Verbal-, Textual-, Image- Traditional and New Media- Based Methodologies Adopted for the Study of Social Representations: The Integrative Perspective of the “Modelling Paradigmatic Approach”

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The Asian Conference on Media & Mass Communication 2016
Official Conference Proceedings

Abstract
Introduction: The communicative process through interaction and media has been one of the genetic dimensions of the Social Representation theory (Moscovici, 1961/1976, 2000) and it remains its core element after more than 50 years of the literature development (de Rosa, 2011a, 2011b, 2013a, 2016; Jodelet, 1989; Sammut & Andreouli, Gaskell & Valsiner, 2015; Lo Monaco, Delouvée & Rateaux, 2016). However the focus on communication remains in the majority of the studies mainly anchored to the micro-genetic interaction among people and groups and to the traditional media (basically the press, as in the seminal study of Moscovici). The new media scenario developed after the revolution of the digital area (Castells, 2006) is still less considered.

Aim: First, we present the international panorama of the worldwide scientific community through geo-mapping by Tableau software. Second, we identify the most common methodological profiles through cluster analysis by Iramuteq software to detect the relevance of methodologies according to their communicative channels and type of media. Finally we present the integration of verbal, textual, image and traditional new media based methodologies in the paradigmatic option inspired by the modelling approach applied to various thematic areas.

Data sources and Method: Extracted from more than 10,000 texts - filed in the SoReCom “A.S. de Rosa” @-library (de Rosa, 2015, 2016) - we analyze sources related to multiple methodologies adopted for the study of social representations and communication through the lens of a systematic meta-theoretical analysis using the Grid designed by de Rosa (v. 2014).

Keywords: social representations, media, communication, methodologies, SoReCom “A.S. de Rosa” @-library, big data

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Introduction

Concentrating on communicative processes and methodology, this empirical contribution addresses the dynamics of the knowledge epidemiology via the meta-theoretical analysis of diversified body of literature on Social Representations, extracted from a larger number of more than 10,000 bibliographic references filed in the repositories of the SoReCom “A.S. de Rosa” @-library (de Rosa, 2015a, 2015b, 2016 forthcoming).

First, we start from the premise that Social Representations constitute a valuable research field for the IAFOR conference on communication and media, still quite ignored in Asia, among the new emerging scenarios of the social representation theory dissemination. This can be observed when assessing the international panorama of the worldwide scientific community through geo-mapping by Tableau software.

Second, we identify the most common methodological profiles through cluster analysis by Iramuteq software to detect the relevance of methodologies according to their communicative channels and type of media.

Finally, we present the integration of verbal, textual, image and traditional new media based methodologies in the paradigmatic option inspired by the modelling approach applied to various thematic areas.

Theoretical Framework

Social representations are the product of interaction and communication, taking their particular form and shape at any moment as a consequence of the specific balance of these processes of social influence (Moscovici, 2000). A social representation has been defined as:

“a system of values, ideas and practices with a twofold function: first, to establish an order which will enable individuals to orientate themselves in their material and social world and to master it; and secondly to enable communication to take place among the members of a community by providing them with a code for social exchange and a code for naming and classifying unambiguously the various aspects of their world and their individual and group history” (Moscovici, 1976, p. xiii).

The above definition, proposed by the founder of the theory, demonstrates the crucial role of communication, which can be operationalized as function of social representations, but also a way of their genesis, transmission and transformation.

The most salient characteristics of the theory of social representations position it as an international, intercultural, interdisciplinary research domain, which is in line with the mission and vision of IAFOR conferences, aimed at broadening international exchanges, heightening intercultural awareness and expanding interdisciplinary activity. While the vision of IAFOR grew out of the perceived need to fill a vacuum in the communication and exchange activities of the academic world, the theory of social representations is intrinsically linked to communication. The mission of IAFOR arose out of realizing that the vacuum existed because of the lack of opportunity for
serious and thoughtful exchange between academics, members of the global business community, and practitioners in the fields of human endeavor that linked these groups together. This contribution promotes a fruitful dialogue between academics from the social representations research field in view of the application of the IAFOR tenets.

Among diverse paradigmatic approaches to the investigation of social representations, in this contribution we focus on the “modelling approach”, which has been only recently presented in the literature (de Rosa, 2013a, 2014). However, de Rosa has proposed the multi-method approach to social representations since the 80’s, emphasizing the integration of qualitative and quantitative, structured and projective, textual and figurative techniques and multi-step data analyses, in a wider context of social psychology dominated by a monotheistic methodological option for verbal production (de Rosa, 1994, 2002a, 2013a).

The modelling approach to social representation overcomes the logic of mixed methods research (including qualitative or quantitative research tools and their underlying epistemological viewpoints). Thus, it is more than a research practice for the integration of mixed qualitative and quantitative methods, nor can it be reduced to the application of Multilevel Modelling (MLM), Structural Equation Modelling (SEM), or Multilevel Mediation Analysis, although it can include these data strategies in its methodological plan.

**Mapping the worldwide dissemination of the Social Representations literature**

This section is aimed at mapping the dissemination of the Social Representations literature within the multi-generational community of scientists and across different geo-cultural contexts (de Rosa, 2015b; de Rosa & Dryjanska, 2016 forthcoming).

We start by presenting briefly the type of resources analysed, the year and languages of publications.

Considering the type of resource, there is a prevalence of articles in scientific journals (40.12%) and conference presentations (33.68%), then book chapters (20.35%), books (2.45%), and other as demonstrated in Figure 1 below.

![Figure 1. Type of resource](image-url)
Regarding the year of publication, the initial date is 1952 that related to the first article that Moscovici authored which mentioned the construct of social representations. We may observe a growth trend with a clear peak of 625 publications in 2014, not yet visible for 2015 as there is time necessary that elapses between the publication and the retrieval and elaboration of information, as shown in Figure 2.

Concerning the linguistic profile of the literature inspired by the theory of social representations, there is a prevalence of English with 35.34% (the universal language of science nowadays), followed by French with 22.79% (the language in which the theory originated and was first formulated), Portuguese with 18.15% (mainly thanks to the significant presence of Brazilian authors and institutions, as well as regular, bi-annual events fully dedicated to social representations), Spanish with 14.79%, and Italian with 4.76%, as shown in Figure 3 below.
Finally, moving towards the geo-mapping we present the snapshot of data as of July 2015 that although it has grown in number since, still presents similar trends positioning Europe as the homeland of the theory and Latin America as the most fertilized scenario, as shown in Figure 4.

It is important to specify that the source for the geo-mapping is the frequency of publications with authors belonging to the institutions located in specific countries, which do not always match, for example, the country of origin of a given person.
However, this technique has proved useful in examining the worldwide production, also looking at specific continents.

In fact, zooming on Europe we realize that while France, the theory’s “homeland” ($f=1,785$) is the top country when it comes to the institutional affiliation of first authors, United Kingdom ($f=796$) and Italy ($f=770$) stand out as important players in this scenario, followed by Spain ($f=440$), Switzerland ($f=435$), Portugal ($f=275$) and others, as shown in Figure 5.

![Figure 5. Geo-mapping the publications inspired by the theory of social representations across Europe, taking into account the institution country of the first authors](image)

A closer look at Latin America confirm the predominant position of Brazil ($f=1885$) as the main institution country in this continent, followed by Mexico ($f=408$), Argentina ($f=406$) and others as shown in Figure 6 below.
While there is no space to go into detail of each continent, it is important to present the dissemination of the theory of social representations in Asia, given the location of the MEDIASIA2016IAFOR conference and the classification of this continent among the “new emerging scenarios”. Indeed, the role of conference is very relevant for the theory (de Rosa & d'Ambrosio, 2008), as demonstrated by the fact that a bi-annual International Conference on Social Representations has only once taken place in Asia, in particular the 9th ICSR in Indonesia (de Rosa, 2008, 2012) which nevertheless has had an impact on the position of this country, as shown in Figure 7 below.
The above figures related to geo-mapping demonstrate the wide dissemination of the theory across the world, in large measure thanks to its intersectorial and supra-disciplinary characteristics.

**Text mining for methods**

Using the IRAMUTEQ software package, it was possible to analyze keywords and abstract of 9660 texts related to social representations from around the world. Among different analyses performed, in this paper we focus on the Descending Hierarchical Cluster analysis, which resulted in four main clusters:

1. Topics, Targets, Thematic Areas
2. Constructs
3. Theories, Disciplines, Authors, Epistemologies
4. Method, Techniques, Data Collection, Data Analysis

These clusters are shown in Figure 8 below, with the cluster of our special interest (namely, Cluster 4) highlighted in yellow and relevant for 21.1% of the entire content.
Figure 8. Dendrogram of Descending Hierarchical Cluster Analysis
The Phylogram of Descending Hierarchical Cluster Analysis makes it possible to identify, graphically, lexical content of each of the classes, with the most relevant words written in bigger font ("datum", "interview", "questionnaire", "analysis", "association", etc.), as demonstrated in Figure 9 below.

Figure 9. Phylogram of the Descending Hierarchical Cluster Analysis
Another way to consider the results of Descending Hierarchical Cluster Analysis is to place them on a factorial plane, which enables us to see the intersections of clusters, in particular the Cluster 4 appears as quite separate from the other clusters (the only one on the left), as shown in Figure 10 below.

Figure 10. Active forms for each cluster shown on the factorial plane

It is worth emphasizing that the methodological cluster is present not only when analyzing the whole corpus (as shown above), but also in case of performing the analysis on smaller units, from the paradigmatic, geo-cultural, and thematic points of view.

For example, we can observe in Figure 11 the intersection between methodological profiles of the Journal Articles and their bibliometric impact from multidimensional analysis based on the corpus related to the thematic area of Social Representations and Politics: multidimensional identity, intergroup relations, social movements and active minorities.
The results based on the Multiple Analysis of Correspondence (performed by SPAD software) have offered an empirical evidence of a sort of “methodological polytheism” (Moscovici, 1988). The paradigmatic and methodological geo-mapping of the literature on Social Representations and Politics shows the inclusion of all the approaches (experimental, quasi-experimental, field, ethnographic and media studies), but also oppose them in the semantic factorial space. The paradigmatic and methodological distinct options are also anchored into specific geo-cultural contexts, identified with the country and continents associated to the authors’ institutional affiliation, over different decades and publishing editorial sources, opposing the journals included or not in the bibliometric databases.

**Modelling paradigmatic approach**

In the “modelling approach” to research inspired by the Social Representations Theory, a unifying meta-theory of the social sciences, it is fundamental to do not restrict the focus of the investigation to its “objects” (de Rosa, 2013a,b). Therefore it is crucial to operationalize one of the key epistemological assumptions founding the Social Representation theory: i.e. to assume the interplay between the social actors (and their positioning), the social objects and multiple forms, channels, tools, contexts and scenarios of communication, essential to explore the social process of knowledge building, as a set of interrelated system of social representations dynamically co-constructed and circulating within society.
The modelling approach is usually operationalized in a research design table including along the horizontal axis - the various levels of analysis in logic of a multi-step level of complexity of the interrelated research lines, including field and media studies. In agreement with an ordinary multi-step logic of statistical analysis, the research design table’s sections reserved to the research lines focused on field study usually includes three sub-sections:

1. **descriptive level of analysis**, reserved to those variables characterizing:
   a) the typology of the participants in the study;
   b) their socio-demographic variables supposed interesting;
   c) other descriptors selected by the researcher to be first investigated at purely descriptive level (as dependent variables) to characterize the research population and to be in a following step used (as illustrative or independent variables,) to position the diversified groups and sub-groups in the representational semantic space detected regarding the object/s of the study.

2. **intermediate level of analysis**, reserved to those variables playing a mediational role in the research plan, supposed to be relevant both for diversifying the subjects and at the same time for the target object of representation in a logic of set of multiple interrelated objects of representations;

3. **cross-level of analyses** aimed at understanding the core object of representation by positioning on the semantic field the various groups and sub-groups, finely identified according to all the complex set of dimensions included in the whole research design. At this purpose it is also interesting to detect the meta-representations expressed by the different groups as regards each others.

The research design table’s sections reserved to the research lines focused on media study includes - along the horizontal axis – a combination of multiple sources based on:

- **traditional media** (press, radio, TV, cinema, theatre, literature, advertising, etc.), that can be diversified according to different communicative channels: textual (like in the case of the print media: newspapers, documents, magazines, books, etc.), figurative (like adverts, posters, maps, photos, artworks, vignettes, etc.), sonorous (like song, different genres of music), multi-channels (like films, spectacles, TV programs, etc.);
- **new media and the multiple digital worlds** (websites, social networks, blogs, chats, forum etc.).

Along the **vertical axis**, the research design table usually includes:

a) the main theoretical constructs, the paradigmatic elements of the Social Representation, theory under scrutiny, the specific analytical dimensions selected for the study, other theoretical perspectives considered intertwined;

b) objectives concerning each of the various constructs/paradigmatic elements/other theoretical perspectives/analytical dimensions chosen and their relationship with the core object of the study;
c) hypotheses concerning expected results regarding each of the various theoretical dimensions chosen and their relationship with the core object of the study, with the kind of the techniques used (based on oral, textual, figurative or behavioral channels, their degree of projectivity/structuration, etc.), with the data analysis strategy, with the population;

d) instruments and techniques, adopted or specifically designed for each of the main theoretical constructs and the specific analytical dimensions selected for the study;

e) multi-step data analysis strategies;

f) research population.

At the end this comprehensive modelling plan of the whole study, conceived while designing the research, may be integrated by the key results obtained at the three main levels of analyses (descriptive, intermediate and cross-level), confirming or redefining the expected results guided by the specific hypotheses formulated in advance.

The integrative perspective of the modelling paradigmatic approach includes verbal-, textual-, image- traditional- and New Media- based methodologies adopted for the study of social representations, is a research practice confirmed by the cluster 1 detected by the Descending Hierarchical Cluster Analysis performed by the IRAMUTEQ software on the corpus of sources related to the modeling approach. This cluster 1 interpreted as Beyond the simple cumulative “multi-method and mixed method includes words related to:

- “Projective and Structured Techniques in the Multi-Method (questionnaire, associative networks, technique, tool, scale, map, tour, grid, interview, survey instruments, test, observation, inventory, …)."
- “Textual, Verbal, Iconic and Multi-media channels as data sources in the real and digital world (verbal, discourse, conversation, discussion, graphic, communication, campaign, advertise, advertisement, publicity, brand, message, multi-media channels, website, navigator, forum, social networks, …)"
- “and data analyses (package, software, polarity, neutrality, usability, factorial correspondence, facet, corpus …)"
- “at the core of modelling approach and its articulation/differentiation of different constructs (structure, attitude, representation, communication, practice, familiarization, familiarity, anchor, nostalgia, diffusion, peripheral, risk …)”

Among other ad-hoc designed textual techniques, we can enlist:

- the “Associative Network” (de Rosa, 2002b, 2005a, 2015c),
- “Self Identification Conceptual Network” (de Rosa & Holman, 2011),
- “Involvement Level Scale” (de Rosa & Holman, 2011),
- “Place-identity, Life-cycle Timeline and Place Evaluation Questionnaires” (de Rosa, 2013c).
12.1. Associative Network

1. Draw a line connecting the word in the middle, which means yourself with each of the words you think it should be connected. Don’t draw more than 16 lines, and also indicate with number from 1 to 5 the degree of identification (1= minimum, 5=maximum identification).

2. The words you will leave unconnected express a lack of relationship between yourself and that dimension.

3. Indicate with a + or - whether the connection between yourself and the respective dimension is positive or negative.

12.2. Self Identification Conceptual Network
1. The timeline below represents your life from birth until today.
   Please divide it in segments that represent your childhood, adolescence, youth, maturity, and old age.
   Please indicate only the stages of your life until now.
   You decide the length of each segment according to the importance that each stage had in your life.

   birth.................................................................................................................. today

2. Now please write down in order of importance the places most meaningful to you during each stage using the corresponding columns.
   We understand a "place or location" as every kind of physical or natural environment (e.g. parks, gardens), social environment with historical or artistic (e.g. Monuments etc.) and related to habitation (e.g. one’s own home, parents home, etc.) characteristics or simply places to which people are bound by affection.
   You need to consider these places without any space restrictions. That is to say these places can be either the whole environment or parts of them.

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<thead>
<tr>
<th>CHILDHOOD</th>
<th>ADOLESCENCE</th>
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<th>MATURITY</th>
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3. Among all the places you indicated, please specify those you think are the most meaningful to you and give a short explanation why.

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12.4. Place-identity, life-cycle Timeline

Figure 12. Textual techniques
Image-based techniques include among others:

- Hand-drawings “of” and “as” a mad person compared to the hand-drawing of the “human figure”, also exploring similar iconic structures in the Popular Print and Artworks anchored into collective memory of “madness” (de Rosa, 1987, de Rosa & Bocci, 2013a)
- Hand-drawings of current, future and ideal family (de Rosa, D’Ambrosio & Aiello, 2014), also exploring Artworks on family ritual ceremonies, inter-generational and gender relations (de Rosa, D’Ambrosio & Aiello, 2014),
- the Body-map, as one of the techniques designed for a research on social representation of beauty and aesthetic surgery (de Rosa & Holman, 2011),
- Adverts as research stimulus or as iconic-textual material for content analysis (de Rosa, 2001; de Rosa & Smith, 1998, de Rosa & Bocci, 2013b, de Rosa & Holman, 2011).
- Photo language in “individual” and “focus group” setting, using as iconic-stimulus the most media-diffused images of the 9/11 collective traumatic event (de Rosa, 2005b, 2007)
Hand-drawings as a “mad person”

Hand-drawings as a “mad person”

Hand-drawings of a “current”, “future” and “ideal” family

Artworks related to family’s representation

Instructions for the EuroSKYcompass technique:

We are interested in finding out about your personal image of Europe rather than your geographical or political knowledge.

The map printed on the left represents the perimeter of what constitutes geographical Europe, including both Eastern and Western countries.

The points on the map indicate the position of the capital city of each country.

We would like you to:

- draw the borders of each of the EC Members State;
- write the name of each EC Member State within the border you have drawn and the name of its capital city (capitals are down on the map by black squares);
- indicate, with an arrow, the areas subject to social or ethnic conflict.
Finally, among Web-based techniques there has been outstanding research on social representations focusing on:

- Website analysis through Website usability and Thematic Analysis concentrating on diverse aspects, for example institutional stems and commercial logos (de Rosa & Bocci, 2014; Bocci, de Rosa, & Dryjanska, 2016 forthcoming; de Rosa, Bocci & Picone, 2013),
- Internet forum textual analysis (Analysis of conversations, photos and videos on Social Networks) (de Rosa, Fino & Bocci, 2014, 2016 forthcoming; de Rosa & Holman, 2011; de Rosa & Bocci, 2014),
Conclusion

The *modelling approach* is a paradigmatic option specific to the research field inspired by the theory of social representations (de Rosa, 2013a, 2014). It is aimed at grasping the core value of the theory as a unifying meta-theory of the social sciences, by operationalizing the investigation about any object of this supra-disciplinary field in multi-methodological research designs. Such designs should be fully justified and adequately complex, depending on the multi-theoretical perspective adopted and the variety of constructs selected, as functions of specific hypotheses also concerning the interaction between the nature of diverse techniques (structured and projective, textual and figurative, verbal or behavioral, etc.), the choice of the data analysis strategies and the expected results.

The need for the *modelling approach* to research inspired by the Social Representation can be seen as a road map for the integration of the different classical paradigms. It has been conceived in order to empirically detect the articulation of social representations with its different constitutive dimensions and other socio-psychological constructs (also anchored in diverse multi-theoretical perspectives, like for example: multi-dimensional identities, place-identity and identity theories, collective memory, social emotions, etc.), selected in function of the target research object investigated within and by the specific communicative contexts/channels.
References


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