Papers on Social Representations
Volume 25, Issue 1, pages 1.1-1.27 (2016)
Peer Reviewed Online Journal
ISSN 1021-5573
© 2016 The Authors
[http://www.psych.lse.ac.uk/psr/]

Ecological Crisis, Sustainability & Social Worlds: Developing a Critical Agenda

SUSANA BATEL[1] & MATTHEW ADAMS[2]

[1]Instituto Universitário De Lisboa (ISCTE-IUL), Cis-IUL, Lisboa, Portugal

[2]University of Brighton, United Kingdom

> 'The environmental challenges that confront society are unprecedented and staggering in their scope, pace and complexity. Unless we reframe and examine them through a social lens, societal responses will be too little, too late and potentially blind to negative consequences' (Hackmann et al. 2014, p. 653).

Hackmann and colleagues make this claim on the back of growing recognition that knowing about, communicating and acting upon interrelated ecological crises, is embedded in social processes. It is also a tacit acknowledgement of the limitations of an exclusively psychological and individualizing approach – framing 'environmental problems' as 'behavioural problems', rooted in individual cognitive biases, attitudes and habits. Obstacles to change, in the direction of an ill-defined 'sustainability', have accordingly been theorized at the level of psychological 'barriers' (e.g. Gifford, 2010). Both of us have highlighted the limits of addressing human responsibility for ecological crisis in terms of psychological barriers and behavioural interventions aimed at targeting

Correspondence should be addressed to: Susana Batel, Instituto Universitário De Lisboa (ISCTE-IUL), Cis-IUL, Lisboa, Portugal. (email: susana.batel@iscte.pt)

them; and in developing alternative models (e.g. Adams, 2014a; Batel et al., 2016). At its most general, the problem with a focus on psychological barriers distracts from the social, structural and cultural contexts in which ‘environmentally significant behaviours’ are embedded. Theoretical framing has to a great extent been reflected in practice. In the UK for example, psychological models inform experiments, interventions and policies aimed at encouraging sustainable behaviour and/or reducing unsustainable behaviour (e.g. House of Lords, 2011; PlanLoCal, 2013; UK Government, 2011).

Our opening quote reflects calls for more complex models that include a range of psychological, social and cultural contexts that shape understanding and action/practice (e.g. Lorenzoni et al. 2007; Kollmuss and Agyeman, 2002;). This special issue is an attempt to further examine environmental challenges through the specific ‘social lens’ of Social Representations Theory and associated approaches. It is a reframing that can be measured, at least in part, by the extent to which it addresses the kinds of limitations highlighted above, in theoretical terms and in the research agenda it embodies and promotes. However, it is also more than that. It also aims to highlight that ‘being social’ might not be enough, if this is not performed in a critical way. Although the meaning of criticality is discussed in more detail below, an initial challenge is to avoid the insertion of ‘social and cultural contexts’ into a list of variables that leaves a psychological cognitivist paradigm intact (Howarth, 2006a; 2006b; Shove, 2010), or, as Moloney and colleagues (2012) suggest, to avoid seeing relations between objects and people, between thinking and feeling and doing, as linear, predictive and discrete.

In this vein, this special issue contributes to such a research agenda in two ways – on the one hand, the papers that compose it attempt to put forward an approach that explicitly addresses the social contexts in which ‘environmentally significant behaviours’ are embedded, via different versions and uptakes of Social Representations Theory; on the other hand, this introductory paper engages with how a critical perspective can be limited or obscured in advancing an avowedly social perspective. Highlighting limitations is not an attempt to dismiss the contributions to the issue, but to highlight that developing a critical agenda is a vital and unfinished pursuit. In this Introduction we will attempt to highlight and discuss these two sides of this special issue, with the larger context of Social Representations Theory and social-psychological research into environmentally significant actions in the background.

TSR, SOCIAL PSYCHOLOGY AND THE ECOLOGICAL CRISIS

The interest in the relation between the Theory of Social Representations and understanding people's practices regarding the environment in an ecological sense can be said to be manifold, in at least two ways. First, it was not only the Theory which was applied to just another area of meaning construction – nature and the environment - but it was also that the consequences (and antecedents) of the beginning of the environmental crisis needed to be understood, and outside an individualist and positivist framework (e.g., Reigota, 1999; Gervais, 1999). Second, this is reflected in the fact that the (slow) growing interest in the relation between the Theory of Social Representations and the environment started developing more or less simultaneously in different geographies, namely, in Brazil (Arruda, 1981, 1998; Reigota, 1999; Peluso,2003) and South America generally (e.g., Castrechini, 1996; see Guadiano & Valdez, 2012, for a discussion), and in Europe – in the UK (Gervais, 1999), France (Jodelet, 1996; 2001), Portugal (Castro, 2003), Spain (Castrechini, Pol & Vidal, 2006) and across European countries (Rouquette et al., 2005).

In some of these research works and proposals, the use of the Theory of Social Representations (TSR) to look at people-environment relations was explicitly built upon the fact that the existent cognitivist and individualist approaches within Social and Environmental Psychology, such as social cognition and even phenomenology, did not allow a proper and full understanding of those relations, as those approaches were a-social, a-cultural, a-historical (Gervais, 1999). As Castro (2003) also highlights, TSR was utilised to overcome other associated specific limitations of existing literature on environmental concern - namely by adopting different, more appropriate epistemological, ontological and methodological underpinnings. The goal here was to account for the complexity of human beings – instead of reducing them to inefficient and biased information processors, a re-presentation still often found in contemporary accounts (e.g., Clayton et al., 2015). Complexity is addressed by assuming that social and natural worlds are co-constructed, better grasped through qualitative inquiry on the whole.

From the 2000s onwards the interest of scholars examining people-environment relations through TSR and vice-versa started to increase more steadily and today there are different (albeit interrelated) lines of research, such as on nature, the environment and biodiversity (Gervais, 1999; Castro, 2006; Michel-Guillou & Moser, 2006; Hovardas & Stamou, 2006; Buijs, 2009; Mouro & Castro, 2009; Castrechini, Pol & Guardià-Olmos, 2014); landscapes, place and place meanings and

relations (Halfacree, 1995; Devine-Wright, 2009; Anderson, Williams & Ford, 2013; Batel & Devine-Wright, 2015); climate change (Cabecinhas, Lázaro & Carvalho, 2008; Wibeck, 2012; Caillaud, Kalampalikis & Flick, 2012; Smith & Joffe, 2013; Jaspal & Nehrlich, 2014); energy, energy infrastructures and consumption (Devine-Wright & Devine-Wright, 2009; Fischer et al., 2012; Brondi et al., 2014; Batel & Devine-Wright, 2015; Bertoldo, Poumadére, & Rodrigues Jr., 2015); and the relationship between 'expert'-'lay' knowledge and their impact on re-presenting nature, the environment, climate change and public engagement in related decision-making (Batel & Castro, 2009; Cotton & Devine-Wright, 2012; Castro & Mouro, 2016)[1].

As noted above, although some of this research and the literature it generated has importantly contributed to thinking about the relation between the ecological crisis and sustainability in social, cultural and historical terms, not all of it has done so; and, even the research which has, often still falls short of taking the social fully into account – in a critical way. To think about this further, it might be useful to borrow the proposal of Wagner (1998; see also Gervais, 1999) who distinguishes between different versions of TSR depending on their endorsing of socio-constructionist assumptions. In its 'super-weak' and 'weak' versions, TSR is the paradigm of individualist realist perspectives such as social cognition, materialized in the structural and associated approaches to the theory (e.g. Abric, 2001; Lo Monaco et al., 2016).

These versions have no socio-constructionist underpinnings - or at most 'simulated' ones, as when superficially taking into account the social, for instance, by adding a 'social variable' considered to influence cognitions. In contrast, the 'strong' version assumes the social construction of meaning and that it exists as much in the mind of individuals as in talk and action, with the 'super-strong' version considering that objects only exist as they are enacted in and through discourse[2]. The papers published in this special issue can be said to all endorse, to a greater or lesser extent, a strong version of the social. For instance, the first paper, by Étienne Bailey, Patrick Devine-Wright and Susana Batel sheds light into how place, scale and re-presenting interact regarding peoples' responses to large-scale energy infrastructures being deployed for mitigating climate change. It illustrates the importance of using TSR to perform analyses of re-presenting

[1] This does not include research where the concept of social representations is not used in relation to the TSR (e.g., Fuhrer et al., 1995; Upham et al. 2015)

[2] But see Burr, 2003, for a more nuanced view and thorough discussion.

about environmental issues based on a socio-historical inquiry (Jovchelovitch, 2012) which is sensitive to how anchoring and objectification can vary not only throughout time and space, but also across both time and space at the same time – such as at local and national and global scales (Batel & Devine-Wright, 2015).

In the same vein, the paper by Tracey Skillington uses two case studies set in highly contrasting geographical settings to identify how social representations are centrally implicated in struggles over the sources and distributions of environmental harm. Her analysis places more emphasis on anchoring - all actors are involved in the invoking of powerful pre-existing understandings. In both case studies, protest actors anchor their cause in familiar articulations of freedom, the defence of liberty and the protection of communities. On the other hand, lobbies defending fracking and land leasing attempt to anchor the representation of their own interests as responsible, reforming and progressive; whilst protesters are located within wider social typifications as irresponsible and unprofessional. For Skillington, TSR helps to reveal how varied representations of the 'public interest' inform the contestation of environmental harms and associated struggles over justice and equality in an era of ecological crisis.

In turn, in her paper, Sabine Caillaud explicitly describes the individualising and cognitivist tendencies of psychological research in this area, and how this bypasses the role the interaction between individual and social processes play in the different ways nature, ecology and climate change are constructed as issues, as things to be saved, preserved, transformed. She also argues that the same approach imposes existing understandings of what counts as 'sustainable' or 'environmentally significant' behaviour as if they were already upon as settled terms. Such an approach shuts down debate, about what should be sustained and how (Khoo, 2013).

Finally, Elisabeth Michel-Guillou, Nathalie Krien and Catherine Meur-Ferec aim, with their paper, to contribute to the understanding of another important area of the socio-psychological aspects of climate change, namely adaptation to sea-level rise and associated social, cultural and ecosystems dynamics. In doing so, the authors take into account how associated risks are socially constructed by the different actors and stakeholders managing and adapting to those risks, and how those social constructions are complex, multidimensional and polyphasic, allowing them to adapt to different contexts and negotiate diverse interests.

In this vein, the papers published in this special issue tend to share a concern with rejecting an individualist framework used to approach sustainability and related behaviour change agendas.

However, they also present many different translations of that concern into research and, more specifically, into what being critical or developing a critical agenda to understand and address the ecological crisis signifies. To understand how, a first step might be to think again about what Wagner's (1998) typology, referred to above, leaves aside: that theories of meaning making do not only vary in regard to how they-represent the social, but also regarding how they re-present ideology and the political – or social power (Castree, 2014). In fact, it might be more useful from an analytical point of view to consider different uptakes of TSR as relating simultaneously with two axes/circles: the social-constructivist one and the political/ideological one. In fact, Wagner's proposal might be seen as discussing more the social constructivist underpinnings of TSR and less its social-constructionist ones – if we consider, in line with Burr (2003), that social constructionism is also the examination of ideology as performative, discursive and material power. Social constructivism, as some have discussed it (e.g., Doise, 1989), might be seen as entailing the assumption that the way in which we perceive the world is actively co-constructed, with others. In this sense, social constructivism arguably endorses some socio-constructionist underpinnings - or, following Parker (1998), some epistemological relativism - but not all, such as the need to look at ideology and the political, or to assume them in an ontologically realist way (Parker, 1998).

In fact, the lack of TSR's theorizing and examination of power, as will be further discussed below, has been one of the main critiques directed at the theory (Voelklein & Howarth, 2005; Batel & Castro, 2009). This is still a salient issue, as testified by the discussions happening in the most recent International Conference of Social Representations in Marseille (September 2016). Many authors working with TSR repeatedly pointed out its neglect of power; however, it is not as if TSR has not, more recently, started to discuss power and incorporate it into its analyses, but has done so by creating dialogues with critical psychology (e.g., Howarth, 2006b; Howarth et al., 2012; Kessi & Howarth, 2015) rather than with social cognition and mainstream social psychology (Dixon et al., 2012; Sibley et al., 2008) - and this seems to summon some invisibility or what Moscovici (1997) has called reciprocal neglect.[3] In turn, this makes it even more important to

[3] Borrowing the words of Moscovici (1997), talking about the same debates within SRT but in a different context, "we are talking about an obviously political problem. In fact, looking back on history from this point of view, scientists are not different from other human beings. Leaning toward one group means ignoring another one, giving rise to a condition of reciprocal neglect. So scientific dialogue is difficult because it entails a social recognition instead of the existing miscognition".

highlight the core assumptions of a critical agenda and how this can be useful to better understand meaning construction and transformation.

In sum then, also regarding social power and the role it occupies in research there are weaker (e.g., Sibley et al., 2008) and stronger uptakes of it (Kessi & Howarth, 2015; also Augostinous, 1998, for a discussion) within TSR. In other words, what still lacks in research on the ecological crisis, sustainability and social worlds from a TSR standpoint, is to ask more often what do social representations do? (Howarth, 2006b), or, to put it simply, to become critical. We will next discuss what this might specifically involve.

THE CORE DIMENSIONS OF A CRITICAL AGENDA

As a way of further introducing and framing the contributions to this special issue, we now elaborate on a number of core dimensions of a critical agenda: overcoming individualisation of social and collective problems; recognising and articulating power relations; interdisciplinary engagement; the importance of socio-spatial and cultural contingencies; and addressing activism and intervention. We then consider the contributions to this issue in relation to those tenets.

Overcoming individualisation and social-cognitive reductionism

There is undoubtedly a need to recognise the role of personal experience, individual agency and subjectivity as vital in responding effectively to the environmental challenges that confront and implicate us. The subject positions we assume, our awareness of self and others (Adams, 2014b); our opportunities for agency or subversion (Batel, 2012; Billig, 1990) and accounts we have to give of ourselves all play a significant role in this context (Willig, 2012). However, recognising the role of the individual is quite different from deeming individuals responsible for her choices and behaviours and researching them as such. In fact, current conceptualizations of social change in the environmental domain still tend to incorporate the neo-liberal assumption that it is individual citizens that have to change their behaviour for solving the ecological crisis; an assumption that is commonly reflected in empirical studies and interventions targeting individual behaviour, choices and participant's understanding of them (e.g., Steg & Vlek, 2009; Clayton et al., 2015).

SRT research on socio-environmental change and practices can offer an alternative, in that it has more potential to critically engage with re-presentations of environmental sustainability and

environmental problems and solutions (Batel & Devine-Wright, 2015). However, for that it needs to overcome cognitivist and individualist shadows and ghosts in a more explicit and consequential way – specifically by taking the socio-constructionist assumption of language creating worlds seriously. For instance, the uptake of the processes deemed as creating social representations – anchoring and objectification – has often been made in a way that emphasizes them as cognitive process instead of as social ones, both in how they are defined and in how they are empirically researched (e.g., Selge & Fischer, 2011; Wagner, Elejebarrieta & Lahnsteiner, 1995; Breakwell, 1993). The same applies to the concept of cognitive polyphasia, which, despite being a very important insight of the Theory for examining and understanding social change (Batel, 2012; Mouro & Castro, 2012), is still anchored, as its very naming suggests, in the individual mind, instead of in dialogue, communication and discourse. Recently, some authors have suggested the use of the concept of discursive polyphasia instead (e.g., Wagner, 2007; also Batel, 2012), but the majority of TSR scholars still work with the concept of cognitive polyphasia (e.g., Michel-Guillou et al., 2016, this issue; Vol. 21, Issue 1, Papers on Social Representations).

In the same vein, the methodological eclecticism under the umbrella of TSR, has been argued by many to be a defining element of the Theory, taking into account its epistemological status in between the individual and the social (e.g., Wagner et al., 2010). However, to consider this is also to consider that methods, techniques and instruments are unrelated from the epistemologies and ontologies that have created and been re-created by them, and, in an associated way, value-free. However, and bringing around an old discussion, if one can argue that TSR can use many methods while simultaneously assuming a socio-constructionist epistemological perspective (see Wagner et al., 2010), one can also say that methods have histories and epistemologies which are intimately connected with methodologies (Shove, 2010), as social studies of science have shown (Latour, 1987; Castree, 2014). In other words, the problem is that surveys and experiments are often used uncritically and often (or in the case of experiments, always) reductively - with a view to try and simplify reality, rather than gather the complexity of things. In other words, and relying on Rozin's (2001) well-known argument, they are still often used for predicting, modelling and controlling, rather than for observing, describing, exploring and understanding, even if socio-psychological phenomena are not 'natural' ones (and even then... - see Castree, 2014, for a discussion). Additionally, we might again see this as remaining remnants of

the fear of letting go of the power held by techniques and instruments developed by the mainstream positivist social cognition approach.

In turn, the issues just discussed suggest that for developing a critical version of TSR we might need to further develop some of the methods already used by the Theory – such as narrative interviews, focus groups, diaries, the analysis of traditional and social media (e.g., Dickinson & Robbins, 2007; Jovchelovitch, 2000; Caillaud et al., 2013;); to further explore the potential of newer methods – such as photovoice (Kessi, 2011; Kessi & Howarth, 2015) and walk-through interviews (Carpiano, 2009); and reappropriate forgotten ones – such as ethnography (Jodelet, 1989).[4](p.42). In sum, all of the above suggests that it might be useful for TSR to more explicitly recognise and discuss, following discussions of different uptakes of the theory (e.g., Wagner, 1998; Gervais, 1999), the different approaches of the theory – the structural (e.g., Abric, 2001), the dialogical (e.g., Moscovici, 1961/76; Marková, 2003) and the critical (e.g., Howarth, 2006b) - and their social constructivist and political, critical underpinnings, at both theoretical and methodological levels, and their consequences, for society and for the Theory, even if this might be seen as implying more fragmentation. However, the potential of the Theory lies precisely in going beyond the mainstream and pervasive socio-cognitive approach, within Psychology and the dominant research agendas in global north societies.

Recognising and articulating power relations

Another cornerstone of a critical agenda, as suggested above, is to recognise the pervasive role of power relations in shaping how we understand and respond to climate change and related ecological crises. Arguably, Social Representation Theory has the ability to attend to the different types of power that Geels (2014), adopting a multi-level perspective of socio-technical transitions, refers to in his taxonomy of the dynamics of power: instrumental, material, institutional and discursive power. Geels refers to discursive power as the ability, or at least the attempt, to "shape not only what is being discussed (thus setting agendas) but also how issues are discussed" (2014, p. 29). We

[4] As a research strategy, the usefulness of ethnography is very well illustrated in Jodelet's (1989) seminal work on madness and social representations which, in the author's words, made use of a "monographie de communauté et s'armant de procédures empruntées à l'ethnographie, l'histoire, la psychologie sociale et la sociologie [a complex methodology, resembling a community monography and being equipped with procedures of ethnography, history, social psychology and sociology]" (p. 42). Author's translation from the original.

can add representation and representational dynamics more broadly, but the issue of discursive power certainly reflects the importance attributed to the 'framing' of climate change and sustainability, especially by powerful groups (e.g. Dunlap and McCright, 2010, 2011; Hoffman, 2011; Lakoff, 2010; Randall, 2009; Wilk, 2010). TSR is particularly able to contribute to understand discursive power and institutional power and how the two interact in shaping, reproducing and contesting each other - and also, collaterally, instrumental and material power. It is the intersection of these forms that is essential, Geels argues, for understanding how 'regime stability' is maintained or challenged in relation to pressing environmental issues (2014, p. 26).

However, and as already pointed out before, not fully acknowledging the pervasive role of power relations in shaping re-presentations (or, we might add following Geels, the intersection of different types of power) is something that has been often criticised in TSR research in general (Parker, 1987; Volklein & Howarth, 2005; Batel & Castro, 2009); and in environmental focused research using TSR in particular (Batel et al., 2016; Batel & Devine-Wright, 2015). This is despite the fact that TSR has, besides the more evident undercurrent emphasising active minorities and social change (Moscovici, 1976), developed throughout the years different concepts and research focuses with analytical value for examining power and ideology (e.g., Augoustinos, 1998; Jovchelovitch, 2007; Howarth, 2006b; Batel & Castro, 2009; Gillespie, Howarth & Cornish, 2012). Nevertheless, this strand has not developed to the extent that it amounts to a clearly discernible emphasis on the relations of power within TSR. Two examples from Moscovici's development of TSR point to how research avowedly drawing on this tradition might make the issue of power more central.

The first example is the distinction between reified and consensual universes (Moscovici, 1984), one of the most important in defining the Theory of Social Representations but which has more often than not been taken at its literal value - i.e., as aiming to explore the relationships between science or scientific knowledge and common sense or lay knowledge in modern societies. The alternative, in the words of Caroline Howarth (2006b), is to use this distinction as the basis for "a thorough exploration of the role of power in the reification and legitimization of 'expert' [and other] knowledge systems" (p.76). In this vein, Batel and Castro (2009) proposed instead that 'consensual' and 'reified' can be considered descriptors of different communicative formats – reification and consensualisation - instead of as static notions applying to sharply differentiated universes; which can further our understanding of how power affects these interactions and, in an

associated way, social change (p. 416). In other words, the distinction between the reified and the consensual can be seen as a way to examine power relations and how these are shaped, reproduced and contested through different communicative formats and associated discursive and material resources (Batel & Castro, 2009; Andreouli & Howarth, 2013). The second example is the distinction between hegemonic, emancipated and polemic social representations proposed by Moscovici (Moscovici, 1988) which can also be seen as a clear account of the power differential of re-presentations and groups in creating and resisting change (Batel & Devine-Wright, 2015; also Castro & Mouro, 2016), but which has not often been acknowledged as such, or used to better diagnose and contest power relations.

The absence or partial recognition of power relations is also felt in the methods largely used by TSR researchers. The shadows of social cognition and the failure to account for power in the processes of re-presenting, often results in obscuring the very political and socioeconomic systems where research takes place; how those systems shape socio-psychological research; and how research in turn shapes those very same political and socio-economic systems (Rose, 1990). Such dynamics are clearly relevant in the environmental domain (see Batel et al., 2016). The aforementioned still pervasive representation of individual environmental behaviours as the main focus in environmental research, including that developed with and within SRT (e.g., Castro et al., 2009; Bertoldo, Poumadére & Rodrigues Jr., 2015) is illustrative of that neglect (see also Uzzell & Räthzel, 2009 for a discussion). In sum, and again borrowing the words of Howarth (2006b) and of Castree (2014), research on the environmental domain using TSR has to start to properly consider that "knowledge, even social psychological knowledge, is never disinterested" (p. 77) and that "all forms of representation (including science) are political and performative" (p.262).

The need for interdisciplinarity

As we begin to ask more questions about whom, when, where, how and why anthropogenic ecological degradation is experienced; about responsibility, justice and ethics; and about the articulation, circulation, mediation and representation of environmental issues and climate change (Adams, 2014b); there is a growing need for an interdisciplinary approach. This involves seeing through a social lens, as our opening quote suggests, but it also involves a questioning too of 'the social' with which we operate within disciplines; encouraging interdisciplinary work which might better capture the complexity involved. This is necessary especially for approaches, such as Social

Representations Theory that avowedly do take the social as a primary unit of analysis. For example, one of the criticisms that has frequently been lodged against this area of research is an adherence to Cartesian type of thinking regarding the relation between humans and the biophysical context of human activity (see Devine-Wright, 2009; Adams, 2014a; Batel et al., 2016). It is on this point that Adams states "the potential of critical social psychology here is to critically engage with perspectives outside mainstream psychology"; those which explicitly consider "the role of social context and interaction in shaping individual experience, behaviour and the collective production of reality" (2014, p. 253). These include theories of practice (Shove, Pantzar & Watson, 2012; Adams, 2012; Batel et al., 2016); hybridity theories (Whatmore, 2002; Hincliffe, 2007); post-colonial studies and environmental justice theories (Kessi & Howarth, 2015; Bickerstaff & Agyeman; Batel & Devine-Wright, 2016; Hook, 2005) , psychosocial studies (Adams, 2014a; 2014b; Norgaard, 2011), narrative analysis (Machnagthen, Davies & Kearnes, 2016) and psychoanalysis (Lertzman, 2015); queer studies (Oliveira, 2014); posthumanism and transspecies psychology (Adams, 2016).

Socio-spatial and cultural contingencies

Environmental problems and issues clearly illustrate how the local is the global and vice-versa (Räthzel & Uzzell, 2009) and namely how what happens 'here', a local community in the Global North, impacts on what happens 'there', such as a local community in the Global South: because the bio-physical contexts that compose the climate of Earth are all interconnected; which is in turn interconnected with predominant social, cultural, political, economic forms of collective human existence, marked by capitalist and neo-liberal hegemony (Batel et al., 2016). Furthermore, the consequences of environmental problems tend to be felt more sharply in the global south, despite less responsibility for causing them, for different interrelated reasons. Thus environmental injustice - 'the unfair distribution of environmental benefits, costs, risks, and opportunities' (Thiele, 2013: 55) is in fact a 'double injustice', that operates both within and across nations (Füssel, 2010; Gough, 2011). The Fijian prime minister at the time of writing, Frank Bainimarama, states this injustice bluntly: 'The industrialised nations [are] putting the welfare of the entire planet at risk so that their economic growth is assured and their citizens can continue to enjoy lives of comparative ease. All at the expense of those of us in low-lying areas of the Pacific and the rest of the world' (cited in Milman, 2015).

Also, a large amount of research developments are aligned with current international socio-political and economic arrangements – such as unquestioningly examining the consequences of international treaties like the Kyoto Protocol or the EU's Renewables Directive (e.g., Batel & Devine-Wright, 2015; Brondi et al., 2014) – but it might also be time to discuss if a situated knowledges (Haraway, 1988) approach to deal with the ecological crises, in which each socio-spatial geography deals with it with their own technical and symbolic meanings, is not more sustainable (Castree, 2014).

In other words, and once again, issues of power loom large (Walker, 2010); refracted through the dynamics such as (neo)colonialism (Hook, 2005; Batel & Devine-Wright, 2016), the role and the silencing of the epistemologies of the south (Santos, 2015), fuel poverty and global environmental justice (Walker & Day, 2012; Bickerstaff & Agyeman, 2009). Intersectionality in climate change (Kaijser & Kronsell, 2014) is largely left unacknowledged and undiscussed. These socio-spatial contingencies are exacerbated by the fact that 'good' research is only recognised as such if it is published in English and in well-known, widely spread and high-ranked journals. This accounts for the lack of access to an arguably enormous amount of interesting and relevant research being conducted on the ecological crisis, sustainability and social words and through a social representations' lens, in French, Italian, Spanish, Portuguese, to name but a few spatial-linguistic-cultural geographies (see Bertoldo et al., 2011).

Intervention/praxis

Finally, being critical means being so not only through analysis, but also through intervention, that is, adopting a more critical community psychology approach, which is guided by praxis, or the axis theory, research and practice (see Howarth, 2004, 2006b; also Prilletensky & Nelson, 2005; Walker, Johnson & Cunningham, 2012). The practice of empirical research might also engage with community-based interventions addressing environmental issues, or attempts to engage human and nonhuman intersections, however prefiguratively (Hage, 2015). In policy terms, praxis might entail explicitly challenging a sustainable development agenda that takes societal structures and their subjective dimensions as given (Räthzel & Uzzell, 2009). On this point Walker asserts that 'we must not be content with climate change policy that preserves a world that is deeply unjust. In responding to climate change we have an opportunity to challenge orthodoxies and power structures' (Walker, 2010).

DISCUSSION

If we briefly return again to the papers that compose this special issue, we can say they reflect in different ways these aspects, either by directly or implicitly addressing and discussing them, or by not doing so. For instance, Bailey et al.'s analyses, as the authors recognise, largely neglect how power relations shape those representations of place and the countryside and contribute to the everyday politics of re-presenting energy infrastructures and the British countryside at local and national levels. This is also reflected in the fact that the authors do not critically engage with the international and national energy policies that the studied high voltage power line materializes. To do so would entail a discussion of the agendas and the power relations embedded in them, and alternative models of electricity systems that might challenge business as usual models for 'fighting' climate change. Additionally, the research presented in this paper also highlights how research using TSR is often still permeated by mainstream scientific imaginaries of linearity and prediction even if when used for describing socio-psychological phenomena, in this case, peoples' responses to the deployment of energy infrastructures (see Figure 1 of Bailey et al.'s paper).

Caillaud's paper on the other hand departs from several of the limitations of mainstream environmental psychology that we have also discussed in this introduction, for advocating TSR's dialogical epistemology as a critical approach. It clearly and skilfully unmasks the individualisation and socio-cognitive reductionism of mainstream psychology and points out to how TSR can importantly overcome those limitations and helps us to better understand the relation between the ecological crisis, sustainability(s), and social worlds. In so doing Caillaud puts together the dialogical and critical approaches of TSR. However, it might arguably be useful to distinguish between a dialogical and a critical approach to TSR, as suggested above. This is because the dialogical approach, as presented in Caillaud's paper, still leaves unattended a thorough and consequential account of social power and its role in re-presenting and, in an associated way, a more serious consideration of interdisciplinarity and the socio-cultural contingencies of research. This also becomes evident in Caillaud's proposal that researchers adopt a melancholic, methodically disengaged and disinterested posture and analysis in research – however, and taking what we consider to be a critical approach to TSR, while we concur that our analyses have to be methodical and accountable, we also consider that adopting this 'live and let live' posture (p.6.24)

might unwittingly reproduce the image of researchers and research as value-free and disinterested. However, it never is, and if we want to take into account the fifth cornerstone of a critical approach identified above seriously (intervention/praxis), research needs to be avowedly politically engaged and interested, and to consider what might be its consequences for society and the environment – and namely to overcome any right-wing politics (see Batel & Devine-Wright, 2016).

In turn, issues of environmental and social justice are considered and discussed in the paper by Skillington, in examining groups' ideological mobilizations to protest against (or for) different types of land uses. Skillington also engages with post-colonial lenses of analyses and explicitly attempts to address critiques to TSR on its lack of consideration of ideology and power by relying on TSR's critical strand (e.g., Howarth, 2006b). Conversely, the paper by Michel-Guillou and colleagues, still reveals the imprints of a more socio-cognitive background within the risk perception literature (e.g., Slovic, 2000; Breakwell, 2001), materialized both in the methodology used and in the general design of the research.

In sum, all the papers composing this special issue – and the commentaries that come with them - are, in different guises, opportunities to take forward and further develop what a critical agenda to ecological crisis, sustainability and social worlds can look like and why and in which ways it is important, from epistemological and societal points of view. In other words, this means that becoming more critical also implies committing to specific epistemological, ontological and methodological assumptions, and not pretending that working with some instead of others is not consequential, for research and for society.

In fact, in this introductory paper we have highlighted a significant hurdle to overcome in research concerned with human responses to climate change, ecological degradation and sustainability issues – a tendency to under-utilise ‘the social’ and/or ‘social constructions’ in the development of TSR, associated concepts and analytical tools. Whilst SRT readily gestures towards the social dimension of these topics, it does not necessarily address the material, political, the ideological, the negotiation of power and vested interests – all of which are, for us, tenets of the social that warrant analysis.

REFERENCES

Abric, & J.-C. (2001). *A structural approach to social representations.* Blackwell Publishing. Retrieved from http://psycnet.apa.org/psycinfo/2001-18604-002.

Adams, M. (2016) *Ecological crisis, sustainability and the psychosocial: Beyond behaviour change.* Basingstoke: Palgrave.

Adams, M. (2014a). Approaching nature, 'sustainability' and ecological crises from a critical social psychological perspective. *Social and Personality Psychology Compass*, 8, 251–262.

Adams, M. (2014b) Inaction and environmental crisis: Narrative, defence mechanisms and the social organisation of denial. *Psychoanalysis, Culture & Society*. 19, 52–71.

Adams, M. (2012). A social engagement: how ecopsychology can benefit from dialogue with the social sciences. *Ecopsychology, 4*, 216-222.

Anderson, N. M., Williams, K. J. H., & Ford, R. M. (2013). Community perceptions of plantation forestry: The association between place meanings and social representations of a contentious rural land use. *Journal of Environmental Psychology*, *34*, 121–136. doi:10.1016/j.jenvp.2013.02.001

Andreouli, E., & Howarth, C. (2013). National identity, citizenship and immigration: Putting identity in context. *Journal for the theory of social behaviour*, *43*, 361-382.

Arruda, Â. (1998). *O ambiente natural e seus habitantes no imaginário brasileiro*. In Â. Arruda (Ed.), *Representando a alteridade*. Petrópolis: Vozes.

Augoustinos, M. (1998). Social representations and ideology: towards the study of ideological representations. In U. Flick (Ed.), *The psychology of the social*, 156-169. UK: Cambridge University Press.

Batel, S. (2012). Commentary on Re-presenting (and) Cognitive Polyphasia. *Papers on Social Representations, 21*, 10-1-10.15.

Batel, S., & Castro, P. (2009). A Social Representations Approach To The Communication Between Different Spheres: An Analysis Of The Impacts Of Two Discursive Formats. *Journal for the Theory of Social Behaviour*, *39*(4), 415–433. doi:10.1111/j.1468-5914.2009.00412.x

Batel, S., Castro, P., Devine-Wright, P., & Howarth, C. (2016). Developing a critical agenda to understand pro-environmental actions: contributions from Social Representations and

Social Practices Theories. *Wiley Interdisciplinary Reviews: Climate Change*, *7*(5), 727–745. doi:10.1002/wcc.417

Batel, S., & Devine-Wright, P. (2016). Energy colonialism and the role of the global in local responses to new energy infrastructures in the UK: A critical and exploratory empirical analysis. *Antipode*.

Batel, S., & Devine-Wright, P. (2015). Towards a better understanding of people's responses to renewable energy technologies: Insights from Social Representations Theory. *Public Understanding of Science*, *24*(3), 311–325. doi:10.1177/0963662513514165

Bertoldo, R., Bousfield, A. B., Justo, A. M., & Wachelke, J. (2011). Spreading the theory in the Lusophone world: Contributions of Jorge Vala's Chapters to the development of social representations studies in Brazil. *Papers on Social Representations*, *20*, 18-1.

Bertoldo, R., Poumadère, M., & Rodrigues Jr., L. C. (2015). When meters start to talk: The public's encounter with smart meters in France. *Energy Research & Social Science*, *9*, 146–156. doi:10.1016/j.erss.2015.08.014

Bickerstaff, K., & Agyeman, J. (2009). Assembling Justice Spaces: The Scalar Politics of Environmental Justice in Northeast England. *Antipode*, *41*(4), 781-806.

Billig, M. (1996). *Arguing and thinking: A rhetorical approach to social psychology*. Cambridge University Press.

Breakwell, G. M. (1993). Social representations and social identity. *Papers on social representations*, *2*(3), 198-217.

Brondi, S., Armenti, A., Cottone, P., Mazzara, B. M., & Sarrica, M. (2014). Parliamentary and press discourses on sustainable energy in Italy: No more hard paths, not yet soft paths. *Energy Research & Social Science*, *2*, 38–48. doi:10.1016/j.erss.2014.04.011

Buijs, A. (2009). *Public natures: social representations of nature and local practices.* (Doctoral dissertation). Wageningen Universitei.

Burr, V. (2003). *Social constructionism* (2nd ed.). UK: Routledge.

Caillaud, S., Kalampalikis, N., & Flick, U. (2012). The Social Representations of the Bali Climate Conference in the French and German Media. *Journal of Community & Applied Social Psychology*, *22*(4), 363–378. doi:10.1002/casp.1117

Carpiano, R. M. (2009). Come take a walk with me: The "Go-Along" interview as a novel method for studying the implications of place for health and well-being. *Health & place*, *15*(1), 263-272.

Castrechini, A. (1996). *Aproximación a la representación del medio ambiente en una comunidad cooperativa* (Master's thesis).

Castrechini, A., Pol, E., & Guàrdia-Olmos, J. (2014). Media representations of environmental issues: From scientific to political discourse. *Revue Européenne de Psychologie Appliquée/European Review of Applied Psychology*, *64*(5), 213–220. doi:10.1016/j.erap.2014.08.003

Castrechini, A., Pol, E., & Vidal, T. (2007). Las representaciones sociales del medio ambiente: el papel de la fotografía. *Revista de Psicología Social*, *22*(3), 267–277. doi:10.1174/021347407782194425

Castree, N. (2014). *Making sense of nature*. London: Routledge.

Castro, P. (2006). Applying social psychology to the study of environmental concern and environmental worldviews: Contributions from the social representations approach. *Journal of Community & Applied Social Psychology*, *16*(4), 247-266.

Castro, P. (2003). Pensar a natureza e o ambiente–alguns contributos a partir da teoria das representações sociais. *Estudos de Psicologia*, *8*, 263–271.

Castro, P., & Mouro, C. (2016). Imagining ourselves ' as participating publics: An example from biodiversity conservation. *Public Understanding of Science*, *25*(7), 858–872. doi:10.1177/0963662515581303

Castro, P., Garrido, M., Reis, E., & Menezes, J. (2009). Ambivalence and conservation behaviour: An exploratory study on the recycling of metal cans. *Journal of Environmental Psychology*, *29*(1), 24-33.

Clayton, S., Devine-Wright, P., Stern, P. C., Whitmarsh, L., Carrico, A., Steg, L., … Bonnes, M. (2015). Psychological research and global climate change. *Nature Climate Change*, *5*(7), 640–646. doi:10.1038/nclimate2622

Cotton, M., & Devine-Wright, P. (2012). Making electricity networks "visible": Industry actor representations of "publics" and public engagement in infrastructure planning. *Public Understanding of Science*, *21*(1), 17–35. doi:10.1177/0963662510362658

Devine-Wright, P. (2009). Rethinking NIMBYism: The role of place attachment and place identity in explaining place-protective action. *Journal of Community & Applied Social Psychology*, *19*(6), 426–441. doi:10.1002/casp.1004

Devine-Wright, H., & Devine-Wright, P. (2009). Social representations of electricity network technologies: exploring processes of anchoring and objectification through the use of visual research methods. *The British Journal of Social Psychology / the British Psychological Society*, *48*(Pt 2), 357–373. doi:10.1348/014466608X349504.

Dickinson, J. E., & Robbins, D. (2007). Using the car in a fragile rural tourist destination: a social representations perspective. *Journal of Transport Geography*, *15*(2), 116-126.

Dixon, J., Levine, M., Reicher, S., & Durrheim, K. (2012). Beyond prejudice: Are negative evaluations the problem and is getting us to like one another more the solution?. *Behavioral and Brain Sciences*, *35*(06), 411-425.

Doise, W. (1989). Constructivism in social psychology. *European Journal of Social Psychology*, *19*(5), 389-400.

Dunlap, R. E. and McCright, A.M. (2010) Climate change denial: Sources, actors and strategies. In C. Lever-Tracy (ed.) *Routledge Handbook of Climate Change and Society*. London: Routledge. Pp. 240-259.

Dunlap, R. E. and McCright, A.M. (2011) Organized climate change denial. In J. S. Dryzek, R. B. Norgaard and D. Schlosberg (eds.), *The Oxford Handbook of Climate Change*. Oxford: OUP. Pp. 144-160.

Fischer, A., Peters, V., Neebe, M., Vávra, J., Kriel, A., Lapka, M., & Megyesi, B. (2012). Climate Change? No, Wise Resource Use is the Issue: Social Representations of Energy, Climate Change and the Future. *Environmental Policy and Governance*, 22(3), *1*61–176. doi:10.1002/eet.1585

Fuhrer, U., Kaiser, F. G., Seiler, I., & Maggi, M. (1995). From Social Representations to Environmental Concern: The Influence of Face-to-Face Versus Mediated Communication. In U. Fuhrer (Ed.), *Ökologisches Handeln als sozialer Prozess* (pp. 61–75). Basel: Birkhäuser Basel. doi:10.1007/978-3-0348-5045-2_5

Füssel, H. M. (2010). How inequitable is the global distribution of responsibility, capability, and vulnerability to climate change: A comprehensive indicator-based assessment. *Global Environmental Change*, *20*(4), 597-611.

Geels, F.W. (2014) Regime Resistance against Low-Carbon Transitions: Introducing Politics and Power into the Multi-Level Perspective. *Theory, Culture and Society*, 31 (5), 21-40. doi: 10.1177/0263276414531627

Gervais, M.-C. (1999). *Social representations of nature: the case of the "Braer" oil spill in Shetland - LSE Theses Online* (Doctoral dissertation). Retrieved from http://etheses.lse.ac.uk/69/.

Gifford, R. (2011). The dragons of inaction: Psychological barriers that limit climate change mitigation and adaptation. *American Psychologist*, 66(4), 290-302.

Gillespie, A., Howarth, C. S., & Cornish, F. (2012). Four problems for researchers using social categories. *Culture & Psychology*, *18*(3), 391-402.

González, Valdez, E., & Elvira, R. (2012). Enfoques y sujetos en los estudios sobre representaciones sociales de medio ambiente en tres países de Iberoamérica. Retrieved from http://cdigital.uv.mx/handle/123456789/29994.

Gough, I. (2011). *Climate change, double injustice and social policy: A case study of the United Kingdom*. Geneva: UNRISD.

Hackmann, H., Moser, S.C. & St. Clair. A.L. (2014). The social heart of global environmental change. *Nature Climate Change*, 4, 653–655.

Hage, G. (2015). *Alter-politics: Critical anthropology and the radical imagination*. Melbourne: Melbourne University Publishing.

Halfacree, K. H. (1995). Talking about rurality: Social representations of the rural as expressed by residents of six English parishes. *Journal of Rural Studies*, *11*(1), 1–20. doi:10.1016/0743-0167(94)00039-C

Haraway, D. (1988). Situated knowledges: The science question in feminism and the privilege of partial perspective. *Feminist Studies, 14*, 575-599.

Hinchliffe, S. (2007). *Geographies of nature: societies, environments, ecologies*. Sage.

Hoffman, A. J. (2011). Talking past each other? Cultural framing of skeptical and convinced logics in the climate change debate. *Organization and Environment* 24, 3-33.

Hook, D. (2005). A critical psychology of the postcolonial. *Theory & Psychology*, *15*(4), 475-503.

House of Lords (2011) *Behaviour Change*. House of Lords, Science and Technology Select Committee. HL Paper no. 179.

Hovardas, T., & Stamou, G. P. (2006). Structural and Narrative Reconstruction of Representations of "Environment," "Nature," and "Ecotourism. *Society & Natural Resources*, *19*(3), 225–237. doi:10.1080/08941920500460724

Howarth, C. (2006a). How social representations of attitudes have informed attitude theories the consensual and the reified. *Theory & Psychology*, *16*(5), 691-714.

Howarth, C. (2006b). A social representation is not a quiet thing: exploring the critical potential of social representations theory. *The British Journal of Social Psychology*, *45*, 65–86. doi:10.1348/014466605X43777

Howarth, C. (2004). Re- presentation and resistance in the context of school exclusion: reasons to be critical. *Journal of community & applied social psychology*, *14*(5), 356-377.

Howarth, C., Wagner, W., Kessi, S., & Sen, R. (2012). The politics of moving beyond prejudice. *Behavioral and brain sciences*, *35*(06), 437-438.

Jaspal, R., & Nerlich, B. (2014). When climate science became climate politics: British media representations of climate change in 1988. *Public Understanding of Science*, *23*(2), 122–141. doi:10.1177/0963662512440219

Jodelet, D. (1996). Las representaciones sociales del medio ambiente. In L. Iñiguéz & E. Pol (Eds.), *Cognicion, representacion y apropriacion del espacio.* (pp. 29–44). Barcelona: Publicaciones de la Universitat de Barcelona. Retrieved from https://www.academia.edu/12128884/Jodelet_D._1996_._Las_representaciones_sociales_del_medio_ambiente._In_L._Iniguez_E._Pol_Eds._Cognicion_representacion_y_apropriacion_del_espacio._Monografias_Psico-socio-ambientales._Barcelone_Publicaciones_de_la_Universitat_de_Barcelona_pp._29-44

Jodelet, D. (2001). Le phénomène Nimby. In M. Boyer, G. Herzlich, & B. Maresca (Eds.), *L'environnement, question sociale. Dix ans de recherches pour le Ministère de l'Environnement* (pp. 91–97). Paris: Odile Jacob. Retrieved from https://www.academia.edu/12102360/Jodelet_D._2001_._Le_ph%C3%A9nom%C3%A8ne_Nimby._In_M._Boyer_G._Herzlich_B._Maresca_Eds._L_environnement_question_sociale._Dix_ans_de_recherches_pour_le_Minist%C3%A8re_de_l_Environnement._Paris_Odile_Jacob_pp._91-97

Jodelet, D. (1989). *Folies et représentations sociales*. Presses universitaires de France.

Jovchelovitch, S. (2012). Narrative, memory and social representations: a conversation between history and social psychology. *Integrative Psychological & Behavioral Science*, *46*(4), 440–456. doi:10.1007/s12124-012-9217-8

Jovchelovitch, S. (2007). *Knowledge in context: Representations, community and culture*. Routledge.

Jovchelovitch, S. (2000). *Representações sociais e esfera pública: a construção simbólica dos espaços públicos no Brasil. Petrópolis, RJ: Vozes*.

Kaijser, A., & Kronsell, A. (2014). Climate change through the lens of intersectionality. *Environmental politics*, *23*(3), 417-433.

Kessi, S. (2011). Photovoice as a practice of re-presentation and social solidarity: Experiences from a youth empowerment project in Dar es Salaam and Soweto. *Papers on social representations*, *20*(7), 1-27.

Kessi S, & Howarth, C. (2015). Social change and social steadiness: reflective community? In: Marsico G, Riggieri R, Salvatore S, *Reflexitivity and Change in Psychology—The Yearbook of Idiographic Science* (eds, vol.6) (pp. 343–363). Charlotte, NC: Information Age Publishing.

Khoo, S. (2013) Sustainable development of what? In F. Fahy and H. Rau (eds.) *Methods of sustainability research in the social science*s. London: Sage.

Kollmuss, A., & Agyeman, J. (2002). Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior? *Environmental education research*, 8(3), 239-260.

Lakoff, G. (2010). Why it matters how we frame the environment. *Environmental Communication*, 4, 70-81.

Latour, B. (1987). *Science in action: How to follow scientists and engineers through society*. Harvard university press.

Lázaro, A., Cabecinhas, R., & Carvalho, A. (2008). Perceptions of climate change risks and mitigation behaviors : understanding inconsistencies between representations and action. In B. Willard & C. Green (Eds.), *Communication at the Intersection of Nature and Culture : proceedings of the Ninth Biennial Conference on Communication and the Environment* (pp. 264–275). Chicago: DePaul University. Retrieved from http://repositorium.sdum.uminho.pt/handle/1822/9356

Lertzman, R. (2015) *Environmental melancholia: Psychoanalytic dimensions of engagement*. London: Routledge.

Lo Monaco, G., Piermattéo, A., Rateau, P., & Tavani, J. L. (2016). Methods for Studying the Structure of Social Representations: A Critical Review and Agenda for Future Research. *Journal for the Theory of Social Behaviour*. doi:10.1111/jtsb.12124

Lorenzoni, I., Nicholson-Cole, S., and Whitmarsh, L. (2007). Barriers perceived to engaging with climate change among the UK public and their policy implications. *Global Environmental Change*, *17*(3), 445-459.

Marková, I. (2003). *Dialogicality and social representations: The dynamics of mind*. Cambridge University Press.

Macnaghten, P., Davies, S. R., & Kearnes, M. (2015). Understanding public responses to emerging technologies: A narrative approach. *Journal of Environmental Policy & Planning*, 1-19.

Michel-Guillou, E., & Moser, G. (2006). Commitment of farmers to environmental protection: From social pressure to environmental conscience. *Journal of Environmental Psychology*, *26*(3), 227–235. doi:10.1016/j.jenvp.2006.07.004

Milman, O. (2015). Pacific islands make last ditch plea to world before Paris climate change talks. *The Guardian* November 2nd 2015. Retruieved from https://www.theguardian.com/environment/2015/nov/02/pacific-islands-make-last-ditch-plea-to-world-before-paris-climate-change-talks

Moloney, G., Williams, J., & Blair, D. (2012). Cognitive Polyphasia, Themata and Blood Donation: Between or Within Representation. *Papers on Social Representations*, *21*, 4.1–4.12. Retrieved from http://psych1.lse.ac.uk/psr/PSR2012/2012_1_4.pdf

Moscovici, S. (1997). *Social Representations Theory and Social Constructionism*. Social representations mailing list postings. Retrieved from the internet at 7th November 2016. Available at http://psyberlink.flogiston.ru/internet/bits/mosc1.htm.

Moscovici, S. (1988). Notes towards a description of social representations. *European journal of social psychology*, *18*(3), 211-250.

Moscovici, S. (1984). The myth of the lonely paradigm: A rejoinder. *Social research*, 939-967.

Moscovici, S. (1976a). *Social influence and social change* (Vol. 10). London: Academic Press.

Moscovici, S. (1976b). *La psychanalyse, son image et son public: étude sur la représentation sociale de la psychanalyse*. Presses universitaires de France.

Mouro, C., & Castro, P. (2009). Local communities responding to ecological challenges-A psycho-social approach to the natura 2000 network. *Journal of Community & Applied Social Psychology*, n/a–n/a. doi:10.1002/casp.1025

Nelson, G., & Prilleltensky, I. (Eds.). (2005). *Community psychology: In pursuit of liberation and well-being*. Palgrave Macmillan.

Norgaard, K. M. (2011). Living in Denial: Climate change, Emotions and Everyday Life. Cambridge: MIT Press.

Norgaard, K. M. (2006). 'People want to protect themselves a little bit': Emotions, denial, and social movement nonparticipation. *Sociological Inquiry*, 76, 372–396.

Oliveira, J. M. (2014). Hyphenations: the other lives of feminist and queer concepts. *Lambda Nordica, 14*, 38-59.

Parker, I. (1998). Realism, relativism and critique in psychology. In I. Parker (Ed.), *Social Constructionism, Discourse and Realism*. London, UK: Sage.

Parker, I. (1987). 'Social representations': Social psychology's (mis) use of sociology. *Journal for the Theory of Social Behaviour*, *17*(4), 447-469.

Peluso, M. (2003). O potencial das representações sociais para a compreensão interdisciplinar da realidade: Geografia e Psicologia Ambiental. *Estudos de Psicologia*, *8*, 321–327.

PlanLoCal (2013). Behaviour change: theories, approach, guidance. Centre for Sustainable Energy. Available at http://www.planlocal.org.uk/pages/getting-people-involved/behaviour-change-theories-approaches-and-guidance

Randall, R. (2009). Loss and climate change: The cost of parallel narratives. *Ecopsychology*, 3, 118–129.

Räthzel, N., & Uzzell, D. (2009). Changing relations in global environmental change. *Global Environmental Change*, *19*(3), 326-335.

Reigota, M. (1999). *Ecologia, elites e intelligentsia na América Latina: um estudo de suas representações sociais*. Annablume.

Rose, N. (1990). *Governing the soul: the shaping of the private self*. Taylor & Frances/Routledge.

Rozin, P. (2001). Social psychology and science: Some lessons from Solomon Asch. *Personality and Social Psychology Review*, *5*(1), 2-14.

Rouquette, M., Sautkina, E., Castro, P., Félonneau, M.-L., & Michel-Guillou, E. (2005). Social Representations Theory and Environmental Studies. In B. Martens and A. G. Keul (Eds.), *Designing Social Innovation: Planning, Building, Evaluating* (pp.107-115). Berlin: Hogrefe & Huber.

de Sousa Santos, B. (2015). *Epistemologies of the south: Justice against epistemicide*. Routledge.

Selge, S., & Fischer, A. (2011). How people familiarize themselves with complex ecological concepts—anchoring of social representations of invasive non- native species. *Journal of Community & Applied Social Psychology*, *21*(4), 297-311.

Shove, E. (2010). Beyond the ABC: Climate Change Policy and Theories of Social Change. *Environment & Planning A*, *42*(6), 1273–1285. doi:10.1068/a42282

Shove, E., Pantzar, M., & Watson, M. (2012). *The dynamics of social practice: Everyday life and how it changes*. Sage Publications.

Sibley, C. G., Liu, J. H., Duckitt, J., & Khan, S. S. (2008). Social representations of history and the legitimation of social inequality: The form and function of historical negation. *European Journal of Social Psychology*,*38*(3), 542-565.

Smith, N., & Joffe, H. (2013). How the public engages with global warming: A social representations approach. *Public Understanding of Science*, *22*(1), 16–32. doi:10.1177/0963662512440913

Steg, L., & Vlek, C. (2009). Encouraging pro-environmental behaviour: An integrative review and research agenda. *Journal of environmental psychology*, *29*(3), 309-317.

Thiele, L.P. (2013) *Sustainability*. Cambridge: Polity Press.

Upham, P., Lis, A., Riesch, H., & Stankiewicz, P. (2015). Addressing social representations in socio-technical transitions with the case of shale gas. *Environmental Innovation and Societal Transitions*, *16*, 120–141. doi:10.1016/j.eist.2015.01.004

Uzzell, D., & Räthzel, N. (2009). Transforming environmental psychology. *Journal of Environmental Psychology*, *29*(3), 340-350.

Voelklein, C., & Howarth, C. (2005). A Review of Controversies about Social Representations Theory: A British Debate. C*ulture & Psychology,* 1*1(*4), 431–454. doi:10.1177/1354067X05058586

Wagner, W. (2007). Vernacular science knowledge: its role in everyday life communication. *Public Understanding of Science*, *16*(1), 7-22.

Wagner, W. (1998). Social Representations and beyond: Brute Facts, Symbolic Coping and Domesticated Worlds. *Culture & Psychology*, *4*(3), 297–329. doi:10.1177/1354067X9800400302

Wagner, W., Elejabarrieta, F., & Lahnsteiner, I. (1995). How the sperm dominates the ovum—Objectification by metaphor in the social representation of conception. *European Journal of Social Psychology*, *25*(6), 671-688.

Wagner, W., Duveen, G., Farr, R., Jovchelovitch, S., Lorenzi- Cioldi, F., Markova, I., & Rose, D. (1999). Theory and method of social representations. *Asian journal of social psychology*, *2*(1), 95-125.

Walker, C., Johnson, K., & Cunningham, L. (Eds.). (2012). *Community psychology and the socio-economics of mental distress: international perspectives*. Palgrave Macmillan.

Walker, G., & Day, R. (2012). Fuel poverty as injustice: Integrating distribution, recognition and procedure in the struggle for affordable warmth. *Energy policy*, *49*, 69-75.

Walker, G. (2010) *How will climate change affect people in the UK and how can we best develop an equitable response?* ESRC/JRF http://www.esrc.ac.uk/about-us/50-years-of-esrc/50-achievements/exploring-climate-change/

Whatmore, S. (2002). *Hybrid geographies: Natures cultures spaces*. Sage.

Wibeck, V. (2014). Social representations of climate change in Swedish lay focus groups: local or distant, gradual or catastrophic? *Public Understanding of Science (Bristol, England)*, *23*(2), 204–219. doi:10.1177/0963662512462787

Wilk, R. (2010) Consumption embedded in culture and language: implications for finding sustainability. *Sustainability: Science, Practice, & Policy*, 6, 38-48.

Willig, C. (2015). Discourse analysis and health psychology. In M. Murray (ed.), *Critical Health Psychology* (pp.200-216). UK: Palgrave MacMillan.

SUSANA BATEL is currently a post-doctoral researcher at the Center for Social Research and Intervention of the University Institute of Lisbon (Cis, ISCTE-IUL), with a fellowship granted by the Portuguese Science Foundation. She is also a visiting fellow at the University of Exeter and at the London School of Economics and Political Sciences, UK. Her research has been adopting a critical perspective to look at the relation between re-presentation, identities, power, discourse and communication, and social change, namely regarding public participation in environmental issues, and renewable energy and associated technologies. Her research interests also include current conceptions and analyses of collective action within Social Psychology, and their relation with different democratic practices. She has been an Associate Editor of the journal *Papers on Social Representations* since 2013.

MATTHEW ADAMS is Principal Lecturer in Psychology in the School of Applied Social Science, University of Brighton. In recent years his work has been dedicated to developing critical, social and psychosocial perspectives on a range of issues relating to ecological crisis, climate change, sustainable and ethical consumption and nature-connectedness. His most recent book is *Ecological crisis, sustainability & the psychosocial: Beyond behaviour change* (Palgrave, 2016).