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Group's Positions and Language Use: The Connection Between *Themata* and *Topic Grounds* (Lexical Worlds)

Laura Camara Lima

Universidade Federal de São Paulo - UNIFESP (Federal University of São Paulo)
Brazil

1. Introduction

This chapter intends to study the way different categories of individuals, implicated in a debate involving a given social object, take position one in relation to the other and each of them in relation to such an object focusing on how they use language to communicate to one another. The link of correspondence consists in associating two concepts: topic grounds (or lexical worlds), which emerge from the method of pragmatic analysis named Alceste (Reinert, 1990, 1993, 1999), as well as themata defined by the Theory of Social Representations (Moscovici & Vignaux, 1994). The goals are: get information about the controversies that intensify the relationships among groups, reveal how these relationships (often asymmetrical) determine the use of the lexicon and the communication and identify the themata which are contained in the lexical worlds. In order to illustrate the validity and the relevance of the transpositions proposed here the results of an empirical study are described.

Keywords: Themata, Topic ground, Social Representations, Alceste, Pragmatic analysis, Intergroup relations;

This paper proposes a conceptual device to social psychologists interested in studying the connections between intergroup relations, inter-individual communication, speech production and the formation of social representations. The referred device is a pragmatic approach to language, conceived to clarify the way in which different categories of individuals, implicated in a symbolic exchange (involving a given social object) take positions, one in relation to the other and each one in relation to such an object. This clarification will be produced through the analysis of the manner in which individuals use language to communicate to one another.

The starting point consists of associating two theoretical concepts: themata and topic grounds. Themata were first defined by Holton (1973), in his philosophical and empirical work on the history of science, and later defined by Moscovici and Vignaux (1994) and Marková (2003), in their social psychological work on communication, language and social representations. Topic grounds were conceived by Reinert (1990, 1993, 1999, 2001a) in his "pragmatist" approach to language and assimilated to the concept of lexical worlds which

Reinert defined (empirically) using the method of pragmatic analysis of text he created and named ALCESTE (Analyse des Lexèmes Cooccurrents dans un Ensemble de Segments de Texte) (Reinert, 1990, 1993, 1999, 2001).

The association, themata - topic grounds, is legitimate and twice relevant: a) it makes possible the realization of a practical application of the concept of themata and b) it allows a better theoretical exploration of the concept of topic grounds. Indeed, until now, these two complementary possibilities have not been sufficiently exploited, considering their potential heuristic power. Furthermore, this connection can be a useful conceptual device, providing means to find out and demonstrate the correspondence between two levels of communication: representational and relational.

Once this connection is established, social psychologists would be able to understand: a) how different individuals or groups take positions in a symbolic exchange involving a given social object; and b) how the different positions taken by the different individuals or groups will reactivate existent themata, adapting them to the present situation (here and now). From this moment onwards, the production of social representations will be triggered.

2. Themata

The philosopher of science Gerald Holton (1973) is the first scientist (in the history of science) to come out (in the seventies) with the conception and definition of themata. Based on his empirical and theoretical work, Holton (1988, p. 13-14) demonstrated that the scientific imagination is often constrained by "fundamental preconceptions of a stable and widely diffused kind that are not resolvable into or derivable from observation and analytic ratiocination". According to Holton (1988, p. 3), themata belong not merely to a pool of specifically scientific ideas, but spring from the more general ground of imagination. They guide the minds of the scientists towards certain theories, rather then others. Holton (1988, p. 16) was able to distinguish three categories of themata influencing the development of scientific knowledge: a) Thematic concepts, which are those having a significant projection on the thematic dimension.

However, purely thematic concepts are difficult to find; they seem to be rare in established science. Holton set up a solution to overcome this difficulty, which consists in taking concepts, such as force and inertia, which have strong components (contingents and thematics) and study them focusing mainly on their thematic components; b) Thematic positions, which are those that guide scientists in the pursuit of their scientific work. These also called Methodological themata (such as preference for analysis or for syntheses), determinate how scientists conceive and do research; c) Thematic propositions, which are those that give the starting point to or form the core of the scientific theories. These, also called thematic hypotheses are, for example: the principles of special relativity or the way in which scientists express the laws of physics (in terms of constancies, or maxima and minima, or impotency). These three categories of themata can be related in the following way: a thematic proposition contains one or more thematic concepts and is a product of a methodological thema.

In the 1990s, Moscovici and Vignaux (1994) redefined the concept of themata, adapting it to the social psychological approach to language they were developing at that time. For

Moscovici and Vignaux (1994, p. 64), the notion of theme designates the configuration of a common field composed of ordinary knowledge and available significations shared by individuals or groups. Themes are epistemic systems, which are related to general and essential properties attributed to categories of objects of the world. In this new epistemological context, the notion of themata will refer to "frames of thinking" which are dependent on "systems of belief", which are anchored in values, traditions and images of the world and of the being. According to Moscovici and Vignaux (1994, p. 35), these "frames of thinking" are composed of "source-ideas" or "force-ideas" which motivate and command the social functioning of the speech, imposing "common ideas" to be adopted or, at least, accepted. Themata function in the same way then as topoï, which are "places of commonsense", which can be anchored: in the perceptible world, in the popular knowledge and in the ritualistic experience (Moscovici & Vignaux, 1994, p. 37). In Moscovici's theory, social representations are defined as being syntheses of knowledge, which are spontaneously produced by the members of a group, grounded on consensus and tradition. Social representations are situated between popular knowledge (comprised of beliefs and know-how, coming from the natural thinking) and scientific knowledge (comprised of systems of explanation, coming from the rational thinking), which are ideologically, logically or methodologically organized by the authorities (political or scientific). Social representations neither trigger off conducts nor guide them directly. They propose "figures and shapes", by means of which concrete social relations can find their expression. Moscovici (1961, p. 304) assumed that the degree of engagement subjects have in relation to different social objects necessarily varies. In his empirical work, Moscovici (1961, p. 314) observed that individuals and groups usually give, in a spontaneous manner, more attention to some particular zones of the lexical environment than others. The language style subjects will employ will change according to: the place from where they are producing their speech, to the particular perspective they are focusing on, to the kind of social relations they have with the other subjects and to whom they are communicating.

The oppositional nature of the mental processes (comprised of perception, thinking, knowledge and language) has always interested the social psychologist Ivana Marková. More recently, she has been investigating social objects such as: AIDS (Marková, 2000), democracy (Marková, Moodie & Plichtovà, 1998) and individual (Marková, Moodie, Farr, Drozda-Senlowska, Erös, Plichtová, Gervais, Hoffmannová & Mulerová, 1998), using the paradigm of social representations. She found out that when some contradictions are explicitly expressed within the social thinking, they are converted into (what she called) fundamental themata. From this moment they become able to generate social representations. We conclude that the production of social representations is dependent on a dynamic exchange of theses, through which themata are (locally or universally) negotiated. These exchanges reactivate the intergroup relations, motivate parts to communicate and increase the production of speech or text, keeping (by these means) the formation of social representations going on. Different theses exist because different individuals or groups take different positions in relation to one another and to social objects. On the contrary, themata are quite often the same establishing families of social representations. As Holton (1988, p. 17) showed, they exist in limited number (a total of fewer than fifty couples or triads) and have a long life, since only occasionally it seems necessary to introduce a qualitatively new one into science. Generally, as Holton observed, the old themata in a new context do surprisingly well.

In short, each family of social representations is related to a "frame of thinking" (themata), which refers to a "place of enunciation", whose topology influence (determinates) the semantic production. These attributes are those that inspired and legitimated the idea of connecting themata to topic grounds.

3. Topic grounds (lexical worlds)

The statistician specialized in semiotics and psychoanalyses, Max Reinert, formulated the concept of topic grounds in the frame of his "pragmatistic" approach to language (which is generally applied to social sciences). Reinert (2001b, p. 34) started from the observation that in every text or speech there are "associative grounds" operating. He decided to call them Topic grounds, because he considered that their "association" was mainly a result of the fact they have the same topic of origin. Topic grounds are kinds of "places" which are original and archaic, functioning as sources of "semiosis" or "sign-activity" (Peirce, 1978). They must be considered, simultaneously, in their "internal coherence" and in their "contrast" in relation to other "places". These places are linked to the activities of the subjects who "inhabit" them. If these subjects are more than one, then these places will be "commonplaces" (marked and highlighted by social inscriptions). The ancient Greek rhetoric used to call these "places" topoï, defining them as "a grouping of strategies or probes for exploring a subject or developing an argument". Commonplaces (in Latin: locus communis; in Greek: koinos topos) signify the orienting experiences or modalities, which serve to anchor or reference different subjects within the experience of making meaning (together). The study of these commonplaces enable social psychologists to reach the cultural core of social representations, which are shared images, scripts, cognitions and singular habits or rituals, which mark the collective practices, generating a singular use of language and a particular choice of vocabulary.

In his pragmatic approach to language, Reinert considers that enunciations (which are contained in a speech act or text production) are kinds of theater scenes, in which three elements are acting: "lexical worlds", "subjects" (of enunciation) and "local logics". Lexical worlds are defined as being, at the same time, vestiges of places of reference and signs of forms of coherence. These forms of coherence, also named "local logics", are linked to the acts of language of the subjects of enunciation. According to Reinert (1993, p. 12) lexical worlds superimpose, in the same "place", different points of view, or different subjects' activities in their different moments. For Reinert (1993) a "point of view" is a position (here and now) of a subject of enunciation (speaker) which is dependent on a "world", but which is more conscious and more immediate than a "world". A "world" being a more stable and more permanent position ("commonplace" or "general view"), which is more unconscious (because automatic) than an individual point of view. So, Lexical worlds are kinds of stable structures (distribution of words into the unities of text), which take form and remain, in spite of the local instabilities, which characterize the single enunciation. Furthermore, topic grounds are dynamic structures, which express conflicts resulting from the opposed positions taken by one or more subjects (of enunciation). Reinert realized that these conflicts leave traces that stay "printed" in the topology of the text, composing the relief of the topic grounds. In order to study this relief, he created the software ALCESTE. This program of automatic lexical analyses was conceived to examine the text, track the traces of tensions, detect the lexical worlds and make their cartography.

The program is capable of identifying what Reinert (1993, p. 13) named lexical worlds and describe as being "spaces of reference, statistically defined, associated to a big number of enunciations". Lexical worlds are dynamic structures, which refer to the movement of alternation between two (or three) antagonistic orientations, each one of which trying to impose a particular "point" to the others. This "point" is not only an opinion or an argument; moreover it is an entire "position", regarding relational issues (which always involve others parts and a prized social object).

In order to investigate the lexical worlds, which are present in the text, ALCESTE's algorithm operates in the following steps. Firstly, it identifies all the "full words" that are present in the text and reduces them to their radical (lexicon). Reinert named "full words" as those that are "full of sense", meaningful by themselves, independently of others' words; namely: names, adjectives, adverbs, numbers, etc. In opposition, he named "tool words" as those words whose sense is dependent on (or relative to) the sense of others' words; namely: articles, propositions, pronouns, auxiliary verbs, etc. These "full words" are counted by ALCESTE and used for calculations with which it comes across the clusters and the factorial plans. The "tool words" are not considered in the calculations, but they are projected in the clusters and factorial analyses, in order to give complementary information. Secondly, the algorithm splits the text in many equal size parts, which Reinert called as "unities of context". In order to establish, empirically, the best size of these unities we must have, as ALCESTE does previously, some estimations. The definition of this ideal size (tailored to fit the text) is done automatically, based on two criteria. The first criteria, consists of using the punctuations marks, which the text come with, and the breaks which separate phrases, paragraphs, chapters of the texts and different texts. The parts resulting from this first fragmentation, Reinert calls, the "initial unities of context" (i.u.c.). The second criteria, consists in counting a certain number of full words (determined by means of tests), in order to split the text into parts. Crossing these two criteria, Reinert obtains what he named "elementary unities of context" (e.u.c.) and defined as being the smallest statistical unities the program uses to operate the statistical calculations. Thirdly, the algorithm verifies the presence of "full words" in these "elementary unities of context" and considers their relative distribution by mapping groups of words. Finally, making specific statistical calculations, ALCESTE detects the clusters and the factors (related to theses clusters), which better represent the lexical topology.

In sum, the algorithm's capabilities are the following: a) it studies the distribution of full words and comes out with a cartography of them b) it detects the zones of greatest contrast; and c) it identifies the full words that better characterize the vocabulary employed by different subjects in different localities of the text (these localities being very similar to the "commonplaces" referred by the classic notion of topoï). ALCESTE's output is a report that can be very useful. It contains resources that facilitate the visualization and the knowledge of the topology of the text: a) graphics that represent the structure of the clusters (lexical worlds) based on how and where they get apart one from the other; b) a summary of the lexical contents of each cluster (lexical world); and c) a factorial plan that summarizes the opposition of each factor (axes) is composed and the dynamic relations that keeps the multiple factors apart and perpendicular to one another. The most important advantage the program presents (in relation to others), is the possibility to establish a correspondence between the relational and the lexical levels. This possibility comes from the acknowledgment of two kinds of isomorphism: a) between lexical worlds and subjective

positions: both isotopic; b) between factors and themata: both bipolar. For all these capabilities, ALCESTE can be considered a helpful tool to social psychologists interested in mapping and understanding the lexical topology of a text.

4. Themata and topic grounds: The same properties

Themata have topological properties: a) they can be assimilated to fields (of knowledge) and to topoï (places of commonsense); b) they behave according to a geometry of position (mostly, than a spatial one); so, in order to approach them adequately, the researcher must consider: the relations between all the elements, the morphological proprieties of the sets and the analysis of the situation; c) they have a topological orientation mainly; so, in order to identify and understand them, the researcher must analyze the contrasts and the tensions between groups of words (more than the distances between single words). Topic grounds, as they were named and defined by Reinert, have topological properties as well. They are kinds of "places" or more exactly "commonplaces" which compose the topology of the text.

Themata are primitive conceptions, images and categories, which are culturally shared in social and historical contexts and can be transmitted, from a generation to the next, during a long period of time; this transmission has been done through the collective memory (Markovà, 2000). Topic grounds are "places" that are "archaic", "original", "linked to the topic origin" (Reinert, 1993, 1999). These two concepts emanate from the deepest level of language's production, where sense and knowledge are one (and the same). Both have epistemic properties.

Themata are dynamic structures, which are composed of two opposed sides, defined one in relation to the other. Topic grounds also have a dynamic nature. The presence or absence of a lexicon (full word) in a statement (unity of context) or the way in which subjects use words in different statement sets (simultaneously, successively or alternatively), can modify the formation of topic grounds. Both concepts are sensitive to the slightest change in the lexical context.

Themata are axes composed of two opposed poles; their dynamic force comes from the alternative domination of one pole in relation to the other. In their turn, topic grounds are also founded on the dynamic movement of alternation between antagonistic orientations, which are repeatedly reiterated in the speech or text. Both concepts are dyadic.

There is a movement, in the basis of themata, whose dynamism is created by the materialization of some forms (constantly reiterated) and by the emergence of some postulates. Moscovici and Vignaux (1994, p. 68) explained that these postulates are anchored in beliefs, which operate and express themselves by means of couples of notions which integrate two opposed visions into one. Reinert got to the same conclusion in relation to topic grounds. He observed that their dynamics is created on the basis of confrontations of two or three antagonistic orientations of the subjects of enunciation.

5. An example of empirical research: EDF and its "deprived clients"

The demonstration of the common characteristics of the concepts, done above, constitutes sufficient evidence of the pertinence of the connection between themata (collective imaginary level) and topic grounds (language level). Now, it is time to explain how this

connection can be applied to the study of a specific speech or text, produced in a definite social reality. The outcome of an empirical research will be presented here in order to illustrate the mentioned connection. This particular research was chosen because its results are exemplary, for the purpose of the demonstration that must be done. The example is deliberately a very simple one, because the goal is not to report the results of this particular study, but to explain the method and the form of the pragmatic analysis that was done. The text is relatively small, the object is not complex and the method is not sophisticated. The reason for taking this option is that simplicity allows to see, more clearly, the main lines of the demonstration and to increase the possibility to reach a systemic comprehension.

The referred research was realized in a specific institutional context, which is: the Research & Development (R&D) division of a French national company called Electricité de France (EDF). This important multi-national is responsible for the totality of the production, transportation, distribution and commercialization of electric power in France. EDF was, in its beginnings (in the fifties), a national company of public service. More recently, in 2004, EDF (the company) became an anonymous society and EDF (the group) opened its capital to international investments and to the Stock Exchange Market.

The data (that are presented here) are the results of an investigation, realized in 1998, in the sociology department of the Research & Development division. This department, called (at that time) GRETS, was specialized in internal research concerning social psychological issues that are related to agents and clients of the company. At that occasion, the sociologists of the GRETS were studying how a new service was valued by a particular population of clients, for whom it was created. These clients were identified as being the "impoverished" clients (clients démunis), because they did not afford to pay the electricity bill (for different reasons, comprised of: unemployment, illness, debts, or other financial or personal problems) and contracted debts in relation to the company. The sociological profile of these clients was as follows: Most of them belonged to a non-favored population of individuals having: low levels of study, low qualifications, no money, no stable job or no job at all. They could not count on their parents or families and they did not have other means of getting financial resources to help them pay their debts. Some of them had some kind of allowance or social benefit, but most of them would have liked to have more financial support and more assistance to come out of this deficient situation. The service of "electric power maintenance" (SEPM) was instituted in 1994, to give these "impoverished" clients a minimum provision of electric power in order to avoid power cuts. Actually, the families who had passed through power cuts before remember them as very unpleasant. So the service was conceived to maintain only a minimum of electric power provision, to keep rooms lit and electrical devices working. The limitation was that the high consumption devices (for example: the electrical shower or the washcloths machine) could not be used at the same time otherwise the electric power provision was interrupted. This was a way to restrain the amount of electric power that they used. So, with the purpose of knowing the "impoverished" clients better, the sociologists created a questionnaire in order to discover their clients' "needs", to obtain their "image" of EDF and its services in general and to obtain their "evaluations" of the "electric power maintenance" service. They also intended to find out how they had experienced, if it was the case, the situation of having an electric power cut in their place. The questionnaire was composed of 50 questions (of which 6 were open responses and 44 were multiple-choice ones), which were thought to accomplish two goals basically: a) to measure how informed these clients were about technical subjects, such

as the electric power consumption of the electrical devices, the price of electric power, the different rates during day and night, or the good habits to acquire in order to save electricity; and b) to measure how satisfied these clients were with EDF, in terms of the efficiency of its services, the availability of information, the accessibility of its agencies and the methods and policies of the company. Every year, the sociologists employed a survey institute (called Laval) to send interviewers to interrogate these clients, using the questionnaire they conceived for this purpose. In 1998, a sample of 567 subjects was interviewed, which was representative of the population of "impoverished" clients. The data treated in this paper comes from this survey.

The results described below are only a part of the output of the inquiry. They concern, exclusively, to the answers given to the very last question of the mentioned questionnaire; the other questions of the questionnaire were not considered because they are not needed for the demonstration that we are interested in doing here. This final question was an open response one, which was formulated like this: "Finally, I invite you to make all remarks or suggestions that you would like to make, in particular to those regarding the services offered by EDF". The researchers of the sociology department were disappointed because they didn't have the feedback they were expecting to, neither in terms of form, neither in terms of content. They thought they were giving to their clients the "opportunity" to express their opinions, needs and evaluations. Instead, the answers given to the questionnaire in general and also to this question were very short, most of them laconic. This is the reason that explains why the corpus (containing the totality of the responses) is a relatively small one, counting 57000 characters and 13634 words. Besides, the responses were poor, in terms of the contents. The two most frequent replies given were: "I don't know", "I don't have anything else to say about it", which probably indicate that (when questioned) the subjects did not feel like communicating their opinion (either showing their lack of interest or knowledge) on the matter. This resistance could come from the end-of-questionnaire effect, which made the subjects to concentrate less and thus less collaborative. However, we had the occasion to find out empirical evidence to prove that these are not the only reasons for the presence of this negative attitude towards the interviewer and its questions.

The mentioned occasion was that, being specialists in text analyses using the program ALCESTE, we were invited by the sociologists of the GRETS to sign a temporary research contract with EDF. Our mission was to realize a pragmatic analysis of the answers given by the deprived clients to the six open questions of the mentioned questionnaire. However here we are discussing only the responses to the last question (as described above). Having studied ALCESTE's output (clusters and factorial graphics), we were able to understand that what "prevents" these "deprived" clients to provide longer and more detailed information about their difficulties, their situation, or their opinion is the asymmetry that characterizes the relations they have with EDF. The analyses described below will substantiate and explain this statement.

6. Results

The corpus (in the basis of which the analysis commented here were done) was composed of a set of short answers, which were given by the 567 "deprived" clients interviewed to the last question of the questionnaire (mentioned above). The program found out three stable

clusters. Together these clusters explain what occurs within 72% of the elementary unities of context of the corpus text. This percentage indicates that it is a good analysis, since only less then a third part of the elementary unities of context is not explained by the output (clusters and factors).

The graphic below shows the results of the analysis. The lines of the diagram represent the moments in which they get apart (in relation to a ruler on top). The cluster number two is separated from the cluster numbers one and three. The number of elementary unities of context (euc) indicates the size of each one: the larger one (322 euc) is twice bigger than the two others put together; the two smaller ones have more or less equivalent sizes (85 and 72 euc).

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                          |----|----|----|----|----|----|----|----|----|----|
Cluster 1 (85 euc)  |---------------+
                                    |-------------------------------+
Cluster 3 (72 euc)  |---------------+                               |
                                                                    +
Cluster 2 (322 euc)|-------------------------------------------------+
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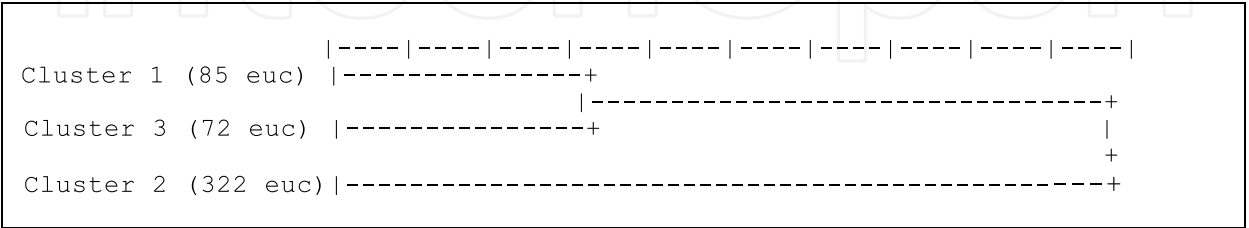
Graph 1. The three clusters detected by ALCESTE; the corpus was composed of the responses given by 567 «impoverished clients», to the last question of the questionnaire formulated by EDF in 1998.

With the intention of having a right comprehension of these clusters and to produce a correct interpretation of their sense, we followed the enlightenments of the program's creator. According to Reinert's (2001a, p. 10), the clusters (lexical worlds) can be analyzed from three different points of view: a) They can be considered as contents, when one observes the list of specific words that they enclose; b) They can be considered as activities, when one becomes conscious of the undercover tensions that made them separate, one from the other; c) They can be considered as representations, when one realizes that each one of them reflects a certain stabilization of the subject's activities and that the three of them form a system. This possibility of triple interpretation is an evidence of the complexity and richness of the lexical worlds (or topic grounds). This is the link that makes it possible to operate the connection between topic grounds (that Alceste will find) and themata (social psychologists are looking for): themata have the same three dimensions – semantic, dialectic, systemic – that of the lexical worlds (or topic grounds). Themata are contents, because they are equivalent to the properties (general and essential), which are attributed to the categories of objects of the world. Themata are activities because they determinate classes of argumentation. Themata are (linked to) representations because they are places of commonsense, frames of thinking and systems of belief.

7. The contents of the clusters: The lexical worlds

In order to examine the three clusters from the point of view of their contents, we checked out the list of words, which each one of them contain, giving special attention to the most significant ones (those with highest chi[2]). Having studied these lists of words we were able to acquire a comprehension of the different lexical worlds and to give them a name.

The first lexical world contains these words related to the consumption of electric power; the words are translated in English from the French form (without accent) cited in italic in

parentheses; they are cited in decreasing order of importance in relation to their chi^2: "to count" (compter) (71), "electrical devices" (appareil) (37), "verifying" (verifier) (28), "hour" (heure) (27), "installation" (installation) (27), "reading the meter" (relever le compteur) (24), "gas" (gaz) (18), "to reduce" (reduire) (18), "to do" (faire) (15). So, this lexical world received the name Consumption accounting. In this cluster we found out the following dichotomies: "full" (plein) (19) – "empty" (creux) (19), which are the qualities of the hour of the day which determine the rate of the electrical power; "pay attention to" (attentif) (46) – "not pay attention to" (pas attentif), the consumption; "expensive" (cher) (31) – "not expensive" (pas cher), the price of the electric power.

The second lexical world contains the following words, cited in the decreasing order of chi^2: "service" (service) (15), "EDF" (11), "people" (gens) (11), "to be kind" (aimable) (9), "to find out" (trouver) (9), "solution" (solution) (9), "contact" (contact) (9), "problem" (probleme) (8), "understanding" (comprehensif) (8), "help" (aide) (8), "telephone" (telephone) (8), "social" (social) (7), "to try" (essayer) (7), "to pay" (payment) (7), "human" (humain) (6), "to cut" (couper) (5), "to accept" (accepter) (5), "to go" (aller) (5). These words are related to the way (frequently negative) in which the impoverished clients experience their relations with the agents who receive them at the agencies of the company. It is to them that they have (between other things): to explain their personal problems, to complain about a technical problem and, eventually, to negotiate their debts and to claim back a suppressed service. In a big number of cases, the clients blame the agents, complaining about their lack of respect, attention, comprehension, mind opening. What these clients really expected EDF (and its agents) to do was to show more "goodwill" in relation to the search of alternative solutions, since they feel themselves incapable of finding other resources. The solutions that the impoverished clients would expect that EDF propose to them were (basically): more delay to pay the debts, more financial help from social and assistance funds, or still a big discount on their electric bills. So, this lexical world received the name of Contact agent – client. In this cluster we found out the following dichotomies: "social" (social) (7) – "financial" (financier) (2), "human" (humain) (6) – "inhuman", "personal" (personnel) (3) – "impersonal" (impersonnel).

The third lexical world contains words linked to the disproportion between the high price of the electric bill and the low income of the impoverished clients, such as (cited in the decreasing order of chi^2): "month" (mois) (100), "bill" (facture) (71), "to pay" (payer) (56), "to spend (depenser)" (45), "end" (fin) (34), (revenu) (31), "to go out" (sortir) (29), "really" (vraiment) (29), "to know" (savoir) (27), "to want" (vouloir) (14), "to love" (aimer) (13), "debts" (dettes) (11), "price" (prix) (11), "to exceed" (depasser) (11), "to display" (etaler) (11), "to allow" (permettre) (11), "to receive" (recevoir) (10), "to look for" (chercher) (10), "level" (niveau) (10). So, this lexical world received the name of Big bill, little income. In this cluster we found out the follow dichotomies: "big (gros) (18) – small (petit) (21)", "to pay (payer) (56) – to consume (consommer) (45)".

8. The dynamics between lexical worlds: The factors

In order to examine the three lexical worlds from the point of view of the activities, we studied the position of the clusters in relation to the two factors, which compose the factorial plan. In relation to the first one (horizontal), the cluster Contact agent – client is in the left side and the two other clusters are in the right side. So this factor was named Relational – Material factor. In relation to the second one (vertical), the cluster Consumption control is in

the top side and the cluster Big bill, little income is in the bottom side. So this factor was named Material factor. This factor results from the tension between the two positions that the impoverished clients can take: paying attention to reduce the consumption or having a big bill to pay which the income cannot afford.
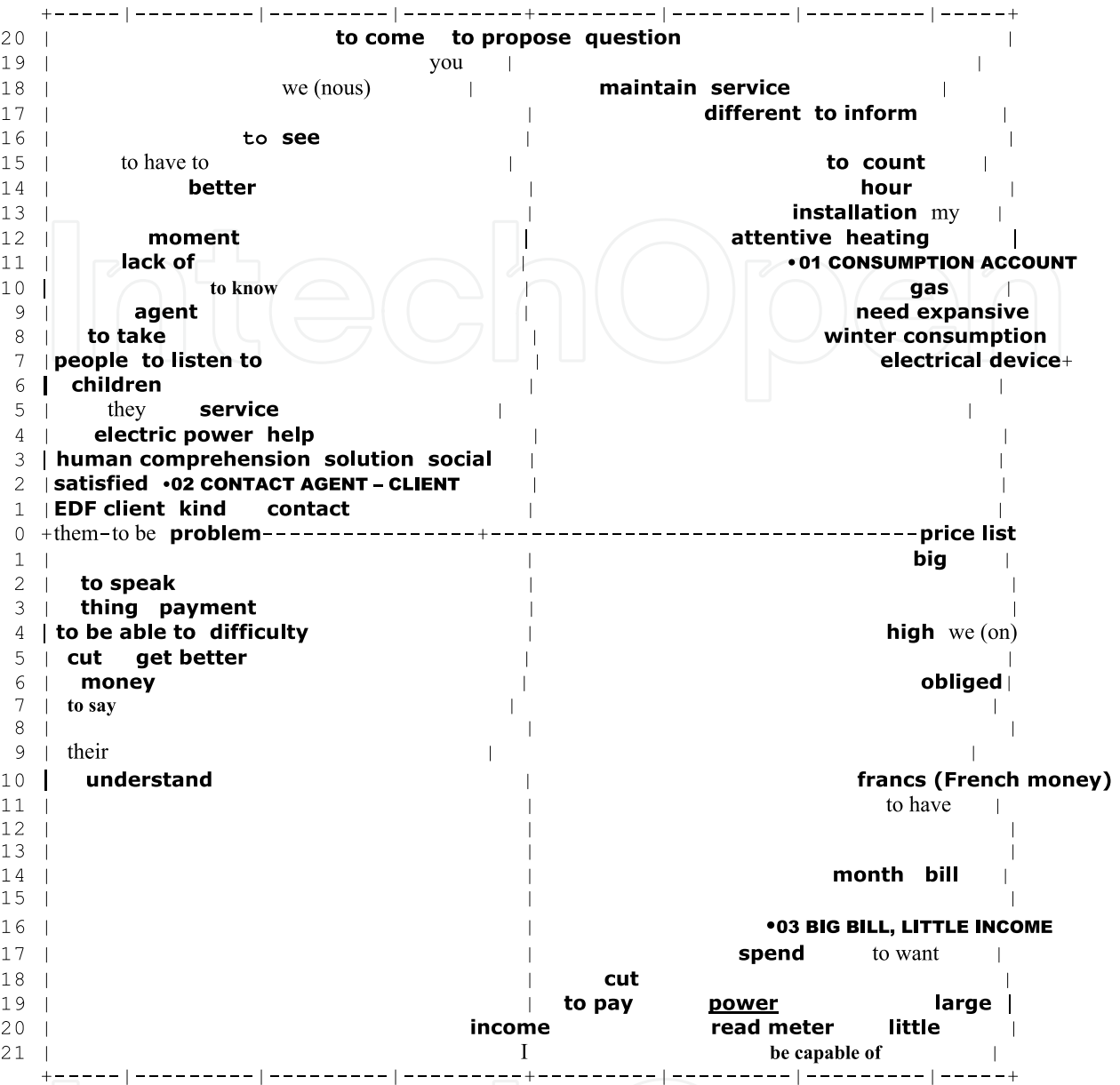
Now, it is time to examine in detail these three lexical worlds, in order to detect the themata that are acting through them. The words that we decide to comment on here are those that have a significant role in the constitution of the topology of the topic grounds. These words are those in the graphs that are placed on the extremities of the factors. These words (located in the furthest point in relation to the opposed side) are those which represent better their own cluster and which represent the biggest possible contrast in relation to the other clusters. If the preference was given to two kinds of words it is because, in this corpus, they express dichotomies that are important to the comprehension of the themata which are acting within it.

The graph below shows the distribution of some of these dichotomies. Their allocations, in relation to the factors, provide precious information. The results presented and discussed here are those related to the use of modal verbs and pronouns. These two classes of words were chosen because they illustrate the demonstration of the kind of systemic view social psychologists can get when they operate the connection between lexical topologies and intergroup relations.

Observing the location of the modal verbs in the graphs, we observed that in relation to the horizontal factor, they are distributed like this: in the left side, there are the modal verbs "to know" (savoir) (-30, 10), "to say" (dire) (-25, 10), "to ought to" (falloir) (-20, 2) while, in the right side, there is the verb "to have" (avoir) (30, -10). In relation to the vertical factor, they are distributed like this: in the topside, there is the verb "must" (devoir) (-20, 15) while in the bottom side, there are the verbs "want to" (vouloir) (30, -16) and "be capable of" (pouvoir) (10, -20). Observing the location of the pronouns in the graphs, we observed what follows. In relation to the horizontal factor: in the left side, there are the pronouns "them" (eux), "they" (ils), "their" (leur) while, in the right side, there are the pronouns "we" (on), "my" (mon). In relation to the vertical factor: in the topside, there is the pronoun "you" (vous) and "us" (nous) while and in the bottom side, there is the pronoun "I" (je) and "me" (moi), "my" (ma, mes). This first axis is clearly the one which epitomize the social categorization which characterizes the relation between EDF's agents (them) and the "impoverished" clients (we) in general; and between the needs and the problems of the individual (my) (such as: installation, consumption, heating, etc.) and the lack of comprehension of the agents (their), more specifically.

9. The relational – Material factor

In the left side of this factor there are the verbs "to know" (savoir), "to say" (dire), "must" (devoir). Afterwards, when we were able to go back to the text to verify manually how these verbs were used, we saw the following. The verbs "to know" (savoir) and "to say" (dire) were used, most of the times, in the negative form: "anything to say" (rien a signaler, rien a dire). The expression "I don't know" (je ne sais pas) was used 57 times, which means that 10% of the subjects gave that answer. This verb (in its infinitive and negative form) is associated with the following objects: "prices" (prix), "timetables" (horaires), "rates" (tarif), "how to save electric power" (comment faire des economies), "what to do in case of

```
    +-----|---------|---------|---------+---------|---------|---------|-----+
20 |                              to come   to propose  question                    |
19 |                                          you    |                            |
18 |                      we (nous)          |          maintain  service        |
17 |                                         |               different  to inform |
16 |                 to see                  |                                    |
15 |         to have to                      |                to count            |
14 |             better                      |                  hour              |
13 |                                         |              installation  my      |
12 |            moment                       |            attentive  heating      |
11 |            lack of                      |          •01 CONSUMPTION ACCOUNT    |
10 |              to know                    |                      gas           |
 9 |           agent                         |                 need expansive     |
 8 |        to take                          |              winter consumption    |
 7 | people  to listen to                    |                electrical device+  |
 6 |  children                               |                                    |
 5 |        they        service              |                              |     |
 4 |        electric power  help             |                                    |
 3 | human comprehension  solution  social   |                                    |
 2 | satisfied  •02 CONTACT AGENT – CLIENT   |                                    |
 1 | EDF client  kind    contact             |                                    |
 0 +them-to be  problem---------------+----------------------------price list
 1 |                                         |                      big           |
 2 |    to speak                             |                                    |
 3 |    thing   payment                      |                                    |
 4 | to be able to  difficulty               |                high  we (on)        |
 5 | cut    get better                       |                                    |
 6 |    money                                |                      obliged|      |
 7 | to say                                  |                                    |
 8 |                                         |                                    |
 9 |  their                                  |                                    |
10 |    understand                           |                francs (French money) |
11 |                                         |                 to have            |
12 |                                         |                                    |
13 |                                         |                                    |
14 |                                         |               month   bill         |
15 |                                         |                                    |
16 |                                         |           •03 BIG BILL, LITTLE INCOME |
17 |                                         |           spend        to want     |
18 |                                  cut    |                                    |
19 |                            to pay   power              large |              |
20 |                        income      read meter      little   |              |
21 |                            I              be capable of                     |
    +-----|---------|---------|---------+---------|---------|---------|-----+
```

Projection of the analyzed words on the plan 1 2 (correlations)
Horizontal axes: First factor: V.P. =.3798 (58.78 % of the inertia)
Vertical axes: Second factor: V.P. =.2664 (41.22 % of the inertia)

Graph 2. Projection of the analyzed words on the plan 1 2 (correlations)

problems" (quoi faire en cas de probleme). Checking (manually) the use of the verb, "must", we observed two possibilities. When the "impoverished" clients applied it to themselves, the verb takes the following sense: "EDF (and its agents) thinks I must have money to pay the electricity bill, but actually I don't have". When the "impoverished" clients applied it to the company, the verb expresses what they think that EDF (and it agents) were in the obligation to do in respect to them; and this, in relation to four points mainly: a) the high cost of the bill (in relation to their income); b) the maintenance of the electric power provision (whatever); c) the preservation of the respect and of the humanity in the contacts (between clients and agents); d) the quality of the services. The use of the form "should"

(devraient) is applied, specially, to what they would like EDF to do for them: a) more contact with the agents who receive them and the technicians who do the services for them; b) more access to simple information about the services and its possibilities; c) payment facilities or less expensive bills.

In the right side of the horizontal factor we found the verb "to have" (avoir). The use of this verb was also studied in detail. In the infinitive form, it refers to three categories of social objects: a) The first of which is composition of concrete objects, such as: "consumption" (consumation), "heating" (chauffage), "financial resources" (ressources financieres), "bill" (facture), "costs" (couts), etc.; b) The second of which is composed of services offered by EDF, such as: "information" (information), "agents welcome" (accueil des agents), "appointments" (rendez-vous), "rights" (droits); c) The third of which is composed of the advantages which come out of the "good" contact: "facilities" (facilites), "participation" (participation), "procedures" (systeme), "patience" (patience). The verb is also used as the first person, in the positive or negative form related to four categories of objects: a) (I have) remarks or comments coming from the agents (j'ai des remarques de la part des agents); b) (I don't have) money to pay (je n'ai pas d'argent pour payer); c) (I have) problems and difficulties (nous sommes personnes en difficulté); d) (I don't have) the right to have (or not) information, electrical power provision (or cut), service of "electric power maintenance".

10. The material factor

In the topside, there is the verb, "must" (devoir), which is used 42 times, in the conditional form; 16 of which in the third person of the plural "they would have better" (ils devraient). Here the impoverished clients express what they think should be EDF's duties in relation to their specific needs and situation. The objects of disagreement are: cuts in the electrical power provision (specially when in certain difficult conditions like "winter" (hiver), "children" (enfant), the high price of the electricity bill in relation to the low level of the income, the high cost of the phone calls made to EDF (which these clients would expect to be free for them). Furthermore, the clients complain about the complexity of their bill and about the indications of their consumption. They would like to have more clear information and better treatment when received by the agents, at the company's agencies.

At the bottom, two modal verbs are present. The verb "want to" (vouloir) is used many times, a great part of which related to the verb "to pay" (payer) (sometimes in the conditional form: "I would like to pay, but…" ("j'aimerais payer, mais…"). The verb "be capable of" (pouvoir) is used most of the time in the negative form, signifying the impossibilities these clients have, which are: a) they cannot pay the electricity bill; b) they cannot live without electric power; c) they are not informed about the rates, prices, services, etc.; d) they are not successful in communicating to EDF's agents.

Considering the employment of these two verbs "must" (devoir) and "to want to" (vouloir) together, we conclude that the "impoverished" clients felt twice frustrated. What they would like to do (pay their bill, have heating in winter time, have electrical power and electricity) they cannot afford; while what they can hardly stand (staying without electric power, being uninformed about prices and costs, having difficulties to communicate to any agent) they are subjected to, in their experience.

So, after analyzing all these results, the conclusion is that the way the verbs are used in this specific lexical context translate an implicit tension between the "impoverished" clients in one side and EDF and its agents in the other: the first ones being powerless, the second ones being powerful.

Other "sign" of this asymmetric relation (clients-agents) is the dissimilarity of technical knowledge between the lack of knowledge and information of the "impoverished" clients and the excess of knowledge and information of EDF and its investigators, which comes out with a fifty questions questionnaire, full of technical details. While what they "know" (experience) is that they need some help.

11. Syntheses of the empirical research

The method ALCESTE, gives the means to capture the deepest sense attributed to the words, which is unique since linked to the specific lexical context, in the moment of the expression of a particular relation between subjects of enunciation. The specific use of certain words, in certain moments or locations of the speech, is an evidence of a topic ground and the presence of a themata. The use of certain chosen terms in the speech that we just analyzed, offer a good demonstration of how a unique lexicon may unify charges that are opposed, representing a pair of antagonistic forces. In a particular relational context, the words take a very particular sense, which combine many senses in the same word. Actually, this condensation (more than one meanings transmitted by only one word) gives to these "chosen" words a thematic quality.

In this particular case we are discussing here, we noticed the phenomena of meaning condensation in relation to the dialectical peer: "to have the power of" or "not to have the power of" doing something. The term "power" combines in one single word all these meanings: "electrical power", "financial power" and "personal power" (capability of doing something). The asymmetry of the relation is explicit in the way the different groups place themselves, in relation to the utilization they do of the opposed means of the vocabulary. The "impoverished" clients see themselves still more "powerless" ("I can not pay the bill"), because they are comparing themselves to (or putting themselves "against") a "powerful" company, which they see as having many possibilities at its disposal ("They could do something to help us"). On one side, EDF has 'plenty' of powers and on the other, the clients are 'empty' of these powers (electrical, financial and personal). In relation to EDF's superpower, the impoverished clients feel completely powerless. The EDF sees them from a materialistic perspective as "clients" and in relation to what they do not have and they see themselves as "people" with big difficulties.

The same concentration of meaning occurs in relation to the term "anything" (rien), which condensate the sense of the EDF's agent's speech when they express a kind of refutation like that: "I can't do anything for you" (je ne peux rien faire, il n'y a rien que je puisse faire pour vous) and the sense of the clients speech, when they reply to the interviewer who was representing EDF: "I don't have anything to say to you" (rien a declarer, rien a dire). It is like if they were reasoning in function of a kind of private "vengeance" that could be formulated like: EDF and its agents refuse to do something to help them, so they refuse to answer the questions the investigators sent by EDF come to ask them.

This asymmetric relation between the giant EDF and the "impoverished" clients recalls the disparity that once existed between David and the giant Goliath. However, in the Biblical

example, the difference of size was compensated by the difference of intelligence; the lack of strength compensated by the force of invention. Unfortunately, in the case treated here, the destiny of the weak personage is less fortunate than in the Bible's adventure. The relation the "impoverished" clients have with EDF (and its agents and interrogators) is twice asymmetrical. And we can suppose that as long as the same conditions are maintained (the existence of tensions between the verbs "to be" (etre), "to say" (dire) in one side and "to have" (avoir) in the other; "duty" (devoir) and "knowledge" (savoir) kept separated from "desire" (vouloir) and "capabilities" (pouvoir) the asymmetry will remain and the agreement field between clients and agents will stay unoccupied.

To change that it would be necessary to find a way of overcoming the tensions and integrating the oppositions in a higher-level synthesis.

12. Conclusion

In sum, the possibilities of connecting two key concepts and using an adapted program to make a pragmatic text analyses, provide enough information to unable social psychologists to conceive a system of explanation which is capable to consider, simultaneously, symbolic exchanges and relational issues. Among all the possibilities of meaning that the terms of the language offer to the speakers, there will be always some that will be highlighted with a specific context, because they will be vectors of a meaning condensation, sign of a lexical world where themata were recently activated. That is exactly the phenomenon that the pragmatic approach presented here allows to discover in the unities of context of the text.

After all theses considerations we are allowed to affirm that the particular structure of the sense within the language, the particular distribution of the lexicon within the speech and the original production of social representations within the communication are "isomorphs" with the asymmetry which defines intergroup relations. The forms the symbolic level can take (comprised of speech acts, practice of language and production of social knowledge and construction of social representations) are directly linked to the forms that the relations can take (comprised of: symmetric or asymmetric, dependence or independence, domination or submission, inclusion or exclusion, etc.). In spite of contextual variations, the principle is always the same: the experience of a kind of relation determines the use of a certain kind of vocabulary.

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