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Systematic review of environmental activism: Towards a new orientation for social psychology

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Abstract

Despite a need for societal change to resolve environmental problems, social psychology has largely focused research on individual changes. At the same time, new climate movements recently emerged and social psychology has theoretical tools to study their societal impacts. In this review we study how social psychology has approached environmental activism. We performed a search in the literature on different databases and 56 articles were finally included and analysed with theoretical tools: levels of explanation (Doise, 1982) and social influence models (Moscovici, 1976b). Results indicate that articles concerning environmental activism mainly focus their research on understanding the predictors of individual involvement in activism. On the other hand, few articles have dealt with the societal impacts of environmental activism. We discuss these results by questioning the paradigm and dominant approaches that lead to this individualisation of environmental activism, and we propose other approaches to study environmental change.

Keywords: Environmental activism, social change, social representation theory, review of the literature, social psychology

"You gotta save the planet because it's clear that it's your fault.

Check out your exhaust, and your deodorant.

When you put cardboard in the green container, pollution is all your fault[...]

It's a cruel, guilt-stricken world" (Vald, 2019).

Introduction

The above passage focuses on how often individuals are held responsible for environmental crises. But what is the real impact of these individual behaviours when compared to the extent of the transition we need to achieve as a society? If the French adopted all the pro-environmental behaviours (PEB) accessible at individual level, it would be at best possible to reduce GHG (Greenhouse Gases) emissions by 25 % (Dugast & Soyeux, 2019). This is highly insufficient in relation to the 2015 Paris agreement goals of reducing 80% of GHG emissions by 2050 which are necessary to limit the irreversible consequences of a global warming of more than 2 degrees (IPCC, 2018). Moreover, it shows how the adoption of PEB alone is highly insufficient, despite being a necessary and important part of societal ecological transition. The 80% reduction will therefore only be possible through paradigmatic and collective changes involving a strong commitment from companies and public authorities (Dugast & Soyeux, 2019).

By mainly focusing on PEB, social psychology has helped to reinforce the individualisation of environmental calls for change (Adams, 2014). Many behavioural theories have been tested, but often without linking individual practices to their societal context (Uzzel & Rathzel, 2009). The way these approaches describe environmental challenges is limited "because they simply address the 'downstream' symptoms rather than the 'upstream' causes of environmental problems." (Uzzel & Rathzel, 2009, p.342). In doing so social psychology has contributed to the depoliticisation of the climate problem (Comby, 2017). In this paper we explore the idea of approaching these changes from a societal

perspective, by focusing on environmentally significant behaviours such as those that “affect international development policies, commodity prices on world markets, and national environmental and tax policies” (Stern, 2000, p.408). However, these holistic environmental changes are more inertial and harder to implement than their individual level counterparts, in part because they depend on broader and more complex dynamics. Holistic changes often depend on activism, a research topic that has already caught the interest of social psychology (Schulte, 2020), and which represents the “most efficient method of achieving emission reductions” (Roser-Renouf et al., 2014, p.163). Pivotal in this process of innovation promoting social change is the influence of minority movements (Castro & Mouro, 2011; Moscovici, 1976b). For this reason, describing how environmental activist movements have been analysed in social psychology literature would help clarify if and how it has supported social change strategies capable of influencing governmental decisions (Castro, Uzelgun & Bertoldo, 2016) and corporate behaviour (Dubuisson-Quellier, 2013).

We define environmental activism as movements which are “committed to public actions intended to influence the behavior of the policy system and of the broader population” (Stern, 1999, p.82). Despite the plurality of approaches used in social movement studies, literature reviews on this topic are rare in social psychology (but see Schulte, 2020). In this article, we propose to systematically review how social psychology has described environmental activism since 1981 as a means of better understanding the contribution of *our discipline* to this field. Reviewing the literature of environmental activism as a social phenomenon must moreover be historically situated in the context of the development of social psychology as a discipline (Farr, 1996). In the following sections, we will begin by describing the historical context of social psychology as a developing discipline in North America and Europe. We will then define our theoretical background by describing how the social representations theory can be used to analyse social change (Bertoldo & Castro, 2018). Then, we will present the methodology used

in this systematic review, before describing the main results and discussing them with a focus on future research perspectives.

Sociological or psychological social psychology?

The discipline of social psychology followed two different pathways early in its development: one being *psychological* social psychology and the other *sociological* social psychology. The epistemological assumptions behind these two approaches were partially shaped by academic traditions practised in both North America and Europe (Papastamou, 2002).

Influenced by theoretical and ideological factors, North American social psychology has adopted a stronger *psychological* focus. Behaviourism – with its strong focus on behaviour – and gestaltism – with its strong focus on cognition – have embedded this individual-centred research tradition exemplified by a particular interest in social processes that include attitudes, interpersonal relations, cognitive dissonance and social comparison. This research focus on individual differences and social conformity mirrors the ideological context of psychology research in North America (Papastamou, 2002). It is the support for these values that explains the popularity of the research by Erikson and Allport (Gergen, 1972), for whom social psychology can be defined by three characteristics: “the individualisation of the social”, “the behaviourism paradigm” and “experimental methods” (Papastamou, 2002).

This strong *psychological* focus of North American social psychology led to a tendency in the discipline to approach social phenomena from an individual and positivistic perspective. A marked preference is observed for experimental methods and observable – measurable – behaviour (Papastamou, 2002). Then, gestaltism raised within social psychology a stronger interest in cognitive – and thus less directly observable – mechanisms. This shift in research interest has contributed to the development of the social cognition approach.

In Europe, the development of social psychology has gone down a sociological route: the discipline was initially practised by sociologists and influenced by cultural sociocentrism (Papastamou, 2002). In Durkheim's conception of social psychology – which he called “collective psychology” – collective representations are the building blocks of social reality, and are shaped by social structures, and influence individuals (Marková, 2015). In this view of social psychology individuals play a more a passive role in the internalisation of representations. This approach to the social world was widely practised until the 1940's by Durkheim followers: Mauss, Levy Bruhl (Papastamou, 2002). Since then, Moscovici proposed the concept of social representations, which approaches social reality more through processes of *social thinking* instead of *social cognition* (Papastamou, 2002). From this perspective, the individual is considered as a social subject that produces – and unlike the Durkheimian perspective not only reproduces - and shares social knowledge, supporting the articulation between individual and collective levels (Papastamou, 2002).

These two different pathways have opened up and crystallised the existence of different research paradigms within social psychology, in which different theoretical and methodological tools are used. The paradigm practised in North America sees individuals as autonomous agents, favours the use of individualistic methods, and is more interested in the micro-sociological analysis of interpersonal relations that are influenced *post facto* by society. In Europe, the social psychology paradigm practised is embedded in methodological ‘holism’, in which the *social* is apprehended as an autonomous whole with particular characteristics that differ from the sum of its parts. Here the individual is seen as being socialised by a *pre-existing* society.

In sum, we can understand the interest of a *psychological* social psychology in the study of social attitudes because of its view that attitudes act as individual drivers for action. The interest of a *sociological* social psychology for concepts such as social (or collective)

representations can, on the other hand, be understood as helping to explain how a community collectively constructs a social object (Papastamou, 2002). In the next section we will describe how the psychological paradigm have shaped how scientific questions are asked in social psychology.

Propensity of a *psychological* social psychology on environmental issues

In the twentieth century, social psychology underwent significant changes influenced by positivism, cognitivism, and behaviorism, leading to a trend toward individualization within the discipline (Farr, 1996). This shift was partly shaped by the dominance of North-American perspectives, which exerted considerable influence over scientific discourse, materials, and the generation and assessment of knowledge within the field (Tiberghien & Beauvois, 2008). As a result, the theoretical and methodological preferences of Anglo-Saxon psychologists became more and more as a standard among the international scientific community. By focusing on the individuals inside a social group social cognition tends to view social reality as a ‘static’ entity in which independent and dependent variables can be manipulated, more than as a dynamic whole of social actions (Marková, 2007). The tendency of social psychology to favour ‘static’ models reflects a preference of the discipline for establishing general laws of human behaviour and thus to be considered as a natural science (Gergen, 1973).

The individual and static epistemic models adopted by mainstream social psychology have direct implications for environmental studies. In climate change studies, Tam and al. (2021) show that social psychology has overemphasised intrapersonal processes through quantitative methods – and overlooked the effect of *cultural* contexts. In doing so, the discipline sees climate inaction as an inherent part of ‘human nature’ and a direct result of psychological biases and cognitive errors, in a view of individuals that naturalises the *status quo* (Schmitt et al., 2020). Still, even if individualistic paradigms acknowledge the influence of social

contexts and structures, they interpret climate inaction primarily as part of human nature, therefore “obscuring the potential for transformative social change” (Schmitt et al., 2020, p.125). In an attempt to better describe the above-mentioned limitations of individualistic approaches, we propose in the following section to study environmental social changes through the social representations theory.

Social representation as a process of social change

In his view of social change Moscovici proposes to “understand not the tradition, but the *innovation*, not a social life already in place, but a social life in the making” (Moscovici, 2003, p.99). From this perspective, social change is understood as a dynamic balance between influences pressing for innovation and others for conformity (Marková, 2015): some shared logics aim at innovation through conflict, while others defend conformity through consensus. Through the study of this paradoxical balance, social representations aim to understand “the relationships between change and stability in such societies” (Castro & Batel, 2008, p.478). These processes can be better described through a *longitudinal perspective* (Breakwell & Canter, 1993).

These social representations participate in the social change cycle (Jensen & Wagoner, 2009) which oscillates between phases of change and stability (Castro & Batel, 2008), and in which there are three stages: emergence, institutionalisation and generalisation. In the *emergence stage*, transcendent proposals inspired by innovative ideas are put forward, often by an active minority allowing new concerns to enter society and begin to gain public support. At this stage, social movements “through their pursuit of unconventional policy and in their effervescent organization [...] aim at sharing and disseminating their representations” (Moscovici, 2003, p.102). These innovative ideas are translated into laws and regulations using legislative tools in the *institutional stage*. While institutional recognition is a formal validation of social concern about these topics, Castro and Mouro (2011) describe how these

laws must often be locally “translated” before they are decoded into new locally agreed ways of approaching environmental issues. During this *generalisation* stage, “the spread of change throughout a society becomes a priority” (Castro & Mouro, 2011, p.365). It is precisely during this stage that local or individual interests can be countered, steering local opposition (Castro, 2012; Lelaurain et al., 2021).

The idea of “sustainable development” is a good example of this paradoxical balance between stability and change. Initially inspired by the Meadows report (1972) - the first report to show the dramatic ecological consequences of economic growth - this report fueled the emergence of environmental movements during the 1970s as a means of raising awareness of the threat posed by unlimited economic growth. After this *emergence stage*, mounting public pressure for the institutionalisation of these shared social concerns caused the formalisation of environmental issues to spread all over the world - the 1972 Stockholm Conference is an example of this institutionalisation. From that moment on, increasingly stringent international agreements were signed and nationally ratified around the globe (Recchia, 2001).

Nevertheless, the people-environment proposals present in these laws and regulations still fail to be more widely *generalised* (Castro & Mouro, 2011): “the need for companies to position their products in the market and generate a need and demand for increased consumption ” (Uzzell & Rätzl, 2009, p.348).

The difference between the initial idea of sustainability and its final version shows how societies can absorb “innovation while remaining notably stable in many regards” (Castro & Batel, 2008, p.478). As presented above, the idea of “sustainable development” has been accompanied by a rise in worldwide “ecological awareness” since the 1970s; but without any significant limitations in CO₂ emissions (Meadows, 2004). This absence of any significant changes in social practices reminds us how social change (1) constantly oscillates between phases of change and stability (Castro & Batel, 2008); and (2) can explain the emergence of

new environmental (or climate) movements such as ‘Fridays For Future’ and ‘Extinction Rebellion’ in a renewed push for more substantial and meaningful social innovation.

We propose in this article to analyse how social psychology has described environmental activism as a social phenomenon since 1981. To do so we will combine two theoretical approaches as guides to the analysis of social processes: (1) the Doise levels of analysis in social psychology (1982) and (2) the Moscovici models of social influence (1976b). These theoretical tools will support our analysis of how social psychology has described environmental activism: through (1) the *levels of analysis* the discipline employs; and (2) the way these levels of analysis concur with social change (models of social influence).

Levels of analysis (Doise, 1982)

Social psychology can explain social phenomena at different levels according to where we position them: e.g. while perception can be analysed at an individual level, the study of leadership as a process would require the analysis of different individuals within a group. Doise (1982) proposes organising the different types of explanations used in social psychology along a continuum between individual and society: at individual, interpersonal, positional, and ideological levels. Levels of analysis were formalised in order to show how experimental studies could go beyond “the old dichotomy between ‘psychologizing’ and ‘sociologizing’ explanations” (Doise, 1980, p.213) and offer a tool that allowed “a systematic examination of a whole series of publications in social psychology” (Doise, 1980, p.214). With this tool, Doise situated the wealth of social psychology experiments conducted at individual level within a wider approach to social issues.

The importance of using levels of analysis in social psychology (Doise, 1982) as a theoretical tool to analyse research articles is that it allows us to compare where, or at which level, a research article places the social change processes triggered by environmental

activism: individual vs. group vs. societal process. The levels of analysis allow us to see how social psychology conceptualises activism – an individual behaviour or a social movement and with what consequences - individual or societal? It also allows us to shed light on how environmental activism has been described in psychology: through integrative and complex views (all levels employed) or through a unilateral view (one level alone employed)?

Social influence models (Moscovici, 1976b)

Observable social changes can either be the result of widespread individual changes when everybody follows the same set of rules - 'social conformity' - or they can be the result of more meaningful bottom-up changes through 'social innovations'. These two social influence models were proposed by Moscovici (1976b) in response to the 'functionalist model' used by social psychology to describe social influence at the time: an asymmetric process between a source and a target as a means of maintaining social control. Moscovici (1976b) criticises this take on social change by proposing a 'genetic model' that sees the functions of source and target as not fixed: targets could also be sources of influence, and sources could also be targets.

Based on the complementary functioning of functionalist and genetic models, Moscovici (1976b) acknowledges social innovation as a "fundamental process of social existence. It [social innovation] presupposes a conflict whose outcomes depend as much on the changing forces as on the control force" (Moscovici, 1976b, p.14). By identifying which social influence models are used more by psychologists and when, we will be able to illustrate whether sources and targets of social influence have been conceived in more dynamic or fixed ways. The interest of this type of comparison lies in the reflexivity of the often taken for granted researchers' frame of analysis. This systematic review will make a contribution as a critical analysis of how social psychology in general or use of social psychology tools,

formulate the ecological transition and consequently at what level the proposals they can offer society can be found.

Method

Search Strategy

The article search was carried out on different databases (Taylor and Francis, Science Direct, Sage, Web of science, Wiley), in May 2021. In view of our interest in how social psychology has apprehended this phenomenon, we used in our search terms two of the main European theories concerning social change: social representations and social identity; and the process that we were exploring: social change. We chose these words to specify our corpus view on social psychology approaches. The following search equations were used: [[Title, abstract, keyword "environmental activist"] OR [Title, abstract, keyword "climate activist"]] AND [[All: "social identity"] OR [All: "social representation"] OR [All: "social change"]]. In order to extend our research to other social psychology theories, a second search equation was entered into the same databases: [[All: "environmental activism"] OR [All: "climate activism"]] AND [[All: "social psychological"] OR [All: "social psychology"]]. This search resulted in the identification of 976 references.

Exclusion criteria

These references were then examined in closer detail to exclude articles that did not fall into the scope of the analysis. Here we excluded articles which *were not*: (1) published in either English or French; (2) mainly interested in environmental or climate activism; (3) empirical; (4) identified as social psychology or using theories and concepts practiced in the discipline (e.g. social identity, social norms, self-efficacy); or interested by psychosocial process (identification to a group, social influence). This information was examined over the

976 references initially identified based on the information available in the title, and subsequently, in the abstract.

First articles with only allusive references to climate or environmental activism, or not empirical, were excluded (N = 871). Then, articles targeting scientific audiences outside social psychology (sociology, political science, economy) were excluded (N = 61). This selection left us with 44 articles. Direct contacts with our extended scientific network allowed us to add another 12 articles to the final sample of the study, which amounted to a final sample of 56 articles.

Data analysis

Articles were first read, submitted and categorised based on expressed goal, results and method used. In a second phase, articles were coded based on how they interpreted and operationalised environmental activism: the levels of analysis used (Table 1) and the social influence models.

Level of analysis (Doise, 1982). This aspect aims at screening articles based on the levels of analysis (from individual to ideological levels) employed by the articles when presenting environmental activism. When articles used a quantitative method, we analysed the studied variables; when it used a qualitative method, we analysed the dimensions solicited for the analysis. The levels of analysis considered were the following (Table 1):

Table 1

Level of explanation and variables mobilized in articles

Level of explanation	Definitions	Example of variables included
Individual explanation (level 1)	Articles explaining environmental activism from individual variables.	Cognitions, attitudes, behaviours
Interpersonal explanation (level 2)	Articles explaining environmental activism from interpersonal or in-group variables.	Leadership, social interactions, or social desirability
Positional explanation (level 3)	Articles explaining environmental activism from intergroup level phenomena.	Social or group identity, group efficacy belief, in-group favouritism
Ideological explanation (level 4)	Articles explaining environmental activism from ideological variables.	Social norms, social representation, political ideology

Social influence model (Moscovici, 1976b). Beyond the description provided by the dimensions considered in the reviewed articles, the social influence models proposed by Moscovici (1976b) describe how these different levels influence each other, in a dynamic view of how social change can be triggered by environmental activism. The social influence models considered were the following:

Functionalist model: Here the influence between social levels is regarded as asymmetric - high levels (ideological and positional) influence low levels (interpersonal and individual). Articles using this model usually describe the influence of an ideology or a group on individual activism commitment. For example, Dono et al. (2010) is classified as using this model of social influence because the article attempts to understand how social identity (positional level) predicts activist behaviour (individual level).

Genetic model: The influence between levels of analysis is represented symmetrically - high level and low-level influence each other. Generally, articles classified under this model question how activist groups impact social norms or stereotypes through the description of social conflict. For example, Czopp et al. (2013) are classified under this model because their aim is to observe the effect of confrontation (interpersonal level), between a person identified as an activist and a person identified as anti-environmental (positional level), on social norms (ideological level) relative to pro-environmental behaviour (individual level).

Results

Descriptive data (methods, cultural context, population, year)

Our data show an increasing interest in environmental activism over the years: 39 of the 56 articles had been published since 2010 (see Table 2). The published articles shared many of the characteristics of mainstream research in social psychology: 50 authors were from Western cultures (North America, Europe, Australia); 48 articles of the corpus was made up

of articles using *quantitative* methods, which focused more on the general population and students (35), than on the activist population (20) (Table 2). Therefore, in recent years social psychology has studied environmental and climate activism from a single cultural perspective (Western), through quantitative approaches and often with participants who are not actively engaged in actual activism (general and student population).

Table 2
Descriptive data

Methods						
Quantitative 85,71 %		Qualitative 7,14%		Quantitative/ Qualitative 7,14 %		
Years of publication						
1981- 2000 10,71 %		2000-2010 19,74 %		2010-2021 69,64 %		
Population						
General population 42,86 %	Activist groups 25,00 %	Student population 17,86 %		Activist and non-activist group 10,71 %	Student and general population 1,78 %	
Cultural context						
North America 50 %	Europe 32,14 %	Australia 7,14 %	Israël 1,78 %	China 1,78 %	International context 7,14 %	

Using levels of analysis (Doise, 1982)

A strictly individual level of analysis was used by a small part (4 articles) of the analysed articles (see Table 3). These articles used individual variables as a predictor of activism commitment. Gousse-Lessard (2013) for example explored the link between the type of passion (harmonious vs obsessive), and type of activism (radical vs moderate). Moreover, Matsuba et al. (2012) described how identity maturity, generativity and environmentalism play a role in activist behaviours in the private and public sphere; while Séguin et al. (1998) proposed a motivational model based on autonomous motivation or perception of environmental health risks to predict activist behaviours (e.g. signing a petition or participating in an environmental protest).

A larger part defined two levels of analysis (17 articles), which were mainly the positional and individual levels (11 articles). These articles used a higher level of analysis (social identity, membership, gender) to explain activism as an individual behaviour (Cf Schmitt, et al., 2019; Huebner et al., 1981; Mohai, 1992). For example, based on social identity theory

Schmitt et al. (2019), show that identification with activist groups -vs. identification with nature- (positional level) is a better predictor of activists' commitment and participation in political demonstrations (individual level).

A greater part of the articles used three levels of analysis (28 articles) by simultaneously defining individual, positional and ideological levels (17 articles); or individual, interpersonal and positional levels (7 articles). Articles identified as using three levels of analysis to study activism almost systematically used positional and individual factors in combination with, ideological influence – such as social norms (Swim, et al., 2019;), or interpersonal influence such as subjective norms (Bamberg et al., 2015). Based on a survey of 587 US participants, Swim et al. (2019) showed that the impact of demonstration reports by activist movements (positional level) influence behaviour intentions of collective climate action (individual level), an influence that is moderated by the political leaning of the news coverage (ideological level). Moreover, Bamberg et al. (2015) compare variables such as social identity (positional level), subjective norms (interpersonal level), attitudes and negative emotions (individual level) as predictors of the intention to be part of a local ecological transition group (individual level).

Finally, a smaller part of the sample adopted a more holistic approach to studying activism and linked all levels of analysis (7 articles). For example, Tindal (2002) linked all four levels to show that personal centrality network (interpersonal) is a stronger predictor of activism commitment (individual variable) when compared to cultural values (ideological level) or group membership (positional level).

We observe therefore that published research in social psychology tends to use at least two levels of analysis in its studies – often the positional and the individual levels. Articles also employed the ideological level, in addition to the positional level. While this articulation is not surprising in a discipline that endeavours to combine individual and social factors, little

focus is placed on the use of holistic approaches soliciting all levels of analysis - which would provide a more contextualised and pertinent view of a phenomenon as complex as activism.

Table 3
Mobilizing levels of explanation

Articulation of levels	Articles %	Levels of explanation			
1 level	7,14	Individual 4 articles			
2 levels	30,36	Positional-individual 10 articles	Ideological-individual 4 articles	Interpersonal-individual 3 articles	
3 levels	48,21	Ideological-positional- individual 17 articles	Positional-interpersonal- individual 6 articles	Ideological-interpersonal- positional 2 articles	Ideological-interpersonal- individual 2 articles
4 levels	14,29	Ideological-positional-interpersonal-individual 8 articles			

Social influence models (Moscovici, 1976b)

Articles identified as using a *functionalist* model of social influence were those that saw social change (and activism) as asymmetrical: influence comes from higher levels (ideological level) to impact on lower ones (individual level). Articles using a *genetic* model of social influence considered social change as an inherently dynamic process where all levels of analysis are symmetrically powerful and capable of dynamic interactions.

43 articles were identified within a functionalist influence model - vs. 9 using a genetic influence model (see Table 4), illustrating the preference of social psychology for describing social influence aimed at conformity, even when the phenomena under scrutiny is social innovation.

Articles identified as using a *functionalist* model of social influence described this influence almost systematically (43 articles) as stemming from the highest (ideological and/or positional levels) to the lowest levels (individual level) (Table 4). These articles used ideological and/or positional variables to predict or explain individual commitment to activism (Carmona-Moya et al., 2019; Stern et al., 1999; Jia, et al., 2017). As an example, Stern et al. (1999) propose the ‘value belief norm’ (VBN) model to test how different

ideological variables (norms and values) are able to explain ecological self-reported behaviour (consumer behaviour, environmental citizenship and participation in protest). Other studies such as Jia et al. (2017) use questionnaires and semi-structured interviews to compare how moral values (ideological level) predict commitment (individual level) in a group of environmental activists vs non-environmental activists (positional level).

Articles identified as using a *genetic* model of social influence made use of at least three levels of analysis involving the influence of positional level (group, social identity, collective efficacy belief) on ideological level (social norms, ideologies, social representations) and the link with individual - or interpersonal levels. For example, drawing on multiple questionnaire studies from an U.S population Bashir et al. (2013) showed that activists' actions that are regarded as 'typical vs 'atypical' (positional level) influence the stereotypes associated with these activists (ideological level), thus reducing the adoption of environmental behaviours by the participants (individual level). Others such as Castro et al. (2016) illustrate how moderate activists (positional level) react in relation to more radical activists' views (positional level), and how the presentation of different activist profiles (positional level) influences the attribution of social stereotypes (ideological level) and social judgements (interpersonal level) to activists. To sum up, these articles go further than functionalist articles in how they describe environmental activism: as a dynamic and empowering process of social innovation in which low level (positional level) influences high level (ideological level) and their consequences on the lowest levels (interpersonal and individual levels).

A small number of articles could not be classified under either of the two models (4), because they only used individual level (Table 5), making it impossible to describe inter-level influence.

These results show how environmental activism is mainly portrayed in social psychology through a logic of conformity (influence of high level on low level of analysis) while a

smaller number of articles adopt a more complex ‘social innovation’ type of logic. In the next section, we propose a joint analysis of research goals, methods, theoretical frameworks and our two coding criteria: levels of analysis used and social influence model.

Table 4
Using levels of explanation according to models of influence

Models of Functionalist influence								
Articulation of levels	of	4 levels		3 levels			2 levels	
Number of articles		5		13		6	2	
Type of levels		Ideological => Positional => Interpersonal => Individual		Ideological => Positional => Individual		Positional => Interpersonal => Individual	Ideological => Interpersonal => Individual	
								10
								4
								3
								Interpersonal => Individual
Models of Genetic influence								
Articulation of levels	of	4 levels				3 levels		
Number of articles		3				4		2
Type of levels		Individual		Positional+Interpersonal => Individual		Ideological => Positional<=>Ideological=> Individual		Positional=> Ideological=> Interpersonal

Levels of analysis and models of influence: different frameworks and goals

Articles classified as using a functionalist or genetic model of social influence also differed in the way they framed their objectives. Those articles that adopted a functionalist model tended to use more quantitative data approaches (38 of the 43 articles classified as functionalist) and to focus mainly on predicting, or explaining activism commitment (motivation to join or stay in an activist group) or behaviour (organisation or participation in a protest, boycott, petition, etc.) (Table 6). The vast majority of those studies developed, tested or compared behaviour models in order to predict activism commitment. These models seek to identify and compare the social psychological drivers of activism: attitudes, gender, identification (e.g. Scopelliti et al., 2018; Schmitt, et al., 2019; Tindall et al., 2003; Bamberg et al., 2015). The social identity theory (SIT) is one of the models used to explain collective action (Schulte et al., 2020).

Other studies experimentally tested factors that either facilitate commitment to environmental activism: efficacy beliefs (Hamann et al., 2020), instrumental utility (Farrer, 2015), motivational interviewing (Tagkaloglou et al., 2018) or gender impressions (Geiger et al., 2020). Some of these studies endeavoured to better understand what exactly environmental activism is by developing environmental action scales (Alisat et al., 2015; Carmona-Moya et al., 2019). Fewer articles proposed the use of qualitative methods to better describe the motivations (Molinario et al., 2020) or moral values (Jia et al., 2017) sustaining activism commitment.

Finally, the articles coded as using a ‘genetic influence model’ expressed an interest in studying the social or societal consequences of activism (Table 7). In other words, they aimed at understanding how ‘activist groups’ (positional level) interact with other variables identified in other levels of analysis (individual, interpersonal and ideological levels). By

mainly resorting to quantitative methods (8 of the 9 articles identified as genetic model), these articles describe the impact of activist behaviours on stereotypes (Bashir et al., 2013; Stenhouse et al., 2019; Swim et al., 2019; Castro et al., 2016), social norms (Czopp, 2013; Steentjes et al., 2017) and collective efficacy beliefs (Sabherwal et al., 2021). Some of these studies use the social identity theory (SIT) through qualitative methods, to explore how inter-group conflict drives social change at different levels: ideological, positional and individual (Vestergren et al., 2018; Sabherwal et al., 2021). Finally, only one article used the social representations theory (SRT) to study the dissemination of activist ideas in society (Castro et al., 2016).

To summarise, articles adopting a functionalist model were seen to focus more on activism commitment and other associated behaviours; while articles using a genetic model seemed to pay more attention to the social consequences of environmental activism movements.

While the analysed articles used a wide variety of theoretical frameworks, the use of the social identity theory (SIT) stood out: 11 of the articles classified as functionalist (Table 6), and 3 identified as genetic used this theory (Table 7). While in functionalist models the SIT is used to predict activism commitment, in genetic models the SIT is mainly used to describe social change. These two ways of using the same theoretical framework can be seen as a result of the different epistemological orientations – North-American and European – that co-exist in social psychology. In a similar vein, the use of social representations theory (SRT) - developed and initially proposed with a similar constructivist approach as the SIT - to analyse collective struggle and social change (Elcheroth, Doise & Reicher, 2011), was used in just one article (Table 7) classified under the genetic model. Surprisingly, these two theoretically interlinked approaches appear to have been used in very different ways in articles published in indexed journals, even if social change is more clearly a central concern for the SRT than the SIT. The implications of these results are discussed in the next section.

Table 5
Characteristics of the classified references under any model

References	Theoretical framework	General objectives	Levels of explanation (Doise, 1982)
1. Gousse-Lessard et al. (2013)	Dualistic model of passion	Explore the link between passion and activism	1
2. Seguin et al. (1998)	Social cognitions	Explore individual factors that predicting activism	1
3. Marquart-Pyatt (2012)	Pathway model to environmental activism	Explain environmental activism	1
4. Matsuba et al. (2012)	Identity maturity and generativity	Explore the link between identity maturity, generativity and activism	1

Note. In the column Levels of explanation: "1"= Individual level

Table 6
Characteristics of the classified references under the functionalist model (Moscovici, 1976b)

References	Theoretical framework	General objectives	Levels of explanation (Doise, 1982)
1. Molinario et al. (2020)	Significance Quest Theory	Explore motivations to the activism commitment	4,3,1
2. Stern et al. (1999)	Value-belief-norm theory	Explain support for environmentalism	4, 1
3. Geiger et al. (2018)	Gender Role Congruity Theory+ Social value of attributes	Predict activism commitment	4,3,1
4. Scopelliti et al.(2018)	Motivation model of committed action for nature and biodiversity protection (Including social identity)	Explore motivations to the activism commitment	4,3,1
5. Alisat et al. (2015)	Environmental scale action	Measure level of collective engagement in environmental action	4,1
6. Fielding et al. (2008)	Theory of planed behaviour + Social identity	Understand the link between group identification and activist commitment	3,2,1
7. Jia et al. (2017)	Moral identity	Compare moral value between activist and non-activist	4,3,1
8. Pahl et al. (2005)	Comparative optimism + Risk perception	Understand the link between comparative optimism and environmental activity	4,3,2,1
9. Schmitt, et al. (2019)	Social identity	Predict activism commitment	3,1
10. Dono et al. (2010)	Social identity	Explore the link between activism, social identity and environmental activity	3,1
11. Chawla (1999)	Significant life experience	Explain the activist commitment with significant life experience	4,3,2,1
12. Hamann et al. (2020)	Goal efficacy belief	Explore the link between goal efficacy belief and pro-environmental behaviour	3,1
13. Renger et al. (2017)	Global identity, Equality based respect	Explore the link between global identity, equality-based respect and environmental activism	3,2,1
14. Schumpe et al. (2017)	Goal-systems theory	Reduce support for violent activism by providing alternative means	3,2,1
15. Schulte et al. (2020)	Social identity	Understand the link between social identity and activism commitment	3,1
16. Bamberg et al. (2015)	Social identity, subjective norms, group efficacy	Compare determinants of climate activism	3,2,1
17. Jiménez-Castillo et al. (2015)	Comparative optimism	Understand the moderate effect of optimism bias on environmental activism	2,1
18. Wallis et al. (2021)	Social identity, collective efficacy, personal norms	Identify drivers of environmental activism	3,2,1
19. Huebner et al. (1981)	Locus of control	Explore the link between locus of control, group membership and environmental activism	3,1
20. Carmona-Moya et al. (2019)	Environmental scale action	Measure level of collective engagement in environmental action	4,3, 1
21. Liu et al. (2018)	Collective interest	Develop a theoretical model to explain participation to an environmental social movement	3,1
22. Jasko et al. (2019)	Significance Quest Theory	Explain motivations to the activism commitment	4,1
23. Brunsting et al. (2002)	Social identity subjective norms, self-efficacy	Compare drivers of collective participation	4,3,2,1
24. Farrer (2016)	Instrumental utility	Understand the link between instrumental utility and activism	2,1
25. Gillham (2008)	Social movement theory	Compare cultural and individual variable to understand activism commitment	4,2,1
26. Sherkat et al. (1993)	Socialisation	Explore the link between activist socialisation and activism commitment	4,3,1
27. Tagkaloglou et al. (2016)	Motivational interviewing	Investigate motivational factors to activist commitment	2,1
28. Tam (2020)	Political opportunity structure	Investigate link between political context and motivational factor to activist commitment	4,1
29. Wright (2020)	Social identity, Cognitive alternative	Develop a scale that could predict environmental activism	4,3,1

Table 6
Characteristics of the classified references under the functionalist model (Moscovici, 1976b)

References	Theoretical framework	General objectives	Levels of explanation (Doise, 1982)
30. McFarlane et al. (2006)	Psychological and social cultural factors	Understand causal factors that influence activism commitment	4,3,1
31. Botetzagias et al. (2012)	Value, effectiveness perception, identity and network variables	Compare sociological and psychological variables to predict activism commitment	4,3,1
32. McFarlane et al. (2003)	Cognitive hierarchy model	Investigate a model based on psychological and sociological variable to predict activism commitment	4,3,1
33. Tindall et al. (2003)	Gender	Investigate gender difference in level of activism commitment	4,3,2,1
34. Mohai (1992)	Gender	Explore the gender impact in activism commitment	3,1
35. McCright et al. (2015)	Social movement identity	Compare 2 identification measures with environmental movement.	3,1
36. Tindall (2002)	Structure of egocentric network	Investigate causal influence of structure egocentric network on activism commitment	4,3,2,1
37. Lubell et al. (2006)	Collective interest model	Develop a behavioural model of collective action to explain activism commitment	4,3,1
38. Lubell (2002)	Collective interest model	Adapt the collective interest model to explain activist commitment	4,3,1
39. Roser-Renouf et al. (2014)	Social cognitive theory	Test a social cognitive model to predict activism commitment	4,2,1
40. Paço et al. (2016)	Perceive Environmental responsibility (PER)	Understand the relationship between PER and activism commitment	3,1
41. Alkahrer et al. (2018)	Social learning	Assess the impact of educational program on activism commitment	3,1
42. Gulliver et al. (2020)	Social identity descriptive norms	Test impact of images on social identity and descriptive norms to predict activism commitment	4,3,2,1
43. Drury et al. (2005)	Social identity Collective self-objectivation, empowerment	Explore the relationship between empowerment and collective self-objectivation in an activist group	3,2,1

Note. In the column Levels of explanation: "1"= Individual level, "2"=Interpersonal level, "3"= Positional level, "4"= Ideological level

Table 7
Characteristics of the classified references under the genetic model (Moscovici, 1976b)

References	Theoretical framework	General objectives	Levels of explanation (Doise, 1982)
1. Castro et al. (2016)	Social Representation, Rhetorical Approach, Argumentation Theory	Explore diffusion of stereotypes and ideas of environmental activists	4,3,2
2. Bashir et al. (2013)	Stereotypes	Understand social change resistance	4,3,1
3. Czopp (2013)	Social norms	Explore social consequences of failing to confront antienvironmental statements	4,3,2,1
4. Stenhouse et al. (2019)	Stereotypes	Explore impact of activist-stereotypes on their group-attraction	4,3, 1
5. Swim et al. (2019)	Social norms, stereotypes, self and collective efficacy	Investigate influence of climate march on ideological variables and on environmental activism	4,3,1
6. Steentjes et al. (2017)	Social norms	Investigate relationship between climate norms and interpersonal activism.	4,3,2
7. Vestergren et al. (2018)	Social identity	Investigate influence of group interaction on ideological, positional and individual variables	4,3,2,1
8. Stuart (2013)	Social identity	Explore identity conflict between an activist group and others social groups, and their consequences	4,3,2,1
9. Sabherwal et al. (2021)	Social identity	Investigate "Greta Thunberg" effect on activism commitment through social identity	4,3,1

Note. In the column Levels of explanation: "1"= Individual level, "2"=Interpersonal level, "3"= Positional level, "4"= Ideological level

Discussion

Scientific evidence urges us to undertake radical changes in our society in order to tackle the causes of climate change and avoid the worst consequences of this phenomenon (IPCC, 2018). Despite these needs for radical societal changes, social psychology has largely focused its research efforts on individual solutions to the problem (PEB) – even though theoretical tools for analysing ecological behaviours of different spheres are available (e.g. Stern, 2000).

A critical shift in the way that social psychology approaches social-environmental change is important. This is why this paper proposes to understand how activism, a pivotal action in the promotion of social change (Castro et al., 2016), has been studied by social psychology since 1981. To do so we systematically analysed 56 indexed empirical articles covering environmental activism within social psychology. These articles were then read with the objective of answering the following questions: (1) *how complex* does it suggest social movements to be? And (2) how does it *conceive* of possible social change? To answer the first question, we used the levels of analysis in psychology (Doise, 1982), and to answer the second, we used the implicit social influence models (Moscovici, 1976b).

Our results were similar to those of Tam et al. (2021) on social psychology research and climate change. Indeed, most research articles published on environmental activism are produced in the context of Western culture, where the general population is assessed via quantitative methods. Most of the published articles employed at least two levels of analysis and were identified as belonging to a *functionalist* model, i.e. a top-down and conformist view of environmental activism that proposes individuals as ‘followers’ rather than as influencers. This linear logic can also be illustrated through an analysis of the main objectives of these articles, which were to model commitment to environmental activism or activist behaviour and search for predictive variables. This focus on commitment seems to be used with other issues related to collective action such as political action (Moreira et al., 2018); animal

welfare action (Thomas et al., 2019) and anti-poverty action (Thomas et al., 2010). This analysis illustrates how this type of social psychology has framed environmental activism: a pivotal practice for ecological social change, mainly resulting from *individual* – rather than social – change.

A question of paradigm...

These results remind us of Doise's work on experimental psychology in Europe (1980). In this study, he demonstrated that social psychology generally draws on theoretical variables of ideological and positional levels to explain the change in variables at interpersonal and individual levels (Doise, 1980). These results lead us to similar conclusions when we show that 40 (out of 56) articles analysed environmental activism as a matter of individual behaviour – they used ideological and/or positional levels to explore change at *individual level*. The practical justification of the empirical studies presented by these articles was often to explain how to improve individual engagement with activism. This focus on an individual level – at the expense of an analysis of the social impact of activism, leads us to another question about the *specificity* of social psychology when compared to other research traditions in the social sciences.

Moscovici understood SR as a concept capable of “re-define[ing] the problems and concepts of social psychology” (Farr, 1984, p. 144). He understood social psychology as a social science through SRT, as an alternative to the behaviourist approach that considers social psychology to be a natural and *naturalising* science (Farr, 1984). In the context of the social psychology crisis, the availability of an alternative ‘sociological’ social psychology contributed to the splitting of social psychology into two, or more, social psychologies (Rijsman & Stroebe, 1989). This splitting has contributed to the differentiation of a social psychology that is rooted in positivistic paradigms, and which aims to search for the ‘truth’ by

rigorously applied methods; and another that is rooted in a constructivist view of social reality and science, which aims to reflect the truth by studying discourses embedded in social practices (Rijsman & Stroebe, 1989). According to its constructivist position, the specificity of social psychology is not the *explanation* but the *description* of social phenomena (Moscovici, 1989).

Our results illustrate how social psychology is deeply rooted in its positivist version - i.e. explaining why individuals become involved (or not) with activism. This positivistic and individualistic approach has been influenced by a research tradition that was paradigmatic in the twenties: social attitudes (Farr, 1984). The social attitudes concept has been questioned by the social psychology community concerning the limitation of reducing social reality to the tenuous link between attitudes and behaviours (Zanna et Rempel, 1988). Based on a more constructivist perspective, we endeavour through this analysis to situate the socio-ecological transition ahead of our societies in a more complex approach to environmental activism (Leroy et al?). We propose in the next section to look into the specificities of the research questions, tools and approaches used by social psychology to explore environmental activism.

...or a question of approach?

Sociology and political science approaches analyse the impacts of social movements as achievements or defeats within international or national institutions. On the other hand, the SRT is interested in describing how meaningful these impacts are: are they stringent enough to change group dynamics regarding climate change, and alter rules of place that shape human interactions (Canter, 2013)? The analysis of environmental movements through SRT calls for a longitudinal and cross sectional process (Breakwell & Canter, 1993), in particular through the study of communication and discourse (Marková, 2007; McKinlay et al., 1993). SRT is

particularly useful in the study of the “social transmission of ideas, and to the emotional and symbolic realms” (Joffe, 2003, p.68) and aims to understand “why and how society creates social representations, and the common sense that evolves from this” (Joffe, 2003, p.68).

SRT consider individual as a social subject anchored in a social context and active in the reconstruction and the production of social knowledge (Castro & Mouro, 2008). This agentivity at the heart of social representations can be studied through the triad ego-alter-object. This triad consider that the relationship between an *ego* (individual or social group) and an *alter* (an other individual or social group) generate tension on the social representations of an *object*. The analysis of the exchanges between these two entities (ego and alter) allows the description of social representations as a process, since these representations “sustain produce and transformate by daily communicative practices” (Jovchelovitch, 2004, p.246). In this sense, *minority* (cf environmental activist) and *majority* (cf *industrial*) are mutually interdependent and aim to influence each other – along with other groups – around the object of social change (cf *environmental issues*) (Marková, 2007). The perspective of each of the involved actors will be therefore influenced by their social position and their aim to maintain or change the social order in a given society (Staerklé et al., 2007).

Environmental activists inherently bring about conflict by their actions and ideas: they communicate novel arrangements around human-nature relations that are in contrast/conflict with older, institutionalised, and known ways of interacting with nature. By studying communication processes between different social groups we can identify different types of representations: hegemonic (which aim to consolidate social order), polemic (which aim to contestate social order) (Staerklé, 2015). A plurality of social representations are available for an individual and are ‘tuned in’ as a function of the *alter* that is mobilised (Laurens, 2016), underlying the importance of using a variety of methods to study them (Breakwell & Canter, 1993).

~~In a cross-sectional perspective~~ one of the main proposals of SRT is to understand how new knowledge gains meaning within different groups, at different times within particular cultures (Farr, 1984), where “a plurality of understandings and forms of organization of thought, all of them social, co-exist” (Moscovici, 1976a, p.40). By observing how activists who hold novel proposals for human – nature coexistence are able to create conflict with groups holding older ideas, we described how the coexistence between these two representations evolves within social discourse. It aims also at exploring how these social conflicts are interiorised by the significant practices of different individuals and social groups. This is why the social representations theory does not conceive of social change as being solely individual, group-related, societal or cultural for that matter: it is capable of analysing the dynamics between these levels. This approach aims to link “the individual world and the social world and to associate it with the perspective of a changing society” (Moscovici, 2003, p.99).

Social representations can also be studied through a temporal approach to environmental social changes (Castro & Mouro, 2011), which provides a meaningful example of how ideas that are inspired by novel knowledge, shared as abstract ideals (inspired by science or law) and promoted by particular social groups (e.g. environmental activists) question and update older representations (e.g. traditions and habits) (Castro & Batel, 2008). This model describes how environmental social issues often go through the following stages: (1) they *emerge* – often because of active minority movements; then (2) they are *institutionalised* – in the form of more or less stringent laws and regulations; and (3) are *generalised* – when they filter in and start influencing intergroup processes taking place in human vs environment situations. For this purpose, the SRT is one of the approaches that could support the analysis of the discourses and positions of social groups with regards to the ecological transition and how it evolves through the different phases of social change. Using a temporal approach to study

social change, we can interpret ‘activism’ as a means of raising public awareness of facts or situations that require societal change (Castro & Mouro, 2011).

In doing so we also take into account the social identity theory (SIT), an essential concept for understanding societal change (Schulte et al. 2020). It contains important ontological similarities with the SRT to the extent that it focuses on problems of power, social inequality and collective struggle (Elcheroth, Doise & Reicher, 2011).

Social identity and social representations as theories of social change.

In the same way as a theory of societal change (Schulte et al., 2020) the social identity theory is used both in articles identified as belonging to the functionalist model to predict or explain activism commitment and in articles identified as belonging to the genetic model to understand the social impact of activist groups (Table 6 and 7). Its importance to the field has been described in a recent meta-analysis that shows the SIT as a key concept linking environmental activism and societal transformations (Schulte et al., 2020). In the context of activism, the SIT endeavours to study how members of disadvantaged groups collectively cooperate to challenge the social system (Schulte et al., 2020). The analysis of social movements through the SIT resituates the link between individual and collective levels by describing personal interests as collective ones (Stekelenburg & Klandermans, 2010). Moreover, the SIT allows activist activities to be approached in terms of collective change strategies that are not only instrumental but also expressive of their group identities (Polletta & Jasper, 2001).

We think that better connecting the theoretical frameworks of social identity and social representation could be essential and complementary in the analysis of social change triggered by inter-group conflict (Elcheroth, Doise & Reicher, 2011). The main argument for this articulation is that our social groups are part and parcel of how we represent our social

realities: social groups “constitute an organizing principle for the process of representation in general” (Elcheroth, Doise & Reicher, 2011, p.735). On the other hand, the identification with one social group or another also depends on how this group is socially represented. Under these two theoretical approaches we could, for instance, analyse how meta-representations - beliefs about how other groups represent a given object - shape the forming of social representations associated with ecological transition (Elcheroth, Doise & Reicher, 2011). While social representations can be considered to be a theory of social conflict (Elcheroth, Doise & Reicher, 2011), not studying this conflict from a social identity perspective could miss the essential point of how intergroup relations impact social change.

Agenda for Future Research.

This article attempts to contribute to societal psychology by defining how societal change is sustained, understood, and resisted (Howarth et al., 2013). The results of this review suggest that future research should, as far as possible, favour the development of approaches inspired by the genetic model. This raises new research questions around how the ideas shared by activist groups are disseminated and how these ideas challenge – or end up reproducing – a dominant social order. The development of these novel research approaches would help to provide a more precise description of different social movements. For instance, the ideological implications of activist movements such as Extinction Rebellion are not the same as those of environmental movements of the 1970’s. We believe it is important to overcome what we call “collective action” in order to question more precisely what the specificities of different activist movements are. Inspired by historical and political sciences, a more sociological social psychology should favour the analysis of how social movements and ideas evolve, by taking into account underlying social identities and shared social representations.

Such an endeavour will contribute to a social psychology that is better equipped to contribute to the study of collective changes in human-environment relations.

Social change can be studied through the communication between actors holding different social positions (minority vs. majority) so as to understand how discourse influences and is influenced by their social position (Billig et al. 1991). In this view, social psychologists would analyse attitudes not as the inference of an individual mental state, but as the discourse that reflects at the same time personal and social meanings (Billig et al. 1991). This is why the analysis of ambiguity and paradoxes within common sense is a means to bring argumentative process to light (Billig et al. 1991). Communication process of SR can be studied by different strategies. At a macro-social level we can study the evolution of environmental activism through media analysis to understand how it influence societal debate about ecological transition (Jaspal & Nerlich, 2013) and their temporal evolution (Lelaurain et al., 2021). At an inter-personal level, organizing focus group with groups that have different social positions (cf. activists vs. industrial) is another strategy. This type of groupal situation allow to see how different communication practices (argumentative, dialogue...), shape social representations (Jovchelovitch, 2004). And through experimental methods we can also understand and illustrate the impact of communication strategies at ego-alter dynamics that are implicit – for example, Castro et al. (2016) description of how environmental activists' behaviour influence their social evaluation seem important. But we can go further by also understanding how the discourse (radical or moderate) can play a role in how they are perceived.

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