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Social Representations, Environmental Psychology and Uncertainty in Communication: A commentary on Michel-Guillou and colleagues' article

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The use of social representation theory (SRT) in mainstream environmental psychology is scarce, except in the case of France and some other isolated places. From time to time, attempts have been made to connect SRT to the representation of the city, with Milgram and Jodelet's work on mental maps in Paris (Milgram & Jodelet, 1976; Jodelet & Milgram, 1977) as social representations (SR), stressing that the social takes priority over the personal and it permits the study of the city as urban experience (Milgram, 1982; Jodelet, 1982; Alba, 2011).

SRT was proposed as an alternative approach, when in 1979 it flared up what Pol (1993, 2007) has referred to as "the crisis of relevance and applicability of architectural psychology". This was an open conflict between phenomenological visions and experimentalist positivism. In 1981, Denis Jodelet and Peter Stringer, 'under the guidance' of Serge Moscovici, summoned the parties to a meeting behind closed doors in Paris, announced by the 'challenging' theme of *Towards a Social Psychology of the Environment*. This is a little-known and poorly documented meeting, which should have led to a book, announced by the publisher, but this finally never saw the light of day (Pol, 2007). However, the meeting would bear fruit later, at the Lisbon conference in 1986, which was titled *Social and Environmental Psychology in the European Context*. This included a contribution by Canter (1988) called *Environmental (Social) Psychology: An Emerging Synthesis*.

Canter argues that the traditional topics of environmental psychology cannot be understood or explained separately from their social dimension. He defends the tradition of French and European social psychology: social representations, attribution, theories of action, social identity, sociocognitivism, etc. The social orientation, and certain – passing – references to SRT, appeared in one of the first Italian books translated into English, from Bonnes and Secchiaroli (1992). But the book that probably presents the most extensive and diverse 'formalization' of SRT in relation to environmental issues is the one published by Weiss and Marchant (2006) with the title *Psychologie Sociale de l'Environnement*. In the recent handbook on *Environmental Psychology and Quality of Life* (Fleury-Bahi, Pol, Navarro, 2017), the standpoint of social representations is used or explicitly mentioned in ten of the thirty-one chapters. The book includes a chapter by Michel-Guillou and Meur-Ferec on risks and climate change, which relates to the research presented by these same authors and Nathalie Krien in the paper published in this special issue about 'Inhabitants of Coastal Municipalities Facing Coastal Risks: Understanding the Desire to Stay'.

SR, risk and uncertainty

Seen from the perspective of the risks usually associated with climate change, coastal communities are particularly sensitive places; at least according to the forecasts made in the Intergovernmental Panel on Climate Change (IPCC) reports (1990, 1996) and other documents (Reischauer & Fairbank, 1960; United Nations, 1997; Vitousek, Mooney, Lubchenco, & Melillo 1997), which predict a rise in sea level and increasingly severe marine storms. This 'information' (in quotation marks because it is a credible forecast but not sufficiently substantiated as yet) should presumably generate a series of individual and social responses of a preventive type, but in fact this does not generally happen. Obviously, the message of the denialists may play a part here. However, it does not adequately explain the behaviour of the public, their evaluations of coastal areas and possible contradictions, as described by Michel-Guillou and her colleagues.

The uncertainty of scientists' messages and the difficulty involved in transforming them into political action has been and still is a subject of controversy and discussion (Funtowicz & Ravetz, 1990; Raynor & Malone, 1997; Shackley et al., 1996, 1998; Grothmann and Reusswig, 2006). Furthermore, the perception of risk and security/insecurity is a social construction linked to messages and policies mainly transmitted to the public through the mass media and now, in addition, through social networks. The problem is that

scientists are by their very nature used to uncertainty, while citizens and politicians ask for – and need – straightforward answers and "relations of causation", as pointed out by Bradshaw and Borchers (2000). On the other hand, according to Frewer, Hunt, Brennan and colleagues (2003), most scientists believe that the public are unable to conceptualize the uncertainties associated with risk management processes, and this increases the distrust in science. For this reason Bradshaw and Borchers (2000) recommend that uncertainty should be presented as an aspect of knowledge, not as a sign of ignorance.

Castro, Batel, Devine-Wright and colleagues (2010: 233) speak of a risk culture. Following on from Sjöberg (1998), Colbeau-Justin and Mauriol (2004) and Weiss, Colbeau-Justin and Marchand (2006) highlight how beliefs seem to carry more weight than knowledge and objective aspects in environmental risk research. They are also influenced by collective memory and individual experiences of previous emergency situations. For Wachinger, Renn, Begg and Kuhlicke (2013) the most relevant is the mixture between this personal experience and the trust/distrust of authorities and experts. Cultural and individual factors such as media coverage, age, gender, education, income, social status and so on act as mediators or amplifiers of the main connections between experience, confidence, perception and readiness to take protective measures.

Uncertainty and the related aspects reviewed above not only affect the SR of risk but also all the dimensions of the environmental message that helps to create it. As Pol, Castrechini, Carmona and colleagues (2017) have shown, the forceful simplification of the messages in communication can end up affecting the credibility of the messages and its source. Furthermore, there is a constant change of emphasis and names or terms used to refer to the salient problems (environmental degradation, pollution, the ozone hole, climate change, global warming, etc.). This instability of the message's emphasis, far from serving to highlight or draw public attention to the problem needing attention, conveys a sense of deception or falseness. This adds yet another dimension to the accumulation of viewpoints and processes that call into question and weaken the content of SRs favouring environmental conservation and sustainability.

SR, communication and cognitive dissonance

The work by Michel-Guillou and her colleagues for this special issue is based on the possibilities offered by SRT for the study of the construction and perception of risk. As

already pointed out by Joffe (2003), SRs provide a more intersubjective theory of risk response, and reveal that the response to risk is a symbolic, emotive, highly social phenomenon. Furthermore, SRT embodies a criticism of the individualistic dominant approach. Michel-Guillou, Krien and Meur-Ferec find two dominant, coexistent social representations: the coast as risk and the coast as a source of pleasure. They analyse the results through the optics of cognitive polyphasia. However, we could ask ourselves to what extent the presence of both representations leads to a situation of cognitive dissonance. Some authors, such as Gemunden (1985), remarked years ago that risk perception implies a state of cognitive dissonance that leads to a selective search for congruent information and tries to avoid potentially dissonant information, especially in the case of decision-making with high perceived risk. In their latest SR handbook, Jochelovitch and Priego-Hernández (2015) state that "cognitive dissonance is one of the possible outcomes of cognitive polyphasia". And they add, "(...) the juxtaposition of cognitive dissonance and cognitive polyphasia opens up a fascinating new field for social and cultural psychologists" (p.177).

However, this means entering into 'historical' epistemological polemics, about ostensibly close perspectives, reflected by some authors since their first contributions to the journal *Papers on Social Representations* (e.g., Ibañez, 1992; Banchs, 1994; Parker 1994; Marková, 2003, among others). In our case, we advocate Munné's vision (1986, 2008) of what he called "the theoretical and methodological plurality" of social psychology. Munné emphasizes the potentially positive complementarity of the particularities (either structural or nuanced) of each one of the theories and methodologies, provided care is taken not to uncritically mix up their internal logic. Thus, although there is an element of polyphasia in the SR identified by Michel-Guillou and colleagues, there is also a resolution of dissonance (given the scarce interest in prevention expressed by the subjects in the sample).

Although Bradshaw and Borchers (2000: 8), following on from Dunlap (1992) and Steel and Lovrich (1997), may well consider that "citizen groups are increasingly well organized and well versed in the scientific complexities of environmental problems" we can rest assured that following the economic crisis in 2008 this is no longer the case. And it does not depend so much on a lack of information or education but on the construction (intentional and self serving) of a new SR of environmental issues and sustainability. An analysis of the presence of news about the environment and sustainability in the press, before and after the crisis of 2008, shows that the amount of information is the same but that it has shifted in content. From making a direct appeal to people to modify their everyday behaviour and

lifestyles, it now focuses on abstract, structural material (related to science, economics or global politics), which subtly generates a sense of personal irrelevance and inability to do anything on an individual or social level, to the extent of generating learned helplessness (Pol, Castrechini, Carmona et al, 2017).

Induced disengagement and crisis

At the beginning of the 21st century, it was possible to describe sustainability in terms of a "Sandwich Revolution" (Pol, 2002: X), but in 2016 we have our doubts. "Sandwich Revolution" depicts sustainability as formally promoted *from the top* of society by socially aware institutions. They promulgate declarations of good principles, which are turned into laws. *From the bottom,* sustainability was promoted by social movements. *In the middle* there was the citizen, more or less concerned with his/her own survival. At present, the pressure from 'above' has relaxed. The laws still exist but their application is less rigorous, and the economic pressure of global capitalism is leading to their minimization. At the bottom, those social movements advocating sustainability are in the best of cases attempting to safeguard the social rights lost to or threatened by the crisis, and to a certain extent they are beginning to see environmental challenges as yet another example of manipulation by the power structures. The message of sustainability has aged and lost impetus, despite the efforts of the COP-21 in Paris (2015) and the attempt to develop their agreements at the COP-22 in Marrakech (2016), which are full of contradictions and subtleties difficult for the general public to understand.

It is obvious that an analysis of the SR (and its evolution) constructed by the mass media is needed (Castrechini 2008; Castrechini & Pol, 2006), but also of the content and effects of Information and Communication Technologies (ICT) as the current dominant form of networking among larger and larger segments of the population. This is a field where little research has been carried out as yet from a psychosocial standpoint, and it is clearly more closely related to processes of socialization than to formal education. However, socialization has not been a particularly common research topic in social psychology in recent years. ICT provides the dominant channels for transferring values, behaviour patterns, aesthetics and so on. And in addition to providing behavioural models, the networks play a subtle role of reinforcement; promoting the adoption of the models they themselves transmit, as Centola (2010) has found. Only through examining socialization and social influence can we understand some recent data, such as the spectacular fall in scores on an environmental scale

in children of two equivalent samples (2007 and 2014, before and during the crisis) applied in the same educative centers that maintained the same environmental training programs (Pol & Castrechini, 2013, 2014).

Also, focus should not be only placed on the exploration of the linear, simple, reductionist relationship between attitudes and behaviour (almost always in this order). This type of analysis ends up blaming (or making it easier to blame) the citizen as individuals, for issues that have more to do with structural incitements, which use sophisticated, indirect and subtle methods to generate acceptance, rejection or a sense of learned helplessness.[1]

Model of the four spheres, an integrative proposal

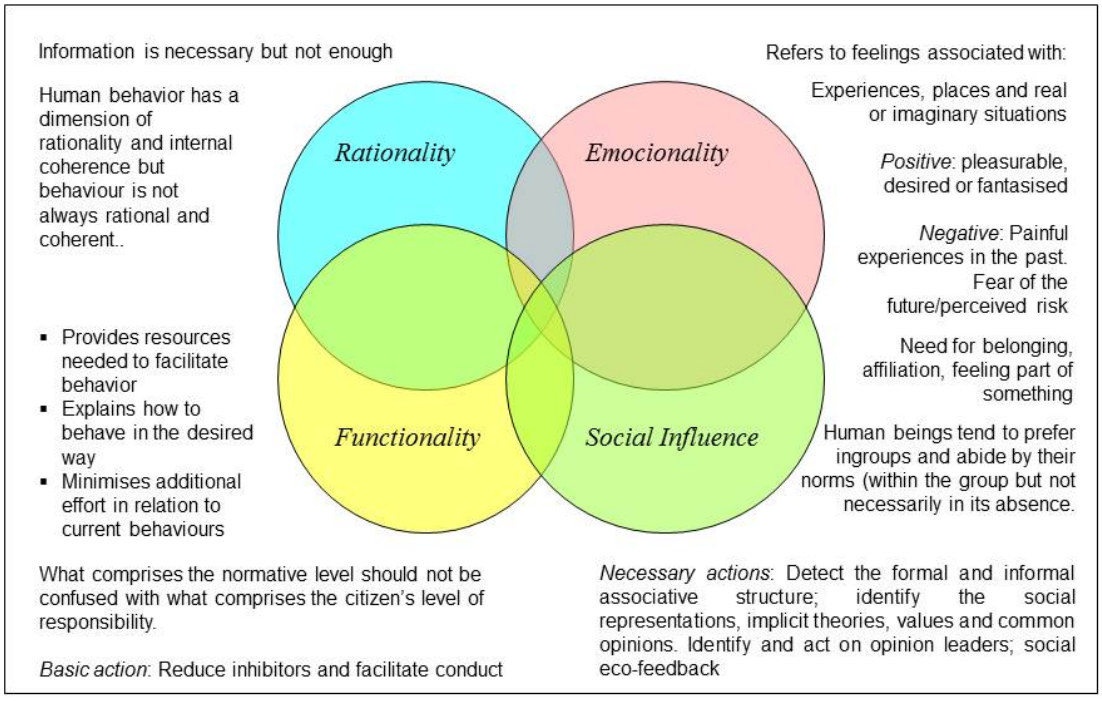
Even though interaction between theories is often frowned upon, it clearly provides a certain complementarity, enrichment, and better understanding of reality, referred to as theoretical plurality by Munné (1986) and triangulation by Denzin (1978) and Apostolidis (2006), among other terms. This is why we have been working for some years towards an integrative reconceptualization of the theories of attitudes, SRT and theories of social influence. The four-spheres model (Pol, 2000; Pol, Vidal & Romeo, 2001; Pol, Castrechini, Di Maso, 2010) provides a synthesis that facilitates an understanding of people's behaviour, while being useful for decision-making by administrators and policy makers. The four spheres are always present in human behaviour. What may vary is the impact of each one of them on specific behaviours. They are as follows:

1) The sphere of rationality. This sphere is based on information but it is extremely sensitive to the filters that help reduce cognitive dissonance and lead us, like Festinger, to consider humans as rationalizing (seeking coherence and rational support for their own viewpoints, position or behaviour) rather than rational beings.
2) The emotional sphere. This is concerned with hopes, fears, fantasies, etc. It is always present and clearly linked to the emotional dimension of the classic models of attitudes.
3) The functional sphere. It includes the classic conative (or behavioural) component but also incorporates know-how (and therefore learning – when necessary – seen from the

[1] See the discussion on the polarisation of learned helplessness and empowerment, which has just been presented in Pol, Castrechini and Carrus (2017) Quality of Life and Sustainability: The End of Quality at any Price. In G. Fleury-Bahi, E. Pol & O. Navarro (Eds.), *Handbook of environmental psychology and QoL research*. Springer

perspective of the individual) and provision of resources that facilitate the desired behaviour (when viewed from the perspective of administrators or policy makers).

4) The sphere of social influence. No matter what a person's attitude is, their behaviour finally depends more on factors such as the social or reference group, other people's opinions, personal identities fuelled by non-harmonic behaviours allied to what we believe other people expect from us, and the effective behaviour of reference groups. This includes what is proposed by Fishbein and Ajzen (1975, 1980) or the modelling effects described by Bandura (1972). However, this sphere inevitably returns us to the cognitive dimension, nuanced/created/influenced by the preminent SR conditioning our behaviour.



Four-spheres model (Pol, 2000)

The perception of and response to risks as seen from the perspective of the four spheres necessarily implies taking into account, in equal measure, the dimension of rationality (with the risk of filtering to avoid dissonance), the emotional dimension, whose role must be given consideration, as explained above, and the functional dimension, insomuch that citizens must know what to do and how to do it in an emergency situation. Furthermore, government must make available the resources needed that facilitate the

behaviour expected in an emergency situation (which has nothing to do with the 'tension-free' situations of everyday life). And as the reference group, the leaders or the most admired and trusted people serve as models if necessary.

By way of a conclusion

When Michel-Guillou, Krien and Meur-Ferec concluded that the French Ministère de l'Ecologie, du Développement Durable et de l'Énergie's plans to relocate people and activities to get them away from risk areas were not viable, they argued this from the standpoint of place-based identity: people's hopes and desires deposited in the symbolic value acquired by the surrounding landscape, with the sea playing a fundamental role, more closely linked to emotionality than rationality and functionality. These hopes and desires respond to the existence of a dominant social representation that overvalues certain landscapes and certain urban layouts as the maximum expression of achievement, which is associated with well-being and, as the authors themselves point out, with an essentially hedonic rapport. Thus, we can affirm the existence of a dimension of social influence, inasmuch that priority is given to certain values, environmental conditions and lifestyles, which are salient in a collective or a large part of society. The citizens identify with these, sharing the same SR, even to the detriment of the awareness of current risks that may well become greater in the not-so-distant future.

This opens up a debate on the convenience or not of such a social representation; on whether it emerges as part of a natural process inside the social collectives, or whether it is the result of hidden or blurred intentionality, fomented by interests absolutely unrelated to people's well-being. But that is another matter. In any case, as a result of one process or another, there is a denial of the reality of risk, which can be understood as caused by polyphasia while probably containing an inevitable component of reduction of cognitive dissonance. In any case, beyond any possible theoretical and epistemological debate, Michel-Guillou, Krien and Meur-Fere's work helps to clarify and enrich a crucial aspect of the adaptation to and struggle against climate change, too often reduced to causal, reductionist approaches within Cartesian scientific and technological fields of knowledge. These are approaches that fuel simplistic political practices – spectacular but inefficient in the medium term – and social and environmental psychologists frequently play into the hands of. But then

again, what would appear to be an ethical dilemma faced by each practitioner is also a matter of collective responsibility within the discipline.

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[2] (This book is announced and quoted in many papers as 'in press', but it is impossible to find, not even in the publisher's catalogue. Apparently it was never published, but it's cited!)

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