Once the piles were defined, respondents were asked to provide one or several "labels" and a short explanation of the characteristics of each pile. Next, they were asked to explain the main differences they saw between groups.

Each pilesorting exercise provided two types of data. One was a measure of relatedness between the NGOs in the card deck that depended on whether they had been classified in the same pile. The second type of information, provided by the labels assigned to each pile, indicated the criteria that respondents employed to segment the NGO sector. Individual responses of NGO relatedness were aggregated following a simple procedure. For each interview, I built a symmetric matrix where the row and column labels were the names of the NGOs in the card deck. Then, I assigned a value of 1 to those cells whose row and column labels had been put together in a pile and a value of 0 otherwise. Last, I obtained the collective FM mental map by adding the matrices corresponding to FMs. This produced a summary matrix whose cells showed the number of times that each possible pair of cards was put in the same pile. For example, if only 2 of the 19 FMs interviewed put NGOs A and B in the same pile, the FM summary matrix would display a 2 in the cell that had "NGO A" as a row (column) heading and "NGO B" as column (row) heading. The NGOM map was derived following the same procedure. Further details about the treatment and analysis of these data are provided in an online methodological appendix at <http://home.gwu.edu/~rafel/Research/Papers/paper001.htm>.

The card deck employed for this exercise contained the names of 65 NGOs. The criterion for selecting which NGOs to include in the card deck among the 2000-plus estimated to operate in Ecuador was the result of a free-listing exercise carried out in Quito the month before the interviews properly started. Free listing is a technique commonly used to delimit the area of study. It consists in asking a small set of (expert) respondents to name or write down all the items matching a given description. In this case, I asked six individuals with long experience on the situation in Oriente to list "the most relevant NGOs operating in the Ecuadorian Amazon." Once the data were collected, I rank-ordered the resulting 99 unique NGO names by frequency of mention. For an NGO to be included in the pilesorting card deck, it had to be mentioned by at least two experts.

Although in the free-listing exercise I specifically asked about "relevant NGOs," determining whether a particular organization is actually an NGO is not always a straightforward task (see Anheier, 2004; Salamon & Anheier, 1997; and van Tulder & van der Zwart, 2006 for reviews on this topic). Therefore, it is important to make a brief digression at this point to

understand the exact nature of the organizations included in the card deck. Conversations with the experts that carried out the free-listing exercise revealed that the institutional landscape in the region was formed by four broad types of organizations: government, firms, communities, and development organizations. Government organizations include various levels of the Ecuadorian public service, ranging from provincial governors and mayors of larger towns to the leaders of mestizo settlements. This category would also include the country's armed forces and the Catholic Church, the latter often acting as a mediator between the government and the other institutional actors. Firms operating in Oriente were mostly related to the oil sector, with international upstream companies and the national oil firm, Petroecuador, forming the elite of this group. "Communities" encompassed the indigenous groups of peoples living outside of main urban centers. This category comprises more than 850 communities grouped in eight ethnic Indian nationalities. Indigenous communities have a variety of representative bodies ranging from settlement leaders to the powerful ethnic federations to the national indigenous political party Pachakutik. The fourth group of organizations that compose the institutional make up of this region is generally referred to as "organizaciones de cooperacion," literally meaning cooperation organizations. This group consists mostly of what Teegen, Doh, and Vachani (2004) define as NGOs.<sup>1</sup> However, a considerable number of the organizations that people in the region identify as cooperation organizations are, in fact, government sponsored. Interestingly, there exist a broad range of aid models even within this subgroup of government-sponsored organizations. Some aid agencies such as United States Agency for International Development (USAID) are seen as an extension of their government's diplomatic apparatus whereas others, such as the Dutch aid agency SNV, are perceived to operate just like other large private NGOs.

By choosing to include in the card deck the names of 10 government-sponsored aid organizations that surfaced as highly relevant in the free-listing exercise, this study is not, strictly speaking, a pure investigation of how FMs and NGOMs' perceive the NGO sector operating in Oriente. However, by including the most relevant of the cooperation organizations in the card deck, this study gained considerably in internal validity as it mirrored more closely the daily experience of the managers who participated in the pilesorting exercise. The results presented below should be interpreted with this feature of the research design in mind.

As mentioned above, the elicitation of each interviewee's mental map was followed by a very detailed discussion of the drivers guiding the interactions between firms and NGOs and among NGOs in the Oriente.

## Results

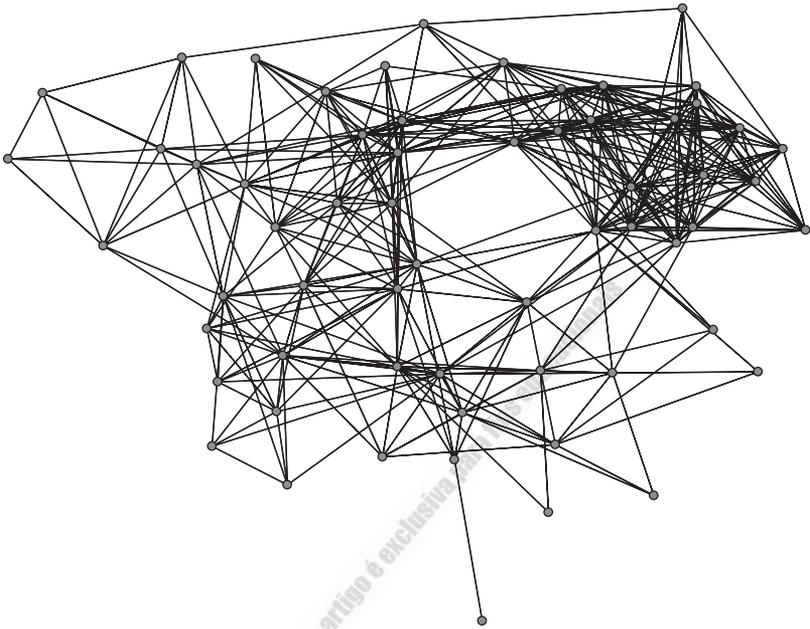
The results from the analysis of the pilesorts and associated interviews are reported in three parts. First, I describe the mental map produced by NGOMs and interpret it in light of the narratives provided by these same managers regarding the interactions between firms and NGOs and among NGOs operating in Oriente. Second, I repeat the process but using the pile-sorts and explanations provided by FMs. Finally, I formally compare the structure of the two maps and the heuristics, or classification rules, employed by each type of manager to produce them.

### Topography and Interpretation of NGOMs' Map

I take as starting point the NGOMs' summary matrix. As stated in the methodology section, this matrix reflects the relative degree of similarity between each possible pair of NGOs in the card deck. Applying a multidimensional scaling technique on the summary matrix, I obtain a two dimensional illustration of the relative distances among the NGOs in the card deck (see Figure 1). The stress level associated with this graph (0.166) indicates that it represents the relative positions among NGOs with considerable accuracy. I further characterize the structure of the NGOMs' map in Figure 1 by looking at how many clique-like structures appear to be in this network. The optimal fit level is reached when six factions are specified. In Figure 2, each faction is represented by a different node shape. The last step in the analysis of this map consists in determining which labels provided in the third step of the pilesorting exercise are more frequently associated with each one of the factions. The result of this procedure results in NGOMs describing their own sector as structured in six main subgroups: (1) international environmental NGOs, (2) government-sponsored organizations that often provide funds for the NGO sector, (3) international private NGOs that provide relief services and are active in human rights issues, (4) national NGOs that focus on human and social rights, (5) national environmental radical groups that oppose the expansion of the "oil frontier" in Ecuador, and (6) national environmental groups that focus mainly on policy and scientific research.

Linking the analysis of the NGOMs' map with their narrative of the fundamental forces driving organizational behavior in this sector reveals that access to funds and maintaining high levels of legitimacy are the two key elements for the survival of their organizations. The need to access these two types of resources *continually and simultaneously* prompts a

**Figure 1**  
**Multidimensional (MDS) Representation of NGOMs' Mental Map**



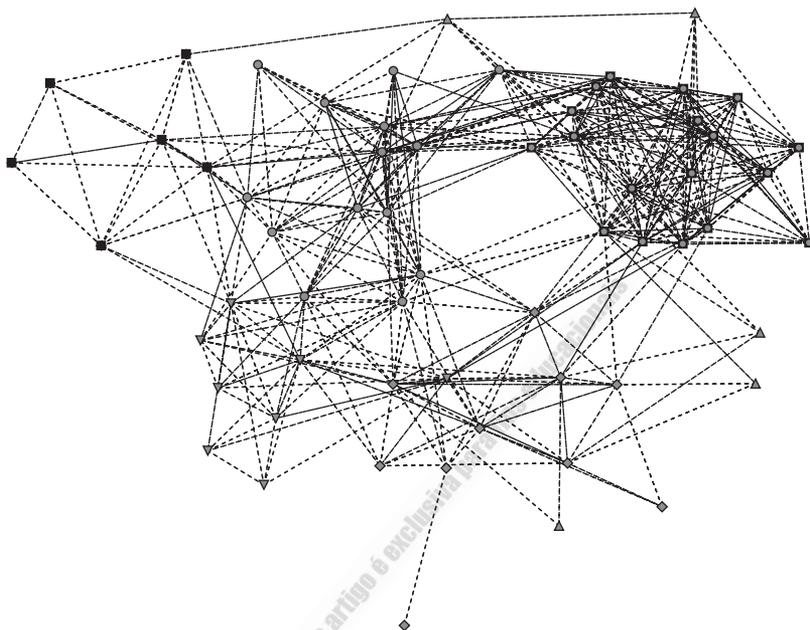
Note: NGOMs = nongovernment organization managers.

wide array of organizational strategies. These strategies, in turn, reflect a very careful calculation of whom an NGO competes with and whom it collaborates with.

A short example helps illustrate this point. After 15 years of operation, MedioAmbiente,<sup>6</sup> an environmental NGO dedicated to the study and protection of certain animal species in Ecuador, decided in the early 2000s to collaborate for the first time with an oil company. In the words of its managing director, the reason for this shift was that

[we and other NGOs] were feeling very clearly the re-focus of international aid towards Africa. This translated in much tougher competition for the limited resources in this region. It looks like, as a result, NGOs are now developing alternative lines of action to ensure their survival including cooperating with firms, broadening the scope of their operations and collaborating with NGOs in other sectors.

**Figure 2**  
**Multidimensional (MDS) Representation of NGOMs' Mental Map**



Note: Node shapes represent the six factions in which NGOMs classify the organizational field. NGOMs = nongovernment organization managers.

The collaboration between MedioAmbiente and the oil firm, which consisted in the provision of environmental services for the firm, provided MedioAmbiente with much needed financial support. In addition, and somewhat to its surprise, it also helped MedioAmbiente advance its organizational mission by advising the firm on ways to lessen the environmental impact of its projects. However, these benefits came at a significant initial cost to MedioAmbiente's legitimacy in the eyes of the environmental NGO community. The reactions of other NGOs to MedioAmbiente's initiative ranged from a discrete silence to open and harsh criticism for "working with the enemy." In addition, most of the NGOs quickly took measures to distance themselves from MedioAmbiente. The diffusion of the positive results for the environment that MedioAmbiente's collaboration with the firm had softened the strong initial reaction from the NGO community to some extent. Nevertheless, this event considerably shifted the positioning of MedioAmbiente in the Ecuadorian NGO sector. That is, by working with

an oil firm, it gained access to a new source of funds and became more legitimate in the eyes of other potential corporate partners. However, this same action turned MedioAmbiente into an outcast for other NGOs whose claim to legitimacy derives precisely from opposing any oil firm—initiative “by definition” and made MedioAmbiente ineligible for collaboration in future campaigns or projects.

This struggle for funds and legitimacy is reflected in the mental map of the NGOMs in Figure 2. Indeed, for NGOMs, the primary criterion for classifying NGOs operating in Ecuador is by country of origin. In the NGOM’s collective imaginary, foreign NGOs are seen as having access to larger amounts of economic resources and as being a significant source of funding for local NGOs. However, foreign NGOs are also perceived as having lower levels of legitimacy. This is particularly so on issues where national pride is at stake, such as oil development or the preservation of the Amazon. Beyond the country of origin, the sources of legitimacy and funding derive primarily from a broad array of variables, including the domain in which the NGO operates (environment, relief, human rights), its institutional origins (private or close to government), or the ideologies and tactics it endorses (confrontational or collaborative).

From this perspective, NGOs that appear close together in Figure 2 are likely to derive funds and legitimacy from similar resource pools and to present greater complementarities with other NGOs located in further away clusters. Therefore, according to population ecology explanations of inter-organizational behavior (Hannan & Freeman, 1989), we should expect to find greater competitive pressures among NGOs located next to one another and more collaboration among NGOs located far apart. However, a review of the Ecuadorian press on oil-related issues confirms that the appearance of coalitions of NGOs in close proximity of each other in Figure 2 is not uncommon in the Ecuadorian Amazon. However, this only happens in the event of high-profile issues involving the potential for extreme environmental damage or gross violation of human rights. In these cases, the rationale for collaboration among NGOs appears to stem as much from the expected collective gains in legitimacy if the issue is resolved according to their interests as from the risk of being singled out for not getting involved in an issue of the utmost relevance for the NGO community.

## Topography and Interpretation of FMs’ Map

Following the same procedure as with the NGOMs map, I proceeded to analyze the FMs’ mental map (see Figures 3 and 4). The structure of this

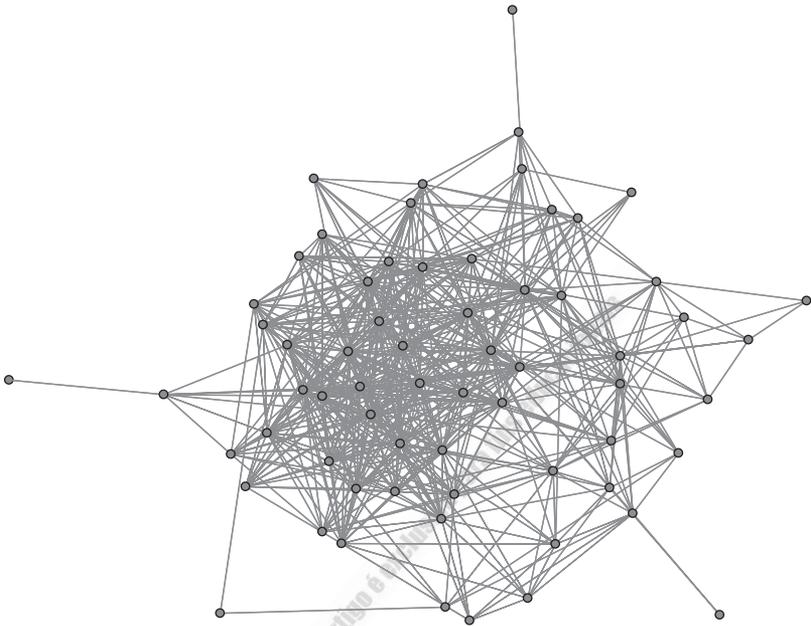
map is much less sharply differentiated than the NGOM's. In particular, the structural analysis differentiates four main regions—one of them comprising more than half of the NGOs in the card deck. The NGOs in the largest region are associated with terms such as *reliable*, *can work*, *listens to proposals*, or *has a high impact*. By contrast, the NGOs depicted with circles in Figure 4 were associated with labels emphasizing the confrontational nature of these organizations and the little degree of openness that their leaders had shown to oil firms' arguments. The remaining groups of NGOs, located between the two just described, are characterized by being of little relevance to FMs. Not only are they associated with labels such as *know a little* or *heard of* but were they also significantly more frequently discarded during the first step of the pilesorting process.

As with NGOMs, the next step was to interpret the FMs' map based on the explanations provided by FMs. While access to funds and legitimacy are the drivers of competition and collaboration from the NGOMs' perspective, the primary concern of FMs is simply to be able to exploit their wells. This is sometimes particularly difficult in places like Oriente where the presence of the governmental apparatus is minimal and public services are extremely limited. As a result, the role of the community relations departments of oil firms is frequently to ensure a minimum level of institutional and social stability that makes it possible for the company to operate. One of the FMs interviewed described the role of his department as follows:

Ecuador does not have a solid government. In Oriente, this lack of government institutions and mechanisms is even more marked [than in the rest of the country] and the needs of the communities are completely disregarded. Given the lack of institutions, the oil companies see themselves forced to fill these spaces. In this manner, the needs of the communities become a part of the firms' agendas who assume them for two fundamental reasons: to be able to operate and for ethical reasons.

The results obtained from the pilesorting exercise on FMs appear to be consistent with this perspective. FMs divide the NGO sector between those NGOs that oppose the development of oil resources in Ecuador and those that help, or at least do not interfere with, oil firms' operations. Note that this classification bears little resemblance to the "advocacy vs. services" that some studies propose as relevant in explaining the relationship between firms and NGOs (Teegen et al., 2004). In Oriente, at least, advocacy and service NGOs are found among those that FMs classify as friendly and among those they classify as unfriendly.

**Figure 3**  
**Multidimensional (MDS) Representation of Firm Managers' Mental Map**

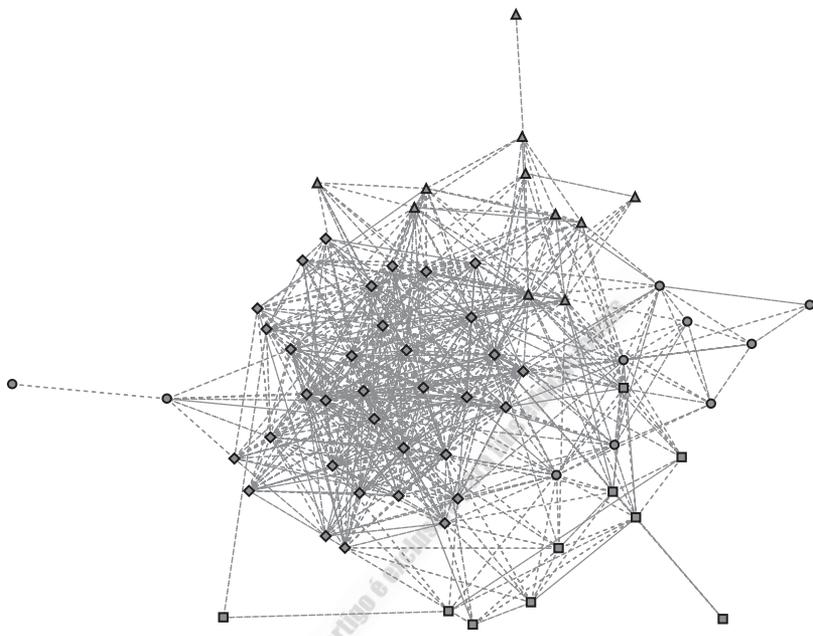


### Formal Comparison of the Structure of Both Maps

While differences in the shape of NGO and FM's maps are readily apparent from observing Figures 1 and 3, a Quadratic Assignment Procedure (QAP)<sup>2</sup> allows formal testing of whether the two distance matrices are statistically significantly different. The application of this procedure points at the existence of a relatively low ( $r = 0.388$ ) but highly significant ( $p = .000$ ) correlation between the cognitive representations held by FMs and NGOMs. That is, although it cannot be argued that the maps that these collectives use to operate in this environment are completely at odds, their resemblance is limited at best.

To further examine the differences in the structure of both mental maps, I first analyze the networks as wholes and then focus on the various regions that appear within each map. A comparison of the univariate statistics for both networks, displayed in Table 1, shows that the average strength of a tie—how frequently any two NGOs are placed in the same pile—is higher in the FM map than in the NGOM map. A bootstrapped  $t$  test comparing the

**Figure 4**  
**Multidimensional (MDS) Representation of Firm Managers' Mental Map**



Note: Node shapes represent the four factions in which firm managers classify the organizational field.

densities of both networks, also in Table 1, confirms that the average tie strength in the FM network is statistically significantly larger than in the NGOM network. Interestingly, the FM network presents considerably fewer links than the NGOM network (2,606 vs. 3,236). Combining both pieces of information suggests that FMs produced fewer piles than NGOMs and that their piles contained, in average, more cards.

To assess differences at the subgroup level, I carry out a hierarchical cluster analysis of both maps and compare the results. This exercise, reported in the online appendix, shows that FMs identify a small number of strong dyads or triads that will only end up forming part of bigger subgroups at the very end of the clustering procedure when the strength of the ties required for these building blocks to form part of a larger sets is very low. In contrast with the clustering pattern of FMs, NGOMs' presents more levels of aggregation and very clear fault lines. In this case, the first few groups of strongly linked NGOs will progressively overlap with each other

**Table 1**  
**Network Univariate Statistics by Type of Respondent**

Statistic	Firms	NGOs
Mean value	0.085	0.089
Standard deviation	0.091	0.121
Euclidean norm	8.041	9.666
Sum	353.385	368.824
Maximum	0.615	0.853
Minimum	0.000	0.000
No. of observations	4,160	4,160
No. of links (% of total possible)	2,606 (62%)	3,236 (78%)
Density (2) = Sum/No. of links	0.1356	0.1139
Density difference/ <i>t</i> test <sup>a</sup>	0.0216 (0.0020)	

Note: NGO = nongovernment organization.

a. A bootstrapped paired sample *t* test finds that the proportion of differences as large as observed is 0.0008 and the proportion of differences as small as observed is 0.9994. This test is carried out on the Density (2) measure.

in an oil-stain pattern. Consistent with these results, a final set of analyses also reported in the online appendix confirms that the FM map can be thought of as a large and not-too-tight core, surrounded by a periphery of nodes with very weak links to this core. The NGOM map, however, is better represented as a network with several different clusters, each of which is strongly internally connected but more loosely linked to the other actors in the network. As a whole, the structural analysis of both maps suggests that NGOMs are considerably more discriminating than FMs in their assessment of the NGO sector in Ecuador.

## Discussion

The map and associated explanations produced by NGOMs provide three fundamental insights that would be hard to obtain by solely comparing the observable attributes of the NGOs operating in Oriente. First, there are two forces—access to funding and attainment of legitimacy—driving cooperation and competition between firms and NGOs and among NGOs operating in this setting. Second, legitimacy is not an absolute concept directly linked to observable organizational attributes. More concretely, it is not appropriate to question whether an organization is legitimate, but for

what particular stakeholders in the organizational field are the actions and positions of a particular NGO legitimate. From this perspective, assumptions such that environmental organizations are more legitimate (as in Eesley & Lenox, 2006), or that NGOs that do not resort to violence are more legitimate, not only are based on erroneous stereotypes but also may lead to unfounded conclusions. A third insight provided by the cognitive perspective sponsored in the present study is that not all the attributes of an NGO are equally important in determining their relative position in the field. For NGOMs, for example, the most relevant criterion for classifying an NGO was its country of origin. Within the “international NGOs,” the next relevant cut was between those associated with a sovereign government and the private ones; and among the latter, whether their primary area of operation was the environment, human rights, or development. “National NGOs,” by contrast, were primarily divided between “radicals” and “moderates,” and only then, by area of activity. This example illustrates that one same organizational attribute may have different degrees of relevance depending on the subset of NGOs under consideration. As a result, although the standard structuralist approach assumes that organizational attributes are equally relevant for all actors in the field—that is, area of activity is equally important to discriminate among national or international NGOs—it may well be that different subgroups of actors attend to different logics and pay attention to different sets of attributes to inform strategic action.

The FM’s mental map also produced insights that would have been difficult to come by just looking at the attributes of the NGOs. In particular, FMs divide the NGO collective between those they think they can work with and those who, no matter what position companies adopt, will always oppose them. It is interesting to note that this classification does not respond to a particular attribute of the NGO. In fact, according to the explanations provided by FMs, being classified one way or the other depends as much on past history between specific firms and specific NGOs, as on the particular issue at stake. In any case, the results from this study strongly suggest that generic classification systems, such as the ones proposed by Teegen et al. (2004) or Vakil (1997), should be used with extreme caution given the limited correlation between NGO type and the behavior they can display in different circumstances.

Comparing the FM and NGOM mental maps also provides new findings that are at odds with conventional wisdom in the Firm–NGO literature and that would not have been detected employing the traditional approach. In particular, finding that NGOMs make a much sharper segmentation of the NGO sector than FMs, and that they use a completely

different set of criteria to carry it out, questions the usually implicit assumption in traditional approaches that field events will be interpreted in the same way by both parties. Let us consider the reactions triggered by the perception shared by NGOMs at the time of data collection for this study that international donors were diverting considerable amounts of funds for development projects from Latin America to Africa. For the NGOM community, this was seen as an extremely threatening event that increased competitive pressure among them and resulted in a variety of responses including (a) the radicalization of critical positions against oil firms, (b) renewed efforts for collaboration among different types of NGOs, and (c) the expansion in the scope of projects that NGOs were willing to undertake. This same event, by contrast, had limited relevance for FMs given their worldview of the NGO sector, where funding considerations have extremely limited relevance. This difference in interpretations would be in stark contrast with the traditional structuralist logic that funding shortages would be perceived simultaneously by NGOMs and FMs and would increase the latter's leverage over the NGO community.

The results of this study also have important strategic implications for the management of individual firms and NGOs. This is due to the principle of cognitive accuracy (Bourgeois, 1985; Gavetti & Levinthal, 2000; Krackhardt, 1990) which suggests that competitive advantage can be derived from having a better perception of the "true" structure of the organizational field where one operates. In the context of this study, this would mean that an individual NGO might derive substantial benefits from its interactions with other NGOs and firms if it had an accurate perception of its position in the mental maps of NGOMs and FMs. Similarly, FMs would likely be able to make better allocation decisions if they knew how the NGO sector sees itself structured. It is important to highlight in this regard that although occupying a particular structural position in an organizational field carries specific opportunities and constraints, these positions are not static. Indeed, organizations usually have some degree of agency in deciding whom they associate with and whom they confront. Through purposeful action, an organization may shift its structural position and the benefits and costs associated with it. The more accurate the perceptions its managers have of the structure of the field, the more effective its initiatives are likely to be.

In addition to providing a better understanding of the motivations behind firm and NGO behavior, this article joins an emerging body of literature (Lamertz et al., 2005) that sees the latent structural characteristics of an organizational field as the canvas from which organizations draw symbolic

and material resources to compete with one another. From this perspective, organizations pertaining to a particular organizational field share not only a set of technical constraints but also a set of deeply ingrained values and accepted behavior repertoires. By invoking a particular subset of values, organizations in this field self-categorize and gain a legitimacy vis-à-vis other actors in the field. Although these studies go beyond the event-focused explanations of the past, they suffer from two problems that the present article starts to address. First, in these studies, it is the researcher who, through the analysis of particular behaviors and organizational attributes, determines what the desirable values and symbols prevalent in a particular organizational domain are. Although interesting as a principle, it has been shown in this article that relevant categories vary across types of actors in a given field. A second problem that this article highlights is that although an organization may choose to project a particular image by adopting symbols or behaviors that are highly valued in its field, this does not automatically result in all other members in the field actually perceiving that the organization espouses such values. Indeed, there appears to be a considerable gap between the image that an organization chooses to project and how that image is perceived by the other members of the organizational field.

As a final contribution, the findings of this study also invite reflection on how current research on Firm–NGO relationships is carried out. Fundamentally, the results reported above suggest the need for a more “emic” approach (Harris, 1979) to the study of this phenomenon. That is, it would be necessary to provide explanations of the behavior of firms and NGOs in terms that are meaningful for the actor under study. Although “etic” approaches facilitate comparability and generalizability, assuming away interpretive differences between actors in different settings might well provide inaccurate explanations of the motives behind the actions of firms and NGOs (Hodgkinson, 2005).

## Limitations and Conclusion

The present study is a first step in the integration of cognitive perspectives in the study of Firm–NGO relationships. However, it has limitations that are important to take into account when evaluating its claims and contributions. Limitations common to most studies in the managerial cognition tradition would be the following: first, this is a cross-sectional study. As a result, it is not possible to assess whether the mental maps of the managers interviewed have already fully converged or whether they will continue to converge.

However, by carefully selecting the characteristics of the empirical setting, it is plausible to assume that FMs and NGOMs have reached a somewhat stable equilibrium that is not likely to change dramatically in the near future, barring an environmental jolt. Second, this is a single informant-multiple-organizations study. Obviously, it cannot be claimed that each informant represents faithfully the view of *all* the members in her organization (Hodgkinson, 2005). However, by restricting the sample of managers to community relations managers and NGO directors, this study tries to make these comparisons as meaningful as possible. In fact, because of their continued interaction, these are the individuals in their respective organizations most likely to have similar view of the structure of the NGO sector. This makes all the more relevant the low level of overlap between their cognitive maps. A similar type of problem arises by aggregating the individual mental maps of FMs and NGOMs into a collective FM mental map and a collective NGOM mental map. Although the method to aggregate mental maps was chosen for its simplicity, it might be equally valid to give more weight to the perspectives of managers from larger or more influential organizations. Such choice, of course, should reflect the mechanisms by which supra-individual cognitive maps are developed. These mechanisms are, to date, object of much-heated debate (Hodgkinson, 2005; Tegarden & Sheetz, 2003).

One limitation specific to this study is that it is solely concerned with FMs' and NGOMs' representation of their environment, but it does not test if and how cognition affects behavior. Therefore, claims about the antecedents and consequences of current mental maps have been made in reference to previous research in the field of managerial cognition. Explicitly testing the connection between the cognitive representations of corporate and NGOMs, the organizational attributes of firms and NGOs and the behavior of firms and NGOs is object of future research.

In summary, this article links the mental representations of FMs and NGOMs operating in the Ecuadorian Amazon with the main forces driving the interaction among their organizations. In particular, it uncovers that NGOs collaborate and confront other NGOs or firms in an attempt to be seen as legitimate actors by selected third parties or to have access to various sources of funds. By contrast, FMs in this same geographic area think of NGOs, mostly, as a means to achieve some level of social stability that allows them to carry out their operations without disruption. It is particularly relevant to note that these forces are not directly observable or intrinsically derived from NGOs' organizational attributes. Precisely for this reason, cognitive approaches hold the promise to complement today's structurally minded research on Firm-NGO relationships.

## Notes

1. Nongovernment organizations (NGOs) are private, not-for-profit organizations that aim to serve particular societal interests by focusing advocacy and/or operational efforts on social, political, and economic goals, including equity, education, health, environmental protection, and human rights (Teegen et al., 2004).

2. A Quadratic Assignment Procedure (QAP) is used to test association in dyadic data sets. Because these types of observations are not independent of each other, using ordinary least squares regressions would imply that the error terms would be correlated. QAP overcomes this problem by generating an empirical sampling distribution and assessing the degree to which the observed degree of correlation between the two original matrices is likely to have occurred by chance.

3. Of the 65 NGOs being mapped, the following 16 are perceived by firm managers as organizations with a mission that is the study and preservation of the natural environment and are not in radical opposition to oil firms' activities: The Nature Conservancy (TNC), Sinchi Sacha, Maquipucuna, Wildlife Conservation Society (WCS), Fondo Ambiental Nacional (FAN), Stichting Nederlandse Vrijwilligers (SNV), Rainforest Alliance Network (RAN), Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), Natura, Ecociencia, El Centro de Educación, Consejo Ecuatoriano para la Conservación e Investigación de las Aves (CECIA), Jatun Sacha, Bird Life International, Unión Internacional para la Conservación de la Naturaleza (IUCN), Esquel, and World Wildlife Fund (WWF).

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