Levels of Analysis in Social Psychology

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Abstract

The article presents a recent extension of the levels of explanation model initially presented by Doise (1982a, 1986). This extension now also includes a neurological level and an intersocietal level. The latter proved to be useful for explaining recent developments in the study of universal rights. The system/metasystem model initially proposed by Moscovici (1961, 2008) is also further extended. Its application to the judicial realm leads to new interpretations of Milgram’s obedience experiments and of Zimbardo’s Stanford Prison Experiment. Several studies also show the intervention of metasystems in attitudes toward social solidarity. Finally, complete sets of social psychological research articles in Italian and Portuguese journals may be exhaustively coded when using principles derived from the above models.

Levels of Analysis

The Four Levels Model

On different occasions and also in former dictionary contributions, Doise (1997a, 1997b) has already dealt with the diversity of explanations in social psychology. On the basis of previous extensive studies (Doise, 1982a, 1986), four levels of explanation were distinguished in the fields of the social psychological study of intelligence, of social influence, and of intergroup relations. These were the intraindividual, the interindividual/situational, the positional, and the ideological levels.

Intraindividual

This level of analysis refers to research dealing with the way individuals organize their perceptions of the social environment and the way they behave toward this environment. In these models, the interaction between individuals and social environment is not the direct focus of analysis. The object of analysis here is the mechanisms that, at the individual level, allow people to organize their experiences. In social psychology, classical research about perception of complex stimuli are also typical cases of this level of analysis, for example, research using the models of cognitive balance (Heider, 1946; Cartwright and Harary, 1956) or cognitive dissonance (Festinger, 1957). Also, the process of categorization (Tajfel and Wilkes, 1963) is focused on the modalities according to which an individual organizes his/her experience about the social environment.

Paradoxically, the first level’s explanations do not seem to imply social explanations as they are focused on the cognitive and motivational processes individuals adopt in organizing their experiences. However, they are social to the extent that they necessarily introduce components of explanations that we locate at the other three levels.

Interindividual

The second level of explanations involves the intervention of interindividual and situational processes. Often at this level individuals are considered as interchangeable and it is their interaction systems that offer the explanations typical of this level of analysis. At this level of explanation, cognitive processes are, for instance, studied as embedded in, or even generated by, different types of interindividual coordinations. The research of communication structures (Bavelas, 1951) and attribution theory (Kelley, 1967) are good examples of studies situated at this level of analysis.

Positional

The third level of analysis concerns the different positions occupied by individuals and social categories in a given societal framework. For instance, concerning explanations of learning and other modes of cognitive functioning at this level, there is an intervention of different conceptions that social groups have in relation to the role of the school system in a given society. The study of the effects of different social positions in interaction was already present in one of the first experiments on social attribution (Thibaut and Riecken, 1955). In this study, an interindividual relation (one’s success to persuade another) was articulated with differences in status preexisting to the experimental situation. This level of explanation is also important in the study of relationships concerning intra- and intergroup differentiation. Actually the articulation of intraindividual level (more or less intracategorical variability in the individual cognitive apprehension) and the positional level (group status or prestige) allows researchers to integrate contradictory results about the out-group homogeneity effect and to go a step further in their conceptualizations of this domain (Devos et al., 1996; Lorenzi-Goldi and Doise, 1990; Valentim, 2008).

Ideological

The fourth level of analysis concerns ideologies, belief systems, social representations and norms, characteristics of a given society. Their role is to maintain the functioning of a given society notwithstanding its many social differentiations, oppositions, and divisions. The studies of Lerner (1980) on the belief in a just world, and the role of the prestige of science in the interpretation of Milgram (1974) results on the obedience to authority studies are examples of this level of analysis.

Assessing Explanations with the Four Levels of Analysis (1980)

An extensive study (Doise, 1980) of the first seven volumes of the European Journal of Social Psychology (EJSP) led to the conclusion that the four different levels of analysis were useful for assessing

explanations by an important sample of authors. The inspection of this corpus of published texts confirmed that indeed most explanations used in the EJSP could be situated at four levels. Notwithstanding the fact that levels 1 and 2 – respectively situated at the individual and interindividual level – accounted together for more than 70% of all explanations offered, other explanations in terms of societal characteristics were also used. Furthermore, when combinations of explanations of different levels occurred, and when level 3 – status and group differences – and level 4 – general beliefs and values – were used, they were often aimed at explaining variations of processes described at level 1 or 2, whereas the inverse pattern rarely occurred. Reductionism, i.e., recurring to individual or interindividual processes for explaining more collective phenomena, was rarely found. Concerning the differences between so-called American and European social psychology, it should be admitted that the four levels were used on both sides of the Atlantic, although the individual and interindividual levels may have been more favored by leading American social psychologists than they were by their European peers.

Contemporary Enrichments and Extensions of the Model

Research developments in social psychology since 1982 led Doise (2011) to revisit the four levels of analysis and to add two more levels, one on each ‘side’ of the spectrum: an intersocietal level and a neurological level.

Intersocietal Level

Doise (2002) tried to extend the levels of analysis model at an intersocietal level. In this epoch of globalization, humans of different origins and societies become aware of their interdependence and in these relationships, they initiate symbolic representations, social norms, and contractual principles, which often remain implicit. When they enter into a relationship with other persons, they know that the fate of participants in such a relation will be affected by their interaction, in some measure, within certain limits, and at a certain cost. Normative representations exist on what these effects and costs should be. Multiple forms of interdependence exist, characterized by all sorts of differences in status, purpose, interdependency, and formality. Various models of acceptable relationships, prototypes of fair and just relationships, principles of contracts that govern relationships exist. Such models of relationships intervene in multiple interactions; they are culturally but also cross-culturally defined and their application is sometimes guaranteed by institutions. In this context, Doise et al. (1999) developed an international research program on the social representations of principles of universal rights. More recently, colleagues in Lausanne, Spini et al. (2008) extended this research to the study of attitudes and beliefs in war-torn societies concerning basic principles of humanitarian law. This research is not just about societal values and beliefs, it implies the existence of a kind of supraordinate realm of relationships that tie together societies in a common normative framework.

Neurological Level

Since the original publication of the Levels of Analysis book, other research groups have extended the spectrum of analyses at the opposite end (Doise, 2011). Many researchers now assess variations in neurological cerebral functions while social relations evolve, and some of them do not hesitate to recur to the terms of social brain or social neuroscience. For example, Amodio (2008) did this in the field of intergroup relations and Harris and Fiske (2009) in the important societal issue of dehumanization. Studies like these are important in furthering the construction of more precise distinctions between characteristics of sociopsychological functioning that seem to involve different neurological networks in the brain. However, the first integrative reports on studies using neural imagery do not redefine preexisting models of sociopsychological processes; on the contrary, they use these models to derive their working hypotheses on the intervention of specific neurological functions, for instance, when more affective or more cognitive aspects of a social experience are involved.

Intersocietal studies and studies of brain functioning do not make obsolete conclusions about variables and phenomena studied at the four levels described by Doise (1982a, 1986). They draw our attention to the important fact that societal values and beliefs are also shaped in an intersocietal context and that in order to be actualized at an individual level, specific neurological structures of the brain have to function. These new studies may enrich our comprehension of preexisting models; they do not invalidate them.

Articulation of Different Levels

The Concept of Articulation

While different kinds of explanation are to be distinguished in social psychology, this does not mean that in the reality of social psychological studies they are actualized separately. Actually, from the beginning of the studies of these levels, it was shown that different levels of explanation often intervened in the study of the same phenomenon. This finding gave raise to the notion of articulation of analyses and to the idea that the articulation of different levels of analysis provides a specific object of study for social psychology. The nature of each articulation is defined by the explanations that it puts in correspondence. Since they are of a great variety, so also are their articulations. “Articulating levels of explanation by hypothesizing the intervention of factors at other levels prompts the researchers to better describe a process conceptualized at one of the levels, while making explicit that this functioning presupposes conditions involving other levels of analysis as well” (Doise, 2011: p. 12).

Other Illustrations of the Articulation: The System and Metasystem Model

Already in 1982, Doise (1982b) pointed out another way of evidencing articulations of explanations based on the concepts of system and metasystem introduced by Serge Moscovici in his Princeps study on social representations (1961, 2008; see Social Representations). Using interview studies, analyzing newspaper articles and survey results, he researched opinions, attitudes, stereotypes, and other kinds of beliefs that French people held about psychoanalysis more than 50 years ago. This led him (Moscovici, 2008: p. 167) to draw “major implications at the level of the working of the intellect. We can see that two cognitive systems are at work in the reflexive effort characteristic of science, philosophy or any form of thought whose goal is the ‘apprehension’ of categories. The first is an operational
system that works with associations, inclusions, discriminations and deductions; the second is a sort of metasystem that reworks the material produced by the first. The same is true of natural thought, but there is one difference. The metasystem or the relations that constitute it are usually and primordially normative relations. We have, in other words, ordinary operational relations on the one hand, and normative relations that check, test and direct them on the other. Normative values and principles are, by definition, organized.

The metasystem functions in social regulations; in different domains of adult thinking, the organizing principles of the metasystem may also explain intrapersonal variations. When, for instance, the same individual acts as a scientist, or on another occasion as a politician, he/she may change his/her way of arguing about the same topic while adopting in one situation reasoning principles that would not be acceptable in another. On different occasions, individuals are part of different metasystems. It is of interest to note that a contemporary French sociologist, Alexis Ferrand (2011) independently came to a similar conclusion.

The development of an individual’s cognitive skills or cognitive competences does “not oblige us to believe that these operations will be applied to any and every content. Once they have mastered their physical and ideological universe the child and adolescents are far from arriving at a general use of their intellectual tools. Society does not demand it from them” (Moscovici, 2008: p. 189).

Hence an important task for social psychologists is to study the links between cognitive functioning and social context, between cognitive operations and social regulations, in order to answer the question: “Which social regulations activate which systems of cognitive functioning in which specific context?” (Doise, 1990: p. 115). This means that we are necessarily dealing with the articulation between the level of cognitive functioning and a metasystem (the social regulations) that can be considered at different levels (interindividual, positional, ideological, and intersocietal).

Metasystems can reinvade the experimental setting in a way not anticipated by the experimenter. This was, for instance, the case in Zimbardo’s Stanford Prison Experiment (Zimbardo, 1989). However, for our present concern it is more important to comment on the links that Zimbardo (2007: chapter 15) draws between the Stanford Prison Experiment and the Abu Ghraib scandal in Iraq. For explaining the Abu Ghraib incidents as a social psychologist, and also as a citizen, he had to take into account the larger societal context and this was highly important. It showed the limits of Zimbardo’s own Prison Experiment, where an intervention of social representations about the prison system in the USA was not even envisaged: it was as if prisons had their social functioning independently of the larger social context.

Zimbardo does not use in his book the terms of system and metasystem but these concepts could be used for explaining what happened in situations such as the Abu Ghraib prison, where competent authorities had created an unlawful situation in which a relevant judicial metasystem ought not to be activated at the right time. Zimbardo’s effort to situate the Abu Ghraib scandal in its larger context is fully supported by more extended documentation on the situation by Gourevitch and Morris (2008) based on interviews with the prison guards.

National and international social systems create judicial systems at their own level. Once they are functioning, they may also become kinds of metasystems intervening in different social settings. Such an intervention of a judicial metasystem was illustrated in experiences carried out in the Netherlands by Meeus and Raaijmakers (1995), who very carefully constructed an experimental paradigm for replicating essential aspects of the famous experimental paradigm that Stanley Milgram (1974) created in order to study obedience to authority. Like Milgram, the Dutch colleagues verified that the large majority of participants in their experiments did not hesitate to violate fundamental rights of another person in order to comply with orders given by an academic authority. In their case, the basic right that was violated was the right for an unemployed person to be hired for a job.

These authors introduced new experimental conditions in their studies in which the rate of obedient behavior was drastically lowered in comparison with the standard conditions of their research and of Milgram’s research. In these new conditions, subjects were required to sign a statement in which they accepted full judicial responsibility for what could happen when the unemployed person involved might want to sue the academic authorities for what had happened to him/her in the experiment. The well-known obedience to authority collapsed when the possible intervention of a judicial metasystem was evoked. Often fatalistic views on the readiness of people to engage themselves in all kind of reprehensible acts refer to the Milgram experiments. Meeus and Raaijmakers’ new experimental conditions about judicial responsibility showed that the independent functioning of judicial institutions may also be part of a social environment and that its mere evocation can lead persons to disobey authorities who want them to victimize others. Maybe autonomy to function at an individual level in some conditions requires institutions to function at a more societal level.

In a book chapter on normative social psychology, Valentim and Doise (2008) insist on the importance of distinguishing a description of an actual observed reality and a description of the normative ideas people have about what, according to them, this reality should be or could have been. In our opinion, social psychology research, and maybe especially experimental social psychological research, is often guided by a kind of fatalistic worldview, a belief that social reality as it is, is necessarily as it is. In other realms of thinking about social reality, distinctions such as the one bearing on a matter of fact and a matter of law often suggest that a given situation should have been, or could have been, different from the actual situation. It is in the light of such distinctions that we try to counter the harsh criticism that Zimbardo (2006, 2007: chapter 11) addresses to the so-called BBC Prison Experiment by Haslam and Reicher (Haslam and Reicher, 2012; Reicher and Haslam, 2006). Basically, he argues that it did not reproduce a real life situation.

Indeed, the BBC prison differed in important aspects from the Stanford Prison Experiment. One of these differences concerned the guard/prisoner relationship; participants were, for instance, informed that the prisoners who behaved well could become guards. These changes apparently blurred role differences and went against current social representations of the prison system. In the BBC experiment, a kind of virtual world was presented that differed from the actual world, a metasystem
was activated, different from the one that regulated the behavior in the Stanford Prison Experiment.

We can broaden perspectives on the articulation between systems and metasystems with further illustrations namely in the domain of studies in attitudes toward social solidarity. The research by Clémence et al. (1994) on Solidarités sociales en Suisse was presented by Emiliani and Palmonari (2009) in the first volume of Paradigmi delle rappresentazioni sociali (pp. 197–198). Let us remember here that according to our colleagues, basically two metasystems orient people’s conceptions on solidarity in Switzerland: one considering society as a more or less harmonious set of social relations based on individual qualities as attitudes of altruism, and the other of a more conflicting nature, characterized by a vision of society opposing individual and collective interests that have to be coordinated.

Are these not two basically different ways of defining one’s identity as a Swiss citizen? The first vision furthers a more homogenous vision of society with less danger and insecurity, and which does not involve an important investment of society in a redistribution of resources. The opposite is true for the other conception. The harmonious vision also leads to a more meritocratic view: everyone according to his/her merits, with some possible temporarily limited intervention of public funds in case of hardship, accidents, and so on. Quite different is a vision based on the assumption that inequalities exist between groups and categories of society, implying that public authorities should intervene in order to redress situations of social injustice related to their group memberships.

Hence for Swiss people at least two basic ways of defining one’s own national identity and the identity individuals adhere to explain to some extent the readiness of their holders to allow public funding in favor of members of such categories as asylum-seekers, young and old people, handicapped people, drug addicts, and other marginalized people.

The existence of these links was investigated by Clémence et al. and assessed for younger and older respondents, and also by using experimental methods for enhancing the saliency of either basic conception.

 Actually, none of the studies that we have presented mentioned the notions of levels of analysis and of their articulation. However, we think that the authors of these studies evoked successively explanatory principles from different levels and it is precisely the articulation of these principles that allows for a better comprehension of the phenomena studied.

**Assessing the System and Metasystem Model**

As mentioned before, the complete set of the first seven volumes of the EJSP was used to test the levels of analysis model. In order to test the system and metasystem model, the complete set of the five volumes 2006–10 of *Psicologia Sociale* was also analyzed. Let us briefly summarize the main conclusions of the study reported by Doise (2012). A total of 40 systems having their origin outside the individual were invoked as explanatory variables. These systems were related to social category memberships (n = 16); to family relationships, other proximity relations, or educational institutions (n = 12); to structures of relationships and interactions between individuals (n = 7); and to political issues (n = 5). Only 19 systems were considered as more internal to the individual: individual organizations of cognitions or emotions (n = 11), individual cognitive or emotional organization directly related to the perpetration or avoidance of some actions (n = 8).

Valentim et al. (2013) have done the same kind of analysis in three Portuguese journals covering the period between 2006 and 2012. They used the social psychology articles published in *Análise Psicológica, Psicologia, and Psicologista*. In the 74 articles analyzed, there is also a clear predominance (73.8%) of the systems having their origin outside the individual, and the great majority of these systems are related to social categorizations and/or social identity systems. Systems considered more internal to the individual (cognitions and motivations associated with actions) are only a small part of the total of explanatory systems (26.2%).

Hence the conclusion of these studies is as follows. At the first glance, the omnipresence of systems of variables, under different forms, in the articles analyzed, seems to become a sort of ‘lapa-lissade.’ In fact, the evidence gathered could be considered trivial if we did not look in more depth. Of course, we do not advocate such a suspension of interpretative effort.

Certainly, much of the research published in the journals analyzed, using experimental, quasi-experimental, questionnaire-based, or other empirical methods and even theoretical articles, involves analyses that also appeal to other systems while recurring to analyses of social positions and of differentiation among social entities.

If the analyses that surpass the individual or the interindividual level abound in Italian and Portuguese social psychology studies, it is because the only metasystem that guides and regulates the research endeavors of social psychologists is not the one of a scientificty that would be blind to the dynamics of societal and intergroup relations. In fact, we consider that several metasystems are functioning within the general system of social sciences. They result from multiple modalities of overlapping motivations of research in individuals and teams, and in the nature of societal and intersocietal problems. It is clear that scientificty is a general rule but the application of such a standard of scientificty to more specific issues may also result from other social dynamics that are part of a scientist’s motivation. The definition of an object of study is not only dependent on, and does not just translate a state of established knowledge. It may also arise from a basic desire to better comprehend the social dynamics in which we participate. Within these dynamics, the general conceptions about the relative importance of social units like families, educational systems, regions, political ideologies, nations, and cultures, have been for a long time already the subject of various discussions that now can be reformulated in terms of scientific debate heuristics.

**Conclusion**

Results of 30 or more years of enormous developments in social psychology research invited us to revisit the levels of analysis grid proposed in 1982 by the first author of this article. The four levels of analysis in social psychology (intraindividual, interindividual, positional, and ideological) proposed at that time could be expanded nowadays with two more levels for a more accurate articulation of explanations: the social brain and the intersocietal studies.

Furthermore, our investigations about explanations in social psychology were initiated without explicit references to
Moscovici’s system and metasystem theory in the princeps study on social representations. Here we extend that aspect of social representations theory beyond its initial framework. The model proved its heuristic value for one of the main tasks of social psychological research: the articulation of explanations from different levels of analysis.

See also: Group Processes, Social Psychology of; Indigenous Psychology; Intergroup Relations; Justice: Social Psychological Perspectives; Obedience: Social Psychological Perspectives; Political Psychology; Representations, Social Psychology of; Social Categorization; Social Identity in Social Psychology; Social Psychological Theory, History of; Social Psychology; Tyranny.

Bibliography


