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Exploring Participant-Generated Examples of Social Change: A Two-Stage, Mixed Methods, Delphi Study

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ABSTRACT

Many of the critical challenges facing our world, especially concerning the climate and ecological emergencies, require social change. Community psychology has a longstanding relationship with social change, but our focus on it, frameworks around it, and ability to bring it about varies. This two-stage, mixed methods, Delphi study explores participant-generated examples of and responses to social change to help refocus our praxis at this time. The study gathered both participant-generated examples of social change (Stage 1, $n = 190$) and ratings of them (Stage 2, $n = 232$) in terms of significance and valence. A thematic analysis of the 52 examples from Stage 1 produced four themes: (i) Legal protections, rights and equality; (ii) technological impacts; (iii) global and domestic political events and governance; and (iv) societal beliefs and behaviour. In Stage 2, all 52 examples were viewed by participants as being significant. While most were viewed as positive, eight were neutral and six were negative. Meaningful differences were found between average scores across themes in terms of significance and valence. The discussion highlights the broad range of social changes, and their significance and valence variations. It then explores how these findings might build the potential contribution of community psychology in the arena of progressive social change against a global backdrop that needs such changes more than ever.

1 | Introduction

Through journeys of debate and exploration, community psychologists now share deeper, more nuanced understandings of terms that are important to the field like empowerment and prevention. These frameworks—which continue to evolve—inform the work we do, the results we achieve and the struggles we continue to face. This paper seeks to begin a similar journey of deepening engagement with the term social change.

Many suggest that the world needs more social change. This paper explores whether there is more that community psychology could learn about the term to help make future social changes more likely. For example, when we discuss social change, are we always talking about the same thing? Are there different clusters and types of social change? Could a deeper, more nuanced understanding of the term be useful to help galvanise more action? This study seeks to go beyond orientating, umbrella definitions of social change and instead explore participant-generated examples to see if there are frameworks that might advance our understanding, direct new research, and inform future interventions.

The introduction begins by outlining the term and its varying positions within community psychologies around the world. Then it outlines a recent rise in social change research in mainstream psychology. Next, it highlights why we urgently require social change: Namely, the climate and ecological emergencies, before outlining the current research.

1.1 | Community Psychology and Social Change

In the Encyclopaedia of Critical Psychology, Durrheim (2014) defines social change as 'an alteration in social structure, which encompasses the institutions, values, and routines of practice and thinking in that society' (p. 1767; see Kagan et al. 2011, p. 280 for a related definition). In addition, Durrheim notes that, while social change has been less important to mainstream psychology, it is more of a concern to fields such as community psychology. At the same time, community psychologies vary around the world: Changing across location and over time. Indeed, as we explore below, one of the ways community psychologies can vary is in relation to social change.

In the last chapter of Reich et al.'s (2007) edited volume on International Community Psychology, the four editors of the book define community psychology as 'research and action for social change that is focused on the prevention of human suffering, the reduction of oppression, and the promotion of individual, relational, and societal well-being' (p. 433). It is interesting to note the prominence of social change in this definition. At the time of writing the book and chapter, three of the four editors were based at universities in the USA. However, in the chapter specifically focused on the US context, the positioning of social change varies. Angelique and Culley (2007) write: 'we define community psychology as a field that engages in research and action to promote individual, relational, and societal well-being while working to reduce suffering and oppression. Community psychology values (a) diversity, (b) ecological analyses, (c) a critical perspective, (d) methodological pluralism, (e) interdisciplinary collaboration, and (f) social change.' (p. 37/38). Here, social change is still a value of community psychology, but not as prominently positioned as in the definition from Reich and colleagues. Such variation in prominence suggests the potential for differences in emphasis on social change even for authors writing from similar locations, in the same text, at the same time.

Variations in the focus on social change are understandable. As Reich et al. (2017), have more recently noted, globally the development of community psychology has frequently, although not always, come from tensions within clinical psychology. As community psychology can often evolve from more individually focused work, the shift from an initial focus on community mental health generally to social change more broadly appears understandable (Angelique and Culley 2007). Of course, different geographic areas and different practitioners are in different places on that journey. For example, social change has arguably always been baked into the DNA of the community and liberation psychologies in Latin America. Here social change has been described as central since the 1980s (Martín-Baró 1996; Montero and Díaz 2007; see also Durrheim 2014). In contrast, community psychologists in other geographic areas (e.g., Hong Kong) have reflected that many still focus on more clinically-oriented outcomes, that is, community mental health, rather than social change (see Cheng and Mak 2007).

The authors of the present study are based in the UK, a location where the field of community psychology has long been described as 'relatively underdeveloped' (Burton et al. 2007, 220; see also Burton & Kagan 2002; Thompson et al. 2022). And yet, social change, along with social justice, is still cited as a pursuit of the field (e.g., Orford 2008). Indeed, our geographically local community psychology textbook, has social change written into its title (i.e., 'Critical Community Psychology: Critical Action and Social Change'; Kagan et al. 2011, 2020). However, it seems possible to suggest that there might be a tension between on the one hand our desire and aspiration for social change and, on the other, our scope and ability to bring it about.

This tension is not new, nor limited to the UK. In the US, it has been noted: 'Forty years after the founding of community psychology, we have yet to deliver on the full promissory note of our birth, where we were poised to address social problems, social settings, and social change. Despite some success, we are at risk for selling ourselves short' (Weinstein 2006, p. 6). Even Latin American community psychologists have called on the field to deepen relevant research and action, suggesting 'if one wants to promote social change, one has to develop modes of doing so' (Montero and Díaz 2007, p. 67). In short, multiple community psychologists in different parts of the world, highlight the importance of and aspiration for social change, but also possible shortcomings in achieving it. Perhaps to bring about social change, we need to deepen our understanding of it.

1.2 | Mainstream Psychology and Social Change

It must also be noted that research into social change is not the preserve of community psychology alone. Within mainstream psychology, work has been developing in the study of rapid or dramatic social changes (de la Sablonnière 2017; de la Sablonnière et al. 2013, 2019). As part of this, de la Sablonnière (2017) sought to expand the mainstream psychological understanding of social change by carrying out a large-scale meta-literature review. The team arrived at a four-factor typology categorising social changes in terms of their potential threat to psychological well-being. The final four factors were (i) stability, (ii) inertia, (iii) incremental social change and (iv) dramatic social change. Moreover, there has been a recent special issue of Current Opinions in Psychology (October 2020) titled: 'Social Change (Rallies, Riots and Revolutions)', edited by Seamus Power (see also Greenfield 2016). It seems more social change research is now happening in mainstream psychology, and yet, echoing Durrheim from earlier, even these researchers note that 'the psychology of social change is still in its mainstream psychology infancy' (de la Sablonnière et al. 2019, p. 181).

1.3 | Global Challenges Facing Planet and Population

Perhaps one of the reasons for a recent uptick in social change research is the extent of the challenges facing the planet and its population and the necessity of urgent changes to meet them. Arguably, there is no greater challenge than the climate and ecological emergencies (CEEs). Looking at the specifics of limiting global warming to 1.5°C, the 2018 Intergovernmental Panel on Climate Change spoke of the necessity for '...rapid and far-reaching transitions' in the way we live our lives (IPCC 2018,

p. 15). They added that the level of transitions needed is unprecedented. More recently, a UN emissions gap report (United Nations Environment Programme 2022) was titled: 'the closing window', reminding us of the inadequate level of change thus far, while calling again for 'the rapid transformation of societies' (p. xvi). These desperately needed transitions and transformations are social change.

Over recent years, the board of the 'Bulletin of the Atomic Scientists' has moved its Doomsday Clock ever closer to midnight—from 5 min to midnight in 2012, to just 89 s in 2025 (Bulletin of the Atomic Scientists 2025a, 2025b). This is the closest the clock has been set to midnight since its inception in 1947. The board consistently cites the threats of climate change and nuclear weapons (Bulletin of the Atomic Scientists 2025a, 2025b). While climate change and the threat of war may seem like separate, unconnected challenges, multiple researchers have started using the term 'polycrisis' to describe the multiple, large, interconnected web of challenges we all face (see Heinberg 2024; Lawrence 2024; Lawrence et al. 2022).

In a similar way, some researchers now use the term 'overshoot'. This term highlights how, led by assumptions of continuous economic growth, societies are consuming resources at a much faster rate than the earth can cope with (Rees 2023; Rees and Wackernagel 2023). As a result, our combined ecological footprint is far beyond the Earth's carrying capacity and climate change is only one of many symptoms of overshoot. Other symptoms include: pollution, biodiversity degradation and loss, resource depletion and pandemics. As such, whereas the term 'polycrisis' simply identifies possible interconnections between challenges, 'overshoot' highlights the cause: modern techno-industrial society.

While multiple community psychologists note the field's delayed attention to the CEEs, increasing numbers of outputs are now being produced (e.g., Fedi 2023; Fernandes-Jesus et al. 2020; Riemer and Harré 2017; Riemer and Reich 2011). In an echo of highlighting components of the polycrisis and symptoms of overshoot, a recent community psychology study brought together examples of both environmental and wider social challenges, in part to highlight the web of linkages between many of them (Thompson et al. 2023). Equally, the recently published 'International Handbook of Community Psychology' (Kagan et al. 2022) notes that the challenges we face are: (i) economic, (ii) sociocultural, (iii) conflict focused, (iv) political and 'perhaps most importantly, as it threatens the very future of the planet' (p. 2) (v) ecological, environmental and energy based.

Some may suggest that a focus on these broader societal issues, and social change, is mainly a concern for more critical community (Evans et al. 2017) or liberation-focused (Martín-Baró 1996; Montero and Díaz 2007) psychology. If so, two points are worth noting. Firstly, these broader challenges will affect the poorest and most marginalised most quickly and most severely. Secondly, as noted earlier, social change is something many in the wider field of community psychology aspire to bring about. But, the question remains, how do we better achieve this aspiration?

1.4 | Moving Towards the Research

As discussed above, while general definitions of social change are important, others have noted the need for deeper levels of understanding—better frameworks, modes and theories—to help us make more successful contributions to achieving social change. Indeed, if we look at the history of community psychology (and other fields), as we have deepened our level of understanding of key terms, it has helped us develop. Examples of this include (i) empowerment and prevention (Rappaport 1981); (ii) expanding levels of prevention (primary, secondary and tertiary); (iii) different types and forms of change (e.g., ameliorative and transformative—see Riemer et al. 2020). Such frameworks continue to develop, so now we also talk about the risks of co-optation alongside amelioration and transformation (Prilleltensky 2014). In this way, this paper seeks deepen our understanding of social change, in the hope that it provides us with a greater ability to address the gaps between our aspirations and action—or, at least, provide a greater understanding of why we keep falling short.

Embracing community psychology values, the current research seeks to be directed by participant knowledge, rather than researcher knowledge (see Churchman et al. 2017) and explore participant-generated examples of social change. In short, the research asks:

1. What do participants feel are significant examples of social change?
2. How do participants feel towards these examples, in terms of positive or negative responses?

Of course, one paper can only be the start of a deeper conversation around social change; however, we hope the results of this study will highlight future directions of travel which may eventually contribute to more real-world change. In terms of this study, the outcome is likely to involve an expanded framework with which we can discuss what social changes are and how they vary. This is one small step. But we hope it may be part of a longer, productive journey that eventually provides us with better tools to contribute to positive social change, both now and in the future.

2 | Methods

2.1 | Overview

To explore the above research questions, we conducted a Delphi study (see Hasson et al. 2000; Hirschhorn 2018) using mixed methods approaches (see Campbell et al. 2017). Like the nominal group technique (NGT), Delphi is a consensus methodology (Waggoner et al. 2016). In this context, consensus simply means moving towards an answer or set of answers provided by the participants at the time they were asked. In Delphi, participants first contribute their knowledge about the issue at hand and later rate the pooled knowledge of all participants. In some ways, Delphi research can be thought of as the creation of a questionnaire, where the researchers rely on their participants to first create and then rate relevant questionnaire items.

While the NGT tends to take place face to face, Delphi research can embrace a geographically diverse sample of participants by using online platforms. As participants take part individually, Delphi may be less influenced by group influence which some argue can bias responding (Smithson 2000).

More specifically, and adopting Delphi terminology, Delphi research typically involves a series of stages. In Stage 1, participants (sometimes known as 'experts') independently contribute information they deem pertinent to a research question. The researchers collect and edit down the responses into a series of representative statements. In Stage 2, these statements are then returned to the original and/or other participants to be rated again in a questionnaire format. The mean scores of statements give an indication of consensus. Consensus is simply inferred from the items which score higher. Depending on study need, further stages of rating can take place (stages three and beyond). This tends to happen only if researchers are looking for a final set of statements containing a smaller number of items. To aid later stages, statements can be accompanied by the mean ratings from previous rounds (although, arguably, this reintroduces elements of group influence).

In his review of Delphi research, Thompson (2009) noted that there is considerable variation in terms of how the methodology is applied in the literature, and suggested researchers describe the specifics of their study so it can be judged on its own merits. As such, this study involved two stages (see Figure 1). In Stage 1, participants were asked to provide examples of what they felt to be significant examples of social change (more details below). In Stage 2, participants were asked to rate the consolidated examples from Stage 1 twice. Once, in terms of the degree to which participants felt the example was a significant social change (significance: five-point scale, strongly agree to strongly disagree). And, a second time, in terms of the degree to which they felt the example was positive, neutral or negative (valence: five-point scale, highly positive to highly negative). No further stages of rating were used (Stages 3 and beyond), as we did not seek to unnecessarily reduce the initial set of items to a smaller set of examples.

While many Delphi studies draw upon the knowledge of very specific expert groups, 'experts' just refers to individuals who hold relevant knowledge and experience. As this study wanted to gather a wide range of possible social changes, it sought varied participants, including members of the public, university students and staff (participants characteristics are described in more detail below).

All stages of the study were approved by the ethics committee at the lead author's institution. All data collection took place online using the website Qualtrics. For data collection at both stages, potential participants were asked to study a brief information sheet and then indicate that they consented to take part. Participants were able to withdraw their participation and data without penalty. No questions were mandatory. Only general demographic information was collected.

3 | Stage 1

As noted above, Stage 1 involved gathering examples of social change from participants and consolidating those data down to representative statements. In many Delphi studies, the end result of Stage 1 is simply the statements to be rated in Stage 2. However, we also present a more formal qualitative analysis of the examples of social change to both: (1) situate the individual examples within a thematic structure and (2) establish categories to test for statistically significant differences in Stage 2.

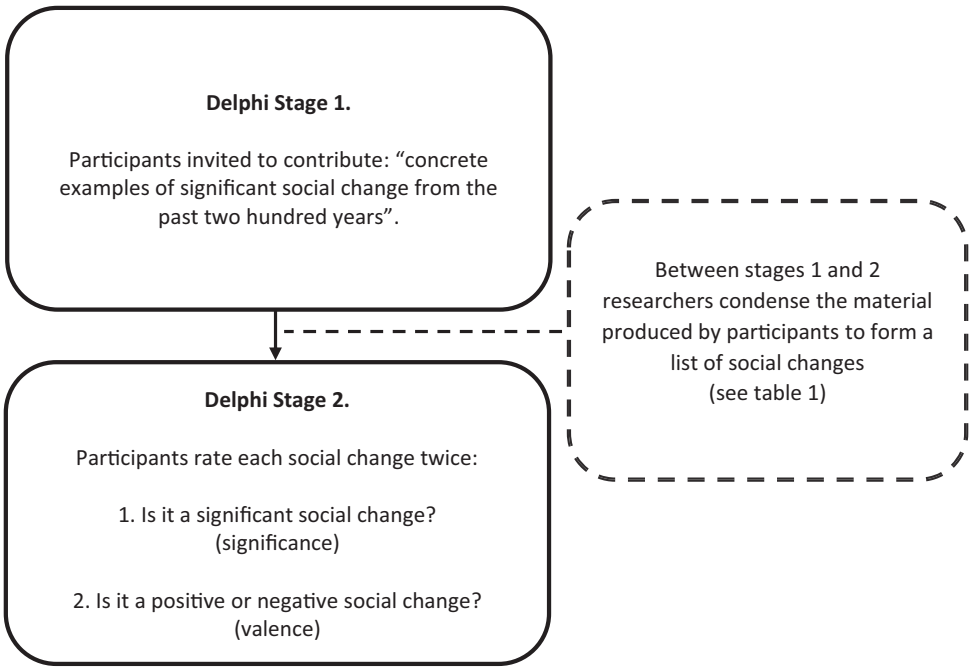

FIGURE 1 | Diagrammatic overview of the study.

3.1 | Stage 1 Procedure

Participants were recruited through social media and/or through invitations sent to UK university departments requesting a web link be distributed to both students and staff. All participants also had the opportunity to forward the study link to others they felt might be interested.

Participants were asked to list 'as many concrete examples of significant social change from the past two hundred years' as they could think of. Explicitly, participants were told that for the purposes of this study: Social change, refers to a significant change in the behaviour, customs or cultures of a society. We chose a time frame of the past 200 years to roughly coincide with a period that includes the industrial revolution, but note that future research could make other choices. 'Concrete examples', aimed to direct participants to specific events, rather than the names of movements. So, for example: 'the abolition of slavery', or the '1960s civil rights movement in the USA' rather than moves towards racial equality more generally. This was simply to maximise the number of specific social changes participants offered and the number of different items returned in Stage 2. Significant, simply meant 'worthy of attention in your opinion'. Participants were also told: 'importantly, for the purposes of this research we encourage you to list examples of social change you feel to be positive, negative or neutral. We are interested in any and all examples of social change that you feel meet the definition above'.

To reduce the raw data down into representative statements for Stage 2 and arrange a wider thematic structure around it, we used an adapted form of thematic analysis (TA). TA, as originally described, has flexibility in terms of approach, theory and epistemology (see Braun and Clarke 2006). It involves 'searching across a data set... to find repeated patterns of meaning (p. 86)'. Although this data set involves more participants providing thinner data than traditional qualitative studies, we still were guided by the six phases of TA, as outlined by Braun and Clarke. Namely: (1) transcribing the data set (not needed as participants typed in their own data), (2) familiarising oneself with the data set, (3) initial coding, (4) searching for themes, (5) reviewing and refining themes and (6) reporting the analysis. Multiple authors on this paper contributed to the TA but it was led by and finalised by two authors (M.T. and B.R.). Agreement on the final theme structure was reached through different authors working individually on and then sharing possible, plausible item titles and thematic structures. Items/themes which did not fit, or points of disagreement led to further discussion and refinements or revisions to the item and theme structures. The final proposed item and theme structure were shared with other authors for comment and consolidation. Despite this involved process, we acknowledge that other research teams could produce other equally plausible structures from the raw data.

3.2 | Stage 1 Participants

In total, 190 participants provided at least one self-generated example of a social change in response to the prompts outlined above. The mean participant age was 31 years (SD = 13.9). Sixty-four percent of the sample was female ($n = 121$); 36% male ($n = 69$). Information related to further demographic categories is reported if more than 5% of participants fall into that category. In terms of normal geographic location, 74% of participants normally live in the UK, 14% from North America and 7% from Europe other than the UK. Regarding ethnicity, 82% of the sample described themselves as White, and 7% as Asian. In terms of employment, 57% were students and 38% described being employed or self-employed. Finally, in terms of the highest level of completed education, 43% had a qualification up to A-level (or equivalent), 22% an undergraduate degree, 24% a postgraduate degree and 7% a PhD or other doctorate.

4 | Stage 1 Results

Of the 190 participants, the amount of material varied considerably. On average, participants offered a mean of 5.3 examples of social change (median $n = 5$; range 1–20). Across the 190 participants, 1471 separate, but not unique, instances of social change were offered. This material was reduced to 52 individual social change statements (see Table 1 and Stage 2).

In Delphi studies, there is the potential of returning back every possible example to be rated by participants. This can potentially result in participant fatigue and poorer quality data. As a result, examples of social change which were suggested by fewer than eight participants were not presented back to participants in Stage 2. The threshold of 8, resulting in 52 examples, was agreed by the authors of study having examined the data and seeking to find a balance between the large number of social change examples that could be presented back in Stage 2, which then need to be rated twice, and the risk of participant fatigue.

The final draft list was prepared and the views of external advisors not directly associated with the data analysis were sought. Edits and comments to improve sense and meaning were incorporated, paying careful attention not to move away from the original meaning of the participant data provided during Stage 1. The final list of statements (see Table 1) was presented to participants in Stage 2.

4.1 | Stage 1 Themes

Delphi research often does not include any formal broader TA, just a reduction of initial material down to individual statements. However, to provide a thematic clustering of the social change examples, which we utilise in Stage 2, we describe below in more detail the thematic structure above. We see each of the statements sitting within one of four overarching themes (see Table 1). Specifically, (1) legal protections, rights, and equality (LPRE), (2) technological impacts (TI), (3) global and domestic political events and governance (GDPG) and (4) societal beliefs and behaviour (SBB).

TABLE 1 | Statements from Stage 1 arranged in overarching and subtheme categories, displayed in descending order of mentions (most mentioned first).

Overarching theme	Subtheme	Statement
Legal protections, rights and equality (LPRE; avg. mentions 19, 22 statements)	Sexual (and gender) equality (27am, 4 s)	The legalisation of same sex marriage (67)
		Decriminalisation of same sex relationships (21)
		More acceptance of people who are lesbian, gay or bisexual (10)
		More rights for people who are lesbian, gay, bisexual and/or transsexual (10)
	Gender equality and female rights (23am, 5 s)	Women gaining the right to vote (74)
		Increasing numbers of women in paid employment (12)
		Moves towards equal pay between men and women, such as equal pay laws (12)
		The legalisation of abortion (10)
		Moves towards equal rights for women (9)
	Racial equality (18am, 5 s)	The abolition of slavery (44)
		The civil rights movement in the USA in the 1960s (17)
		The end of apartheid in South Africa (13)
		Moves towards equal rights for people who are from black and other ethnic minority groups (10)
		Inter-racial marriages made legal and more accepted within societies, such as USA (8)
	Public provision and the welfare state (13am, 3 s)	The creation of the National Health Service (NHS) in the UK (19)
		The establishment of the welfare state (11)
		Free access to education for all children (10)
	Wider environmental issues (14am, 1 s)	Increasing awareness of environment issues, such as climate change (14)
	Workers' rights and unionisation (11am, 2 s)	Increasing rights and protections in the workplace, through trade unions and law (11)
		Making child labour illegal (11)
	Social equality (11am, 2 s)	The introduction of anti-discrimination laws, such as the Equality Act 2010 (UK) (11)
		The right of all people to vote, irrespective of gender or property ownership (10)
Technological impacts (T; avg mentions 12, 11 statements)	Electrical products (15am, 1 s)	Electrical products, such as TVs, computers and phones becoming an common part of everyday life (15)
	Medical advances (14am, 2 s)	Discoveries and advances in the field of medicine (14)
		The invention and availability of contraception, such as the pill (13)
	Information technology (11am, 4 s)	The invention and increasing use of social media (17)
		The impact of computer, internet and mobile technology on social communication (10)
		The invention of the internet (9)

(Continues)

TABLE 1 | (Continued)

Overarching theme	Subtheme	Statement
		The widespread use and influence of the internet (9)
	Transport changes (11am, 3 s)	The increased ease of global travel for many (15)
		The common use of cars in daily life (10)
		The introduction of the railways (8)
	Industrial changes (11am, 1 s)	The industrial revolution (11)
Global and domestic political events and governance (GDPG; avg mentions 11, 13 statements)	Movement of people (14am, 1 s)	Increasing levels of migration around the world (14)
	Relationships between countries (14am, 3 s)	The UK voting to leave the European Union (Brexit) (20)
		The decline of influence of the British Empire and the independence of ex-colonies (15)
		The founding of the European Union (8)
	War and terrorism (11am, 3 s)	The events and consequences of '9/11' (11)
		World War 2 and its aftermath (11)
		World War 1 and its aftermath (10)
	Wider political systems (11am 2 s)	The rise of current models of capitalism, such as neoliberalism (11)
		The impact of globalisation (10)
	Political events (9am, 2 s)	Events around the collapse of the Berlin Wall and reunification of Germany (9)
		The consequences of the global financial crisis (2007/2009) (8)
	Political figures (9am, 2 s)	The election of Donald Trump in the USA (9)
		The election of Barack Obama, the first black president of the USA (8)
Societal beliefs and behaviour (SBB; avg mentions 10, 6 statements)	Religious life (13am, 1 s)	Decline in religious belief in the West (13)
	Community (9am, 2 s)	Less cohesive communities, for example less familiarity with neighbours (10)
		An increase in multiculturalism within societies (8)
	Education (10am, 1 s)	More people attending continued education, such as colleges and universities (10)
	Mental health (8am, 1 s)	Increasing understanding and awareness of mental health issues (8)
	Consuming (8am, 1 s)	Legalisation of particular drugs in areas of the USA, such as cannabis (8)

Abbreviations: avg. mentions/am, average number of mentions; statements/s, number of statements in theme or subtheme.

Overall, these themes seem to capture the varied nature of social change. Some social changes represent specific events or technological advances. Others reveal shifts in values and beliefs resulting in the evolution of the legal fabric and functioning of societies. Of course, it is important to note that these theme structures are inter-related and certain examples could fit in more than one theme. While we hope the titles are relatively self-explanatory, in terms of brief explanation.

4.1.1 | Legal protections, rights, and equality (LPRE)

The LPRE theme contains examples of social change that appear to track processes towards equality and equity within society. Here, specific legislation, both creation and abolition, provides evidence of increasing equality and equity. Subthemes indicate multiple areas of focus including gender, sex, sexuality, race and wider social parity. In addition, LPRE includes aspects of the welfare state and the laws associated with them that

develop societal protections (e.g., making child labour illegal) and support (e.g., free access to education). The social changes identified here seem to represent shifts towards increasing equality and equity for members of society.

4.1.2 | Technological impacts (TI)

The TI theme represents social change in terms of the advent and widespread adoption of technologies. The technologies typically relate to specific medical, transport or information technologies, particularly, computers and the internet, although the industrial revolution is also acknowledged. The theme captures a sense that technological advances have impacted on and become part of everyday life, changing how we navigate and interact with our world and each other.

4.1.3 | Global and domestic political events and governance (GDPG)

The GDPG theme refers to broader political social changes that tend to impact more widely than the individual or group alone. Social changes in this theme often refers to relationships between countries, including wars and acts of terrorism or noteworthy political events such as those involving important political figures (e.g., the elections of Presidents Obama and Trump). Social changes related to wider economic conditions such as capitalism, globalisation and neoliberalism are also included under this theme.

4.1.4 | Societal beliefs and behaviour (SBB)

The SBB theme captures social changes in mainstream thinking and behaving at societal or community level. This includes changes in thinking and behaviour related to both belief (e.g., decline in religious belief) and awareness of specific issues (e.g., mental health). In contrast to the governing-focused changes of LPRE, SBB focuses more on changes in belief at a group level. SBB potentially provides insight into how communities and their comprising individuals have changed, incorporating elements of both expansion (e.g., multi-culturalism) and contraction (e.g., less community cohesion).

5 | Stage 2

Stage 2 gathered participant views on each of the 52 examples of social change from Stage 1. Participants rated each example in terms of both its significance ('is this a significant example of social change?') and valence ('is this a positive or negative example of social change?').

5.1 | Stage 2 Materials

The 52 examples of social change generated in Stage 1 were rated on two variables: (1) significance; whether participants felt it was a significant social change (strongly agree to strongly disagree), (2) valence; whether participants perceived the social change as positive, neutral, or negative (highly positive to highly negative). Participants rated both variables on five-point Likert scales. For the purposes of analysis and interpretation, rating data are centred around zero. Consequently, significance ratings range from 2 (strongly agree) to −2 (strongly disagree); valence ratings range from 2 (highly positive) to −2 (highly negative).

5.2 | Stage 2 Procedure

Participants provided informed consent and demographic information before viewing and rating the examples of social change online via Qualtrics.

5.3 | Stage 2 Participants

In total, 232 participants comprised the final sample for Stage 2. This consisted of participants recruited through email contacts provided during the first stage of the study ($n = 25$) and additional participants recruited from the general population and a university participant pool ($n = 207$). The additional participants were included to provide a larger sample size to explore consensus of ratings.

The mean participant age was 29 years (SD = 14.8). Sixty-nine percent of the sample was female ($n = 160$); 31% were male ($n = 71$); and one participant was non-binary. Information related to further demographic categories is reported if more than 5% of participants fall into that category. The majority of the sample were UK-based (96%), White (88%), and were either a student (61%) or in employment (33%)—7% within an academic setting. In terms of the highest level of completed education, 63% had a qualification up to A-level, 22% an undergraduate degree, and 10% had obtained a postgraduate degree.

5.4 | Stage 2 Analytic Strategy

The analytic strategy contains two planned steps and one additional exploratory set of analyses. First, examples of social change were compared in terms of their significance and valence ratings. Descriptive statistics were calculated, and examples ranked. Second, repeated-measures ANOVA was used to assess group differences in mean ratings based on thematic categories from Stage 1 (Table 1) and post hoc comparisons were conducted using a Šidák adjustment. In terms of test assumptions: (i) The sample size was sufficient to determine fulfilment of the assumption of normality according to Central Limit Theorem; and (ii) Mauchly's test was consulted to assess the assumption of sphericity with Greenhouse-Geisser adjustment employed where the assumption was violated. Pearson's correlations also evaluated associations between mean ratings and their standard deviations for both significance and valence.

Finally, as research has suggested differences in progressive attitudes between gender (see Langsæther and Knutsen 2024), we provide a supplementary, exploratory analysis of potential

sex differences. A series of independent *t*-tests were conducted to analyse differences in mean significance and valence ratings between females and males. Levene's tests were consulted regarding homogeneity of variances; the subsequent results report where adjustments were applied due to equal variances not being assumed. Two-tailed *p* values were used due to the exploratory nature of these analyses. In addition, we applied a Šidák adjustment to threshold for significance due to the multiple tests of sex differences in ratings of both significance and valence, respectively (adjusted $\alpha < 0.013$).

6 | Stage 2 Results

6.1 | Descriptive Statistics

Across all 52 items, ratings indicated that participants considered the average social change example to be both significant ($M = 1.36$; $SD = 0.81$) and positive ($M = 0.88$, $SD = 1.23$; see Table 2). Subsequent consideration of these results is stratified by significance and valence ratings.

6.2 | Significance Ratings

In Table 2, the social change examples are ranked in terms of mean significance ratings, from 1 (highest scoring in terms of significance) to 52 (lowest scoring in terms of significance). Table 2 illustrates that the top-ranked examples relate to equality in legal (e.g., women gaining the right to vote) and human rights (e.g., abolition of slavery), as well as societal structures representing such equality (e.g., access to healthcare through the NHS and access to education). Some examples of technological advancements, such as the invention of the internet and medical innovations, also ranked highly; however, technology innovation more typically featured within the mid-ranking examples. The lower-rated social change examples typically featured political and global events, such as war, terrorism (e.g., 9/11) and politics (e.g., Brexit), as well as societal beliefs (e.g., decline in religious behaviour) and community behaviour (e.g., less cohesive communities).

In terms of themes, the thematic category of LPRE dominates the top rankings; TI features consistently in the mid-rankings; and the lowest rankings are GDPG and SBB. ANOVA demonstrates that the thematic groups statistically differed in terms of average rating of significance, $F(2.79, 644.98) = 148.55$, $p < 0.001$, partial $\eta^2 = 0.39$—see Table 3.

Post hoc comparisons with a šidák adjustment demonstrated that LPRE examples were, compared to all other groups, rated the most significant examples of social change, all *ps* < 0.001. TI examples were considered more significant examples of change than GDPG and SBB, but less significant than LPRE, all *ps* < 0.001. Finally, GDPG and SBB examples did not differ in terms of statistical significance ratings, $p = 0.902$.

Mean significance ratings were strongly negatively correlated with their equivalent standard deviations, $r(50) = -0.79$, $p < 0.001$. This suggests that the social change examples receiving the highest mean significance rating had the lowest standard deviations. In other words, there were more consistent ratings from participants on high mean items. For example, the highest-ranking social change example in terms of significance (i.e., women gaining the right to vote) also scored the lowest standard deviation; whereas the example with the highest standard deviation (i.e., the election of Donald Trump) featured towards the bottom of the rankings at rank 45.

6.3 | Valence Ratings

Table 2 also illustrates mean valence ratings, standard deviations and ranks. Most items (i.e., 80%) were, on average, considered to be positive instances of social change (mean scores above 0). Again, the top-ranked examples in terms of valence related to change in human (e.g., abolition of slavery) and legal rights (e.g., women gaining the right to vote), and related societal structures (e.g., education access and the NHS). The most positive examples of technological innovation were medical (general advancements and specially contraception). Examples of change in social beliefs and behaviour typically featured in the mid-rankings, with awareness and understanding of mental health issues considered most positive. Eight examples received average ratings that may be considered neutral (−0.5 to +0.5). These items were predominantly TI (especially examples relating to computer and communication technologies, and also the use of cars) and GDPG (e.g., globalisation, neoliberalism, WW2), and one SBB item (decline of Western religious belief in the West). No LPRE featured within this range. The social change examples typically considered to be negative were predominantly GDPG, such as the global financial crisis (2007/2009), and the election of Donald Trump. The technological innovations of social media and use of cars also featured as examples of negative social change alongside one instance from SBB (i.e., reduced community cohesion). No LPRE examples were, on average, rated to be negative instances of social change.

Consistent with significance, the ranking of social change examples for valence shows the LPRE category dominating the top rankings. Generally, both TI and SBB examples feature across the mid, but still positively valenced, rankings. Thematically, the lowest rankings examples were once again predominantly GDPG. ANOVA demonstrated that the thematic groups statistically differed in terms of average rating of significance, $F(2.77, 618.23) = 766.46$, $p < 0.001$, partial $\eta^2 = 0.78$—see Table 4.

Post hoc comparisons with a Šidák adjustment demonstrated that LPRE examples were significantly rated the most positive examples of social change compared to all other groups, all *ps* < 0.001. TI and SBB examples were considered more positive examples of change than GDPG, all *ps* < 0.001. Finally, TI and SBB examples did not differ in terms of valence ratings, $p = 0.932$.

Mean valence ratings strongly negatively correlated with their equivalent standard deviations, $r(50) = -0.80$, $p < 0.001$, again indicating that the smallest variation in mean valence scores was found for the examples considered most positive.

TABLE 2 | Significance (S) and valence (V) ratings in terms of number of participants, mean scores, standard deviations and ranks. Items ordered by significance mean scores.

			Significance		Valence		
Rank (S)	**Example**	**Theme**	***N***	***M* (SD)**	***N***	***M* (SD)**	**Rank**
1	Women gaining the right to vote	LPRE	232	1.83 (0.49)	223	1.86 (0.41)	2
2	The abolition of slavery	LPRE	228	1.82 (0.56)	222	1.87 (0.40)	1
3	The creation of the National Health Service (NHS) in the UK	LPRE	232	1.75 (0.54)	222	1.79 (0.47)	4
4	The right of all people to vote, irrespective of gender or property ownership	LPRE	231	1.71 (0.53)	219	1.71 (0.54)	6
5	Free access to education for all children	LPRE	230	1.68 (0.55)	221	1.81 (0.48)	3
6	The invention of the internet	TI	228	1.65 (0.57)	220	1.09 (0.76)	28
8	Moves towards equal rights for women	LPRE	230	1.61 (0.57)	221	1.72 (0.54)	5
8	Moves towards equal rights for people who are from black and other ethnic minority groups	LPRE	232	1.61 (0.62)	223	1.70 (0.60)	7
10	Discoveries and advances in the field of medicine	TI	229	1.60 (0.68)	221	1.65 (0.58)	10
10	Making child labour illegal	LPRE	228	1.60 (0.71)	222	1.63 (0.85)	13
11	The legalisation of same sex marriage	LPRE	232	1.59 (0.72)	220	1.50 (0.86)	21
14	The invention and availability of contraception, such as the pill	TI	228	1.57 (0.64)	223	1.54 (0.64)	18
14	Inter-racial marriages made legal and more accepted within societies, such as USA	LPRE	229	1.57 (0.64)	222	1.67 (0.61)	8
14	The introduction of anti-discrimination laws, such as the Equality Act 2010 (UK)	LPRE	232	1.57 (0.72)	222	1.64 (0.59)	12
14	Decriminalisation of same sex relationships	LPRE	227	1.57 (0.75)	220	1.56 (0.87)	16
14	The end of apartheid in South Africa	LPRE	225	1.57 (0.75)	217	1.67 (0.67)	8
17	Moves towards equal pay between men and women, such as equal pay laws	LPRE	228	1.55 (0.69)	220	1.65 (0.66)	10
19	More acceptance of people who are lesbian, gay or bisexual	LPRE	230	1.53 (0.68)	221	1.54 (0.79)	18
19	The election of Barack Obama, the first black president of the USA	GDPG	230	1.53 (0.72)	222	1.62 (0.64)	14
20	The legalisation of abortion	LPRE	229	1.48 (0.74)	223	1.27 (0.94)	27
22	The industrial revolution	TI	226	1.47 (0.73)	219	0.81 (0.85)	34
22	Increasing numbers of women in paid employment	LPRE	231	1.47 (0.73)	222	1.53 (0.70)	20
24	Increasing awareness of environmental issues, such as climate change	LPRE	231	1.46 (0.64)	221	1.56 (0.69)	16
24	The civil rights movement in the USA in the 1960s	LPRE	224	1.46 (0.73)	216	1.44 (0.77)	22
25	Increasing understanding and awareness of mental health issues	SBB	228	1.44 (0.73)	221	1.59 (0.64)	15
26	More rights for people who are lesbian, gay, bisexual and/or transsexual	LPRE	228	1.43 (0.76)	219	1.44 (0.79)	22
27	The widespread use and influence of the internet	TI	230	1.41 (0.67)	223	0.55 (0.92)	38
28	The invention and increasing use of social media	TI	230	1.40 (0.77)	221	−0.34 (0.97)	44
29	The impact of computer, internet and mobile technology on social communication	TI	231	1.39 (0.75)	223	0.13 (1.04)	41
30	The introduction of the railways	TI	228	1.38 (0.70)	221	1.35 (0.64)	24
31	An increase in multiculturalism within societies	SBB	227	1.37 (0.69)	219	1.28 (0.75)	26
32	Electrical products, such as TVs, computers and phones becoming a common part of everyday life	TI	230	1.34 (0.79)	222	0.07 (0.97)	42

(Continues)

TABLE 2 | (Continued)

Rank (S)	Example	Theme	Significance		Valence		Rank
			N	*M* (SD)	*N*	*M* (SD)	
33	World War 2 and its aftermath	GDPG	222	1.33 (0.95)	214		
	−0.38 (1.14)	45					
34	The establishment of the welfare state	LPRE	229	1.28 (0.76)	217	1.01 (0.88)	29
36	The increased ease of global travel for many	TI	228	1.26 (0.71)	220	0.97 (0.85)	30
36	The UK voting to leave the European Union (Brexit)	GDPG	230	1.26 (0.99)	218		
	−1.08 (1.15)	51					
37	Increasing rights and protections in the workplace, through trade unions and law	LPRE	228	1.25 (0.69)	221	1.29 (0.70)	25
38	The events and consequences of '9/11'	GDPG	226	1.19 (1.02)	217		
	−0.99 (1.16)	50					
39	The impact of globalisation	GDPG	225	1.18 (0.83)	217	0.14 (1.03)	40
40	World War 1 and its aftermath	GDPG	229	1.14 (0.97)	221		
	−0.51 (1.04)	47					
42	More people attending continued education, such as colleges and universities	SBB	230	1.12 (0.66)	223	0.97 (0.84)	30
42	Increasing levels of migration around the world	GDPG	230	1.12 (0.78)	221	0.60 (0.95)	37
43	The founding of the European Union	GDPG	227	1.11 (0.84)	217	0.90 (0.86)	32
44	Events around the collapse of the Berlin Wall and reunification of Germany	GDPG	227	1.06 (0.83)	217	0.89 (0.86)	33
45	The election of Donald Trump in the USA	GDPG	230	1.02 (1.13)	223		
	−1.41 (0.92)	52					
46	The common use of cars in daily life	TI	230	0.94 (0.96)	222		
	−0.43 (0.97)	46					
48	Legalisation of particular drugs in areas of the USA, such as cannabis	SBB	231	0.91 (0.87)	223	0.62 (0.97)	36
48	The consequences of the global financial crash (2007/2009)	GDPG	224	0.91 (0.89)	214		
	−0.82 (1.05)	48					
49	Decline in religious belief in the West	SBB	229	0.86 (0.91)	222	0.32 (1.00)	39
50	The decline of influence of the British Empire and the independence of ex-colonies	GDPG	228	0.83 (0.92)	219	0.77 (0.99)	35
51	Less cohesive communities, for example, less familiarity with neighbours	SBB	231	0.78 (0.91)	223		
	−0.91 (0.80)	49					
52	The rise of current models of capitalism, such as neoliberalism	GDPG	221	0.71 (0.89)	212		
	−0.28 (0.94)	43					

Abbreviations: GDPG, global and domestic political events and governance; LRPE, legal protections, rights and equality; S, significance; SBB, societal beliefs and behaviour; TI, technological impacts; V, valence.

6.4 | Supplementary Analysis

Independent *t*-tests revealed no significant sex differences in ratings of significance or valence for any of the social change themes—see Table 5. We note that one theme (LPRE) demonstrated differences that met the typical threshold of significance ($\alpha < 0.05$); however, these differences did not meet the šidák adjusted threshold ($\alpha < 0.013$).

7 | Discussion

As noted in the introduction, solutions to many of the critical challenges of our time, especially around the climate and ecological emergencies (CEEs), require significant social change. Mainstream psychological researchers note both a lack of research and a degree of vagueness in terms of understanding what social change means (see de la Sablonnière et al. 2013).

TABLE 3 | Significance ratings of social change examples: ANOVA and post hoc analyses (with šidák adjustment).

		Mean difference [95% CIs], *p* value and Cohen's *d*			
Theme	***M* (SD)**	**1**	**2**	**3**	**4**
1. LPRE	1.56 (0.44)	—			
2. TI	1.40 (0.48)	0.16 [0.09–0.23] $p < 0.001$, $d = 0.39$	—		
3. GDPG	1.10 (0.53)	0.45 [0.37–0.54] $p < 0.001$, $d = 0.97$	0.29 [0.22–0.36] $p < 0.001$, $d = 0.71$	—	
4. SBB	1.08 (0.46)	0.48 [0.42–0.54] $p < 0.001$, $d = 1.37$	0.32 [0.25–0.39] $p < 0.001$, $d = 0.81$	0.03 [−0.05 to 0.10] $p = 0.902$, $d = 0.07$	—
		$F(2.79, 644.98) = 148.55$, $p < 0.001$, partial $\eta^2 = 0.39$			

TABLE 4 | Valence ratings of social change examples: ANOVA and post hoc analyses (with šidák adjustment).

		Mean difference [95% CIs], *p* value and Cohen's *d*			
Theme	***M* (SD)**	**1**	**2**	**3**	**4**
1. LPRE	1.58 (0.39)	—			
2. TI	0.67 (0.41)	0.91 [0.82–1.00] $p < 0.001$, $d = 1.73$	—		
3. GDPG		−0.04 (0.38)	1.62 [1.52–1.72] $p < 0.001$, $d = 2.91$	0.71 [0.62–0.80] $p < 0.001$, $d = 1.42$	—
4. SBB	0.64 (0.42)	0.94 [0.87–1.02] $p < 0.001$, $d = 2.22$	0.03 [−0.06 to 0.13] $p = 0.932$, $d = 0.06$	0.68 [0.59–0.77] $p < 0.001$, $d = 1.35$	—
		$F(2.77, 618.23) = 766.46$, $p < 0.001$, partial $\eta^2 = 0.78$			

TABLE 5 | Independent *t*-tests of sex differences in significance and valence ratings of social change examples.

	Mean significance rating (SD)					Mean valence rating (SD)				
Theme	**Female ($n = 160$)**	**Male ($n = 71$)**	***t* (229)**	***p***	**Cohen's *d***	**Female ($n = 153$)**	**Male ($n = 70$)**	***t* (221)**	***p***	**Cohen's *d***
LPRE	1.60 (0.44)	1.47 (0.43)	2.09	0.038	0.30	1.62 (0.35)	1.50 (0.44)	2.04[a]	0.043[a]	0.32
TI	1.37 (0.51)	1.46 (0.40)	1.45	0.149	0.21	0.64 (0.39)	0.74 (0.46)	1.59	0.114	0.23
GDPG	1.08 (0.53)	1.15 (0.51)	0.86	0.390	0.12	−0.01 (0.40)	−0.10 (0.34)	1.66	0.098	0.24
SBB	1.10 (0.48)	1.03 (0.43)	0.93	0.354	0.13	0.65 (0.40)	0.62 (0.45)	0.35	0.725	0.05

Note: $n = 1$ participant identified as non-binary, so their data is not included in this table. All *p* values are two-tailed.
[a]Adjustment made as equal variances not assumed, df = 110.24.

While critical and community psychologists are able to define social change broadly, we have argued that our field might benefit from a deeper, more nuanced understanding of what social change is to advance our research and interventions. Community psychology's understanding of important terms like empowerment and prevention has evolved over time, influencing our work on the ground. Similarly, we hope that gaining more insight into social change may lead to better methods of influencing social change in the real world.

As such, the current study sought to clarify what concrete events over the last 200 years participants understood to represent significant social change. The key to this study was focusing on participant-generated examples of social change rather than getting them to rate existing expert examples. The two-stage Delphi methodology asked participants to: (1) generate social change examples, and (2) evaluate them in terms of both significance and valence. In terms of the discussion below, we will provide a brief summary of Stage 1 results, then discuss Stage 2 results, first in terms significance and valence, before more broadly discussing theme performance and relating the findings back to both mainstream and community psychology.

Firstly, in terms of Stage 1. A thematic analysis of the 52 examples of social change resulted in four higher-level themes: (1) LPRE, (2) TI, (3) GDPG and (4) SBB. The thematic groups suggest a broad range of social changes, which we will explore later. We will also discuss specific examples from themes and their performance, but we first consider the general results from Stage 2, as they provide important information on whether

participants consider the examples of social change to be significant or not.

In terms of significance, all 52 examples of social change were, on average, rated as being significant ($M = 1.36$; $SD = 0.81$; mean range: 0.71–1.83). In other words, participants considered all examples, from all themes, on average, to be significant examples of social change. In terms of valance, while on average the mean rating was positive ($M = 0.88$, $SD = 1.23$), the range was broader (−1.41 to 1.87) than for significance. Eight items fell within the neutral range (−0.5 to +0.5), and a further six within the negative range. So, while the 52 examples were on average seen as being significant, there were not always seen as being positive. While perhaps an obvious take-home message, it seems important to emphasise: social change is not always positive. And of course, it should also be noted, as Greenfield (2016) argues, that social change can simultaneously involve both gain and loss. Equally, how we view and rate a social change may alter due to the passage of time or the way it is described (see below).

Regarding the four themes, in terms of LPRE: very simply it dominates the top of the main results table with examples having both the highest significance and valence ratings. It seems plausible to describe LPRE items as representing exemplars of social change generally. In other words, arguably, when people think of social change, what commonly comes to mind are examples of progression in terms of gaining rights and moving towards equality and equity. Although, we should note, the broader thematic findings suggest that social change is more than LPRE alone.

Although few LPRE items fall outside of the top half of the table, it is perhaps interesting to look at some of those that do. For example: 'The establishment of the welfare state' and 'Increasing rights and protections in the workplace, through trade unions and law' score lower in terms of significance and valance than most other LPRE examples. And yet what is the welfare state? Arguably it includes some of the items that scored most highly in terms of LPRE (i.e., the NHS and education for all; see Taylor-Gooby 2013). So perhaps this points to the importance of how examples of social changes are framed/socially embedded over time and the effect this can have on how items are rated (e.g., Lakoff 1990).

In terms of TI, some items are rated as being both significant and positive (e.g., medical advances; contraception). But other items, while still being significant, are much more mixed in terms of valence. Many of these items involve information technology (IT). So, while the invention of the Internet is seen as a positive thing, its widespread use and impact seems less so; the impact of IT on social communication is less positive again and the invention and use of social media the least positive of all. The nuance is interesting. While the creation of the Internet is seen as positive, the way it is currently being used in society results in a much more mixed picture. This is consistent with de la Sablonnière (2017) who notes how the ratings of a particular social change may alter over time as a result of its consequences. Of course, the Internet is a relatively recent invention (Gohel 2014), but the same nuance exists in other areas of technology that have been around for longer periods of time, for example, transport. Both car use and the introduction of trains feature as examples of TI. But public transport (i.e., the train) is rated 16 places higher on significance and 20 places higher on valence than the item related to the car. Indeed, the car item is the lowest ranked TI item, and in the bottom 10 of items overall—perhaps reflecting a balance in both the personal freedom it brings, but also the environmental and others costs that can come with it (McCarthy 2007).

For GDPG, the most significant and positive item relates to the election of Barack Obama, the first Black president of the USA. But many of the GDPG items rate much lower. So while still seen as significant, they are on average more neutral or even negative in terms of valence. The election of another US president (Trump) is the most negatively rated of all 52 examples. But more than this, of the 10 items that have negative overall valence scores, 7 of them belong to the GDPG themes. This finding is noteworthy considering that GDPG comprised only 13 statements, but perhaps understandable when considering specific example content (e.g., World Wars, 9/11, the global financial crash, etc.). Finally, it is worth highlighting that the lowest-scoring item in terms of significance overall also sits within this theme: namely, the rise of current models of capitalism, such as neoliberalism. It is still seen as significant, but lower than all other examples. It also scored negatively in terms of valence. It is worth noting that writers on neoliberalism comment on how the area is poorly defined, even within the social sciences (e.g., Cahill and Konings 2017)—so perhaps this may have influenced its performance. However, for critical and critical community psychologists—who might see capitalism and neoliberalism as a key driver of injustices within society (see Evans et al. 2017)—this also suggests a broader need to raise the consciousness of the public about this issue (Freire 1996).

Finally, SBB. The theme contains the fewest examples and perhaps as a result is arguably the weakest in terms of depth and congruence. The items themselves appear spread throughout the table, but are less present in the most highly rated items. Awareness of mental health issues performs most well in terms of both significance and valance (25/52 significance and 15/52 valence). However, SBB also has items which rate lower in terms of both axes. For example, 'Less cohesive communities', which rates near the bottom overall for both (51/52 significance, 49/52 for valence). So while still a significant social change, it was not rated as highly as almost every other example, and its impact was, on average, negative in terms of valence. Of course, having less cohesive communities suggests there is much more work for community psychology specifically to do.

A final supplementary analysis explored differences in significance and valance ratings between female and male participants across the social change themes. Existing and recent research has suggested differences in progressive attitudes between genders, with females in Western Europe having more progressive attitudes than men (see Langsæther and Knutsen 2024). In an echo of these findings, for the LPRE theme only, females initially scored significantly higher than males. But after adjusting for the familywise error rate, this was no longer a significant result. It is worth noting the potential

differences between endorsing progressive attitudes (or not) and identifying whether something is a significant social change and its valence. Although, of course, there may be an interaction at play, the former seems to tap more into personal beliefs and values while the latter can perhaps be assessed more dispassionately at a social level. Indeed, these null finding perhaps indicate this. At the same time, it is also worth noting that it might make sense that females endorse the significance and valence of the LPRE items somewhat more than males—as a significant proportion of those items are directly related to the historical and contemporary struggle for equality, equity and justice that women around the world have fought and continue to fight for (see Table 1).

These results should also be considered in terms of the wider literature. We consider them first in terms of mainstream psychology and then community psychology. As noted in the introduction, previous psychological research has identified issues with the conceptualisation of social change as a potential barrier to advancing contributions (de la Sablonnière 2017; de la Sablonnière et al. 2013). Mainstream researchers have sought to overcome this, in part, through a large-scale literature review (de la Sablonnière 2017) resulting in one typology of social change contexts (e.g., stability, inertia, incremental social change and dramatic social change; see also Greenfield 2016). The results described in the current study appear to complement these previous findings. Although it must be noted that our study did not set out to test or challenge any previous work.

Instead, these findings sought to help advance the engagement of community psychology with social change. As noted in the introduction, community psychology is often mentioned alongside social change (Angelique and Culley 2007; Kagan et al. 2011, 2020; Reich et al. 2007). But, perhaps this is not enough. For example, Kagan et al. (2020) note that community psychology itself 'has not been responsible for any of the great social gains of the last 50 years, with the possible exception of a significant contribution to the end of impunity for torturers in some Latin American countries' (p. 30). This suggests there is much more work to be done. As such, our study was deliberate in its attempts to simply gather and then rate participant-generated examples of social change in a bottom-up fashion. The hope is this that these findings and others like them might help the field move beyond useful general definitions and instead to start to provide frameworks and new ways of thinking around social change that can help improve our clarity and shape our on the ground working to advance social change, through research, intervention and praxis.

Our results suggest that participant-generated examples of social change are multidimensional and not always positive. Perhaps this is already so implicitly clear within community psychology that it need not be stated. But if social change is not always positive, perhaps we need to more explicitly direct ourselves towards social change in the direction of social justice. Moreover, if the world faces multiple, interconnected, systemic, global crises (e.g., polycrisis/symptoms of overshoot) with the CEEs featuring heavily, then maybe we need to more explicitly direct ourselves towards social change in the direction of social, global, environmental and ecological justice.

It is important to note that social changes are dynamic. They are ongoing processes and, as noted above, often inter-related. The examples in this study, especially as participants were asked for 'concrete' social changes, necessarily highlight different points in the social change process. Especially in terms of LPRE, the items can tend to highlight specific changes in laws or rights, but this should in no way mask, the campaigning, activism and gradual change in public mood which takes place over years and decades to reach these interim or final end points. Moreover, end points in one chapter of a social change can be the starting points for others. In this way, it seems reasonable to consider that all progressive social changes are ongoing, unresolved, and incremental (e.g., Bruch et al. 2019; Klasen 2020).

The reporting and rating of more negative social changes, nationally and internationally remind us of the shifting sands we all exist on, the battles that are never truly won, and of the challenges communities have always faced and their new manifestations. But more than this, it seems possible to picture these negative social changes operating in an ecosystem: an interrelated system of nested social changes. For example, at the level of GDPG connections can be drawn between: 'the rise of current models of capitalism, such as neoliberalism' (GDPG), 'the impact of globalisation' (GDPG); and then more recently, 'the consequences of the global financial crash' (GDPG); and even more recently still, 'the UK voting to leave the European Union (Brexit)' (GDPG) and 'the election of Donald Trump in the USA' (GDPG). These social changes and their ramifications seem to inter-relate with content from other themes, for example, 'less cohesive communities' (SBB) as well as the rise and impact of instant media messaged through TI. Of course, the inter-relationships of social changes map directly onto ecological and systems thinking – a key idea in community psychology (e.g., Kelly 1966). Moreover, not just as a static snapshot, but also over time (i.e., chronosystem/chronosphere—Bronfenbrenner 1994). Finally, it should not be assumed that this only works in a top-down and negative way. A similar story, over time, can be told about gains in racial equality, starting with 'the abolition of slavery' (LPRE) and progressing to 'the election of Barack Obama, the first Black president of the USA' (GDPG).

As a field, we already have longstanding and relevant calls to arms in terms of social change. For example, social change is mentioned twice in the Monterey Declaration of Critical Community Psychology (Policies 1 and 3; Angelique and Kyle 2002). More modestly, the current research seeks to help us move towards these ambitions by starting to provide different frameworks and deeper ways of thinking about social change. While existing general definitions make sense and are useful for orientation (i.e., Durrheim 2014; Kagan et al. 2011), they necessarily capture a wide variety of potential activity. Focusing on specific examples, the themes they belong to, and their inter-relationships with each other may help us broaden and develop our theories, models and on the ground action.

By way of comparison, while the word 'sport' is generally well defined, understood, and is very useful as an orientating term—it also captures a wide variety of activity. If people turned up to engage in sport, without further specifying football, ice hockey, or golf, then comedy, frustration, or injury might occur. Both sport and social change are important orientating terms, but

equally important are the specific detailed examples that occur under such umbrella titles. We hope the categories (LPRE, TI, GDPG, SBB) and specific social change examples and their valences may prove useful to some in community psychology as we continue our important work towards social change in the direction of social, global, environmental and ecological justice.

7.1 | Limitations

While the data in this paper provide an indication of relative consensus, it is just that: consensus relative to the questions posed, the participants recruited and the time frame of the study. Different answers could result from different questions, prompts, participants, or time frame. Generalisability should not be assumed. For instance, asking for social change examples to be concrete, significant and from the last 200 years will have shaped answers.

The participants were predominantly UK-based, White and had completed at least A-Level education. The time and geography also matter. Coronavirus, George Floyd/Black Lives Matter protests and the conflicts in Ukraine and Gaza have taken place since Stage 1 data collection began. It is also noteworthy that possible significant events such as the Arab Spring (notionally, December 2010–December 2012; Arab Spring n.d.) were missing from the final list of participant-generated statements.

While the TA provides one clustering of social change examples, other solutions are possible. Whilst appropriate reflective checks were performed, other research teams may categorise the data differently. The dividing lines between certain examples and the themes in which they sit are slight and a different set of researchers may find other plausible arrangements. It should also be noted that 'women gaining the right to vote' was mentioned in the participant instructions. However, whilst this may have influenced its status as the most mentioned example (74 times) in Stage 1, its high significance rating and ranking in Stage 2 suggest support for the relevance of its inclusion.

A brief discussion of the wording of certain social change examples seems pertinent. Final item wording was deliberately tailored to reflect the data from Stage 1. In hindsight, this might not have been ideally suited to rating the items in Stage 2. For example, a social change example like 'World War 2 and its aftermath' makes sense in terms of the data it represents, but what exactly do participants rate in Stage 2? World War 2, or its aftermath? Moreover, the aftermath of World War 2 could include, the start of the Cold War but also the creation of the UN, and the pathway to the creation of the NHS and EU.

Finally, findings like this may indicate a bias towards thinking of social change as a human-directed process only. All the examples focus on human-centric behaviour, influence and impact. As noted, Stage 1 data collection started before coronavirus pandemic, and no final social change example was outside of human control or origin. Similar limitations have been noted before in the mainstream literature (see de la Sablonnière et al. 2013). It would be interesting to see if perceptions change in the future.

7.2 | Future Research and Action

Future studies may seek to replicate these findings and/or extend them to other groups and populations. There is the chance to do this by replicating both Stages 1 and 2, or just Stage 2 in isolation. Follow-up studies may focus on valence, for example, qualitative investigations into why people give the valence responses they do. Other research may choose to investigate why participants offer the social change examples they do, or what factors influence the significance or valence ratings they give (i.e., demographic variables, the influence of political beliefs or sense of community).

More importantly, as noted in the introduction, social change is both important to many in community psychology and something we have struggled to bring about. Moreover, both people and planet face global crises especially in terms of the CEEs—so there is an urgency to reinvigorate our efforts towards bringi out social change in the real world.

As such, perhaps we need to move beyond the traditional future studies listed above, and ask what the participant-generated examples gathered in this study tell us about 'how' social changes have happened in the past? Do the different types and clusters of social change reported in this study come about in the same way? Do they follow the same or different processes? Do they arise from similar or different contexts? On the surface, looking at the themes, it would appear that there may be considerable differences. Similar questions could also be asked about differences between more positive and negative types of social change. These appear to be empirical questions worthy of investigation.

Moreover, and centrally, how we can use any increased knowledge about social change to actually bring about more progressive social changes in the direction of social, global, environmental and ecological justice, on the ground, in the future? Critically, what can we learn about how negative social changes have come about to prevent similar changes arising or becoming more dominant again?

Opportunities to explore the above present themselves at multiple levels. For example, from a functional or ecological analysis of the historical antecedents and consequences of specific social change events; to individual interviews with people who have lived through specific social changes. Interestingly, echoing the discussion above, even mainstream researchers (e.g., de la Sablonnière 2017) now recommend that social change research and theory aim to marry macro- and micro-level processes to enable a more holistic understanding of social change to emerge.

While the above paragraphs provide concrete suggestions for next steps, it might be worth highlighting a possible tension. Researchers can sometimes work from study to study; grant to grant. To be trained to ask: what is suggested from Study X to inform new interventions in Study Y. Against this, it is worth pausing to reflect on the multiple connected contributions, over time, that led to each of the 52 social change examples in this paper. The scale is different. The sweep of history is different. And yet, if we are really committed to bringing social changes

about, where are the most useful places and what are the most useful ways for us to contribute?

There are no easy answers. The main hope of this study was simply to move beyond general definitions of social change, towards an initial data-driven framework to advance our thinking and actions in this field. We have done this to help community psychologists around the world deepen their conversations about social change, as one small step to help contribute to more progressive social changes of the future. If, as a result of this study, more research directly focused on social change is produced that will be some success. But academic papers are only one small contribution, and are often limited in their reach even within their own fields, let alone outside of the academy. The real test is our ability to contribute over time to more progressive social changes happening in the real world.

7.3 | Conclusion

In conclusion, the world faces polycrises, and the symptoms of overshoot, for which rapid social changes in the direction of social, global, environmental and ecological justice are required. Many community psychologists have long held social change to be a key value in our work, but we may have struggled to concretely bring such changes about. It is hoped that, with others, the findings from this study can help deepen our understanding of social change, moving beyond general definitions to frameworks and applications that eventually make progressive social change more possible.

This study suggests, more than ever, that social changes—positive, negative and neutral—are happening all around us. They are happening where people are fighting for rights, equality and equity (LPRE), but they are also happening in terms of the impact of technology (TI), changes to wider social behaviour (SBB), as well as larger national or global political events (GDPG). According to the results in this paper, all such events are significant, but whether they are perceived as positive, negative, or neutral varies across theme and specific example.

In the same way that our understanding of important terms like empowerment and prevention has evolved over time—influencing our praxis as it has developed—it is hoped that this study and future work on social change may prove to be a useful expansion to our knowledge and action base. Given the scale of the challenges that we face, advancing social change will mean working with citizens, communities, campaigners and other academics, both local to us and around the world. Together, we have the chance to work towards the world we want to see. At the same time, we must be aware of the closing window of opportunity highlighted in the introduction, especially in terms of the CEEs. What the data in this paper seem to confirm is that if we do not, or cannot, contribute strongly enough, other social changes (including negative ones) will continue impacting the poorest and most marginalised most of all. As the Bulletin of the Atomic Scientists warn us, the clock is ticking.

Data Availability Statement

The participant data from this manuscript cannot be placed in public archives as the participants did not explicitly consent to their data being archived in this way. However, the data that support the findings are available from the corresponding author.

Peer Review

The peer review history for this article is available at https://www.webofscience.com/api/gateway/wos/peer-review/10.1002/jcop.70024.

References

Arab Spring. n.d. In Wikipedia. Accessed April 13, 2020. https://en.wikipedia.org/w/index.php?title=Arab_Spring&oldid=951277294.

Angelique, H. L., and M. R. Culley. 2007. "History and Theory of Community Psychology: An International Perspective of Community Psychology in the United States: Returning to Political, Critical and Ecological Roots." In *International Community Psychology: History and Theories*, edited by S. M. Reich, M. Riemer, I. Prilleltensky, and M. Montero, 37–62. Springer US. https://doi.org/10.1007/978-0-387-49500-2_3.

Angelique, H. L., and K. Kyle. 2002. "Monterey Declaration of Critical Community Psychology." *Community Psychologist* 35, no. 1: 35–36.

Braun, V., and V. Clarke. 2006. "Using Thematic Analysis in Psychology." *Qualitative Research in Psychology* 3, no. 2: 77–101. https://doi.org/10.1191/1478088706qp063oa.

Bronfenbrenner, U. 1994. "Ecological Models of Human Development." In *International Encyclopedia of Education*, edited by T. Husen and N. T. Postlethwaite, 3, 2nd ed., 1643–1647. Elsevier Academic Press.

Bruch, S. K., A. J. Rosenthal, and J. Soss. 2019. "Unequal Positions: A Relational Approach to Racial Inequality Trends in the US States, 1940–2010." *Social Science History* 43, no. 1: 159–184. https://doi.org/10.1017/ssh.2018.36.

Bulletin of the Atomic Scientists. 2025a. Closer Than Ever: It Is Now 89 Seconds to Midnight. Retrieved From Bulletin of the Atomic Scientists Website: https://thebulletin.org/doomsday-clock/2025-statement/.

Bulletin of the Atomic Scientists. 2025b. Timeline. Retrieved From Bulletin of the Atomic Scientists Website: https://thebulletin.org/doomsday-clock/timeline/.

Burton, M., S. Boyle, C. Harris, and C. Kagan. 2007. "Community Psychology in Britain." In *International Community Psychology: History and Theories*, edited by S. M. Reich, M. Riemer, I. Prilleltensky, and M. Montero, 219–237. Springer US. https://doi.org/10.1007/978-0-387-49500-2_11.

Burton, M., and C. Kagan. 2002. "Community Psychology: Why This Gap in Britain." *History & Philosophy of Psychology* 4, no. 2: 10–23.

Cahill, D., and M. Konings. 2017. *Neoliberalism*. Polity Press.

Campbell, R., J. Shaw, and K. A. Gregory. 2017. "Giving Voice—and the Numbers, Too: Mixed Methods Research in Community Psychology." In *APA Handbook of Community Psychology: Methods for Community Research and Action for Diverse Groups and Issues*, edited by M. A. Bond, I. Serrano-García, C. B. Keys, and M. Shinn, 2, 139–153. American Psychological Association. https://doi.org/10.1037/14954-009.

Cheng, S.-T., and W. W. S. Mak. 2007. "Community Psychology in a Borrowed Place With Borrowed Time: The Case of Hong Kong." In *International Community Psychology: History and Theories*, edited by S. M. Reich, M. Riemer, I. Prilleltensky, and M. Montero, 200–216. Springer US. https://doi.org/10.1007/978-0-387-49500-2_10.

Churchman, A., E. Wiesenfeld, and E. Sadan. 2017. "On Participation and Participatory Practices." In *APA Handbook of Community Psychology: Theoretical Foundations, Core Concepts, and Emerging Challenges*, edited by M. A. Bond, I. Serrano-García, C. B. Keys and M. Shinn, 315–334. American Psychological Association. 2016-09482-015. https://doi.org/10.1037/14953-015.

Durrheim, K. 2014. "Social Change (Encyclopaedia Entry)." In *Encyclopaedia of Critical Psychology*, edited by T. Teo, 1767–1772. Springer Reference.

Evans, S. D., P. Duckett, R. Lawthom, and N. Kivell. 2017. "Positioning the Critical in Community Psychology." In *APA Handbook of Community Psychology: Theoretical Foundations, Core Concepts, and Emerging Challenges*, 107–127. American Psychological Association. https://doi.org/10.1037/14953-005.

Fedi, A. 2023. "Introduction. Community Psychology in the Face of the Climate Crisis: What Contributions?" *Psicologia di Comunita* no. 2023/15–9.

Fernandes-Jesus, M., B. Barnes, and R. F. Diniz. 2020. "Communities Reclaiming Power and Social Justice in the Face of Climate Change." *Community Psychology in Global Perspective* 6, no. 2/2: 1–21. https://doi.org/10.1285/124212113V6l2-2Pl.

Freire, P. 1996. *Pedagogy of the Oppressed*. Penguin Books. (Original work published 1970).

Gohel, H. 2014. "Looking Back at the Evolution of the Internet." *CSI Communications-Knowledge Digest for IT Community* 38, no. 6: 23–26.

Greenfield, P. M. 2016. "Social Change, Cultural Evolution, and Human Development." *Current Opinion in Psychology* 8: 84–92.

Hasson, F., S. Keeney, and H. McKenna. 2000. "Research Guidelines for the Delphi Survey Technique." *Journal of Advanced Nursing* 32: 1008–1015. https://doi.org/10.1046/j.1365-2648.2000.t01-1-01567.x.

Heinberg, R. 2024. "From Climate Crisis to Polycrisis." *World Literature Today* 98, no. 2: 32–36. https://doi.org/10.1353/wlt.2024.a920893.

Hirschhorn, F. 2018. "Reflections on the Application of the Delphi Method: Lessons From a Case in Public Transport Research." *International Journal of Social Research Methodology* 22, no. 3: 309–322. https://doi.org/10.1080/13645579.2018.1543841.

IPCC. 2018. Summary for Policymakers. In Global Warming of 1.5°C. https://www.ipcc.ch/sr15/chapter/spm/.

Kagan, C., Akhurst, J., Alfaro, J., et al., ed. 2022. *The Routledge International Handbook of Community Psychology: Facing Global Crises With Hope*. Routledge. https://doi.org/10.4324/9780429325663.

Kagan, C., M. Burton, P. Duckett, R. Lawthom, and A. Siddiquee. 2011. *Critical Community Psychology: Critical Action and Social Change*. John Wiley & Sons.

Kagan, C., M. Burton, P. Duckett, R. Lawthom, and A. Siddiquee. 2020. *Critical Community Psychology: Critical Action and Social Change*. Routledge. 2nd ed. https://doi.org/10.4324/9780429431500.

Kelly, J. G. 1966. "Ecological Constraints on Mental Health Services." *American Psychologist* 21, no. 6: 535–539.

Klasen, S. 2020. "From 'MeToo' to Boko Haram: A Survey of Levels and Trends of Gender Inequality in the World." *World Development* 128: 104862. https://doi.org/10.1016/j.worlddev.2019.104862.

Lakoff, G. 1990. *Don't Think of an Elephant: Know Your Values and Frame the Debate (First Printing edition)*. Chelsea Green Publishing Co.

Langsæther, P. E., and C. H. Knutsen. 2024. "Are Women More Progressive Than Men? Attitudinal Gender Gaps in West European Democracies." *International Political Science Review* 46, no. 3: 442–453. https://doi.org/10.1177/01925121241280069.

Lawrence, M. 2024. "Polycrisis in the Anthropocene: An Invitation to Contributions and Debates." *Global Sustainability* 7: e5. https://doi.org/10.1017/sus.2024.2.

Lawrence, M., S. Janzwood, and T. Homer-Dixon. 2022. *What Is a Global Polycrisis?' Version 2.0. Discussion Paper 2022-4*. Cascade Institute. https://cascadeinstitute.org/technical-paper/what-is-a-global-polycrisis/.

Martín-Baró, I. 1996. *Writings for a Liberation Psychology*. Harvard University Press.

McCarthy, T. 2007. *Auto Mania: Cars, Consumers, and the Environment*. Yale University Press.

Montero, M., and N. V. Díaz. 2007. "Latin American Community Psychology: Development, Implications, and Challenges Within a Social Change Agenda." In *International Community Psychology: History and Theories*, edited by S. M. Reich, M. Riemer, I. Prilleltensky, and M. Montero, 63–98. Springer US. https://doi.org/10.1007/978-0-387-49500-2_4.

Orford, J. 2008. *Community Psychology: Challenges, Controversies and Emerging Consensus*. John Wiley & Sons.

Prilleltensky, I. 2014. "Meaning-Making, Mattering, and Thriving in Community Psychology: From Co-Optation to Amelioration and Transformation." *Psychosocial Intervention* 23, no. 2: 151–154. https://doi.org/10.1016/j.psi.2014.07.008.

Rappaport, J. 1981. "In Praise of Paradox: A Social Policy of Empowerment Over Prevention." *American Journal of Community Psychology* 9, no. 1: 1–25. https://doi.org/10.1007/BF00896357.

Rees, W. 2023. "Overshoot: Cognitive Obsolescence and the Population Conundrum." *Journal of Population and Sustainability* 7, no. 1: 15–38. https://doi.org/10.3197/JPS.63799953906865.

Rees, W. E., and M. Wackernagel. 2023. "Ecological Footprint Accounting: Thirty Years and Still Gathering Steam." *Environment: Science and Policy for Sustainable Development* 65, no. 5: 5–18. https://doi.org/10.1080/00139157.2023.2225405.

Reich, S. M., B. Bishop, R. Carolissen, et al. 2017. "Catalysts and Connections: The (Brief) History of Community Psychology Throughout the World." In *APA Handbook of Community Psychology: Theoretical Foundations, Core Concepts, and Emerging Challenges*, edited by M. A. Bond, I. Serrano-García, C. B. Keys, M. Shinn, 1, 21–66. American Psychological Association. https://doi.org/10.1037/14953-002.

Reich, S. M., M. Riemer, I. Prilleltensky, and M. Montero. 2007. "Conclusion: History and Theories of Community Psychology Around the Globe." In *International Community Psychology: History and Theories*, edited by S. M. Reich, M. Riemer, I. Prilleltensky, and M. Montero, 415–436. Springer Science + Business Media. https://doi.org/10.1007/978-0-387-49500-2.

Riemer, M., and N. Harré. 2017. "Environmental Degradation and Sustainability: A Community Psychology Perspective." In *APA Handbook of Community Psychology: Methods for Community Research and Action for Diverse Groups and Issues*, 441–455. American Psychological Association.

Riemer, M., and S. M. Reich. 2011. "Community Psychology and Global Climate Change: Introduction to the Special Section." *American Journal of Community Psychology* 47, no. 3: 349–353. https://doi.org/10.1007/s10464-010-9397-7.

Riemer, M., Reich, S. M., Evans, S. D., Nelson, G., and Prilleltensky, I., ed. 2020. *Community Psychology: In Pursuit of Liberation and Wellbeing*. Bloomsbury Publishing.

de la Sablonnière, R. 2017. "Toward a Psychology of Social Change: A Typology of Social Change." *Frontiers in Psychology* 8: 397. https://doi.org/10.3389/fpsyg.2017.00397.

de la Sablonnière, R., L. French Bourgeois, and M. Najih. 2013. "Dramatic Social Change: A Social Psychological Perspective." *Journal of Social and Political Psychology* 1, no. 1: 253–272. https://doi.org/10.5964/jspp.v1i1.14.

de la Sablonnière, R., J.-M. Lina, and D. Cárdenas. 2019. "Rethinking Current Models in Social Psychology: A Bayesian Framework to Understand Dramatic Social Change." *British Journal of Social Psychology* 58, no. 1: 175–195. https://doi.org/10.1111/bjso.12273.

Smithson, J. 2000. "Using and Analysing Focus Groups: Limitations and Possibilities." *International Journal of Social Research Methodology* 3, no. 2: 103–119. https://doi.org/10.1080/136455700405172.

Taylor-Gooby, P. 2013. *The Double Crisis of the Welfare State and What We Can Do About It*. Palgrave Pivot. https://doi.org/10.1057/9781137328113_1.

Thompson, M. 2009. "Considering the Implication of Variations Within Delphi Research." *Family Practice* 26, no. 5: 420–424. https://doi.org/10.1093/fampra/cmp051.

Thompson, M., Y. Blumer, S. Gee, L. Waugh, and Z. Weaver. 2023. "Climate Change and Community Psychology: Exploring Environmental and Wider Social Challenges." *Psicologia di Comunita'* 1: 13–33. https://doi.org/10.3280/PSC2023-001002.

Thompson, M., J. Stuart, R. E. Vincent, and L. Goodbody. 2022. "UK Clinical and Community Psychology: Exploring Personal and Professional Connections." *Journal of Community Psychology* 50: 2904–2922. https://doi.org/10.1002/jcop.22805.

United Nations Environment Programme. 2022. *Emissions Gap Report 2022: The Closing Window—Climate Crisis Calls for Rapid Transformation of Societies*. United Nations Environment Programme. https://www.unep.org/emissions-gap-report-2022.

Waggoner, J., J. D. Carline, and S. J. Durning. 2016. "Is There a Consensus on Consensus Methodology? Descriptions and Recommendations for Future Consensus Research." *Academic Medicine* 91, no. 5: 663–668. https://doi.org/10.1097/ACM.0000000000001092.

Weinstein, R. S. 2006. "Reaching Higher in Community Psychology: Social Problems, Social Settings, and Social Change." *American Journal of Community Psychology* 37, no. 1: 9–20. https://doi.org/10.1007/s10464-005-9008-1.