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Developing a critical agenda to understand pro-environmental actions: contributions from Social Representations and Social Practices Theories

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Debates over the value and compatibility of different approaches to understanding and changing environmental-relevant actions proliferate across the social sciences. This article reviews and discusses some of the (socio-)psychological and sociological approaches in those debates. We will start by critically reviewing the (socio-)psychological perspectives, highlighting two main shortcomings. First, they are often partial in their focus—concentrating on the consumption side of climate-relevant actions and, relatedly in changing these actions at the individual level. They tend to assume that individual change equates to social change and, with that, fail to contextualize 'anti'-environmental actions in current neoliberal, capitalist societies. Second, they usually present the mainstream (socio-)psychological approaches, which are ontologically individualistic and cognitive, as the only existent ones, therefore neglecting other perspectives within Social Psychology which might actually be (more) compatible with sociological perspectives. We then suggest that Social Representations Theory (SRT), as an ontologically social-psychological approach and a theory of social change, might be reconciled with sociological approaches, such as Social Practices Theory (SPT), in contrast to the more individualistic (socio-)psychological perspectives. After reviewing the main tenets of SRT, its discrepancies and potential synergies with SPT, we discuss how both can be articulated to understand different stages of the social change process toward more environmentally sustainable societies. While SPT might be more suitable to understand stability or how some actions become habitual, SRT might be better equipped to understand how those change, or how individuals and groups negotiate new actions with old ones. © 2016 Wiley Periodicals, Inc.

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INTRODUCTION

'Today, there's no greater threat to our planet than climate change'[1]
'And when we dream it, when we dream it, when we dream it Let's dream it, we'll dream it for free, free money'[2]

After World War II, environmental social movements began to develop in the public sphere to

demand the end of the exploitation of the Earth by and for human activity, as this was drastically changing and endangering it.[3] Still today, and as highlighted by the President of the USA, Barack Obama, in his weekly speech just before the Earth Day 2015, climate change is by many—even if not by all[4,5]—seen as the biggest current threat to this planet. Within the social sciences this has led to research into how to understand and change people's environmentally relevant actions[a] being much shaped by the idea of the *anthropocene*, that is, that humans are the cause for the destruction of the Earth and its ecosystems (e.g., see Refs 7–9). This has led to much research on human behavior relevant to climate change, which can be organized into three main areas: adaptation to climate change (e.g., how do individuals and groups living in coastal areas adapt to increased flooding events?),[10] mitigation of climate change (e.g., how do individuals and groups react to large-scale wind farms being built in the place where they live?),[11] and communication on climate change (e.g., what is the impact that the media's framing of climate change has on public beliefs about it?).[4] However, within all three areas, the anthropocene assumption is rarely discussed with a view to highlighting that it is not human activity *per se* that has a certain essence that will inevitably lead to humans to consider themselves superior to ecological systems and to exploit them necessarily for their own human needs and desires. It therefore hides the fact that it is not humans in relationship with ecological systems that are problematic, but rather the socioeconomic and political system (see Refs 10 and 12) through which most of them, particularly in societies in the global north, have been organized over the last centuries. As Donna Haraway[13] puts it, 'the *anthropos* did not do this thing that threatens mass extinction […] and if we were to use only one word for the processes we are talking about, it should be the *capitalocene*' (see also Ref 14). It is to this last aspect that the second quote above, from the lyrics of Patty Smith's song, calls our attention. This quote tells us that we have been living for some time in a capitalist and neoliberal system where free market, capital, and the individual are central. Consequently, there is a close relation between capitalism, neoliberalism, and environmental degradation (see Ref 15), even if this is not often acknowledged in much social science research, for example within social psychology.

This paper will assume that close relation, through the review and critical discussion of the main (socio-)psychological and sociological approaches to understanding and changing environmentally relevant actions that have been proposed in recent decades. These approaches will be discussed with reference to their shortcomings, their ideological underpinnings and associated potential socio-ecological consequences, with the aim of proposing a new perspective for better understanding those actions, one that better highlights the relationship between socioeconomic systems and climate change.

We will first discuss approaches that have been heatedly debated in recent years as being the 'best suited' ones to understand people's environmentally significant actions and to change them. Those approaches have been often presented as the (social-) psychological (e.g., see Refs 16 and 17) and the social practices perspectives (e.g., see Refs 18–20), broadly speaking. We will then argue that within social psychology there are other perspectives, typically overlooked, that can contribute to a more nuanced understanding of climate-related actions. One such approach is the Social Representations Theory (SRT), which is ontologically a socio-psychological approach, contrary to the dominant individualistic and neoliberal perspectives that are evident in some (social) psychology approaches (e.g., see Refs 16, 21–23). Finally, we will discuss how SRT and social practice theories (SPTs) can be combined to provide a better understanding of environmentally relevant actions.

'PERSONAL CHANGE DOESN'T EQUAL SOCIAL CHANGE'[b]: A REVIEW OF THE MAIN PSYCHOLOGICAL AND SOCIOLOGICAL APPROACHES TO CHANGING CLIMATE-RELEVANT ACTIONS

The 'typology' of ontological models of the individual that was put forward by Showm & Lorenzen[21] in this journal is a good starting point to review the main (socio-)psychological and sociological approaches that have been used to understand environmental-relevant actions—even though it tends to adopt a soft version of the social and neglect paradigmatic incommensurability (see Refs 20 and 24), as further discussed below. To generalize a little, while the mainstream (socio-)psychological approaches either conceive individuals/consumers as predictably irrational and/or *Homo Economicus* (e.g., see Refs 16 and 25), sociological approaches typically conceive the individual either as socially organized, through a social practice perspective (e.g., see Refs 26 and 27), or as locked-in to sociotechnical systems,

such as within multilevel perspectives of innovation (e.g., see Ref 28). We will now discuss what this means in more concrete terms.

Predictably Irrational and *Homo Economicus*: The Dominant (Socio-) Psychological Approaches to Environmental-Relevant Actions and to Change

As Showm & Lorenzen[21] propose and others illustrate,[16,17,22,23] social psychology has been mainly dominated so far by ontological perspectives that focus on the individual and tend to conceive her either as *predictably irrational* (or involved in habitual, automatic behaviors—e.g., see Ref 16), as *Homo Economicus* (as a rational decision-maker, involved in deliberative, mindful decisions—see Refs 20 and 29 for a critique), or even both (see Ref 16 for a review; also Ref 25). Social psychology applied to the environmental field is no exception, even if it has mainly been the *Homo Economicus* perspective that has dominated the literature so far in this area, incorporated in attitude models such as the Theory of Reasoned Action and the Theory of Planned Behavior (Ref 30; see also Refs 6 and 31 for derivative proposals, such as the Value-Belief-Norm theory; and Ref 20 for a critique). Nevertheless, some authors have more recently concentrated on unconscious, habitual behaviors (e.g., see Refs 32 and 33), and others on both, such as dual processing models (e.g., see Ref 25). The base assumptions of these models have been already thoroughly problematized, both from within (e.g., see Refs 34–36) and from outside social psychology (e.g., see Refs 20 and 37).

Critiques can be organized around two main dimensions. First, that these models construct individuals as mainly rational and/or as manipulated by an external context to which they respond through automatic cognitive processes. Such studies look for direct and causal relations between variables such as norms and attitudes toward the environment, which in turn will predict how individuals will behave regarding it. In other words, as Howarth[34] has put it, 'the individual is seen in isolation, outside of her or his environment and then responding to it. This environment, when it is considered, is taken as a given; there is no exploration of the fact that the individual may influence the nature of the environment and vice versa' (p. 694). As Shove[20] also highlights 'there is no obvious limit to the number of possible determinants [of the "environmental" attitude and/or behaviour] and no method of establishing their

history, their dynamic qualities, their interdependence' (p. 1275).

At a deeper, more substantial level, the issue is that these models are still mainly anchored in a Cartesian and realist perspective (see Refs 38 and 39) on the relation between the individual and the social (see Ref 34 for a discussion) and therefore treat the context—both social and biophysical[38]—as an external variable, independent from the individual, and that will influence her behavior, instead of conceiving the individual and the context as interdependent, mutually constitutive, and transformative. Associated with this first aspect then, and as a second main critique, is the fact that these frameworks fail to recognize how history, ideology, and communication constitute (and are constituted by) people's actions,[39] by developing a representation of the individual[34,35] as responsible for her own choices and behaviors. This fails to acknowledge that such individualism is not only a theoretical position but also a political one,[20] with specific social and ecological consequences[18] and antecedents. This is associated with a dominant trend that runs throughout the 20th century: the individualization of psychology, which has led to a somewhat decontextualized, asocial and apolitical understanding of the individual/social beings,[34] a position which is in itself shaped by a specific socioeconomic context, as in the current neoliberal capitalist one. There has been a growing acknowledgment of these limitations by Psychological research—at least by some authors (e.g., see Ref 40)—and even at a more institutional level (e.g., British Psychology Society report on Behaviour Change: Energy Conservation[c]), but these limitations are often still found in psychologists' research and professional practices and therefore still often inform policies and measures on environmental behavior change.

For the present paper, two particular shortcomings of these perspectives will be explored, as they are particularly relevant for environmentally relevant actions and as because they have been somewhat neglected in critiques in this field to date (for important exceptions see Refs 18 and 40). These are

a *The construction of the consumer-citizen in neoliberal and capitalist systems*
b *The dominance of mainstream individualistic perspectives within social psychology*

The Construction of the Consumer-Citizen in Neoliberal and Capitalist Systems

The embeddedness of nature/human relations in specific socioeconomic and political systems is rarely

acknowledged (for exceptions see Ref 40) either within environmental psychology or, more generally, by research on environmental-relevant actions (e.g., see Refs 16, 17, 21, 23, and 31). However, for a thorough understanding of 'anti-environmental' and (anti-)consumerist actions, it is crucial that we recognize that 'Global warming and climate change are largely the result of globalised processes of capitalist production, while at the same time, it is not the human species as a whole who is to blame, but disproportionately the advanced capitalist nations of the world, and large corporate multinationals' as Barry[15] proposes, (p. 150; see also Ref 13).

In turn, this implies that it is crucial to acknowledge that individualist, realist perspectives within psychology construct the individual through a neoliberal lens,[41,42] and thus, as a discipline and as part of everyday discourse, are contributing to reproducing and maintaining that ideology[34,41,42] (see also Refs 43 and 44). That individualism has influenced our psychology is however not usually considered by environmental psychologists (see Refs 16, 23, and 25)—or (social) psychologists working on environmental issues. This overlooks the ways that the 'research community is itself implicated in the reproduction and persistence of competing models of social change' (Ref 20, p. 1274) and that psychology has 'the power to create the very forms of thinking that it attempts to identify' (Ref 34, p. 702), such as the self, autonomy, choice, identity.[40] For instance, Fresque-Baxter and Armitage,[45] distinguish between the different approaches that can be used to look into people-place relations in their role for climate change adaptation, namely, the cognitive-behavioral approach, the health and well-being approach, and the collective action approach. However, the authors appear to fail to recognize that these different discourses are institutionalized in our societies and so shape and are shaped by psychology itself—particularly within health and well-being discourses, associated with the governing of the self and biopolitics—a very pervasive example today.[46]

Within this perspective, the very idea of individual responsibility for environmental actions is considered as both an outcome and a driver of that neoliberal, capitalist rationality, where social beings are made to feel and think to be fully responsible for her own successes and failures in all domains of life,[41] including the global environment. This is evident in how individualizing approaches tend to understand and transform nonenvironmental actions, namely habitual ones—these are thought to be only transformed through (neo-)behaviorist techniques (e.g., see Ref 16) as put forward by theories such as

Nudge and currently integrated in policy initiatives in countries like the UK (e.g., UK Cabinet Offices of Behavioural Insights Team—see Ref 19; also Ref 20). This perspective aims to manipulate individuals' behaviors so that they change in a desired direction and it has been widely criticized for such, on ethical grounds (see Ref 19). Shove,[20,26] in particular, highlights how it is antithetical to a Social Practice perspective, as it ignores the ways in which attitudes and behaviors are grounded in specific contexts and have a certain history, embedded in particular structures and institutions. In other words, it ignores how individuals' behaviors are embedded in particular practices.

Individualizing approaches construct the individual as a citizen-consumer, which vividly inserts her in a specific socioeconomic and political system. What social and ecological consequences does this have? As several authors have pointed out,[47–49] current neoliberal 'citizen engagement' societies are mainly post-political[d] and undemocratic, as they tend to foster only consensual understandings of political action and to minimize antagonism and conflict, therefore just keeping 'business as usual' and not allowing real, structural, and social change to happen (see also Refs 19 and 50). As Swyngedouw[47] and Zizek[48] highlight, climate change is often used by the dominant socioeconomic and political systems in the global north to present environmental and social problems not as the result of inequalities and unevenly distributed resources and power, but as the result of a universal 'us'—humans, as the sum of all individuals—and/or a noncontrollable nature. This perspective obscures those very social inequalities and the capitalization of nature by techno-managerial governments and corporations. In turn, this contributes to further depoliticizing our societies, to further accentuate social inequalities, and the human-nature divide (see also Ref 38).

In sum, what we have tried to highlight is that it is crucial to, first, recognize that re-presenting the individual citizen-consumer as the source of environmental concerns is actually part and parcel of the very sociocultural and political context in which these re-presentations are embedded and, second, that endorsing this re-presentation will impede the necessary social and political change toward more environmentally sustainable societies (see also Ref 40). Doing this, in turn, allows changing the foci of research in very specific ways. As Uzzell & Rathzel[40] carefully argue, adopting a more individualizing perspective often goes hand-in-hand with a focus on the analysis of actions in the private sphere to the detriment of actions in the public sphere—such as

accepting a wind farm in the place where one lives or installing solar panels—and, more importantly, the fact that these actions are shaped by power relations between government, corporations, and citizens.[11] As Uzzell & Rathzel (Ref 40, p. 342) put it 'attacking consumer behaviour simply addresses the "downstream" symptoms rather than the "upstream" causes of environmental problems.' In fact, this perspective tends to leave unacknowledged the fact that the production and supply side of energy systems is shaped by the political and socioeconomic background in which it is embedded, as this is clear in the UK where several environmental policies, such as those fostering the deployment of wind farms and solar panels or making new homes 'zero carbon,' have been removed since the Conservative government went to power.[51]

We suggest that in order to tackle this and examine people's environmentally relevant actions more comprehensively, to include the socio-psychological processes impacting them, and their inscription in socio-political and economic systems, we need to look for other perspectives that do not individualize human action and social change. We turn next to this challenge.

The Dominance of Mainstream Individualistic Perspectives within Social Psychology

Associated with the criticisms outlined above, another important limitation of an individualizing perspective is that the researchers working with it tend to leave unacknowledged other epistemological perspectives and theoretical frameworks that exist within social psychology which are relevant to the field. Even when they are acknowledged, it is often without fully engaging with them, applying them and problematizing the very different assumptions and consequences that they bring forth (e.g., see Ref 16; also Refs 17, 31, and 52)[e].

Within social psychology, perspectives that focus on the social and political nature of knowledge have been somewhat marginalized, such as discursive psychology,[36] critical social psychology/discourse analysis,[53,54] and SRT[55–58].[f] In contrast to the mainstream ones within psychology that are still mainly realist,[53] these approaches are arguably all socio-constructionist,[60] in this context meaning that they consider context and relations as constitutive dimensions of climate-relevant actions, and not as external variables. Scholars working with more realist perspectives tend to conceptualize meaning-construction and negotiation as cognitive processes, or to re-cognitivise these processes even if they do not explicitly appear to adhere to cognitivist assumptions. For example, this is clear in the review developed by Fresque-Baxter & Armitage,[45] where they present the work of socio-constructionist scholars on place identity with a realist, cognitive perspective, with reference to the work of Dixon and Durrheim[61] arguing 'we experience the social meanings of places held by others, these function to shape reality' (p. 255). However, within a socio-constructionist perspective these meanings are (one) reality (among others), and we do not directly experience the social meanings of places held by others as such, but we co-construct meanings with others in context,[62] even if it is in opposition to those others.

Using a distinction put forward by Wagner[56] between 'weak' and 'strong' versions of the social, we can say then that different perspectives operate with different versions of the social. Individualist realist perspectives mainly endorse a *weak* version of the social, by which individuals are seen as cognizers of an external world who can influence their behavior through a cause-effect relationship and who can represent that world either in a true or in a false way; more social perspectives such as SRT can be said to endorse a *strong* version of the social, as it assumes that objects exist and social constructed representations about them exist as much in the cognitions of individuals as in societal institutions and structures[g]; similarly most discursive approaches can be considered as being closer to endorsing a *super-strong* version of the social, by considering that objects only exist insofar as they are socially and collaboratively enacted in discourse[h].[57]

In sum, and despite the pervasiveness of more individualist and realist perspectives within social psychology, this field of research is quite diverse and some of the other approaches that have been developed within/in relation to it, namely SRT,[i] can be seen as quite close to more sociological approaches, such as theories of practice, to which we next turn.

The Sociological Approaches to Environmentally Relevant Actions and Change

'How do societies change? Why do they stay so much the same?' (p. 1) are the questions that introduce SPT in the book by Shove et al.[26] SPT 'diverts attention away from moments of individual decision-making' focusing instead on 'the "doing" of various social practices' (Ref 50, p. 83), such as showering, traveling or playing football. A practice is then 'a routinized type of behavior which consists of several

elements, interconnected to one another: forms of bodily activities, forms of mental activities, "things" and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge' (Ref 70, pp. 249–250).

To summarize, a practice is commonly considered to be composed of meanings, competences, materials, and connections between these different elements.[26] Therefore, the individual is seen as a carrier of 'conventionalized "mental" activities of understanding, knowing how and desiring [which] are necessary elements and qualities of a practice in which the single individual participates, not qualities of the individual' (p. 250). Or as Spaargaren[71] puts it (p. 815), 'practices, instead of individuals, become the units of analysis that matter most' and it is practices that are considered to co-constitute individuals and not individuals that are considered to be responsible for those.

In this sense, within theories of practice, it is the state and other institutions that are considered to 'configure the fabric and the texture of daily life' and therefore social practices are considered to be 'socially, institutionally and infrastructurally configured' (Ref 20, p. 1281). If we think again about the more individualist and realist perspectives within psychology, this brief presentation of SPT clearly highlights how this latter perspective is incompatible with them, despite some claims to the contrary (e.g., see Refs 16 and 17), and how it does propose and entail a completely different view on what is social change.

Furthermore, theories of practice are distinctive in other ways. The performance of social practices is generally seen as the routine accomplishment of what people take to be 'normal' ways of life[50] and in this sense 'theories of practice are commonly thought to deal better with routine reproduction than with innovation' (Ref 26, p. 122; see also Ref 72). Nonetheless, social practice theorists do try to distinguish SPT from other theories, such as the multilevel perspective on socio-technical transitions (e.g., see Ref 73), by pointing out in contrast that change not only occurs in a layered, ordered, and diachronic way, but also in a synchronic one, with stability being conceptualized as the 'emergent and always provisional outcome of successfully faithful reproductions of practice' (Ref 26, p. 13).

There are different theories of practice (e.g., see Refs 26, 70, 74, and 75), and whereas discourse is mainly seen within SPT as also a routinized way of understanding and it is deemed as important as any other nondiscursive practices, the role of 'things' has only started to be acknowledged in more recent versions of the theory (see Ref 70,71), following connections to Action Network Theory, specifically, Latour's work (see Ref 70). This is one of the main differences between SPT and SRT—the role of objects or things. As Reckwitz[76] argues, SPT recognizes and conceptualizes the impact of things in the social order 'not just in terms of representations, or as things that are assigned and attributed meaning by human agents. The impacts and effects of the objects themselves, the role of inter-objectivity next to inter-subjectivity, and the idea of objects being "constitutive" for social practices all have to be considered' (p. 212). In this sense, SPT can also be said to endorse a strong version of the social,[56, j] but explicitly conceptualizing and empirically examining inter-objectivity as a process, therefore trying to overcome the fact that 'the concept of intersubjectivity falls short by neglecting the influence of artefacts and by failing to appreciate relative objectivities that permit inter-objective relations to take place.'[77] However, at the same time, and while doing so, one might say that SPT therefore aims to be, and generally is seen to be, more of a sociological or cultural theory, whereas SRT (see below) is intrinsically a socio-psychological theory.

However, Spaargaren[71] highlights how SPT can be said to have 'left rather under-theorised the cultural dimension of green lifestyles and consumption routines,' and, in particular, the conceptualization and analysis of agency and the role of symbols, while paying more attention to the role of technologies or the material (p. 818; see also Ref 18). Spaargaren[71] (p. 819) puts forward a proposal to try to overcome this limitation by suggesting that SPT has then to look into how 'citizen-consumers get excited or disappointed, enthusiastic or sad, energized or bored with the objects that co-constitute the practice of consumption.' However, this proposal lacks a more explicit and direct conceptualization of the role of the Other (and so of the social) in influencing the emotions and meanings that codevelop between agents and objects, which is (also) what gives practices their cultural dynamics. Moreover, this quotation also highlights one main critique that has been pointed out to SPT, which is the fact that it is too structural and therefore arguably reductionist, while 'ignoring actors' understandings altogether', including the rejection of "any space for more conscious deliberation" and an ability to actively re-evaluate, sometimes contest, and live with, contradictory [enthusiastic AND sad, to re-phrase Spaargaren's quotation] social practices. It is remarkable that social practice approaches make little conceptual space for people's own awareness of ecological degradation [as one, among others, interpretations of

"reality"] and their possible contribution to it' (Ref 18, p. 54).

In this vein, SPT can also be considered to not fully problematize the ideological and political underpinnings of this approach, at least empirically (albeit it does so to a much greater extent than proponents of the individualist perspective—e.g., see Refs 16 and 17), while limiting the role for citizens' agency. In fact, both the individualizing psychology perspective and SPT in general appear to attribute the possibility for change as mainly coming from 'above,' from researchers and policymakers that can, be it through manipulating individuals' behaviors (in the psychology mainstream perspective, through 'nudging' for example) or changing socio-technical systems (the government's providing people with already environmentally friendly houses, in SPT), foster change. However, it often also happens that change starts being proposed at that level only after citizens and active lay minorities have pressured and fought for such changes to be incorporated into laws and policymaking, or institutionalized (as further discussed below; see also Refs 3,78). In other words, we cannot forget that innovation can also emerge bottom-up from public spheres, and these can push for legal and scientific spheres to transform their practices. In a related way, in SPT, action and meanings—or doings/behavior and sayings/thought—tend to be viewed at both conceptual and analytical levels as one and the same, even if this is an important distinction in everyday knowledge and which allows people to deal with and accommodate contradiction.[57] It therefore leaves little space precisely for the possibility and examination of (the role of) contradiction and polissemy within and between discourses and practices in knowledge production and transformation[k,l] (see Refs 11, 57, and 78).

SRT AS A SOCIO-PSYCHOLOGICAL PERSPECTIVE TO BETTER UNDERSTAND PEOPLE'S RESPONSES TO CLIMATE CHANGE

In this section, we will present SRT, arguing that it offers a strong account of social knowledge, a useful theorization of social change, and an informative account of action. These three dimensions can contribute to a more complete understanding of climate-related actions, in particular if integrated and expanded with SPT. Starting with social knowledge, a central goal of SRT is to account for how 'thinking is necessarily social.'[79] For this, it refuses the notion that meaning emerges from stable characteristics of

subjects and direct subject-object relations, and centrally assumes that its genesis is relational, as the 'relationship between Ego and Object is mediated through the intervention of another subject (Alter)' (p. 52).[m] By focusing on the dialogical nature of knowledge/practices production based in intersubjectivity, SRT is intrinsically a socio-psychological theory (see also Refs 62 and 80). It highlights how 'all encounters with the world are mediated through relationships' (Ref 57, p. 479) with other social beings, and therefore on how meanings are always relational and co-constructed—and contested, in a community of others (see Ref 58).

In fact, two major consequences follow from assuming the Ego-Alter relation as the locus of meaning making:[81] (1) there can be no meaning making outside a given culture and its institutions (e.g., a nation, and its laws); (2) there can be no meaning making outside a given context—both social and biophysical (e.g., a school). Furthermore, many, although not all, instances of meaning making, involve an interaction with a present Other in a given context (e.g., a conversation in the schoolyard).[82] So a corollary of the triadic model is that for understanding meaning making, we need to take into account the three dimensions of culture, context, and interaction, and acknowledge that these are not external variables.

The consequences of this model are then that 'the central and exclusive object of social psychology should be the study of all that pertains to ideology and to communication.[83] Looking at ideology—that is, the systems of meaning and action of a culture—means taking culture into account. Looking at communication means taking context and interaction into account. However, the notion of ideology as used in this approach can be much better grasped if we extend the above definition by considering how the 'systems of meaning and action of a culture' are not all equal and surely do not give voice equally well to all the groups of a society.[84,85] Some of these systems—or social re-presentations—are institutionalized and rather stable and consensual—or hegemonic—thus very powerfully capable of defining 'how the world is' and what is 'natural' or considered common sense; while others are still mainly being contested—or polemic—pushing for change and more unstable, or are at least still under some negotiation—the emancipated ones[84] (see also Ref 68 for an illustration).

An important dimension of SRT's theorizing of social change is thus the notion that because there is, in every culture and every context, a battle between re-presentations of different types, it is not change

per se that needs to be understood, but instead the relations between change and stability,[57] therefore echoing Shove and colleagues' uptake of SPT.[26] For instance, hegemonic representations' power to define what is 'natural' allows them to set limits to what can be said and done, and to thus exclude certain courses of action while keeping the door open for others.[86] Relatedly, when innovation enters a society or a context, they reveal the capacity to absorb innovation, making it more innocuous than it potentially could become.[57] In other words, representations exist before and after people, and produce certain effects that to some extent are independent of who voices them.[87]

Finally, a further consequence follows from assuming the Ego-Alter relation as the locus of meaning making: that it is not behavior per se, but action as *meaningful* behavior that we need to understand to gain an understanding of social change. Behavior can happen outside triadic relations, as a reflex, for instance, but action, as meanings, can only emerge from triadic relations. In other words, action is always social. It is this conceptualization that supports defending that 'representations exist in action as well as in belief and discourse'.[88]

In turn, this implies that SRT's uptake of meanings and actions acknowledges the fact that representations can either be transcendent or immanent to practices/actions[57,89]—see Box 1). This is the assertion that meaning, ideas, can exist in a society independently of the practice/action to which they are relevant, or be transcendent to it, as ideas proposed through laws and policies which usually take time to generalize to people's practices/actions—as is often the case nowadays in the environmental domain (see also Ref 90 for another example regarding gender discrimination laws). In addition, they can just exist for/in the practices/actions to which they are relevant, or be immanent to them, being brought to life in actions and only then eventually transforming ideas and meanings about them (see Ref 73 for another example on personal hygiene). This insight from SRT makes it easier to understand that recurrent phenomena of our societies, discussed above: a generalized agreement with normative new ideas, accompanied by a much less generalized consensus at the level of practices/actions. The 'gap' between ideas and actions so often found—or presented as found—regarding the environment can be looked at precisely as an example of the fact that contradictory meanings might coexist and be used in different contexts when social change is happening (see also Ref 11) and, namely, when it stems from normative pressures—or transcendent representations—that do

TRANSCENDENT AND IMMANENT REPRESENTATIONS: EXAMPLES

Denise Jodelet[91] describes, based on an ethnographic study, a paradigmatic example of immanent representations. The context of the study was a French village with a psychiatric establishment, which would allow psychiatric patients to lodge with people living in the village. Dimensions of the villagers' re-presentations of 'madness' were only observable through their nonverbal actions, such as the use of separate utensils and crockery for lodgers, revealing their fear of being 'contaminated'—and often these actions were contradictory with their verbal reports (e.g., *There's nothing to be frightened of in the illness, it's not contagious. But, still, a lot of the lodgers would quite happily kiss a child and I don't like to see that*).

An example of transcendent representations is public engagement in environmental decision-making (see Refs 57, 68 and 85). Public engagement has been institutionalized as a transcendent representation through several treaties and policies (e.g., see Ref 92), namely in the global north, aiming that experts and decision-makers involve the public in decision-making that affects them, in a participative, democratic way. However, as these treaties and policies do not affect actions directly—they do not sanction who does not comply with them—, they leave room for experts and decision-makers to agree with them—because they are normative—whilst at the same time not actually involving members of the public in environmental decision-making or just doing it in a tokenistic way.

not imply direct sanctions to individuals and groups (see Ref 57; also Ref 78). In sum, SRT suggests that distinguishing talk and action at an analytical level might be useful to understand certain social phenomena, even because it is an important distinction in everyday knowledge. Nevertheless, we do consider conceptually that talk and action are interdependent and that talk is action. SRT researchers have been analyzing this issue from this perspective and have developed specific analytical tools for understanding that (such as the concept of 'polyphasia'), as will be further detailed in the next section. In sum,

social re-presentations are knowledge-making *practices*, materialized in social and institutional encounters.[56,58,68,69]

SRT, SOCIAL PRACTICES THEORY AND THEIR USEFULNESS IN UNDERSTANDING DIFFERENT STAGES OF THE SOCIAL CHANGE PROCESS TOWARD ENVIRONMENTALLY SUSTAINABLE SOCIETIES

In this last section, we aim to highlight how SRT, as a distinctly *socio*-psychological approach, can be articulated with SPT, in two ways. At an epistemological level, and as just described before, SRT and SPT certainly share several assumptions and are therefore compatible—in a way that contrasts directly with more individualizing and realist perspectives in psychology. However, SRT and SPT are also different in several regards, in a way that might make their articulation productive. We will first look at these different aspects.

Combining SRT and SPT in a Synchronic Way

How SPT Can Inform SRT

One of the first aspects already clearly identified above in which SPT can add to SRT is the better conceptualization and examination of the role of the material in social re-presenting, not only in terms of technologies and infrastructures,[63,93,94] but also regarding ecological or biophysical systems.[38,95] The role of objects in social re-presenting—through an explicit SRT perspective—is increasingly acknowledged, namely through proposals around interobjectivity in intercultural encounters (see Ref 77) or calls for recognizing the role of the material in re-presentations,[96] particularly in relation to the environment.[11] Most concretely, a particular line of research has developed installation theory, which is closely connected to SRT.[96] This is particularly important if we consider that things and spaces are also performative of power relations and thus have very specific and powerful impacts on re-presentations.[97] Moreover, due to the original aims of SRT,[55] this theory has not paid as much attention to ordinary practices and the everyday interactions between people and Others (people and objects) as SPT has been doing, with researchers using theories of practice focusing mainly on everyday practices and therefore paying more attention to the contextual

contingencies of everyday actions, including environmental ones (see Ref 71). There is still then much open space for SRT to develop the role of the material in re-presentation, and while endorsing a strong version of the theory.

The same stands for the nonhuman generally which SRT has also often not taken into account. However, besides Actor Network Theory, other theories within sociology and human geography, such as cyborg/hybridity theories[38,95,98] have highlighted the importance of an ontological relational politics which does not 'kill off nature' and recognizes that it is enacted and coproduced by human beings (see also Ref 18). As Whatmore[95] suggests, this politics seeks to abandon dualisms and reifications such as those of distance and proximity, inside and outside, then and now, often applied in environmental studies and when looking at nature and wilderness—the point of departure should be that animals, people, soils are already hybrid, there are no pre-existing essences, only relations between different entities. Following Shove et al.,[26] SPT, through taking these proposals more on board, can help to better understand aspects of human and nonhuman relations. In fact, while focusing on the examination of practices, SPT can help with understanding what those 'cyborg/hybrid entities are actually doing' (p. 9)—and in this way even go beyond Actor Network Theory (for more on this, see Ref 26). Nevertheless, both SPT and mainly SRT have been 'accused' of not sufficiently considering the biophysical, ecological context in social practices and re-presentations' research, namely, through considering the role of place.[99,100] In fact, SRT has been pinpointed as also being Cartesian to some extent, not in relation to the social context, but to the biophysical, ecological one.[99,100] SPT, on the other hand, even if, as highlighted before, better recognizing and integrating the idea of the coproduction of practices by ecological and social systems, empirically tends to neglect the role played by place and space in practices such as washing up, heating the household, among others.

A second aspect that SPT can add to SRT then is precisely the focus on 'doing' or practices and the associated use of more ethnographic methodologies, such as in Jodelet's study (see Box 1), which have not often pervaded SRT's research. Related with this, SRT has often been criticized for not taking sufficiently into account the history of meanings[101] (but see Ref 102). SPT, on the contrary, performs genealogies of practices, analyzing how 'practices are classified and how categories themselves evolve' (Ref 28, p. 54). A good example of this is daily showering and how SPT traces its history—how in other

historical periods, bathing would be a weekly activity (at most), and how infrastructures and associated meanings had to coevolve for daily showering to happen more frequently and to be justified by the necessity to be clean (see more on Ref 28; also Refs 19 and 26).

How SRT Can Inform SPT

In turn, SRT can add to SPT in at least two ways. First, by conceptualizing people as agentic in bringing about social change, and second by offering an account of the role of Self-Other and power relations in allowing, constraining, and/or enabling it. As pointed out above, SPT has been criticized (see Ref 18) for ignoring actors' awareness of different practices, and their ability to negotiate them and to actually perform some instead of others. SRT's uptake implies emphasizing that social beings can be aware of the 'co-existence of a social representation and its alternative' (Ref 103, p. 83). This awareness of alterity[n] and the capability of perspective-taking allows change to happen, at individual, contextual-relational and societal levels (see also Refs 82 and 85)—even if it is also what allows resistance to endure. The analytical tools that SRT has developed in this regard, such as that of polyphasia,[87,104,105] the notion of themata,[105–107] the distinction between the normative and functional dimensions of representations,[57,106] or the distinction between reification and consensualization as communicative formats,[62,85] have been very helpful precisely in enabling the analysis of how both change and resistance to change happens. For instance, polyphasia refers to the coexistence of competing and even contradictory meanings, not only within the same culture and groups, but also within the same individual.[62] This notion is therefore very useful as an analytical tool in contexts of change as it calls our attention to the importance of analyzing if and how different meanings are used and in which contexts, therefore providing us with important insights about the social and psychological processes behind promotion or resistance to change (see also Refs 11, 87, 104, 105). Also useful might be the distinction between reification and consensualization as communicative formats used between different groups to negotiate change.[85] Batel and Castro[85] systematized a way of identifying when these two communicative formats are being used and what their consequences might be for knowledge construction or change and resistance to change. Reification is used for displacing the knowledge of others and has monological consequences, therefore usual implying some type of power

resources; consensualization involves perspective-taking and has more democratic outcomes.

Conceiving the possibility of reflexivity then does not necessarily equate with believing in individual agency and choice as in Shove's portrayal of the psychology ABC model or in Kurz et al.'s[16] account of the dominant psychology perspective on habit (see Refs 87 and 103). It just means that thinking is arguing,[108,109] that is, it happens based on antinomies—or, as Batel[87] puts it:

> 'it allows us to, on one hand, uncover how agency and subversion, or the capability to use different rationalities or representations, can be limited or enhanced by specific power relations, institutional arrangements or other normative practices and discourses and, through that, contribute to slow down or accelerate change. And, on the other hand, to also consider that, nevertheless, unequal social relations and dominant representations can be challenged and contested by social agents, collectively.' (p. 10.10)

As Shove and colleagues[26] themselves highlight 'we have not explicitly engaged with big debates about the rise of capitalist society or with questions of social and economic power, but that does not mean that these are in any sense absent from our analysis of the dynamics of social practice' (p. 137). In fact, specific conceptualizations and empirical examinations of how particular intergroup relations and the differential power of different representations affect environmental relevant (social) practices are often absent or nonexplicit in research using SPT. In other words, SPT should pay *more* attention to the political dimension of environmentally relevant actions not only at a structural level but also at more contextual and individual ones—or to borrow Howarth et al.'s[108] formulation, the analysis of re-presentations/social practices has to be 'sensitive to the contexts, dynamics and specifics of intergroup relations as these are reflected in the processes of re-presentation' (pp. 23–24). The importance of taking this political dimension into account becomes quite clear if we think about how expert-lay relations—or re-presentations about these relations—strongly shape people's environmental practices, with the NIMBY (Not in my Backyard) re-presentation being a paradigmatic example of that (see Ref 11 and 68).

In fact, and as a second input from SRT to SPT, at its incept,[55] SRT aimed to understand specifically how new scientific knowledge was appropriated and used as common sense in everyday lives. Therefore, we can consider that SRT has more experience

in examining cultural and techno-scientific change (e.g., see Refs 11, 104, 110, 111) and how it is appropriated in contemporary heterogeneous public spheres.[62] For instance, SRT has identified anchoring and objectification (see Box 2) as the socio-psychological processes through which people make the unfamiliar, familiar.[11]

In a related way, SRT has a long expertise in examining how Others shape people's re-presenting, and specifically the role of the media in doing this in contemporary public spheres, as the media is one of the main actors (re)creating the sociocultural environments where we live. SRT has arguably done so more than SPT, therefore also usefully adding this expertise to research based on theories of practice. Research using SRT has illustrated, for instance, how the media can use different communicative modalities[112] to present new ideas—such as regarding GMOs, geoengineering or climate change—which can in turn have very different consequences for how these and associated re-presentations are taken up and negotiated by publics (see Refs 55 and 112; also Refs 5, 110, and 113).

BOX 2

ANCHORING AND OBJECTIFICATION: A DEFINITION

Anchoring allows the classification of new social objects or the unfamiliar into previous and familiar knowledge that makes up our cultures and traditions. An example, given by Howarth,[34] is the 'social representations of Brixton (a culturally diverse area in South London) which are anchored in racist representations of blackness that thereby construct Brixton as black, dangerous and "other"' (p. 696).

Objectification is the process through which abstract ideas are made concrete, namely through making an image or a metaphor correspond to the object. Devine-Wright & Devine-Wright[111] illustrate how members of different local communities objectified A-frame high voltage electricity pylons, about to be constructed near to their communities, differently, depending on how those communities represented the place where they lived and the electricity pylons. Namely, while one community tended to present them as monstrous and eyesores, the other mainly presented them as 'girls with whips striding across the country-side' (p. 368).

We can perhaps say then that SRT is better equipped to look at the extraordinary—or at when social change is just introduced in a society or in a community, such as when a new low-carbon energy technology is constructed in a specific place[11]—whereas SPT, due to the way it has been more frequently empirically used, can be considered as more conceptually suited to better understand climate-relevant ordinary actions at the 'consumption' level, this is, when change has already started to be incorporated into people's everyday practices. To give some concrete examples in what regards climate-relevant actions, whereas SRT has been more concerned with understanding and examining people's ideas and communicative practices regarding climate change in general (e.g., see Refs 110 and 113), public participation in environmental decision-making (e.g., see Refs 68 and 85), energy systems,[11,114] renewable energy and associated technologies (e.g., see Refs 11 and 111), and biodiversity conservation;[105] SPT has been more focused on examining, travel/mobility practices,[19,115] smart energy domestic consumption,[116] air conditioning practices,[26] saving energy and reducing waste in the workplace.[50] Nevertheless, this suggests again that SRT and SPT can be articulated in a fruitful way for better understanding not only the same but also different facets of environmentally relevant actions.

Combining SRT and SPT in a Diachronic Way

SPT and SRT have common presuppositions that can allow their articulation, contrary to the more realist and individualist psychology perspective. Considering the 'strengths and weaknesses' of these two epistemological/theoretical approaches, we can consider that they might actually complement each other while contributing to understand different stages of the social change process toward environmental sustainability, and relatedly the change and stability of (non)environmentally relevant actions. Departing from a SRT perspective, Castro et al.[117] have proposed that environmentalism, as a process of social change, is currently at its 'Generalization' stage (see also Ref 11): after its emergence as a social concern mainly through the influence of active minorities, namely grassroot movements,[3,118] several treaties and laws at supranational levels have institutionalized it while setting specific targets for and constraints on the practices of people toward environmental sustainability. Now, mediating systems between the legal sphere and the public one, such as the mass media and community practitioners, are circulating the content of those
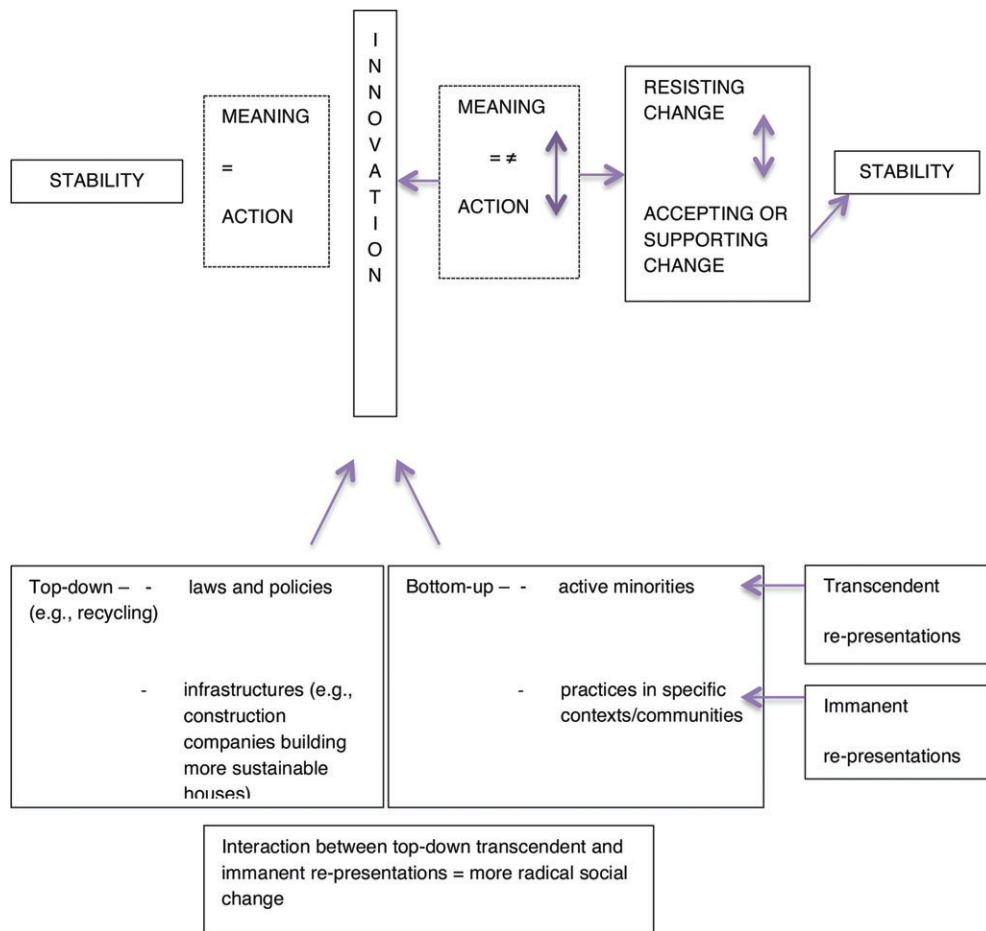
FIGURE 1 | Relation between different forms of change/re-presentations and practices (meanings and actions).

laws—and specific interpretations of them[57]—which are expected to be appropriated by people, so that environmental sustainability can be attained. The proposal put forward by Castro et al.[117] (see also Ref 78) does not critically discuss the models of social change that are being pursued with such legislations and treaties and, namely, to what extent they are targeting individuals' behavior change or more structural, social practices, change. In other words, it conceptualizes how social change happens in current neoliberal and capitalist systems, with a focus on mainly deeming individuals responsible for making that happen. Nevertheless, this model/proposal can also be seen as an in-between 'solution,' which tries to conceptualize how social change happens in these socioeconomic and political systems while, at the same time, showing how it can undermine them. In fact, it calls our attention to the importance of the legal system in contemporary societies, mainly Western, in fostering social change and, with that, to the fact, that contrarily to what both SPT and the individualist psychology perspectives appear to presuppose,

individuals and groups can actually be aware of environmentalism and of alternative (and normative) representations to consumerism and antienvironmental action. To put it differently, it calls our attention to the important distinction, already highlighted above, between transcendent and immanent representations[57,89] (see Figure 1).

In this sense, we propose that while SRT might be more useful to understand how new meanings emerge, how they are disseminated throughout the public sphere and the socio-psychological processes associated with support, acceptance, and/or resistance to change (for a discussion see Ref 119) during that generalization phase; SPT might be more useful to understand how those meanings then get combined with technological innovation, material practices, and the development of associated competences, and how their connections are stabilized, become habits, and how these might act as barriers to new practices being adopted (see Figure 2). This framework can then be the basis for a research agenda regarding environmentally
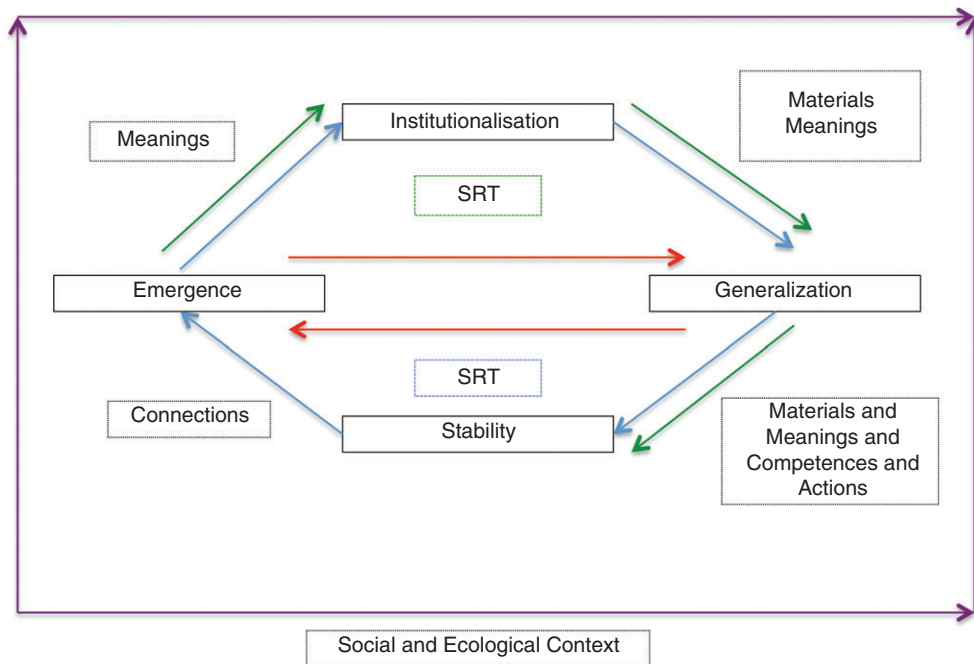
FIGURE 2 | The different stages of social change.

relevant actions which, by simultaneously highlighting the demand and supply side of those actions and how they are coproduced by individuals, institutions (both material and symbolic) and biophysical contexts, can better uncover the socioeconomic, political, psychological, institutional, cultural and historical processes behind the stability and change of those actions, and arguably work to change those. These ideas and framework should then be made explicit and clearly inform related interventions for social change in the context of the ecological crisis, namely while both informing policies on environmentally relevant actions and while engaging with individuals and communities about those—during research and through designing specific community interventions.

CONCLUSION

The current capitalist and neoliberal socioeconomic and political system has devastating consequences for ecological systems, creates and perpetuates social inequalities and exclusion and has consistently driven us further away from forming participative democratic institutions.[12,47] This critical review of the main (socio-) psychological and sociological approaches used so far to understand and change climate-relevant actions (e.g., see Refs 16, 26), has clearly illustrated two aspects of the relation between the current socioeconomic and political system and

these approaches. First, that despite the fact that authors developing and implementing (socio) psychology's mainstream approaches arguing for the neutrality, impartiality, and scientific evidence-only based qualities of this research, it is unquestionable that similar to any other form of coproduction of knowledge, this research is political—as in 'the onto-logical dimension of antagonism' (Ref 12, p. XII). In other words, it does assume, defends, and develops a specific perspective, with particular social and political antecedents and consequences. Specifically, and second, as shown throughout this review, that individualizing perspectives prevalent within social psychology look into people's environmental-relevant actions in an age of climate change, by simulating that scientific positivist neutrality, is actually endorsing and reproducing the neoliberal and capitalist context where it developed and that it helped creating, despite not acknowledging and critically discussing this. Not all research within social psychology, and the social sciences generally, adopts such an approach, and obviously it is important to acknowledge that there exists a spectrum regarding the role attributed to the individual and that therefore some approaches are further away from the extreme of considering the individual as the locus of everything. However, that this is still the mainstream approach being adopted within social psychology, related with the problems that we have just mentioned, highlights the urgent need to adopt other epistemological,

TABLE 1 | Behavior, Practice and Re-presentation

	Theories of Behavior	Theories of Practice	Theory of Social Representations
Basis of action	Individual choice	Shared, social convention	Social and individual as interdependent; individuals constrained by and creating the contexts where they live; political
Processes of change	Causal	Emergent	Emergent
Positioning of policy	External influence on the factors and drivers of behavior	Embedded in the practices it seeks to influence	Embedded in the practices it seeks to influence
Transferrable lessons	Clear: based on universal laws	Limited by historical and cultural specificity	Limited by historical and cultural specificity
		Limited by biophysical/ecological specificity	
Drivers of change	Top-down, focused on individuals Bottom-up, individually driven	Top-down, institutionally and infrastructurally driven; focused on practices	Top-down, institutionally driven; focused on meanings and actions Bottom-up, communities-driven
Units of analysis	Individuals's attitudes and behaviors	Social Practices	Social Re-presentations (meanings and actions)
Relation between meanings and actions	Attitudes/Meanings⇒Behaviors/Actions	Meanings = Actions	Meanings ⇐⇒ Actions

ontological and, therefore, political, perspectives within the social sciences to examine and better understand peoples' (non-)environmentally relevant actions. We suggested specifically that sociological theories of practice (e.g., see Ref 26) and SRT, as an intrinsically socio-psychological theory, can, in articulation with one another, be those perspectives, given how they conceptualize processes and drivers of change, basis of action, and the relation between practices/actions and meanings, how they position policy and how much lessons are transferrable across time and space (see Table 1). These theories not only contribute to a better understanding of (non-)environmentally relevant actions, but also better enable a process of change to the current socioeconomic system that we live in toward another world, in which the individual, consumption, and corporations are not the measure of everything and, thus, that can arguably contribute to establishing another form of hegemony[12,48] which aims at dissolving social inequalities and creating global environmental justice in social and ecological ways[120]. This implies targeting not individuals but social practices[26] or/and representations, as in people's beliefs and actions. This, in turn, involves, generally, challenging the neoliberal and capitalist system and, more specifically, might involve following three main courses of action. First, developing regulations and policymaking, which target the materiality of people's practices at

production and consumption levels, instead of individuals' consumption itself. In other words, what should be focused on is 'the political relations that produce environmentally damaging ways of producing and consuming' (Ref 40, p. 348)—or as also illustrated in the British Psychology Society's report on behavior change regarding energy consumption (footnote 3), if leaving TVs and computers on standby is so damaging, then it has to be questioned why we have a stand-by facility on electrical goods? Second, and in an associated way, critically engaging with relevant knowledge producers—policymakers, academic researchers, NGOs, and so forth—to transform re-presentations of individuals as either passive dupes and/or totally rational beings, into representations of individuals as, in their continuous relation with the Other, both influenced and constrained by the contexts in which they live, and as aware, conscious, and active political actors, much in line with SRT's representation of people.[87] In turn, this will contribute to the creation of more active forms of citizenship that can demand better regulations and policymaking. Finally, all of the above implies that the social sciences have an important role to perform and that it is therefore crucial that certain disciplines and research areas—such as Psychology—start to more fully acknowledge their impact on (re-)producing climate change and related issues.

NOTES

a Throughout the manuscript, we use the concepts of environmental and climate-relevant actions as defined within the social sciences generally to refer to 'human behaviours that contribute to environmental problems' (Ref 6, p. 407). The use of this concept aims then to direct our discussion in a more specific way to a particular area of research and of public life, which is that of the promotion of pro-environmental behaviors. However, and even following the discussion developed throughout this paper, it should be considered that all actions impact on, are affected by and co-evolve with the climate and the environment.

b Adapted from Jensen, D. (2015) Forget shorter showers: why personal change doesn't equate political change. Available at: http://www.filmsforaction.org/articles/forget-shorter-showers-why-personal-change-does-not-equal-political-change/. (Accessed February 15, 2015).

c British Psychology Society report on Behaviour Change: Energy Conservation. Available at: http://www.bps.org.uk/system/files/Public%20files/energy.pdf. (Accessed January 25, 2016).

d As in fostering the consensualization of a capitalist and neoliberal ideology and not legitimizing diverse and conflictive perspectives over sociopolitical and economic systems.[12]

e Critics of social psychology, including those developing theories of practice, also tend then to only recognize as social psychology perspectives the mainstream individualist and realist ones and not to be aware of the epistemological and conceptual diversity of this field of research (e.g., see Ref 20).

f Which together with behaviorism were the main perspectives making the history and present of social psychology at least until the turn of the 20th century to the 21st century,[59] even if in the meantime other perspectives have grown like neuropsychology, evolutionary psychology, and embodied cognition.

g Even if there are authors that use more individualist and cognitive versions of the theory (see again Ref 56), endorsing a weak version of the social and thus rejecting social constructivist assumptions (e.g., see Refs 23, 63).

h For some time, SRT and discursive psychology were seen as irreconcilably different, with SRT being criticized by discursive psychologists (but see Refs 59,64) for still being 'too' cognitive (taking into account its focus on representation) and thus too close to mainstream (socio-)cognitive and individualistic approaches (e.g., Ref 65; also Ref 66). However, SRT as adopted in this paper, incorporates some proposals of discourse analysis (both theoretically and methodologically, see Refs 67, 68) and looks at representation (instead of representation), as a process 'in the making' involving the dynamic construction and reconstruction of meanings (see also Ref 69).

i This is not to say that there are not other critical alternatives and conceptual imports, besides the ones discussed in this paper, that can be very relevant in allowing us to better understand environmental-relevant practices, such as those coming from psychosocial studies, narrative analysis, and psychoanalysis (for a discussion see Ref 18).

j SPT can be said to incorporate more in its analyses the materiality of reality, contrarily to SRT—as will be further discussed in the paper. Nevertheless, and whereas SPT gives more importance to interobjectivity than SRT, it also equally recognizes the importance of intersubjectivity for the stability and transformation of social practices (see Ref 76), this being the reason why we consider that SPT can also be seen as endorsing a strong version of the social.

k With this we are not assuming a dualistic Cartesian perspective that separates the mind from the body, but instead suggesting that analytically considering that doings and sayings might not be totally articulated is useful to understand the polissemy of symbols and meanings and how sometimes those can be strategically used by social agents to deal with change. In other words, we concur with Hinchliffe[38] (p. 62), borrowing from Deleuze, in suggesting that any differentiation of doings and sayings 'can only be differences of degree and not of kind.'

l Some versions of SPT do recognize or started to recognize the importance of the Other through the focus on social networks; the existence of contradiction between the elements of practices;[26] and the fact that structures do also exist in individuals, not only in practices and thus that practices are structured in between the individual and societal structures.[75] Nevertheless, generally one can say that whereas authors like Spaargaren and Shove do suggest to take them into account, there does not appears to exist yet a rigorous approach that specifically accounts for these issues.

m The Ego-Alter-Object triadic relation proposed by Serge Moscovici[55] as the main basis of SRT intends to signal the importance of the Other, that is, of relationships and intersubjectivity for knowledge construction of the Self about an object (and how the object impacts on the self). Introducing the Other in conceptualizing knowledge production instead of considering simply subject-object relations following the Cartesian, positivist tradition, implies then recognizing the importance of the spaces of mediation 'that lie on the in between of intersubjective and interobjective relations' (Ref 62, p. 15).

n What we are proposing here is that individuals can be aware of different meanings insofar as they are part of communities/groups where different representations are available—we are not proposing it as an individual process. In this vein, we are talking about reflexivity—not rationality—as used by Kessi and Howarth,[29] which is the ability to be aware of different knowledges, which are constructed collaboratively, and can be used contextually to fulfill different functions and interests.

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