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(Im)possible Worlds: The social psychological functions of imagining alternative societies

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Declaration

The research reported in this thesis is my own work, except for where indicated, and has not been submitted for examination as part of a degree at any other institution.

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Abstract

Drawing from research and theory (outlined in Chapter 1) emphasising the underlying cognitive-processes of utopian thinking and its potential to instigate motivations for criticism of the status quo, this thesis investigated different psychological concomitants of utopianism, including psychological distance, system justification, and violence. Three studies (Chapter 2) provide evidence that utopias are perceived as more psychologically distant than dystopias. Studies 2 and 3 reveal that this asymmetry in distance is driven by a higher prevalence of dystopian (vs. utopian) representations in society and tends to be more prevalent among individuals low in system justification. Study 4 (Chapter 3) suggests that the effect of utopian thinking on system justification depends on political orientation. Liberal participants rejected, while conservatives supported the overarching socio-political system when imagining ideal (vs. realistic) possible worlds. Studies 5 – 6 (Chapter 3), conducted prior to 2016 US Presidential and 2017 UK General elections, respectively, suggest that the moderating role of political orientation may subside in the context of system change. Participants envisaging ideal possible worlds prior to elections reported lower system justification levels, irrespective of political orientation. These results suggest that political orientation and the social context may influence whether utopian thinking instigates motivation to criticise the status quo. Studies 7 - 11 (Chapter 4) examine the influence of utopian thinking on two forms of non-normative collective action (i.e., radical action and violence). Studies 7 and 8 suggest that idealistic beliefs about change encourage support for verbal and physical forms of collective violence against out-groups, while realistic beliefs about social change tend to dampen such justifications. Studies 9 - 11 (Chapter 4) provided only partial experimental support of these effects. In Chapter 5, I discuss the implications of these findings

for the emerging field of research into utopian thinking as well as propose avenues for future research into this topic.

CHAPTER 1

"A map of the world that does not include Utopia is not worth even glancing at, for it leaves out the one country at which Humanity is always landing. And when Humanity lands there, it looks out, and, seeing a better country, sets sail. Progress is the realisation of Utopias."

Oscar Wilde, "The Soul of Man Under Socialism" 1891

1.1. Introduction

This thesis raises questions about the cognitive and motivational functions of utopian thinking. More specifically, in this thesis, I examine whether utopian thinking can help envision social change, and, in that way, activate regulatory processes and related motives that contribute to the betterment of society. I attempt to provide some answers to these questions from the perspective of social and political psychology.

In its wider sociological form, utopianism is concerned with possible worlds, and specifically how social dreams and nightmares challenge and maintain the stability and legitimacy of the contemporary social order (Levitas, 1990; Mannheim, 1991; Sargent, 2010; Tajfel, 1978). The prevalent position is that a transformational potential is assumed to reside in utopia which creates a discrepancy between the envisioned possible world and the contemporary reality (Bakarat, 1969; Levitas, 1990; Suvin, 1990). Importantly, sociological theorising holds that utopian thinking leads individuals and/or social groups to reflect and criticise extant arrangements and engage in behaviours for social change (Mannheim, 1991).

The potential of utopia to elicit societal engagement has been put forward by many scholars spanning disciplines including sociology (Levitas, 1990; 2013; Mannheim, 1991), political theory and science (Jameson, 2005; Sargent, 1994; 2010; Goodwin & Taylor, 1983; Bakarat, 1969), literature (Kumar, 1987; 1991; Suvin, 1979; 1990), and social and cultural psychology (Bain, Hornsey, Bongiorno, Kashima, & Crimston, 2013; Fernando et al., 2018; Kashima, Bratanova, & Peters, 2012; Zittoun & Gillespie, 2018). Utopian thinking has been associated with distinct motivational potentials. For utopian and literary theorists, utopia's motivating potential is rooted in its capacity to induce distance from actual reality (Chapter 2), and its symbolic and ethically-laden construction (i.e., activation of higher order values and ideals; Chapter 2 & 3; Suvin, 1979; Jameson, 2005). For some sociologists, utopia's motivating potential has been associated with its capacity to prompt criticisms of the current social order which can help change the status quo (Chapter 3; Levitas, 1990, Mannheim, 1991; Sargent, 2010). For others, utopia has been associated with the potential to instigate violence against nonconforming groups (i.e., groups that do not 'fit' within a given utopian vision; Chapter 4; Gray, 2007; Popper, 1986). Importantly, however, such propositions are largely theoretical and only rarely tested empirically (for some empirical evidence on criticism and challenge, see Fernando et al., 2018).

In this thesis, therefore, I attempt to address this limitation by empirically examining the cognitive and motivational processes that underlie utopian thinking. Specifically, I examine the potential of utopian thinking to: a) imbue psychological distance (Chapter 2), b) elicit criticism of the status quo (Chapter 3), and c) breed violence against non-conforming out-groups (Chapter 4).

1.2. Utopian thinking in other disciplines

In this section, I offer an overview of key aspects of sociological and political theory related to utopia (Levitas, 1990; Jameson, 2005; Sargent, 1994; 2010). These aspects include features and functions of utopias that are relevant to the objectives of this including: a) its capacity to create psychological distance from present reality, b) its capacity to motivate criticisms of the status quo and c) its potential to elicit animosity towards non-conforming groups. Such aspects of utopia indeed also reflect the content and structure of empirical explorations within this thesis.

1.2.1. Etymology and the Concept of Utopia

"[Utopia]...emerged as an artificially concocted proper name has acquired, in the last two centuries, a sense so extended that it refers not only to a literary genre but to a way of thinking, to a mentality, to a philosophical attitude"

Leszek Kolakowski (1982; p. 229)

Utopia has been a ubiquitous phenomenon across cultures and ages (Clayes, 2011; Kashima & Fernando, 2020; Kumar, 1991). Utopian thinking can be observed in socio-political theories, social movements, emancipatory politics, and intentional communities (Sargent, 1994). Utopianism has been an important imaginary practice of how things could or should be in future (Claeys, 2011; Goodwin & Taylor, 1983; Sargent, 2010). Indeed, the etymology of the word itself can attest to this: utopia stems from the Greek 'outopia' meaning *no place* and 'eutopia' meaning a *good*, *virtuous place*. Evidently, from its etymological inception, as well as its first literary reference (More's *Utopia*, 1516), utopia paradoxically combines a never-never quality and an ideal to aspire towards. More broadly, utopia refers to our tendency to imagine different

and better futures. That is, alternative ways the society could be structured, and function, based on a more perfect principle (Suvin, 1990).

Its apparent omnipresence has led many to argue that utopianism is not merely a philosophical attitude or mentality, but an inherent human tendency that is central in the progress of civilisation (Bauman, 2010; Kashima & Fernando, 2020; Kumar, 1991; Manuel & Manuel, 1979). Importantly, this highlights two central characteristics of utopia. First, utopia is primarily a product of human imagination which entertains ideal hypothetical futures (Kashima, & Fernando, 2020). Second, the purpose of utopia is to offer solutions to apparent limitations and dysfunctions of society and thus, it is inherently better than its contemporary status quo (Badaan, Jost, Fernando, & Kashima, 2020)

1.2.2. Symbolic Structure of Utopia and Material Reality

Examinations of the purpose of utopias in the literature often focus on its contradictions with the (contemporary) status quo and status-quo enhancing ideologies (Jameson, 2005; Mannheim, 1991). Some scholars consider utopia's symbolic nature and highlight that utopian visions are rooted in higher-order principles (Rawls, 2009; Ricoeur, 1976; Suvin, 1979; see also Levitas, 1990). For instance, Kashima and Fernando (2020), describe utopia as a product of human imagination and a cultural artefact. The authors explain that utopia is constructed and expressed symbolically (through language and pictures) and rarely manifests itself in the physical and material world (Kashima & Fernando, 2020). Zittoun & Gillepsie (2018) also highlight that envisioning an alternative, more desirable reality depends on imagination and mental abstraction (see also Hawlina, Pedersen, & Zittoun, 2020). This approach highlights the

potential of utopian thinking to offer counter (i.e., status-quo attenuating) narratives based on a constellation of higher-order principles (Mannheim, 1991; Ricoeur, 1976).

Others emphasise material reality and highlight that utopian visions stem from dissatisfactions with the status quo and attempts to change it (Levitas, 1990, Mannheim, 1991; Goodwin & Taylor, 1983; Sargent, 2010). This approach considers contemporary reality and the conditions that may instigate utopian thinking (Davis, 1983; Sargent, 1994). For instance, Sargent (1994), holds that the basis of utopianism is a dissatisfaction with contemporary society. Accordingly, Sargent (1994) suggests that utopias help reflect on the status quo and encourage attempts to provide solutions to issues that spur dissatisfaction (Jameson, 2005; Sargent, 1994). Davis (1983) also associates utopia with material reality. Davis (1983) suggests that utopias attempt to resolve the struggle between human desire and the means and resources to satisfy them (see also Kashima & Fernando, 2020). This approach stresses the importance of utopian thinking in highlighting the shortcomings of present reality and propose solutions to overcome them. Crucially, the two approaches are complementary as the focus on the status quo offers the context upon which utopia is symbolically constructed (Jameson, 2005).

1.2.3. The Functions of Utopia

The function of distance

As mentioned previously, literary approaches that consider the symbolic nature of utopias centre around higher-order principles. Such approaches emphasise the use of symbols, cultural artefacts, and abstraction in realising utopian visions. Hawlina and colleagues (2020) argue that abstraction and imagination can create a sense of distance from the present which is key in transformative visions (Hawlina et al., 2020).

Indeed, the idea that utopias can create a distance between reality (i.e. empirical universe: Suvin, 1979; 1990) and possible world (i.e. fictional universe) is evident in literary techniques and may also have important implications for social and political psychology theorising.

Specifically, in the commonly used literary technique the "traveller's tale" (Kumar, 1991), the reader arrives at uncharted lands or distant futures and encounters the utopia as an observant. The utopia transports the reader away from their contemporary circumstance and into an ideal human condition. This feature suggests that utopias may promote psychological distance and abstract thinking (Badaan et al., 2020; Liberman, Sagristano, Trope, 2002). This may allow the reader to critically evaluate extant arrangements (see also, Suvin, 1979 on the concept of novum [i.e. novel] and cognitive estrangement). In this way, utopian thinking may induce in the dreamer a sense of psychological distance from current arrangements, which may enable the envisaging of alternative realities. This may have important implications for Levitas' (1990) proposed functions of criticism and change. In Chapter 2, I further develop these ideas and examine the association between utopian thinking and psychological distance.

The functions of criticism, change, and compensation

Levitas (1990) argues that utopias have three main functions: they may a) mobilize people to challenge and attempt to change the status quo (i.e., *the change function*; see also Mannheim, 1991), b) motivate people to criticise the status quo (i.e., *the criticism function*), or c) offer an imaginary refuge that allows people to mentally escape from actual reality (i.e., *the compensation function*; Davis, 1983).

The *change function* holds that utopian visions manifest as future-oriented goals, which people attempt to realise (i.e., to reduce present reality – utopia discrepancy; Bain et al., 2013;

Fernando et al., 2018). Behaviourally, this may hold important implications for people's motivation to participate more actively in societal processes and collective action. However, utopias may also operate as wishful fantasies which allow the dreamers to compensate (compensation function), at least imaginatively, for the shortcomings of contemporary reality.

Utopias may also activate a criticism function. That is, by setting a superior imagined possible world, utopian visions can operate as standards against which the current reality is evaluated (Boldero & Francis, 2002; Fernando et al., 2018). The contrast between utopia and the status quo may, lower people's satisfaction with current reality and their tendency to justify it (Jost & Banaji, 1994). I examine the potential of utopian thinking to elicit criticism in Chapter 3.

The function of violence against non-conforming groups

While political theorists and sociologists generally view utopianism as a desired (if not necessary) process for societal change, utopianism has received some criticism. In fact, a number of scholars argue that the pursue of a utopian vision can lead to animosity and violence (Gray, 2007; Popper, 1971; 1986). For instance, reflecting on historical developments since the French Revolution, Gray (2007) argues that utopian visions constitute - secular and/or religious - propagated myths of progress that not only fail to materialise, but often produce opposite results than intended (Gray, 2007). Popper (1971) also argues that utopianism can be destructive and dangerous. Arguably, such anti-utopian arguments stem from the inflexibility and rigidness that the word perfection carries. That is, although utopia envisions radical change from contemporary society, it falls short in envisioning change within utopia itself (Sargent, 2010). For instance, a utopian vision may exclude certain out-groups which do not fit within an ideal vision (Baumeister, 1997). Given the limited empirical evidence on the role of utopias, I also aim to

explore the role of utopian thinking in animosity and violence towards non-conforming outgroups (Chapter 4)

1.3. Theoretical Integration: The Social Psychology of Utopian Thinking

"Alone among the animals, we suffer from the future perfect tense. Rover the Dog cannot imagine a future world of dogs in which all fleas will have been eliminated and doghood will finally have achieved its full glorious potential. But thanks to our uniquely structured languages, human beings can imagine such enhanced states for themselves, though they can also question their own grandiose constructions."

Margaret Atwood (2007)

In this section I offer an overview of theories in social and political psychology that are relevant to the study of utopian thinking. I particularly emphasise recent psychological theory and research on the role of utopian thinking in societal engagement and social change (Kashima & Fernando, 2020). This work suggests that utopian thinking may motivate people to reject the status quo and participate in collective action (Badaan et al., 2020; Kashima & Fernando, 2020; Fernando et al., 2018; Fernando, O'Brien, Burden, Judge, & Kashima, 2020; see also Bain et al., 2013). In fact, the work included in this thesis has been developed around the same time, as this line of research was emerging. Thus, certain parallels in theoretical frameworks and empirical approaches are appreciated, whilst the presented findings are also discussed in relation to these current approaches. Nonetheless, before considering these, I focus on early social identity theorising and specifically on the notion of cognitive alternatives, as this has been my theoretical point of departure.

1.3.1. Utopian thinking as cognitive alternatives

Social psychological accounts of inter-group relations highlight that groups are inherently in competition, especially for the control of material and symbolic resources (Sherif, 1966; Sidanius & Pratto, 1999; Tajfel, 1978; Tajfel, & Turner, 1979; Pratto, Sidanius, & Levin, 2006). Broadly speaking, large-scale societies are characterised by highly stratified hierarchical structures, wherein some groups occupy a disproportionate amount of material and abstract resources, relative to other groups (Major, 1994; Sidanius & Pratto, 1999; Pratto et al., 2006). This gives rise to inequalities within and between societies, which have been linked to an array of social problems (i.e., poverty, unemployment, poor health, racism, sexism, prejudice; Wilkinson & Pickett, 2010).

Issues of inequality and unfair distribution of resources often serve as catalysts for collective action and social change (van Zomeren et al., 2008). For instance, psychological research shows that moral conviction facilitates identification of members of advantageous groups, with the victims of social injustices, often leading them to engage in collective action (van Zomeren, Postmes, Spears, & Bettache, 2011). Mobilisation of societal engagement (i.e., collective action) often relies on symbolic capital, elicitation of politicised identities with common/compatible ideological contents, and broad endorsement of a purpose across groups (Barth, Jugert, Wutzler, & Fritsche, 2015; Chayinska, Minescu, & McGarty, 2017; Thomas, Mavor, & McGarty, 2012; Smith, Thomas, & McGarty, 2015; Chayinska, Minescu, & McGarty, 2017).

In this section, I review theories and evidence from social and political psychology that consider the role of utopian thinking in processes of engagement and social change. I posit that

utopian thinking generates symbolic capital, that groups and individuals rely on and use to express and promote their social identities.

1.3.2. Social identity and processes of competition and social change

"No group lives alone – all groups in society live in the midst of other groups... And only acquire meaning in relation to or comparison with other groups"

Henri Tajfel (1974, p.70)

The basic tenet of social identity theory (Tajfel & Turner, 1979) is that individuals categorise the world into groups they belong (in-group), or do not belong to (out-group;). In doing so, individual identities (I) become social identities (we) and start being part of the self-concept (Tajfel, 1978). To maintain a positive image of the in-group, members engage in social comparisons—in-group versus out-group (Festinger, 1954; Tajfel, 1974; 1978; see also Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Importantly, comparisons aim at *positively* distinguishing the in-group (Abrams & Hogg, 1990; Hogg & Turner, 1987). That is, they do not merely attempt to make the groups different but, crucially, attempt to make the in-group better than the out-group (Turner, 1982).

Despite that, inter-group contexts may also generate negative social identities, Tajfel and Turner (1979) propose three strategies for managing a negative social identity in inter-group behaviours: individual mobility, social creativity, and social change/competition (Tajfel, 1978; see also). Individual mobility refers to an individual's attempt to leave a low status in-group for an out-group of higher status. This strategy focuses on the enhancement of the individual (and not the group) self-esteem. Tajfel and Turner (1979) suggest that the use of this strategy depends

on individuals' endorsement of social mobility beliefs as well as the extent to which boundaries between the in-group and out-group are seen as permeable (e.g., Verkuyten & Reijerse, 2008).

On the other hand, social creativity attempts to bolster the esteem of in-group members by considering dimensions that place the in-group in a more positive light than the out-group. For instance, key in social creativity is the use of complementary stereotypes (Kay & Jost, 2003; for a review see Czopp, Kay, & Cheryan, 2015). Complementary stereotypes refer to cultural myths which often attribute positive qualities (i.e., happiness, morality) to disadvantaged groups, and negative qualities (i.e., loneliness, dishonesty) to advantaged groups (see Kay & Jost, 2003; Jost & Kay, 2005). The use of complementary stereotyping can ensure the in-group is perceived as superior to the out-group and in that way, can enhance in-group members' self-esteem.

Social creativity is a collective strategy and it is more likely to be used when group boundaries are impermeable (Jackson, Sullivan, Harnish, &Hodge, 1996). Nonetheless, this strategy does not challenge extant arrangements which confer to the disadvantageous position that the in-group is found (Cichocka, Winiewski, Bilewicz, Bukowski, & Jost, 2015; Jost & Kay, 2005, Jost, Kivetz, Rubini, Guermandi, & Mosso, 2005). In fact, research suggests that social creativity tends to bolster extant arrangements and undermine collective action and social change (Becker, 2012; Jost & Kay, 2005; Kay & Jost, 2003). In this way, complementary stereotyping and social creativity strategies in general can serve a compensatory function.

Social change/competition strategies refer to attempts from the in-group to improve its own status in society (Tajfel & Turner, 1979). This collective strategy attempts to challenge and redefine dimensions that are central to the in-group's disadvantage and, its negative social identity (Tajfel, 1978; Turner & Brown, 1978). For social change/competition processes to be

enacted, social identity theorising recognises socio-structural aspects of the inter-group context: the stability and legitimacy of the status arrangements (Tajfel, 1978; Turner & Brown, 1978).

Status stability and legitimacy refer to the security of status arrangements and inter-group comparisons (Turner & Brown, 1978). Status legitimacy describes the extent to which overarching status arrangements are perceived to be legitimate and justified (Tajfel, 1978). Perceptions of illegitimacy are likely to arise when the overall status differentials appear to violate superordinate principles and values (i.e., justice, equality, equity, freedom, etc.) which are otherwise considered to be embodied by the society. When status differentials appear to adhere to superordinate values the status quo appears as legitimate. However, when status differentials appear to conflict with such values may increase perceived illegitimacy. Following this, utopia may have delegitimising properties. That is, imagining future societies based on an ideal principle (e.g., egalitarianism) may lead people to perceive extant hierarchical structures as illegitimate.

Further, status stability describes low status group members' perceptions of the likelihood to achieve a higher status in future. Tajfel (1978) posits that status instability can arise, by "the development in a group of the awareness of cognitive alternatives to the existing situation" (p.52). In that way, cognitive alternatives attempt to envision different ways status arrangements could or should be in the future. According to Tajfel and Turner (1979), when members of the low status in-group perceive status relations as unstable and illegitimate, they are more likely to endorse social change/competition strategies to improve their group's status position. Indeed, psychological theory highlights imagined alternative visions as necessary for social change processes (Jost, 2002; 2019; Tajfel & Turner, 1979). That is, imagining future societies that

address dissatisfactions with and dysfunctions of extant arrangements may imbue motivation to criticise and challenge the status quo (Fernando et al., 2018). Thus, utopian thinking can create better (cognitive) alternatives to the status quo and instigate strategies of competition and social change (Kashima & Fernando, 2020).

Indeed, research on cognitive alternatives shows that envisioning a better future increases the self-esteem of low status group members (Zhang, Jetten, Iyer & Cui, 2013). Crucially, Zhang, Jetten, Iyer and Cui (2013) demonstrate that the availability of alternatives increases self-esteem while contact with the high-status out-group does not. Similarly, evidence shows that high (vs. low) availability of alternative visions enhances the self-esteem and academic performance of low-status group members (Iyer, Zhang, Jetten, Hao, & Cui, 2017). While these findings highlight the importance of imagining better alternatives in social change processes, they do not create direct comparisons between cognitive alternatives and motivation for criticism of the status quo (or other forms of societal engagement). The potential of cognitive alternatives (i.e., utopian visions) to elicit criticism of the status quo is addressed in Chapter 3.

Utopias can be seen as cognitive alternatives that operate at the system-level rather than at the group-level. Specifically, Fernando et al. (2020) propose that utopias "represent *goals for collectives*, rather than *collective goals* since the utopian motivation need not be derived from the concerns of a particular group" (Fernando et al., 2020, p.280; emphasis in original). In that way, system-level cognitive alternatives can be seen as inclusionary - they may facilitate the formation of politicised collective identities, that uphold compatible ideological convictions and common goals (Chayinska et al., 2017; McGarty, Thomas, Lala, Smith, & Bliuc, 2014; see also McGarty, Bliuc, Thomas, & Bongiorno, 2009). That is, system-level alternatives attenuate extant

arrangements and thus may instigate motivations to challenge them (e.g., status quo attenuation). Utopias, nonetheless, can also be influenced by the salience of a given social identity. For instance, in exclusionary utopias, a better future is envisioned for only a particular group of people with a particular set of characteristics (i.e., essence of the group; Gray, 2007). Rather than facilitating cooperation, group-based visions may elicit animosity towards groups that threaten, or do not conform to the essential characteristics of the in-group. This issue of group-based utopian vision and collective violence is addressed in Chapter 4.

Overall, utopian thinking is framed as a process of generating cognitive alternatives to extant arrangements (Kashima & Fernando, 2020). In this section, I considered social identity theory, as well as the socio-structural conditions and strategies for managing negative identities (Tajfel, 1978; Tajfel & Turner, 1979). I also highlighted the potential for utopian alternatives to create superordinate identities under a common purpose/goal (Kashima & Fernando, 2020). Importantly, this recognises the centrality of cognitive alternatives in utopian thinking and societal engagement. Cognitive alternatives are thought to create a state of competition between the imagined alternative and the status quo. In turn, regulatory processes are thought to be activated to regulate evident discrepancies between the imagined and actual reality. Accordingly, in the following section I consider the prospect of possible worlds and their role in collective self-regulation.

1.3.3. Prospection of Possible Worlds & Collective Self-Regulation

"[no] theory of psychology will ever be complete which does not centrally incorporate the concept that man has his future within him, dynamically active at this present moment"

Abraham Maslow (1968, p.15)

Prospection refers to the ability to mentally simulate alternative future possibilities and thus, "pre-experience" the future (Gilbert & Wilson, 2007, p.1352). This ability is thought to separate human from nonhuman animals (Tulving, 2002; Suddendorf & Corballis, 2007). Prospection allows humans to predict, anticipate, and adapt to future events (Suddendorf & Corballis, 2007). This unique human ability allows people to use imagination to think abstractly and disengage from their immediate environment and proximal experience (Zittoun & Gillespie, 2018). Importantly, imagination enables people not only to distance themselves from the present

1 While nonhuman animals, due to the limitations set by their current drive states and impulses, are seen as restricted to the here and now, and can only anticipate and/or predict the future based on previously encountered situations; humans evolved an ability to "pre-experience" the future by simulating alternative possibilities in their minds (Gilbert & Wilson, 2007; for some evidence for the ability of nonhuman animals to imagine other possibilities see Byrne & Whiten, 1992).

but also to mentally reconstruct the future (Trope & Liberman, 2003). Imagination is key in the process of utopian thinking. It aids to envision better societies, form collective identities, and mobilise action (Hawlina et al., 2020, Thomas et al., 2012) However, despite the importance of imagination in envisioning future realities, psychological research on the mechanisms underlining such processes is scarce (Baumeister, Vohs, & Oettingen, 2016; Fernando et al., 2018; 2020). Fernando et al (2018; 2020) offer a theoretical account of collective self-regulation, which is concerned with the ways groups regulate their psychology in relation to possible future worlds (i.e., utopian thinking; see also, Bain et al., 2013; Kashima & Fernando, 2020).

Collective self-regulation integrates models of self-regulation (i.e., Control theory, Carver & Scheier, 1982; 1990; Self-discrepancy theory, Higgins, 1987; 1989) with social identity and self-categorisation theories (Tajfel & Turner, 1979; Abrams & Hogg, 1990; Turner et al., 1987). Central to models of self-regulation is the notion of possible (future) selves (for a review see Oyserman & James, 2009). Possible selves are future-oriented positive and negative

2 Mental reconstruction of the future (or the past) has been attributed to episodic memory (Tulving, 2002). It is considered to involve a range of cognitive capacities including self-awareness, meta-representation (i.e. scene construction) and a general ability to construct and distinguish imagined and distal mental states from present ones (Suddendorf & Corballis, 2007; Tulving, 2002; Zittoun & Gillespie, 2015).

selves an individual wishes to become or hopes to avoid becoming³ (Markus & Nurius, 1986). Accordingly, in collective self-regulation, utopias and dystopias are considered as the best (or ideal) and worst possible future worlds, groups and individuals imagine, for the society as a whole.

Possible worlds are future-oriented collective realities, positive and negative alternatives that an individual hopes society one day will become, or fears society one day will have to avoid becoming (Markus & Nurius, 1986; see also Kashima & Fernando, 2020). Although possible worlds are informed by the present, they are nonetheless future-focused and, thus, more likely to be imagined at a temporal distance. Bolder & Francis (2002) posited that desired possible selves serve two distinct functions based on whether their focus is placed on the future (i.e., utopian vision) or shifted to the present (i.e. status quo). When possible worlds maintain their focus to the future, people may approach them as goals to be pursued (i.e., *change function*). That is, reflecting on the possibility of an ideal and more desired reality in the future, ideal (or best) possible worlds may instigate people with motivation to enact behaviours relevant to that goal. Conversely, when possible worlds shift focus to the present, people may approach possible

3 At an individual level, positive associations between possible future selves (i.e., states) and motivation for their realisation have been demonstrated in a range of different settings including: learning and language acquisition (for a review, Rose, Briggs, Boggs, Sergio, & Ivanova-Slavianskaia, 2018), academic/occupational achievement and performance (Griffin, Parker, & Mason, 2010; Oyserman, Bybee, & Terry, 2006), and health (for a review see, Oyserman, Lewis, Yan, Fischer, O'Donell, & Horowitz, 2017; Haskins & van Dellen, 2019).

worlds as standards against which they evaluate their current arrangements (i.e., the criticism function). In this way, utopia appears to have a dual-nature as both a standard and a vision.

Strauss et al. (2012) showed that a positive possible self at work increased motivation to engage in proactive behaviours in order to achieve it (Strauss, Griffin, & Parker, 2012). Specifically, the authors argued that heightened accessibility of an ideal possible self creates a discrepancy between the ideal and the current state which motivates efforts to reduce this gap (Carver & Scheier, 1982; 1990). In a similar fashion, at a collective level, regulatory processes may be enacted during utopian thinking (Fernando et al., 2018; Kashima & Fernando, 2020). Utopian visions, therefore, may generate desired end-states which imbue people with motivation to reduce the discrepancy between these and actual reality.

The self-regulation literature, however, suggests that merely imagining possible selves may be insufficient in instigating motivation to realise them (Haskins & van Dellen, 2019).

Accordingly, possible selves could simply serve as mood enhancers and may even dampen motivation for self-regulation (Gonzales, Burgess, & Mobilio, 2001; Oettingen, Pak, & Schnetter, 2001; Oyserman, & Jones, 2009). Ideal possible selves may provide a temporary sense of elation and general uplift, but not motivation per se. This, in fact, resonates with the

compensation function of utopia where the imagined vision serves as mental escape (Levitas, 1990; Oettingen et al., 2001).4

Further, Haskins & van Dellen (2019) postulated that ideal possible selves instigate motivation and relevant regulatory behaviour through two main routes: vividness of and commitment to the imagined ideal possible state. Vividness refers to the centrality of ideal possible selves and their characteristics in relation to the individual's identity and self-concept. The authors argued that possible selves with heightened vividness are more likely to influence regulatory processes and facilitate engagement (Sheldon & Elliot, 1999). In collective self-regulation, therefore, it might be that the more relevant a utopia (i.e., ideal possible state) is to the individual's identity, values, and beliefs (group/collective and/or ideology) the more likely is to have an effect (i.e., instigate motivation and regulatory processes).

The concept of vividness raises a number of important questions relevant to my thesis. Specifically, vividness is associated with the centrality of a possible world to an individual's group identity and relevant values and principles. One of the objectives of my thesis is to examine whether ideal/best possible worlds (vs. worst or realistic) express idealistic tendencies.

4 There are, of course, other reasons possible future states may fail to have an effect including, the general tendency to prefer immediate gains over delayed ones (Tversky & Kahneman, 1981). For instance, in self-regulation research, individuals showed a similar tendency to favour and attempt to satisfy desires of the present self over interests and desires of an ideal future self (for a review see, Koch & Nafziger, 2008).

Ideal possible worlds (i.e., utopias) should then correspond to ideal conceptions of society based on higher-order values. That is, ideal possible worlds may direct focus on desired end-goals, and thus place intrinsic goals before instrumental and/or pragmatic considerations (Lind & Tyler, 1988; Kivetz & Tyler, 2007). In this way, individuals imagining better societies may seek to express and maximise identity-related goals (Deci & Ryan, 1985; Kivetz & Tyler, 2007). Relatedly, psychological distance has been suggested to activate abstract thinking and thus, elicit idealistic states and motivations to maximise identity-relevant goals (i.e. expressive function; Kivetz & Tyler, 2007; see also Badaan et al., 2020; see Chapters 2 & 3).

Moreover, increased commitment can be achieved when ideal possible states include clear links to routes for their realisation (Hoyle & Sherrill, 2006; Oyserman & James, 2009). Indeed, Hoyle & Sherill (2006) showed that ideal possible selves that include strategies for progress were more likely to induce self-improvement behaviours, compared to identical ideal possible selves that did not include such strategies. Ideal/best possible worlds are primarily concerned with the way things should be but tend to undermine possible routes for their realisation (see Conger & Kanungo, 1998). Thus, I expect best possible worlds to be more abstractly envisioned. In the case of worst possible worlds, which often highlight problems and weaknesses of extant arrangements, the routes for realisation may be more apparent. This proposed difference between best and worst possible worlds is experimentally examined in Chapter 2.

1.3.4. Models of Societal Engagement and Social Change

Kashima and Fernando (2020) recently proposed a model for the regulatory processes which underline the associations between utopian thinking, approach/avoidance motives, and

societal engagement (see Figure 1.1). The basic premise is that collective self-regulation is enacted when the "business as usual" route is interrupted. That is, prospections about a probable, problem-free future are not expected to elicit regulatory processes for societal engagement and change. However, prospections which suggest that extant arrangements may lead to a problematic future may activate utopian thinking. Utopian thinking, in turn, generates cognitive alternatives of better or worse possible future worlds. Better imagined societies are likely to initiate approach behaviours, and thus elicit criticism and intentions to change the status quo. Yet, it is also possible that better imagined societies activate the compensation function and so, lead to disengagement (see also, Barakat, 1969 who argued that utopian thinking elicits political alienation). Arguably, generating cognitive alternatives that are perceived as unfeasible may result in societal disengagement (i.e., compensation function). Similarly, worst imagined societies are likely to activate the three aforementioned functions. Nonetheless, this is likely to occur through initiating avoidance rather than approach behavioural tendencies.

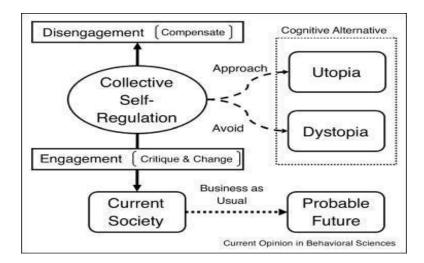


Figure 1.1. Utopian thinking as a collective self-regulation process (adapted from Kashima & Fernando, 2020).

Fernando et al (2018) suggest that individuals who imagine ideal possible worlds tend to report lower satisfaction with society and lower system justification tendencies. Such findings lend support to the criticism function of utopias (see also Fernando et al., 2020 who demonstrated that this function can be moderated by the content of possible worlds). Indeed, the researchers also lent support to the change function of utopias. Findings show that utopian thinking predicts increased willingness to engage in social change behaviours. Further, the authors demonstrate that the criticism function is bolstered under conditions of mental contrasting (i.e., envisioning possible worlds and then consider present reality: Oettingen & Gollwitzer, 2002). However, there is little evidence for the compensation function of utopias and such findings remain correlational, with limited experimental support (Fernando et al., 2018).

Moreover, Badaan et al. (2020) suggested an integrative theoretical model of social psychological mechanisms involved in utopian thinking and social change. Specifically, the authors suggest that social hope (i.e., affective component) and high-construal thinking (i.e., cognitive-motivational component) may mediate the effect of utopian thinking on social change processes. In that way, utopian thinking is seen as responsible for activating system-change motivations (Johnson & Fujita, 2012).

The proposed affective route suggests that utopian thinking heightens feelings of hope for a better future (Bloch, 1986). Hope is often defined as a future-oriented emotion which, although experienced in the present, is primarily concerned with the prospect of positive social change (Baumgartner, Pieters, Bagozzi, 2008; Lazarus, 1991; Snyder, 2002). Indeed, hope has been associated with both utopianism and social change processes (Bloch, 1986; Cohen-Chen & van Zomeren, 2018; Greenaway, Cichocka, van Veelen, Likki, & Branscombe, 2014). For instance,

in their definition of hope, Staats and Stassen (1985) point towards characteristics of utopian thinking but place greater emphasis on affect. Specifically, the researchers put forth that hope involves a simulation of future alternatives which increase positive feelings when contrasted to the present.

Further, Badaan et al. (2020) argue that mental abstraction might be involved in bridging the gap between extant arrangements and ideal possible worlds. In fact, they postulated utopian thinking enacts self-transcendence mechanisms which bind abstract principles and concrete reality (Liberman & Trope, 2008). Such binding may in turn facilitate goal pursual: "high-level cognitive processes make the distant future more cognitively accessible and therefore less 'out of reach', motivationally speaking" (Badaan et al., 2020, p.8).

Moreover, beyond these two routes from utopian thinking, the authors have, also, recognized an obstacle which might impede social change processes: system justification tendencies (Jost & Banaji, 1994; see Jost, 2019 for a review). System justification tendencies refer to motivated positive evaluations of the overarching system. System justification theory holds that individuals are motivated to maintain a positive image of the social system they depend on (Kay et al., 2009). Importantly, system justification suggests that this motivation is not merely supported by advantaged social groups but also by marginalised ones (see, Jost. Burgess, & Mosso, 2001). Empirical evidence suggests that the tendency to justify the status quo stems from epistemic, existential and relational needs (Jost & Hunyady, 2005; Jost, Ledgerwood & Hardin, 2008). That is, individuals are inclined to justify the overarching system to assuage their need to feel that they live in a society which is legitimate, predictable, and stable (Jost, 2019). In fact, the theory holds that system justifiers tend to endorse social, political, and

religious belief systems which rationalise the socio-structural arrangements (i.e., Protestant work ethic, meritocracy, just world beliefs, fair market ideology; Jost & Hunyady, 2005; Jost, Becker, Osborne, & Badaan, 2017). Thus, utopian thinking may depend on individuals' dispositional system justification tendencies. The more psychologically entrenched the status quo is the less influence utopian thinking may have (Chapter 2). It is also possible, however, that utopian thinking influences system justification tendencies – this is further examined in Chapter 3.

Overall, in this thesis, I focus on the cognitive-motivational route (i.e., abstract thinking, Chapter 2) of utopian thinking. Specifically, I examine whether utopian thinking has the capacity to create psychological distance from present reality. When people imagine possible worlds, they are thinking about vastly different hypothetical futures. Utopias envision alternative realities that articulate humanity's aspirations for different ideals (i.e., equality, justice) and desires (e.g., abundance). They tend to be engrossed with the proposed end state (i.e., how things should ideally be) and broad underlying purpose (i.e., why things should be this way). However, they tend to be less concerned with ways such visions should come about (i.e., how things could change; Conger & Kanungo, 1988). These postulations are further considered in Chapter 2, where I examine whether there is an asymmetry in psychological distance between best and worst possible worlds.

Further, I also aim to examine whether utopian thinking would reduce system justifying tendencies. Specifically, following collective self-regulation processes, utopian thinking elicits "better imagined societies" (Badaan et al., 2020). Utopian thinking, thus, elicits superior (to extant reality) alternative which serves as a standard to evaluate the status quo, but also sets a desired-end state to be pursued (i.e., dual nature of utopia; Badaan et al., 2020). In turn, this may

activate system challenge, rather than system justification processes (Kashima & Fernando, 2020; Johnson & Fujita, 2012). I contend, however, that whether utopian thinking would reduce system justifying tendencies might depend on political orientation. Broadly, speaking, left-wing/liberal orientation is characterised by ideals, and ideologies which challenge hierarchical structures and promote social change (Caprara & Vecchione, 2018; Jost Glaser, Kruglanski & Sulloway, 2003a). Conversely, right-wing/conservative orientation is characterised by ideals and ideologies that maintain extant arrangements and resist social change. These common threads of status quo attenuation and social change between the liberal orientation and utopian thinking may thus bolster criticism towards the status quo. In contrast, these broad characteristics of the conservative orientation are incongruent with utopian thinking. This might lead conservative individuals to defend the status quo rather than criticise it following utopian thinking (Jost et al., 2003a). This possibility is further studied in Chapter 3.

Finally, influenced by Baumeister's (1997) work on evil and specifically evil stemming from idealistic conviction, I contend that utopian thinking would promote justification of non-normative behaviours (i.e., radical action and collective violence). Specifically, I suggest that in their desire to make the world a better place (in line with their moral convictions), people may justify violent or otherwise radical acts against out-groups who are perceived as obstacles (i.e., non-conforming) to the ideal vision. In fact, this thesis broadens its scope by considering whether the way people identity with their social groups shapes how utopian thinking affects radicalism and hostility. Particular attention is given to collective narcissism as a form of group identification, given its sensitivity to an otherwise idealised in-group image and also its robust link to out-group hostility (Golec de Zavala, Cichocka, Eidelson, & Jayawickreme, 2009; Cichocka, 2016). Nonetheless, violence and radical actions can constitute non-normative forms

of collective action (Tausch et al., 2011) and thus may raise implications about the change function of utopian thinking. Relevant theory and research which considers how utopian thinking, collective narcissism, and violent or otherwise radical actions may be related is examined in Chapter 4.

1.4. Overview of Empirical Chapters

Chapter 2 addresses, in more detail, how utopian thinking might influence psychological distance. This chapter compares best and worst possible worlds and contends that the former would be prospected as more psychologically distant, compared to the latter. This chapter reports three experimental studies (Studies 1-3) to support this basic proposal. Also, this chapter examines whether dispositional levels of system justification and the relative encounter of dystopian and utopian narratives might be involved in this relationship between utopian thinking and psychological distance. Study 1 examines whether best possible worlds are perceived as more psychologically distant than worst possible worlds. Studies 2 and 3, conceptually replicate results of Study 1 and also examine whether system justification moderates the psychological distance of possible worlds. Studies 2 and 3 also examine whether the prevalence of utopian and dystopian fiction and discourses in contemporary society drives this association between utopia and psychological distance. Finally, textual analyses of participants' open-ended responses are examined, assessing the prevalence of words that are relevant to the moral foundations (the text analysis is reported in full in the supplementary section). Overall, this chapter raises implications about cognitive and motivational processes, underlying collective self-regulation of utopian thinking.

Chapter 3 addresses, in more detail, the relationship between utopian thinking and system justification. The aim is to further explore the contention that utopian thinking elicits criticism towards the status quo (Fernando et al., 2018). However, this chapter contends that whether utopian thinking elicits criticism towards the status quo would depend on political orientation. Chapter 3 reports three experimental studies (Studies 4-6) to support this contention. Following the report of an experiment conducted for the purposes of my MSc research project (dubbed as the Pilot Study), Study 4 offers a conceptual replication, testing whether utopian thinking is more likely to thwart system justification for more liberal individuals, but bolster it for more conservative ones. Moreover, Studies 5 and 6 test similar hypotheses in the context of system change: just prior to the 2016 US Presidential and the 2017 UK General elections, respectively. Finally, Study 4 additionally reports text analyses of participants' open-ended responses assessing the prevalence of words that are relevant to the moral foundations. Overall, this chapter raises implications about the role of utopian thinking, political orientation, and contextual parameters (i.e., elections) on societal engagement processes and specifically criticism of extant arrangements.

Chapter 4 explores the potential of utopian thinking to elicit radical and violent behaviour against non-conforming out-groups. This chapter contends that utopian thinking would increase endorsement of radical and violent behaviour. Furthermore, I contend that utopian thinking would facilitate the robust relationship between collective narcissism and radical/violent behaviour. Chapter 5 reports two cross-sectional studies (Studies 7-8), and three experimental studies (Studies 9-11) examining these contentions. Study 7, relying on a Polish nationally representative sample, provides initial support for these contentions on collective violence. Study 8, relying on vegan (rather than national) identity, provides further support to these contentions

on radical action. Studies 9-11 attempt to provide experimental support to these contentions on collective violence. Overall, this chapter examines questions about the role of utopian thinking and group identification in societal engagement processes, and specifically non-normative and violent action.

CHAPTER 2

"It is the function of utopias...to provide us with the distance from the existing state of affairs which allows us to judge what we are doing in the light of what we could or should do."

_André Gorz, Reclaiming Work: Beyond the Wage-Based Society, (1999, p. 113)

2.1. Introduction

Possible worlds describe visions of future social realities. They depict society as individuals hope it will be and not be (Markus & Nurius, 1986; see also Kashima & Fernando, 2020). Possible worlds are future-focused and so imagined at a temporal distance. This distance, as the above quote by the Austrian-French philosopher André Gorz (1999) suggests, is regarded as a quality of utopia which might not only facilitate a better envisioning of the alternative society imagined, but also provide the necessary distance to reflect, and evaluate the contemporary society (Sargent, 2010).

When people imagine utopias and dystopias, they are thinking about vastly different hypothetical futures. Best possible worlds (i.e., utopias) are primarily engrossed with desired end states, while worst possible worlds (i.e., dystopias) highlight societal dysfunctions of society (and so, possible future horrors). Accordingly, variations in the psychological distance of possible worlds may stem from their valence and the goals that they encompass. Following this, I contend that best possible worlds would be perceived as more psychologically distant, while worst possible worlds would be perceived as more psychologically proximal.

Discrepancies in the way individuals perceive and understand reality, as well as differences in generalized satisfaction with extant arrangements, may also result in differences in the psychological distance of possible worlds. Such variations in psychological distance may hold important implications for the role of utopian thinking in facilitating abstract reasoning (Badaan et al., 2020), activating expressive motives (i.e., identity-relevant motives; Kivetz & Tyler, 2007), and providing the bedrock for eliciting societal engagement (Kashima & Fernando, 2020).

Accordingly, the aim of this first chapter is three-fold: a) to investigate whether best and worst possible worlds vary in terms of the psychological distance these are perceived (i.e., *the construal asymmetry hypothesis*), b) to understand the role of prevalence of cultural and political markers (i.e., contextual and secondary information) of best and worst possible worlds in facilitating psychological distance (i.e., *the cultural exposure pathway hypothesis*) and c) to determine the role of system justification in influencing potential asymmetries in psychological distance between best and worst possible worlds (i.e., *the system justification conditioning hypothesis*).

2.2. Literature Review

In social psychology, the relationship between psychological distance and mental representations (i.e., high vs. low construal) is primarily examined by construal level theory (Trope & Liberman, 2003; for a review see Trope & Liberman, 2010). The basic tenet of construal level theory holds that psychologically distant objects/situations are mentally represented on a higher level of construal (Liberman & Trope, 1998). For instance, in a series of four studies, Liberman et al (2002) demonstrated a positive association between mental

abstraction (i.e., high-level construal) and temporal distance (Liberman et al., 2002; see also Soderberg, Callahan, Kochersberger, Amit, & Ledgerwood, 2015). The authors showed that temporally distant (i.e., far into the future) experiences tend to be more prototypical and less variable than similar experiences which are construed in a proximal temporal distance (i.e., nearfuture; see also Wakslak, Nyssbaum, Liberman, & Trope, 2006). Conversely, contextual and secondary information were more likely to be taken into account for temporally proximal situations (Liberman et al., 2002; Trope & Liberman, 2010). Accordingly, under a high-level construal, mental representations tend to be more abstract and structured. They tend to consider stable, superordinate, and goal-relevant features which convey the essence of an event/situation (Soderberg et al., 2015; Trope & Liberman, 2010). Under a low-level construal, however, people tend to consider peripheral, subordinate, context-specific features of an event/situation. Given that utopian thinking involves imagining better (or worse) future societies, it is important to understand the construal level possible worlds are mentally represented.

Another line of research suggests that compared to proximal situations, distant situations tend to be evaluated in light of higher-order principles (i.e. moral rules and values; Agerström & Björklund, 2009; Eyal, Liberman & Trope, 2008; Kivetz & Tyler, 2007). For instance, Agerström and Björklund (2009) showed that temporally distant (vs. proximal) events were more likely to elicit altruistic (vs. selfish) behaviours. Similarly, Kivetz and Tyler (2007) demonstrated that heightened temporal distance facilitated the activation of an idealistic self, and identity-maximising motives (i.e. expressive function; Deci and Ryan, 1985). These suggest that high-construal representations tend to be underlined by what is desirable. Conversely, Kivetz and Tyler (2007) showed that low-construal representations (i.e., in temporal proximity) tend to consider what is feasible and thus activate a pragmatic self (Trope, Liberman, & Wakslak, 2007).

This suggests that psychological distance appears to promote the use of higher-order principles in attitudes and judgments. Moreover, Bain et al (2013) showed that moral reasoning is consistently evident when thinking about different possible futures. Specifically, the researchers demonstrated that expected morality and warmth of people in the future, bolsters motivation to engage in positive attitudes/behaviours in the present (Bain et al., 2013). Indeed, these findings suggest that psychological distance may not only facilitate high-construal processing but also activate idealistic and moral considerations. Accordingly, in this chapter I examine the level of construal of best and worst possible worlds by examining the psychological distance these are perceived at. I, also, explore participants' descriptions of possible worlds with respect to prevalence of words relevant to moral reasoning.

2.2.1. Eutopian dreams vs. Dystopian nightmares

When people imagine utopias, they tend to think of vastly different hypothetical futures. Eutopias often portray a radical reimagination of how society (i.e. political and economic institutions) and social relations (i.e. human nature) should be, based on ideal aspirations (Adorno, Frenkel-Brunswik, Levinson & Sanford, 1950/2019; Bain et al., 2013; Levitas, 1990). As mentioned in Chapter 1, one way to understand eutopias is as ethically-based alternatives (Levitas, 1990; see also Section 1.2.2). Drawing from abstract concepts such as personal/political values and/or societal principles, eutopias can be seen as alternatives that represent how things should ideally become (Schwartz, 1992; Leung & Bond, 2004). On the contrary, dystopias manifest humanity's biggest fears relevant to their contemporary society and its dysfunctions (Sargent, 2010). Accordingly, imagined dystopias operate as cautionary tales forewarning us of possible future horrors. Imagining worst possible worlds might encourage people to use extant

arrangements as their primary point of reference. Climate change aptly captures the way in which dystopias rely on contextual information. Specifically, the heavy reliance on fossil fuels along with changes in local climates around the globe, has rendered ecological disaster as a future possibility in the eyes of the public (Pew Research Centre, 2019a). This tendency of dystopias to make more explicit connections to contextual and secondary information, may render such reality as a more plausible outcome and thus, psychologically more proximal.

Further, eutopias and dystopias appear to also differ in the nature of their goals. Eutopias are teleological. They tend to direct focus on absolute desired end-goals (i.e., to satisfy/realise an ideal or value; Suvin, 1990). While a teleological focus may be important in vision setting and communication (Conger & Kanungo, 1998; Kirkpatrick & Locke, 1996), it tends to undermine planning for specific steps to achieve goals (i.e., routes for realization, see Oyserman & Jameson, 2009). That is, although a eutopia constitutes an opportunity to 're-design' society into a well-functioning, fair, and just state (i.e., promotion of higher order values and principles), practical and pragmatic considerations may be undermined (i.e., feasibility; Deci & Ryan, 1985; for a similar argument on the lack of routes for realisation of possible selves see Oyserman & Jameson, 2009). Conversely, dystopian visions are contextual in nature, as they often construct a future society which is 'inspired' by dysfunctions found in extant reality. Construal asymmetry between best and worst possible worlds may, therefore, arise. Consequently, in contrast to dystopias, the pathway to the realisation of an eutopian vision may be less clear (Goodwin & Taylor, 1983, ch.1).

It is, therefore, possible that eutopias (vs. dystopias) 'appear' psychologically further in the distance, due to their ethically-laden structure, their teleological nature, and the consequent lack of routes from the status quo to its realisation. Best possible worlds promote high-level construal processing, which may displace them farther than worst possible worlds. Conversely, worst possible worlds might promote a low-level construal processing as they tend to focus more on contextual factors (i.e., extant societal dysfunctions), and how these may negatively unfold.

2.2.2. Zeitgeist and relative exposure

Construal asymmetry between eutopias and dystopias may also arise due to the general socio-political climate (i.e., Zeitgeist; van der Bles et al., 2015). For instance, in light of the economic crisis of 2008, the rise of ethnic nationalism in various liberal democracies, and climate change, people might feel that society is on the decline. In fact, a recent survey demonstrated that people feel a generalised dissatisfaction with liberal democracies, with the current economic situation being its strongest predictor (Pew Research Center, 2019b). Hence, considering the socio-political climate, I expect the dystopian narrative to be rich in contextual and secondary information. This may facilitate its psychological proximity, as people have richer context to rely on when imagining a dystopian possible world. Accordingly, the relative cultural exposure of eutopian and dystopian visions may influence the psychological distance of possible worlds, by providing potential routes for realisation.

Further, dystopian works have seen an exponential increase from the early 20th century onwards, relative to eutopian works (Bedore, 2017). From Aldous Huxley's (1932/2007) *Brave New World* and George Orwell's (1949/1977) *Nineteen Eighty-Four* to more contemporary works such as the *Hunger Games* (Collins, 2008), dystopian pop-culture references appear to have increased in prevalence, compared to eutopian ones. I, therefore, expect worst possible worlds to be perceived psychologically closer than best possible worlds, due to the asymmetry in

prevalence and exposure to each type of possible worlds (i.e., *the cultural exposure pathway hypothesis*). In the current research, I gauged cultural exposure by the reported prevalence of dystopian and eutopian references in popular culture and politics. If dystopias are more prevalent, this may influence their perceived proximity. That is, worst possible worlds may appear more familiar, more possible, and thus, psychologically more proximal compared to best possible worlds.

2.2.3. Preconceived beliefs about society

Psychological distance of best and worst possible states may depend on people's underlying attitudes towards society. For instance, holding positive beliefs about society (i.e., feeling satisfied with the way things are), may increase the psychological distance of worst possible worlds and decrease the distance of best possible worlds. Conversely, holding negative beliefs about society (i.e., less satisfied with the status quo) may decrease the psychological distance of worst possible worlds, and bolster the distance of best possible ones. In this research, I use system justification to gauge satisfaction with the status quo.

System justifiers, due to their affinity with the status quo, may perceive or rationalise worst possible worlds as not very probable, and thus psychologically distant. However, with respect to eutopias, they may feel that society is progressing and is steadily approaching its best/ideal version. In such case, they may perceive eutopias as psychologically proximal. Conversely, it is also possible that high system justifiers also dismiss eutopias and thus perceive best possible worlds as equally distant, as worst possible worlds (Fernando et al., 2018). This may be due to system justifiers' general satisfaction with the status quo, the need to feel that society is stable, and due to their general inclination to maintain it (i.e., aversion to social

change; Jost et al., 2003a). Low system justifiers, on the other hand, may perceive worst possible worlds as more psychologically proximal, and best possible worlds as more distant. That is, I expect low levels of system justification to bolster the proposed construal asymmetry between possible worlds (i.e., *the system justification conditioning hypothesis*). While here I focus on how system justification may moderate the effects of eutopian versus dystopias, in Chapter 3 I examine the effect of utopian thinking on system justification itself.

2.4. Overview of the present studies and hypothesess

The following section presents a series of three experimental studies that examine how best and worst possible worlds influence psychological distance. Study 1 is exploratory and attempts to understand how best and worst possible worlds are psychologically construed. I contend that best possible worlds would be appraised as more psychologically distant, compared to worst possible worlds (*construal asymmetry hypothesis*; Studies 1 – 3). Furthermore Studies 2 and 3, examine cultural exposure as a potential mediator. I expect the asymmetry in psychological distance to be mediated by cultural exposure to worst possible worlds (*cultural exposure pathway hypothesis*). Studies 2 and 3, also, examine system justification as a potential moderator. I expect high system justification to dampen the proposed association between psychological distance and possible states (*system justification conditioning hypothesis*). Finally, given the social evocative nature of –topias and the importance of language, I expect that

⁵ The studies reported in this chapter are part of a larger project led by my second supervisor Robbie Sutton. Data were re-analysed for the purposes of this thesis.

explicitly using the words "utopia" and "dystopia" (as opposed to generically "best" and "worst" worlds) to augment any differences in psychological distance across the two imagined futures (Study 3). This attempt to disentangle the contributions of valence (positive vs. negative), and labelling (presence vs. absence of labels) of possible worlds is examined in Study 3.

2.5. Study 1

In Study 1, I examined the effect of valence of possible states on psychological distance. Information about the participants, the design, the experimental procedure, and the measures employed is provided in this section. Given that this was part of a larger study only key measures are considered here.

2.5.1. Method

Participants

Participants were 211 undergraduate students from the University of Kent, United Kingdom, who received course credits for completing an online questionnaire. One hundred and sixty-eight females and 43 males with the mean age was 19.91 years (SD = 4.54; range 18 - 51) took part in the study.

Procedure, design, and materials

Participants were randomly assigned to one of the three possible worlds: positive/best (i.e., utopia; N = 64) vs. negative/worst (i.e., dystopia; N = 70) vs. baseline (control; N = 77), in a between-subjects design with three conditions. Sample size was heuristically determined by aiming to include 50 participants per condition (Simonsohn, Nelson, & Simmons, 2013).

Participants were asked to jot down their ideas about the future of British society. In each of the experimental conditions (i.e. (e)utopia vs. dystopia), participants were first given a brief definition of a utopia/dystopia, and then asked to imagine the best/worst possible version of British society as it might be in 50 years' time. In the control condition, participants were simply asked to describe the "most likely future Britain". Participants were encouraged to be as specific and vivid as they could in the description of their world, write 200 to 300 words, and spend approximately five minutes on this task. A timer was added on the webpage so that participants could not progress in the survey before they had spent 5 minutes on the writing task.

Participants in the control condition were not asked to rate their imagined world for psychological distance, thus only results from the two experimental conditions are reported below. Participants (N=55) who had written fewer than 100 words were excluded from the analysis for not following instructions. Then, participants' paragraphs were coded as either "dystopian" or "utopian" based on the written content, by a research assistant, blind to the hypotheses and conditions. Any participant whose paragraph was assigned to a category that did not match the condition to which they had been allocated, was excluded from analysis. This left a final sample of 92 participants (Utopia: N= 44; Dystopia: N= 48).

Psychological Distance

Participants were asked to rate how realistic, distant, and likely the futures were, on a 7-point scale, e.g., "How distant do you think the society you described in your utopia (dystopia) is from the current world?" ($1 = Not \ at \ all; 7 = Very$). These items formed a reliable scale ($\alpha = .80$).

2.5.2. Results

Possible States Effect on Psychological Distance

The construal asymmetry hypothesis was assessed by conducting an independent samples t test on psychological distance, with the experimental conditions as the independent variable. The t test revealed that participants in the best possible worlds condition, perceived their imagined vision as psychologically more distant than participants in the worst possible worlds condition ($M_{utopia} = 5.67$, $SD_{utopia} = 1.01$; $M_{dystopia} = 4.69$, $SD_{dystopia} = 1.51$). The difference was statistically significant and the estimated effect size was medium to large, t(82.58) = 3.69, p < .001, d = 0.76.

Summary of Supplementary Analyses

By employing computerised text analysis methods on participants' open-ended responses (i.e., descriptions of the possible world imagined), I examined whether best and worst possible worlds were morally loaded (i.e., activation of higher-order values). Specifically, I examined whether participants' descriptions of possible worlds contained words relevant to the five moral foundations (Haidt, 2012; Haidt & Graham, 2007; further information is Supplementary 2.A.). Using the moral foundations framework, as an index of abstraction and moral reasoning, as opposed to other models (e.g., Schwartz, 1992), was primarily for practical purposes. The availability of a moral foundations dictionary enabled its' post-hoc application on respondents' (open-ended) accounts of possible worlds. This, crucially, allowed the use of an objective content analytic method which precludes the influence of coder' value judgments or subjective interpretations of contents.

The moral foundation framework is, nonetheless, considered suitable to better understand whether utopian thinking promotes high-construal reasoning for other reasons. Previous

research, for instance, demonstrates that psychological distance and activation of moral foundations are intimately related (Eyal & Liberman, 2012). Moral foundations reflect abstract mandates and rules which are more likely to be used to construe distant (vs. proximal) situations. Accordingly, if best possible worlds are more psychological distant, they are expected to also include more foundation relevant words. Further, given that comparisons entail differences between best and worst possible worlds, this approach is particularly useful as it enables the detection of words relevant to both violation and/or support of the five moral foundations. For instance, it might be that participants' accounts of best possible worlds to include more foundation-supporting words (i.e., virtues). This would reflect the importance and centrality of each foundation when imaginatively constructing an ideal society (engaging in positive utopian thinking). Additionally, not only this approach offers an assessment on the degree of abstraction of dystopian thinking but also gauges the consideration of whether moral foundation violations are involved when envisioning of societal dysfunctions and associated restrictions. That is, consideration of foundation-violating words (i.e., vices) might be more prevalent in participants' accounts of worst possible worlds.

In line with the construal asymmetry hypothesis, and the proposed activation of higher-order principles, and values following utopian thinking, I expected best possible worlds to be more morally loaded, especially with foundation-supporting (i.e., virtues) words, compared to worst possible worlds. Here, I provide a summary of the findings, while further details can be found in Supplementary 2.A.

Compared to the worst possible worlds, best possible words contained more foundation-violating words (i.e., vices) related to fairness, and more words related to morality in general.

Conversely, worst possible worlds contained more foundation- supporting words (i.e., virtues) related to in-group loyalty, and foundation-violating words related to harm care, compared to best possible worlds (Figure 2.1; see also Table S2.1. in Supplementary 2.A).

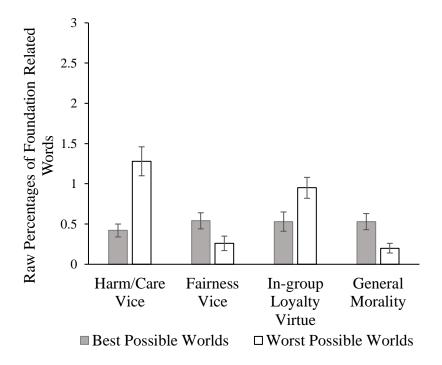


Figure 2.1. Error bars represent standard errors.

2.5.3. Summary

Consistent with the construal asymmetry hypothesis, this study shows that best (vs. worst) possible worlds are envisioned in greater psychological distance. Participants assigned in the best possible worlds condition, were more likely to appraise the possible world imagined as less likely, less realistic, and further in the future, compared to those assigned in the worst possible worlds condition.

Furthermore, text analyses revealed that best possible worlds included more words related to fairness violation and morality in general. The former suggests that participants negated/denied certain features of the status quo. That is, participants may have described an

ideal society where issues such as inequality, unfairness, and injustice have been eliminated (i.e., negated). Further, worst possible words included more words related to harm/care violations and support of in-group loyalty. The latter suggests that participants may have considered potential consequences of worst possible worlds (i.e., harm, suffering, violence, etc.). The former, however, may suggest that participants considered how their allegiances and group-belonging may be shaped in a dystopian society. It is possible that in a worst possible world people may consider who can be trusted and therefore promoting in-group solidarity. Finally, the overall prevalence of general morality in best (vs. worst) possible worlds suggest that participants considered a society based on their higher-order principles and values

2.6. Study 2

Study 2 attempted to replicate the findings reported in Study 1, but also test for the potential mediational role of relative cultural exposure, and the moderating role of system justification. The prevalence of utopian works in popular culture and public discourse is lower, relative to dystopian ones (Bedore, 2017) which may, at least, partly account for the psychological proximity of the latter relative to the former.

Additionally, Study 2 tests whether system justification conditions the relationship between possible states and psychological distance. I expected high system justifiers to perceive worst possible worlds, as more distant, and best possible worlds as more proximal (i.e., reversing the construal asymmetry). Conversely, for low system justifiers I expected an increase in the psychological distance of the best possible worlds and the psychological proximity of the worst possible worlds.

Finally, in order to ensure consistency with the literature on psychological distance and construal level theory, psychological distance was assessed on all four of its dimensions (hypotheticality, spatial, temporal, and social distance).

2.6.1. Method

Participants and design

Two hundred and nine participants ($N_{\text{eutopia}}=103$, $N_{\text{dystopia}}=106$) from Amazon Mechanical Turk (MTurk) were recruited to participate in a study on "imagining societies". Three participants were excluded as they failed to correctly identify the type of society they were asked to imagine. The final sample consisted of 207 participants ($N_{\text{eutopia}}=101$, $N_{\text{dystopia}}=106$). Sample size was determined, using G*Power software (Fail, Lung, & Buchner, 2007), with an 80% power to detect a main effect of the magnitude d=.41, p<.05, for comparisons between two groups (Richard, Bond Jr., & Stokes-Zoota, 2003). This analysis yielded 95 participants per condition. I aimed to collect 110 participants per condition to allow for exclusions.

Materials and procedure

Participants were randomly assigned to a possible worlds condition (utopia/best vs. dystopia/worst), in a between-subjects design with two conditions. As in Study 1, the manipulation of possible worlds consisted of a writing task, where participants were asked to imagine a future society and spend at least three minutes to write approximately 100-200 words. As before, participants were instructed to describe their imagined society as vividly and clearly as possible. Unlike Study 1, the instructions did not specify a specific country for participants to imagine, while the words "utopia" and "dystopia" were used only in the titles of the instruction

Note that the sample consisted of US participants and thus I expected them to primarily think about the US society when envisioning their possible world. Nonetheless, not specifying a specific country ensured that participants' imagination was not spatially or otherwise bounded.

Psychological distance

According to construal level theory there are four related dimensions of psychological distance – spatial distance, temporal distance, reality distance (i.e. probability), and social/personal distance (i.e. familiarity; Fiedler et al., 2012). Participants were asked to indicate, on an 8-point scale, whether the society they had imagined seemed: a) located at a near [distant] place; b) in the near [distant] future; c) likely [unlikely]; d) a [un]familiar society that you [don't] know. These items had good internal reliability (α = .89) and were therefore combined into a composite measure.

Cultural exposure

Participants were asked to indicate how often, on a scale from 1 = never to 7 = very often, they had come across societies like the one they were asked to imagine in various forms, including fictional literature, film, human history, political debate, religious teaching, and the media (e.g., in newspapers or on TV). This allowed to examine whether the difference in psychological distance was a function of perceived exposure to utopian and dystopian ideas, in politics, popular culture, and society in general. Cultural exposure items had good internal reliability ($\alpha = .81$).

Dispositional system justification

Satisfaction with the status quo was measured using the System Justification scale (Kay & Jost, 2003). The system justification scale included eight items e.g., "In general, the US political system operates as it should", and "Society is set up so that people usually get what they deserve" ($1 = strongly\ disagree$, $7 = strongly\ agree$). The system justification scale had good internal reliability ($\alpha = .85$).

Note that participants responded to system justification items (moderator), prior to the manipulation. Following the writing task, participants completed the psychological distance and cultural exposure measures. Additionally, an array of measures were included in this study for exploratory purposes, including institutional cynicism, cynicism about human nature, and generalised trust. The three measures were presented along with system justification, prior to the manipulation (details about these measures and related analyses are reported in the supplementary materials of this chapter; see Supplementary 2.B.). Finally, along with demographics, participants were asked to indicate the type of possible worlds they had just imagined, which served as an attention check.

2.6.2. Results

In this section the construal asymmetry hypothesis was tested on a different sample. Also, the cultural exposure pathway hypothesis and the conditioning system justification hypotheses were tested.

Descriptive Statistics and Zero-order Correlations

Table 2.1. reports the means, standard deviations of each variable, as well as the correlation amongst them. Psychological distance was not statistically correlated with system

justification. Cultural exposure and psychological distance were significantly negatively correlated. Cultural exposure and system justification were not statistically correlated.

Table 2.1.

Correlations and Descriptive Statistics for Study 2

Variable	М	SD	2.	3.
1. Psychological Distance	4.57	1.69	38***	.05
2. Cultural Exposure	3.25	1.24	_	03
3. System Justification	3.59	1.17		_

Note. **p* < .05. ***p* < .01. ****p*< .001.

Possible Worlds Effects on Psychological Distance

An independent samples t-test revealed that participants in the best possible worlds condition perceived their imagined vision as more psychologically distant than participants in the negative possible worlds condition; $M_{\text{utopia}} = 5.12$, SD = 1.56 vs. $M_{\text{dystopia}} = 4.04$, SD = 1.65). The difference was statistically significant, and the estimated effect size was medium to large; t(205) = 4.82, p < .001, d = 0.67.

Mediating role of cultural exposure

A bootstrapped mediation analysis (Hayes, 2013, Model 4) was also conducted to assess whether greater cultural exposure to dystopian versus utopian ideas accounted for the psychological proximity of the former relative to the latter. The full model accounted for a significant portion of variance in psychological distance, R_2 =.20, F(2, 204) = 25.15, p<.001. The total effect of possible worlds on psychological distance was statistically significant, B = 0.54(0.11), t(204) = 4.82, p<.001, BCI95%[0.32, 0.76], effect size = .32. Also, the direct effect of possible worlds on psychological distance was statistically significant, B = 0.40(0.11), t(204) = 3.61, p<.001, [0.18, 0.61], effect size = .23.

The path from possible worlds to cultural exposure was statistically significant, B = -0.33 (0.08), t(205) = 3.90, p < .001, [-0.49, -0.16]. The direct effect of cultural exposure on psychological distance was significant: B = -0.44 (0.09), t(204) = 4.94, p < .001, [-0.61, -0.26]. The indirect effect of possible worlds on psychological distance via cultural exposure was statistically significant, B = 0.14(0.05), BCI_{95%} [0.06, 0.24].

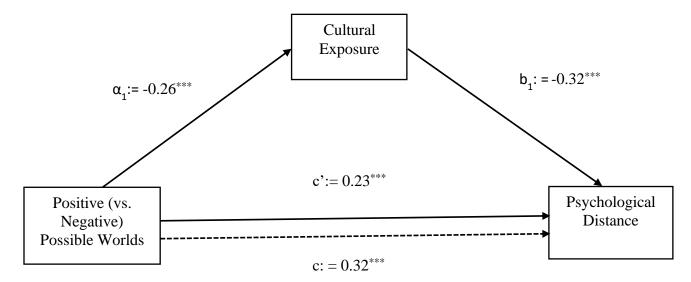


Figure 2.2. Entries are standardized coefficients (Study 2)

Moderating role of system justification

A moderation analysis (Process, Model 1) was conducted to examine whether acceptance and justification of the overarching socio-political system moderated the association between possible worlds and psychological distance (i.e., the system justification conditioning hypothesis). Note that cultural exposure was included in the model as a covariate, (although the effects remain the same, even if cultural exposure is not accounted for).

A statistically significant interaction effect was found, F(1, 202) = 5.84, p=.017, $\Delta R_2 = .02$. For low system justifiers (1 *SD* below the mean), best possible worlds were reported being more psychologically distant, relative to worst possible worlds, *point estimate* = .68 (.16), t(202) = 4.30, p<.001, BCI95%[0.37, 0.99]. For high system justifiers (1 *SD* above the mean), there was not a significant difference in psychological distance of best and worst possible worlds, *point* estimate = .15 (.16), t(202) = 1.01, p = .31, BCI95%[-0.14, 0.45].6

⁶ Further analyses examined two-way interaction effects between possible worlds and potential moderators: generalized trust, institutional cynicism, cynicism about human nature. The analyses revealed that only the two-way interaction effect with system justification was statistically significant, $\beta = -.17$, B = -0.25 (0.10), [-0.46, -0.05] (Supplementary 2.B. reports further details on each measure and this analysis).

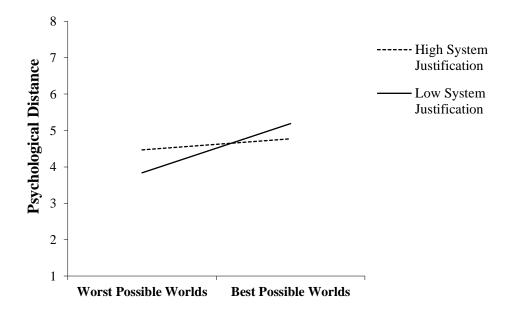


Figure 2.3. Interaction between possible worlds and system justification on psychological distance (Study 2)

Summary of Supplementary Analyses

Study 2 also examined whether participants open-ended responses contained words that either supported or violated the five moral foundations. Best (vs. worst) possible worlds contained more supporting words relevant to harm/care and fairness foundations. Worst (vs. best) possible worlds contained more supporting words relevant to authority, and more violating words relevant to harm/care and purity/sanctity foundations (Figure 2.4., see also Table S2.2. in Supplementary 2.A.).

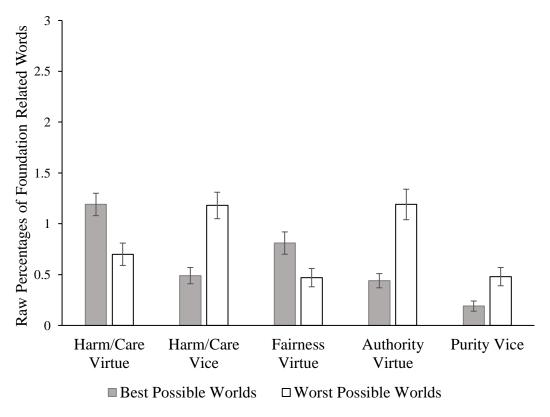


Figure 2.4. Error bars represent standard errors.

2.6.3. Summary

Study 2 provided further support for the primary hypothesis of this chapter that utopias are perceived as being more psychologically distant than dystopias. Further, in Study 2, the roles of system justification and cultural exposure on the possible worlds – psychological distance relationship, were also tested. Indeed, system justification moderated the effects of possible worlds on psychological distance. Specifically, for high levels of system justification, the psychological distance asymmetry between best and worst possible worlds was diminished. On the other hand, low levels of system justification moderated this asymmetry in psychological distance, by casting utopias further in the distance, and dystopias even closer. Further, Study 2 suggested that dystopias' proximity is mediated by the higher prevalence of dystopia, relative to

utopias, in popular culture and politics. The latter may suggest that dystopias contain more contextual and secondary information which facilitates its psychological proximity.

Finally, text analyses revealed that best possible worlds included more words related to harm/care and fairness virtues. These findings suggest that participants may have considered positive aspects, developments, and virtues that best possible worlds often entail (i.e., harm/care: kindness, caring, benevolence; fairness: justice, equity, egalitarianism, etc.; see also Bain et al., 2013). While worst possible words included more words related to harm/care and purity violations and support of authority. As in Study 1, violations of harm/care foundation, suggest that participants may have considered potential consequences of worst possible worlds. Violations of purity may reflect participants concerns about social degradation, corruption, and other horrifying outcomes dystopian possibilities often entail. Conversely, support for authority may reflect participants' considerations of power, and the disruption of extant arrangements. That is, participants may have negated beneficial outcomes that often stem from authority, (i.e., governance, respect, obedience, conformity, etc.). It is also possible, however, that activation of authority virtues reflects concerns of totalitarian/authoritarian control that often characterises dystopian realities.

2.7. Study 3

Study 3 attempted to offer a replication of the results of Study 2. Study 3 also introduced a variation in the writing task instructions. Specifically, to examine whether the presence of the word/labels, utopia and dystopia, (rather than their valence) predicted the relative difference in psychological distance. In Study 3 the presence vs. absence of these labels was introduced as a new two-level factor in the experimental design.

Accordingly, the aim of Study 3 is two-fold: 1) to replicate results of Study 2 and thus provide further support to the primary and secondary hypotheses and 2) to disentangle the contributions of valence and labels in the observed construal asymmetry of possible worlds.

2.7.1. Method

Participants

Three hundred participants were recruited online via Amazon Mechanical Turk. Seventynine participants were excluded as they failed to correctly identify the type (i.e., utopia/best vs.
dystopia/worst) of the possible world they had been asked to write about. The final sample
included 221 participants (109 female, 111 male, and 1 trans- or other-gendered). The mean age
was 36.18. years ($SD_{age} = 11.18$). I assumed average effect size for social psychology of d = .41and aimed for an overall power of .80. I estimated a sample size with G*Power (Faul et al.,
2007), assuming power of .80. This analysis yielded a total sample size of 264 participants. I
aimed to collect 300 participants to allow for exclusions.

Design, Procedure, and Materials

This study was a 2 (possible worlds: best vs. worst) x 2 (label: labelled vs. unlabelled) between subjects' design. As in the previous studies, participants were randomly assigned to imagine and write about either a utopian or a dystopian future world. Yet, unlike Study 1 and 2, in this final study an additional variation was introduced. Specifically, participants were randomly assigned to instructions that either presented or concealed the explicit labels "utopia" and "dystopia". In the latter case, participants were instead prompted to imagine and write about the "best" and "worst" possible worlds. Note that in the former case, however, as in Study 2, the

labels utopia and dystopia were only presented in the title of the instructions. The manipulation of labels was introduced to examine the influence of these keywords on psychological distance. Participants were randomly assigned to different levels of the two experimental manipulations, resulting in 65 participants in the worst/no label condition, 47 participants in the worst/label condition, 57 participants in the best/no label condition, and 52 participants in the best/label condition. Furthermore, unlike Study 2, the emphasis on the specific society (i.e., the US) was reintroduced. Thereby, participants were asked to imagine the best/worst possible version of American society, as it may be in 50 years' time.

Cultural Exposure

Using the same items as in Study 2, participants were asked to indicate how often, on a scale from 1 = never to 7 = very often, they had come across societies like the one they were asked to imagine. Cultural exposure items had good internal reliability ($\alpha = .81$).

System Justification

As in Study 2, system justification was measured using the System Justification scale (Kay & Jost, 2003). The system justification scale had good internal reliability ($\alpha = .86$).

Psychological distance

Participants' psychological distance was measured with the same items as Study 2. The measure of psychological distance had good internal reliability ($\alpha = .87$).

Note that participants responded to system justification items prior to the manipulation. Following the writing task, participants completed the psychological distance and cultural

exposure measures. Similar to Study 2, institutional cynicism, human nature cynicism and generalised trust were included as moderators. Finally, along with demographics, participants were asked to indicate the type of possible worlds they had just imagined, which is/was used as an attention check. More details about these measures and related analyses are reported in the supplementary materials of this chapter.

2.7.2. Results

Descriptive Statistics and Zero-order Correlations

Table 2.2. reports the means, standard deviations of each variable as well as the correlation amongst them. Unlike Study 2, in Study 3 psychological distance was positively correlated with system justification. Further, psychological distance was negatively correlated with cultural exposure.

Table 2.2.

Correlations and Descriptive Statistics for Study 3

Variable	М	SD	2.	3.
1. Psychological Distance	4.71	1.75	39***	.22***
2. Cultural Exposure	3.66	1.33	_	03
3. System Justification	3.64	1.28		

Note. *p < .05. **p < .01. ***p< .001.

Possible Worlds Effect on Psychological Distance

A 2 (Valence: positive vs. negative) x 2 (Label: present vs. absent) between-groups ANOVA showed that, as predicted, utopias were more psychologically distant than dystopias. There was a main effect of valence, F(1, 217) = 10.38, p = .001, $\eta_2 = .046$. However, while there was no main effect of Label, F(1, 217) = 1.56, p = .21, $\eta_2 = .007$, there was a Valence x Label interaction effect, F(1, 217) = 4.74, p = .031, $\eta_2 = .021$. Simple effects analysis showed that utopias (M=5.17, SD=1.77) were more psychologically distant than dystopias (M=3.93, SD=1.77)1.78) particularly when possible worlds were explicitly labelled as such, F(1, 217) = 13.21, p <.001, η_2 = .057. In the absence of explicit labels, there was no significant difference in the psychological distance of utopias and dystopias, F(1, 217) = 0.61, p = .44, $\eta_2 = .002$. These results confirmed my hypothesis that labelling positive and negative imagined worlds as "topias" would augment the effect of world type on psychological distance, but I did not expect that there would be no difference in the absence of labels. Further simple effects tests confirmed that the psychological distance of utopias was not affected by labels, F(1, 217) = 0.43, p = .51, $\eta_2 = .002$. but labelling dystopias explicitly (Mlabelled = 3.93, SDlabelled = 1.78; Munlabelled = 4.71, SDunlabelled = 1.69) made them psychologically closer, F(1, 217) = 5.87, p = .016, $\eta_2 = .026$ (Figure 2.5).

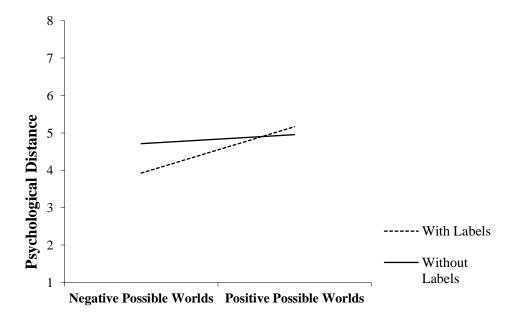


Figure 2.5. Interaction between valence and label on psychological distance (Study 3)

Mediating role of cultural exposure

A bootstrapped mediation analysis (Hayes, 2013, Model 4) was conducted to assess whether greater cultural exposure to dystopian versus utopian ideas accounted for the psychological proximity of the former relative to the latter. Note that, the labels factor was introduced to the model as a covariate. As in Study 2, participants reported being exposed to dystopias more often than utopias, which mediated the association between possible state and psychological distance.

Specifically, the full model accounted for a significant portion of variance in psychological distance, R_2 =.16, F(3, 217) = 14.10, p<.001. The total effect of possible states on psychological distance was statistically significant, B = 0.35 (0.12), t (217) = 2.99, p=.003, BCI_{95%} [0.12, 0.57], effect size = .20. However, the direct effect of possible states on

psychological distance was not statistically significant, B = 0.17 (0.11), t(217) = 1.47, p=.14, BCI_{95%} [-0.06, 0.38], effect size = .10.

The path from possible states to cultural exposure was statistically significant, B = -0.38 (0.09), t(218) = 4.40, p < .001, [-0.55, -0.21]. The direct effect of cultural exposure on psychological distance was also significant: B = -0.48 (0.09), t(217) = 5.55, p < .001, [-0.64, -0.31]. The indirect effect of cultural exposure on the relationship between possible states and psychological distance was statistically significant, B = 0.18 (0.05), BCI95% [0.09, 0.28].

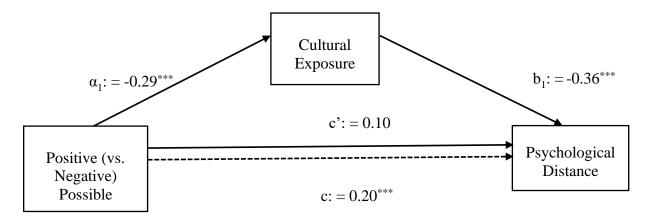


Figure 2.6. Indirect effect of possible worlds on psychological distance via cultural exposure.

In light of the interaction effect observed in the ANOVA, I also conducted a moderated mediation analysis (Model 59), in which moderation effects of label were tested on the a path (between world type and exposure), the b path (between exposure and distance), and the c path (the direct effect of world type on distance). This model showed that the indirect effect of valance on psychological distance via exposure, was not moderated by label, *point estimate* = .06 (.11), [-0.15, 0.27], and was significant, whether labels were present, *point estimate* = .21(.08), [0.06, 0.37] or absent, point estimate = .15(.07), [0.03, 0.29]. In contrast, the model revealed that

the direct effect of world type on psychological distance was significant when labels were present, t(217) = 2.43, p = .02, point estimate = .42(.17), BCI_{95%} [0.08, 0.75], but not when they were absent, t(217) = -0.18, p = .86, point estimate = -.03, 95% BCas [-0.32, 0.27]. The moderating role of label was significant, t(217) = 2.35, p = .019, point estimate = .24, BCI_{95%} [0.04, 0.44]. This latter effect is in line with the augmenting effect reported above, showing that the association between valence of possible worlds and psychological distance was bolstered in the presence of labels yet thwarted in their absence.

Together, these models indicate that regardless of how imagined worlds are labelled, they have an indirect effect on psychological distance, via the greater cultural familiarity of dystopias. However, the direct effect of these worlds on psychological distance depends on their being explicitly labelled as "u" or "dys" topias.

Moderating role of system justification

A moderation analysis (Process, Model 1) was conducted to examine whether justification of the overarching socio-political system in the United States moderated the association between possible states and psychological distance.

Note that label was included in the model as a covariate, yet it did not reach statistical significance (p = .19). A statistically significant interaction effect was found, F(1, 216) = 22.58, p<.001, $\Delta R_2 = .09$. For low system justifiers (1 *SD* below the mean), positive possible states were reported being more psychologically distant, relative to negative possible states, *point estimate* = .88 (.15), t(216) = 5.75 p<.001, 95% BCI [0.58, 1.19]. For high system justifiers (1 *SD* above the mean), there was not a statistically significant difference in psychological distance of positive

and negative possible states, point estimate = -.17 (.16), t(217) = 1.11, p = .27, 95% BCI [-0.48, 0.13] (Figure 3.7.)7.

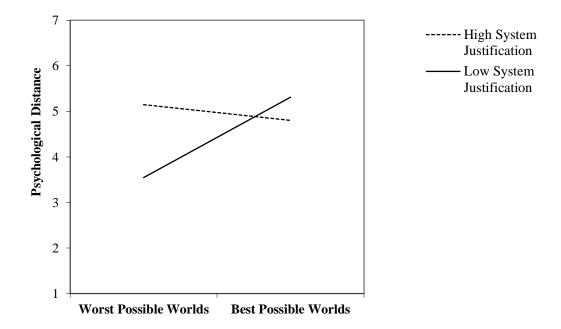


Figure 2.7. Interaction between valence of possible world and system justification on psychological (Study 3).

7 As in Study 3, I also examined two-way interaction effects between possible worlds and potential moderators: generalized trust, institutional cynicism, cynicism about human nature, and system justification in a single model. The analyses revealed that only the two-way interaction effect with system justification was statistically significant, $\beta = -.21$, B = -0.28 (0.11), [-0.49, -0.08] (Supplementary 2.B. reports further details on each measure and this analysis).

Given the significant interaction among valence and label, I used Process, Model 3 to assess whether the three-way interaction among valence, label, and system justification on psychological distance was statistically significant. System justification was entered as the independent variable, while valence and wording were introduced as the two moderators. Although, the three-way interaction did not reach statistical significance, *point estimate* = -.11 (.09), t(213) = 1.28 p = .20 95%BCI[-0.28, 0.06], the main effect of valence and the two-way interactions (valence x system justification; valence x label) remained significant.

Summary of Supplementary Analyses

Study 3 also examined whether participants open-ended responses contained words that either supported or violated the five moral foundations. Specifically, I compared prevalence of words across valence (i.e., positive vs. negative), whilst controlling for labels. Similar to Study 2, best/positive (vs. worst/negative) possible worlds contained more supporting words relevant to harm/care and fairness foundations. Also, similar to Study 1, best (vs. worst) possible worlds contained more words relevant to morality in general. Worst (vs. best) possible worlds, similar to Study 2, contained more supporting words relevant to authority, and more violating words relevant to harm/care foundations (Figure 2.8., see also Table S2.3. in Supplementary 2.A.).

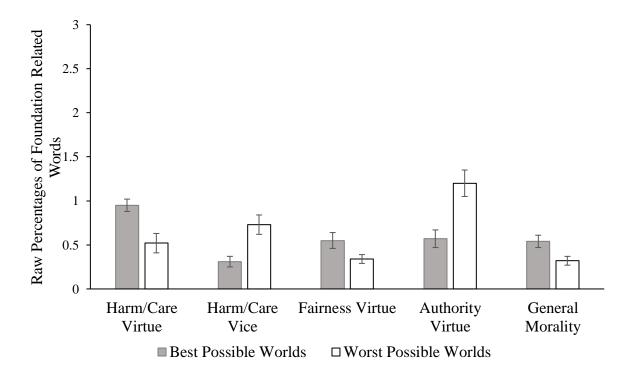


Figure 2.8. Errors bars represent standard errors.

2.7.3. Summary

This study showed that participants found positive possible worlds to be more psychologically distant compared to negative possible worlds (i.e., main effect of valence). The explicit use of labels, however, did not have a direct effect on the psychological distance of possible worlds. However, further analyses revealed that the presence of labels had a bolstering effect on the association between valence and psychological distance. In fact, positive (vs. negative) possible worlds were appraised as more distant in the presence of labels. Yet, in the absence of such labels this effect was diminished. This finding suggests that the construal asymmetry hypothesis might be due to valence, but nevertheless conditional to the way possible worlds are framed. Specifically, these findings suggest that the proximity of worst possible

worlds is enhanced when these are labelled as dystopias, while the distance of best possible worlds is not influenced by the presence of labels.

Furthermore, Study 3, similarly to Study 2, showed that psychological distance of possible worlds is mediated by the cultural and political exposure of each type of possible world. In fact, like Study 2, the effect of positive and negative possible worlds on psychological distance was mediated by cultural exposure. Specifically, unlike the direct effect of valence, the indirect effect of possible worlds on psychological distance via cultural exposure was not conditioned by the presence/absence of labels. Moreover, as in Study 2, the effects of possible worlds on psychological distance were moderated by system justification. Specifically, for individuals low in system justification, the asymmetry in psychological distance between positive and negative possible worlds was bolstered, while for individuals scoring high on system justification, the asymmetry was diminished. Finally, text analyses revealed that best possible worlds included more words related to fairness and harm/care virtues and morality in general. While worst possible words included more words related with harm/care violations and authority support.

2.8 General Discussion: Chapter 2

The presented findings suggest that best possible worlds are more psychologically distant than worst possible worlds. This asymmetry in psychological distance, appears to be primarily a function of the valence of the given possible world. The findings also showed that the presence (vs. absence) of explicit labels appears to bolster this asymmetry. Results also showed that this asymmetry is mediated by the relative contextual salience (i.e., cultural exposure) of

utopias/dystopias in culture and politics, as well as the dispositional affinity individuals have towards extant arrangements.

The results of Study 1 provide initial evidence for an asymmetry in psychological distance between imagined best and worst possible worlds. Results suggest that best possible worlds are perceived as more psychologically distant, compared to worst possible worlds which are perceived as more psychologically proximal. Additional support for this asymmetry in psychological distance was obtained in Studies 2 and 3, which replicated the initial findings. While Study 2 maintained the same experimental manipulation as Study 1, Study 3 attempted to disentangle framing and valence effects that contribute to the construal asymmetry of possible worlds. The results demonstrated that this asymmetry stems from valence, with positive possible worlds perceived as more distant than negative ones. Importantly however, further analyses revealed that this was conditional to the way possible worlds were framed. These findings suggest that the proximity of worst possible worlds is enhanced when they are labelled as dystopias, while the distance of best possible worlds is not influenced by the presence of labels.

Studies 2 and 3 identified that relative exposure to utopian and dystopian markers in society to mediate this asymmetry. Indeed, exposure to dystopias was higher relative to utopias. This may suggest that representations of dystopias may be more cognitively accessible than utopias (Higgins, 1996). This, indeed, echoes previous research which holds that the contemporary Zeitgeist in Western democracies is negative (van der Bles et al., 2015). Such discontent may render dystopian alternatives higher in perceived plausibility, when compared to utopian ones (see Pew Research Centre, 2019a). Further, the apparent prevalence of dystopian representations appears to facilitate the asymmetry in psychological distance between best and

worst possible worlds. Therefore, more contextual and secondary information were associated with dystopias (vs. utopias), which may have shaped their relative asymmetry in psychological distance. These observations elicit some implications. For instance, the higher prevalence of dystopian representations may provide contextual and secondary information not only of how a dystopian society may be, but crucially how such society may come about (i.e., routes for realisation; Oyserman & James, 2009). This also implies that the discrepancy between dystopia and the present reality may be smaller, relative to the discrepancy between utopia and the present reality.

Further, Studies 2 and 3 offered support for the moderating role of system justification (i.e., system justification conditioning hypothesis). System justification was found to dampen the effects of possible worlds on the predicted construal asymmetry. Specifically, whilst controlling for cultural exposure, for high system justifiers, the apparent asymmetry in psychological distance was diminished. Conversely, for low system justifiers, the apparent asymmetry was bolstered, with best possible worlds casted further in the distance. The latter finding suggests that people may perceive "business as usual" as problematic, rendering the possibility of a worse possible world higher than that of a better one. In contrast, the former finding suggests that in their need to maintain a perception of society as fair and legitimate, system justifiers dismiss both best and worst possible worlds (Jost & Banaji, 1994). Crucially, Study 3 revealed that the conditioning effects of system justification do not depend on the way possible worlds were framed, but solely on their valence. Taken together, it seems that individuals with negative preconceptions about the status quo may feel that a negative future is more likely.

Given that possible worlds were generated by participants themselves and were therefore subjective (i.e., tailored to their desires), I expected high system justifiers to imagine a best possible world as a natural development of extant arrangements. Crucially, if this were the case, I expected a reverse asymmetry (i.e., eutopias as more psychologically proximal). However, findings showed that high system justifiers dismissed future possible worlds, irrespective of valence and found them to be equally distant, thus exhibiting a preference for the "business as usual" route (Badaan et al., 2020). In fact, recent research shows that system justification is positively associated with anti-utopianism, which concerns an a-priory rejection of ideal possible worlds (Fernando et al., 2018). Accordingly, it is not clear whether high system justifiers dismissed possible worlds before considering them, or after engaging in utopian thinking. This is further discussed below.

The presented studies, also, provide preliminary evidence that utopian thinking may activate higher – order values (i.e., fairness and harm/care; Luguri, Napier, & Dovidio, 2012; cf, Alper & Yilmaz, 2020). While the foundations activated, in the three studies, were not consistent, some important patterns have emerged. Specifically, in Studies 2 and 3, moral virtues (i.e., foundation supporting words) about fairness and harm/care, were activated when best (vs. worst) possible worlds were envisioned. This suggests that utopias may involve the virtues of individuating foundations, which are often associated with collective action among equality-focused movements and considerations of minority/marginalised out-groups (e.g., Hadarics & Kende, 2018; Milesi & Alberici, 2018). Conversely, in Studies 2 and 3, moral virtues of authority and moral vices of harm/care were activated when the worst (vs. best) possible worlds were envisioned. The former is often associated with preference of hierarchical arrangements and may therefore reflect a support of the status quo, following dystopian thinking. The latter

may reflect concerns about potential suffering that may come about in a dystopian future (Graham, Haidt, & Nosek, 2009). Finally, in Studies 1 and 3, best possible worlds included more general moral language, compared to worst possible worlds. Taken together, the activation of moral foundations suggest that possible worlds may be underlined by expressive motivations.

More broadly, the activation of virtues in worst possible worlds (Studies 1-3) and vices in best possible worlds (see Study 1) is rather counterintuitive. It is possible that this mismatch between virtue/vice and type of possible worlds stems from negation. For instance, the prevalence of vices relating to fairness in Study 1, may reflect participants' attempts to negate or deny such detrimental outcomes in utopian possibilities. With the same token, the activation of virtues in dystopian possibilities, may reflect participants' negation or denial of such beneficial outcomes in dystopian possibilities.

2.8.1. Limitations and Future Directions

These studies are not without limitations. First, it is not clear whether high system justifiers dismissed possible worlds before considering them (i.e., anti-utopianism, Fernando et al., 2018) or whether possible worlds were considered and then dismissed as distant. This would have raised implications about their underlying motivation. While the former would suggest that system justifiers are motivated by expressive motives (i.e., to maximise their identity by supporting the status quo), the latter would suggest motivations stemming from uncertainty presumably imbued by imagining future possibilities and change. Future studies can address this by gauging participants' levels of uncertainty following utopian thinking.

Furthermore, in the presented studies, I did not include baseline conditions, where participants can envision a future where the status quo is preserved (e.g., see Study 10). This

would have enabled comparisons of conditioning effects of system justification on the psychological distance of best and worst possible worlds in relation to the status quo. Also, this would have provided better insight with respect to the relative proximity of best and worst possible worlds relative to the status quo. Future research is warranted to further explore this.

Nonetheless, the relationship between utopian thinking and system justification is further examined in the following chapter. Specifically, while in the present chapter, system justification was treated as a moderator, Fernando et al (2018; see also Badaan et al., 2020; Kashima & Fernando, 2020) suggested that utopian thinking may, in fact, have an effect on system justification. Accordingly, in the following chapter, I examine the effects of utopian thinking on system justification. Specifically, I investigate how utopian thinking, in tandem with political orientation, influences people's tendencies to justify the status quo (i.e., the criticism function).

Further the omission of a status quo baseline raises concerns with respect to the facilitative effects via cultural exposure. Specifically, the absence of a status quo control, makes it difficult to identify the source and magnitude of psychological asymmetry. Potential sources of this asymmetry may be the relatively higher discrepancy between a better possible world and the present, as well as the contextual richness of worst possible worlds. Accordingly, the control condition could help explain whether this construal asymmetry stems from the contextual salience of dystopia (i.e., routes of manifestation via cultural exposure) or instead, from the abstract features of utopias (activation of higher-order principles and moral foundations).

Future research can examine how possible worlds interact with routes for realisation (i.e., how to get there). This will further the understanding of the psychological distance of possible worlds, address the abovementioned issue, but also raise implications about the role of

psychological distance of possible worlds in processes of societal engagement and social change. For instance, consideration of possible worlds (i.e., destination) and ways to get there (i.e., routes), may influence the proximity of possible worlds, increase other relevant mediators of societal engagement (i.e., efficacy), and activate motivation to pursue it. This possibility is further elaborated in the general discussion of this thesis (Chapter 5).

This line of research is the first to empirically document that imagining utopian possible worlds activates high-level construal thinking (see also, Badaan et al., 2020). Indeed, best possible worlds were found to be more psychologically distant than worst possible worlds. I suggest that this may be facilitated by the relatively contextual salience of dystopias in culture and public discourse. Further, system justification was shown to condition the psychological asymmetry, with eutopias casted further in the distance for those scoring low in this measure. Finally, the presented studies provide preliminary evidence suggesting that utopian thinking may activate higher order values.

This line of research has implications about the role of utopian thinking in societal engagement (Fernando et al., 2018; Badaan et al., 2020). For instance, moral considerations about fairness and harm/care, activated when (best) possible worlds are psychologically distant, may be directly involved in facilitating criticism of the status quo, and societal engagement in general (Badaan et al., 2020; Milesi & Alberici, 2018; Tajfel, 1978). This is further considered in the following chapter (Chapter 3). Implications, limitations, and future directions are further elaborated in the General Discussion of this thesis (Chapter 5).

CHAPTER 3

"Imagine" John Lennon

"There is no alternative" Margaret Thatcher

3.1. Introduction

The present chapter investigates how utopian thinking influences people's tendencies to justify the status quo (i.e., the criticism function), depending on political orientation. In Chapter 2, findings showed that utopian thinking was moderated by system justification. Specifically, Studies 2 and 3 demonstrated that the observed asymmetry in psychological distance between worst and best possible worlds was thwarted for individuals scoring high in system justification but bolstered for individuals scoring low in system justification. To better understand the relationship between utopian thinking and system justification, this chapter examines how utopian thinking *affects* system justification.

Indeed, Fernando et al (2018) showed that utopian thinking can influence system justification tendencies (See also, Badaan et al., 2020; Kashima & Fernando, 2020). Specifically, the researchers demonstrated that utopian thinking elicited comparisons between the status quo and better possible worlds which in turn, decreased satisfaction with the status quo and system justification tendencies (Fernando et al., 2018). However, research has also shown that political orientation is associated with different levels of system justification, largely because liberals and conservatives differ in the degree to which they accept the status quo (Jost et al., 2003a).

Accordingly, I contend that the extent to which utopian thinking influences system justification may depend on political orientation. Liberal and conservative individuals tend to

differ in the degree to which they justify the system and accept the status quo- in part because they endorse different ideas about the society (and its progress; Carney, Jost, Gosling, & Potter, 2008; Jost, Federico, & Napier, 2009; see also, Caprara & Vecchione, 2018). Accordingly, in the presented chapter, I examine whether the effects of utopian thinking on system justification depend on political orientation *- political orientation conditioning hypothesis*.

Moreover, Studies 1 - 3 demonstrated that best possible worlds tend to be more psychologically distant and, thus, construed at a higher, more abstract level. Indeed, text analyses revealed that best possible worlds concerned the virtues of harm/care and fairness moral foundation, and relied more on moral language, compared to worst possible worlds. Accordingly, in this chapter (Study 4). I also examine whether utopian thinking elicits moral reasoning (i.e., activation of relevant moral foundations). Specifically, I examine whether moral reasoning mediates the effects of utopian thinking on system justification (i.e., moral reasoning pathway hypothesis). I expect the facilitative effects of moral reasoning to be conditioned by political orientation.

Overall, this chapter presents four experiments (pilot and Studies 4-6) which examine the role of political orientation in the association between utopian thinking and the motivation to criticise the status quo (i.e., the function of criticism). Studies 5 and 6, were conducted prior to the 2016 US Presidential and the 2017 UK General elections, respectively, both of which were marked by the rise and establishment of right-wing populism (Wilson, 2017). This is taken into consideration and is further elaborated when the latter two studies are considered.

3.2. Overview of the reported studiess:

In the pilot study and Study 4, American participants generated their ideal (vs. realistic) version of US society in 2050AD. Then, participants indicated how fair and satisfactory they perceived society to be. I hypothesised that, following utopian thinking, more liberal (vs. more conservative) participants would report lower levels of system justification and perceive the status arrangements in the US as less legitimate (i.e., *political orientation conditioning hypothesis*). In Study 4, I, also, expected that the conditioning effects of political orientation on system justification, following utopian thinking, to be mediated via relevant moral foundations (e.g., harm/care, fairness; i.e., *moral reasoning pathway hypothesis*).

Further, Studies 5 and 6, utilised the 2016 US Presidential Elections and the 2017 UK General Elections, respectively. In Study 5, examined data were collected on the 5th November 2016, 3 days before the elections (8th November 2016). These two studies aimed to replicate the political orientation conditioning effects on the association between utopian thinking and system justification in a context where ideas for social change tend to be more salient (i.e., prior elections). Also, Study 5, introduced a variation on the experimental manipulation which allowed

8 This chapter includes sections (Pilot Study and Study 4) from Panayiotou, Cichocka, & Sutton (under review) Double-edged utopias: Imagining ideal societies leads conservatives to support and liberals to reject the status quo, submitted for publication. Accordingly, the literature review of this chapter is mainly provided as part of the introduction to the pilot study and Study 4, which in turn, are discussed together.

to disentangle the effects of utopian thinking (i.e., ideal possible worlds) from idealised notions about the self (i.e., ideal possible selves).

3.3. Introduction: Pilot Study9 and Study 4

Political debates are filled with ideas on how to improve society. Right-wing or left-wing, politicians usually offer visions of alternative, better socio-political realities. Still, little is known about how imagining alternative realities affects people's perceptions of the legitimacy of society in its present form (Kashima & Fernando, 2020; Jost, 2019). In psychology, theorising stemming from the classic social identity framework suggests that alternative visions of society should encourage individuals to challenge the status quo (Tajfel, 1978). In contrast, theorizing under the system justification framework suggests that criticisms towards existing arrangements should motivate individuals to rationalise the status quo (Jost et al., 2012). I considered these seemingly conflicting possibilities by examining the role of imagining alternatives to the socio-political system in predicting support versus rejection of this system. I compared realistic versus ideal possible worlds and examined whether their effects on system support depended on political ideology.

In an attempt to investigate social stratification and social change, Tajfel (1978) suggested that people may become motivated to challenge the status quo when its arrangements appear to breach superordinate societal values (such as freedom, justice, equity) which are

9 The Pilot Study was the research project I conducted in partial fulfilment of masters programme at the University of Kent. Data were re-analysed for the purposes of this dissertation.

thought to be upheld by the social system (see also Turner & Brown, 1978). Tajfel (1978) further argued that change might be motivated by "the development in a group of the awareness of cognitive alternatives to the existing situation" (Tajfel, 1978, p. 52). Cognitive alternatives attempt to envision different ways status arrangements could or should be. In that way, utopian thinking refers to an imaginative process for generating cognitive alternatives of better sociopolitical realities (i.e., ideal possible worlds; Kashima & Fernando, 2020; Hawlina et al., 2020; see also Badaan et al., 2020).

Indeed, past research on cognitive alternatives showed that high (vs. low) availability of better possible worlds increased collective self-esteem and commitment to collective goals among members of low-status groups (Iyer et al., 2017; Zhang et al., 2013). These findings suggest that possible worlds may shape future expectations of what the desired status of the ingroup could be. Moreover, research on collective futures suggests that the prospect of a better future may increase motivation to become societally engaged in the present, particularly when the projected future appears to be more benevolent than the present reality (Bain et al., 2013). Here, I examined whether rejection of the status quo depends on the availability of cognitive alternatives (i.e., possible worlds) to the social system.

Possible worlds, however, vary with respect to how realistic or utopian they can be. A realistic possible world may increase the salience of pragmatic motives, leading individuals to maximise instrumental goals (e.g., financial considerations) while placing less emphasis on intrinsic goals (e.g., moral principles; Kivetz & Tyler, 2007). Accordingly, I defined realistic possible worlds as visions guided by contextual demands, focused primarily on incremental improvements to society (Baumeister et al., 2016; Kashima et al., 2009). Research shows that

high system-justifiers are likely to endorse change (e.g., pro-environmental policies) when this is framed within the boundaries of existing social structures (Feygina, Jost & Goldsmith, 2010). Therefore, I expected realistic possible worlds to be imagined within the limits of the system and to be less likely to bolster criticism towards the status quo.

In contrast, utopian thinking refers to a process of imagining better societies which address one's material needs and/or higher-order principles and values (Goodwin & Taylor, 1983; Kashima & Fernando, 2020; Fernando et al., 2018). Ideal possible worlds (i.e., utopias) should then correspond to ideal conceptions of society based on higher-order values. Society in its present form may then be compared to these superior standards (Bain et al., 2013; Fernando et al., 2018; Levitas, 1990). That is, ideal possible worlds may direct focus on desired end-goals, and thus place intrinsic goals before instrumental considerations (Lind & Tyler, 1988; Kivetz & Tyler, 2007). Thus, utopias may serve an expressive motive whereby individuals imagining better societies may seek to express and maximise identity-related goals (Deci & Ryan, 1985; Kivetz & Tyler, 2007). In line with the Tajfel's (1978) hypothesis, ideal possible worlds may then put current reality to the test with regards to the extent it meets superordinate values and higher-order criteria. Thus, I expect utopian alternatives to be especially effective in fostering perceptions of the status quo as unstable and problematic.

Indeed, criticism has been viewed as one of the main motivational consequences of utopias. Specifically, Levitas (1990) postulated that utopian visions could motivate people to criticise the status quo (i.e., the criticism function), mobilize people to challenge and attempt to change the status quo (i.e., the change function; see also Mannheim, 1991), or offer an imaginary refuge allowing people to mentally escape from actual reality (i.e., the compensation function).

Fernando et al. (2018) found more evidence for the change and criticism functions than the compensation one. Indeed, their research shows that ideal possible worlds decrease satisfaction with existing arrangements and increase societal engagement (see also Bain et al., 2013; Fernando et al., 2020).

Nonetheless, ideal possible worlds may not always dampen support for the system. In fact, utopias have been criticised as wishful, escapist fantasies which may decrease (or fail to imbue) motivation to challenge the system (Levitas, 1990). Furthermore, theorising stemming from system justification theory suggests that ideal possible worlds may, paradoxically, enhance system support (Jost, 2001; Badaan et al., 2020). Research shows that people are motivated to perceive existing status arrangements as fair and legitimate (Jost & Banaji, 1994; Jost & Van der Toorn, 2012). People justify the system to satisfy epistemic and existential needs (Jost & Hunyady, 2005). For instance, priming reality as uncertain increases system justification and decreases motivation for societal engagement (Jost et al., 2012; Kay & Zanna, 2009). Similarly, criticisms of the political system increase motivation to defend it (Kay, Jost, & Young, 2005). Although utopias suggest that something is wrong with the system (i.e., business as usual is problematic), they also tend to exceed practical possibility and, as such, they are inherently ambiguous and uncertain. Such uncertainty is likely to accompany utopian thinking, as ideal possible worlds are symbolic and abstract in nature, while often lacking routes and strategies for realisation (Badaan et al., 2020; Fernando & Kashima, 2020). This, in fact, has been suggested in Chapter 2, as best (vs. worst) possible worlds were found to be more psychologically distant, and lower in manifestation in culture and public discourse Accordingly, ideal possible worlds may imbue uncertainty and, thus, lead people to further support, rather than reject, the system.

Accordingly, while Tajfel's (1978) theorising might better characterise the effects of utopia for some people, theorising stemming from system justification theory might provide a better predictive model for others. In this respect, an important moderator is political orientation. Political discourse is often characterised by idealised projection for the future of the society. That is, people endorsing a specific political ideology, also endorse a set of values, beliefs, and ideals (for a review see Caprara & Vecchione, 2018). These do not only offer an interpretation of the society in the present (i.e. the way things are), but also project an image of how society should be in the future (i.e. the way things are desired to become; Heywood, 2017; Jost et al., 2009). Thus, it is likely that the effects of utopian thinking on system justification and motivation to criticise and challenge the status quo to depend on political orientation. Therefore, whether the effects of utopian thinking on status quo criticism are conditioned by political orientation is the objective of the presented research.

Indeed, political conservatism is characterised by heightened needs to manage threat and uncertainty (Jost et al., 2003a; Jost, Nosek, & Gosling, 2008). Conservatives prefer stability and predictability which are exhibited by their general acceptance of the status quo (Carney et al., 2008; Jost et al., 2003a; Jost et al., 2008). For instance, psychological research submits that conservatives tend to endorse political ideologies and social myths which rationalise and maintain extant arrangements (Graham, Haidt, & Nosek, 2009; Jost & Hunyady, 2003; Jost et al., 2009). In contrast, utopias tend to provide alternative visions which compete and challenge extant arrangements. Consequently, envisioning utopias may threaten conservatives' preferences, activating system justification motives. Thus, I expected conservatives to show increased support for the status quo in response to imagining ideal (vs. realistic) possible worlds. In contrast, liberals are more likely to be novelty-seeking, showing preference for social change, even in the

face of uncertainty (Jost, Pelham, Sheldon, & Sullivan, 2003b; Jost et al., 2008). Hence, I predicted that liberals would respond to ideal (vs. realistic) possible worlds with decreased support for the status quo, in line with Tajfel's hypothesis.

To test these hypotheses, in the Pilot Study and Study 4, I manipulated the imagination of utopian versus realistic possible worlds (i.e., alternatives to the system) and measured system support in two ways. I included the System Justification Scale (Kay & Jost, 2003), which captures declarative levels of confidence in the system. I also included a measure of subjective ratings of actual versus desired status arrangements (Baryla, Wojciszke, & Cichocka, 2015). Finally, I examined the moderating effects of political orientation.

3.4. Pilot Study

In the pilot study, I investigated the effects of ideal versus realistic possible worlds to the socio-political system and political orientation on system legitimacy. I hypothesised that ideal possible worlds would have a stronger motivating effect on legitimacy than realistic possible worlds, but the direction of this effect should depend on ideology: I predicted a decrease in perceived legitimacy among liberals but an increase among conservatives. All measures, exclusions, and manipulations in the study are reported.

3.4.1. Method

Participants

Two hundred and five American citizens were recruited online using Amazon Mechanical Turk crowdsourcing labour marketplace. Participants were rewarded with \$0.50 for their participation. The study used a 2 (Ideal Possible Worlds vs. Baseline) x 2 (Realistic

Possible Worlds vs. Baseline) factorial design. Participants were randomly assigned to different levels of the two experimental manipulations. Sample size was determined prior to data analysis. I aimed to include 50 participants per condition (Simonsohn, Nelson, & Simmons, 2013).

As an attention check, participants were presented with a text instructing people to ignore the question which followed. Seventeen participants nonetheless responded to the question and therefore were excluded from the analysis (although when these participants are included the pattern of results remains the same; see Table S3 in the Supplement). The final sample included 184 American participants, 86 men, 97 women and 1 other, aged 19-74 (M= 36.67, SD= 13.41). A sensitivity analysis on the final sample (N= 184) using G*Power indicated an 80% power to detect an R2 increase of 0.04 for the interaction term.

Procedure

The study had a 2x2 design, in which I manipulated 1) ideal possible worlds (vs. baseline) and 2) realistic possible worlds (vs. baseline). Participants were randomly assigned to different levels of the two experimental manipulations, resulting in 58 participants in the full baseline condition, 49 participants in the utopian manipulation only condition, 43 participants in the realistic manipulation only condition, and 38 participants who were exposed to both manipulations.

Participants were asked to imagine American society in the future and then report, according to condition, three characteristics such society may have. To ensure that the utopian manipulation is in line with the working definition of utopia, participants were asked to consider three ideal aspects of their future alternative. Additionally, to prompt participants to engage with their imagination as freely and vividly as possible, I adapted instructions often used in positive

fantasy research (Oettingen, Pak, & Schnetter, 2001; Kappes, Sharma, & Oettingen, 2013). In contrast, participants in the realistic manipulation, were encouraged to be as realistic and factual as possible when thinking about their future alternative. The instructions read:

Imagine a utopian [improved] US society in 2040AD. In the space provided below, please write down three ideal [realistic] improvements that could be made to American society. There are no right or wrong answers, please do not hesitate to give your thoughts and images free reign [please do your best to remain matter of fact in your description].

Participants in the baseline conditions were not asked to complete any tasks. To avoid order effects, manipulations appeared in a counterbalanced order. Next, all participants completed the Positive and Negative Affect Schedule (PANAS; Watson, Clark & Tellegen, 1988), which was intended as a filler questionnaire (results remain the same after controlling for both positive and negative affect; see Supplement Table S3.4).

Afterwards, the two measures of system support were completed in a counterbalanced order. To avoid priming participants with their ideological convictions, self-reported political orientation was asked at the end of the study along with demographics.

Materials

Actual-Desired Status Arrangements

To gauge support (vs. rejection) of the status quo at a subtle and indirect level, subjective ratings of actual and desired status arrangements were used (Baryla et al., 2015). Participants were presented with a list of 34 ethnic, racial, religious, occupational, and socioeconomic groups in American society (adapted from Fiske, Cuddy, Glick, & Xu, 2002 and Baryla et al., 2015).

Participants were asked to indicate the amount of influence and status they thought each group actually has on a 7-point scale ranging from 1 (no influence at all) to 7 (very strong influence). Then, participants were asked to indicate the amount of influence and status they thought each group should have on a scale ranging from 1 (should have no influence at all) to 7 (definitely should have influence). To avoid order effects, the order of ratings was counterbalanced. Withinparticipant Pearson's r correlations between actual and desired status were computed. Following the recommendation of Baryla et al. (2015), Fisher's z_r transformations of this variable were used for correlational and regression analyses including this measure (nonetheless, the pattern of results is unaffected when the untransformed measure is used; see Supplement Table S3.2). A positive correlation between actual and desired status indicated support, whereas a negative correlation indicated rejection of the status quo in its present form. According to Baryla et al. (2015), this measure enables moving beyond declarative levels of support of the status quo to rather subtle levels of system justification motivational tendencies to perceive "what is" as "what should be" (Kay et al., 2009; see also Willis et al., 2015). Thirty-nine participants attributed equal ratings of influence to each group for desired status, turning that variable into a constant. For these cases within-participant correlations could not be computed yielding missing data from this measure. For the mean ratings for the groups that constituted the measure of actual-desired status arrangements please see Table S3.1 in the Supplement.

System Justification

Participants also completed the 8-item System Justification Scale (Kay & Jost, 2003; e.g., "In general the American political system operates as it should"). Participants marked their responses using a 9-point scale from $1=Strongly\ Disagree$ to $9=Strongly\ Agree\ (\alpha=.84)$. This

measure served as a direct index of status quo support, capturing declarative levels of confidence in the system.

Political orientation 10

Political orientation was measured with three items previously used by Carney, Jost, Gosling, and Potter (2008), e.g., "In terms of social and cultural issues (e.g. abortion, separation of church and state, affirmative action) where would you place your self on the following scale". Participants responded on a 5-point scale from $1 = extremely \ liberal$ to $5 = extremely \ conservative$ ($\alpha = .91$).

3.4.2. Results

Zero-order correlations

Zero-order correlations across conditions and descriptive statistics of the main variables are presented in Table 3.1. System justification was significantly positively correlated to actual-desired status arrangements. Political orientation was weakly positively correlated with system justification, and moderately positively correlated with actual-desired status arrangements.

10 In both studies, inspection of the distributions of political orientation indicated that this measure was moderately positively skewed. Nonetheless, across all three items, participants' scores covered its full range.

Table 3.1

Correlations and Descriptive Statistics for Pilot Study and Study 4

			Pilot Study		Study 4					
Variable	M	SD	1.	2.	M	SD	1.	2.		
1. Political orientation	2.53	1.07	-		2.46	1.06	-			
2. System justification	4.63	1.55	.15* [-0.02, 0.29]	-	3.34	1.15	.49*** [0.35, 0.62]	-		
3. Actual-desired status arrangements	.10	.54	.39***	.25**	.05	.37	.27**	.38***		

Note. *p < .05. **p < .01. ***p < .001. Actual-desired status arrangements z-scored for the correlation. In the Study 4a system justification was measured on a 9-point scale, while in Study 4 it was measured on a 7-point scale. Bias corrected confidence intervals based on 5000 bootstrapped samples are reported in brackets.

Regression Analyses

I performed hierarchical regression analyses to investigate the effects of the experimental manipulations and political orientation on the two measures of system justification. In all analyses, experimental conditions were coded as -1 = ideal baseline and 1 = ideal possible worlds; -1 = realistic baseline and 1 = realistic possible worlds. Political orientation was mean centred prior to the analyses. In all analyses experimental variables and political orientations were included in Step 1. In Step 2, to examine whether the effects of the experimental manipulation depend on political orientation, I introduced the two-way interaction terms between: (a) ideal possible worlds (vs. baseline) and political orientation; (b) realistic possible worlds (vs. baseline) and political orientation; and (c) ideal (vs. baseline) and realistic (vs. baseline) possible worlds.

Possible worlds and political orientation as predictors of actual-desired status arrangements.

In Step 1, we found a significant positive effect of political orientation on actual-desired status arrangements, p<.001. I also found a significant negative effect of ideal possible worlds (vs. baseline) on actual-desired status arrangements, p = .003, d = 0.36. Participants in the ideal possible worlds condition (M =-.01, SD =.56) were less likely to legitimise status arrangements, than participants in the baseline condition (M =.19, SD =.51).

11 Three-way interactions were not included in these models as I did not have a specific hypothesis of how the three variables may interact. Nonetheless, in both models, the three-way interaction term was not significant, and the pattern of our primary results remained the same (see Supplement Table S3.5)

I did not find a significant effect of realistic possible worlds (vs. baseline) on actual-desired status arrangements, p = .718. Moreover, in Step 2, I did not find any significant three two-way interactions, all ps > .365 (Table 3.2).₁₂

Possible worlds and political orientation as predictors of system justification.

In Step 1 I found a significant positive effect of political orientation, p=.038, but not of ideal, p=.690, or realistic possible worlds, p=.310, on system justification.

In Step 2, I did not find significant effects for the interactions between realistic possible worlds (vs. baseline), p = .475 and political orientation nor between ideal and realistic possible worlds, p = .831. However, I found a significant positive interaction between ideal possible worlds (vs. baseline) and political orientation on system justification, F(1, 179) = 7.98, p = .005, $\Delta R_2 = .04$ (Table 3.2).

12 In both studies, due to the large number of missing values on this measure, I also repeated these analyses in Mplus (Muthén & Muthén, 2007), using full information maximum likelihood (FIML). Results were very similar to the ones reported in the main text.

Table 3.2.

Possible worlds and political orientation Predicting Actual-Desired Status Arrangements and System Justification (Pilot Study)

- Variable	Actual-Desired Status Arrangements							System Justification						
	β	В	BCI95%	F	R_2	ΔR_2	β	В	BCI95%	F	R_2	ΔR_2		
Step 1				12.06***	.20					1.82	.03			
Political orientation	.42***	0.21	[0.14, 0.29]				.15*	0.23	[-0.003, 0.46]					
Ideal (vs. Baseline)	23**	-0.13	[-0.21, -0.05]				03	-0.05	[-0.28, 0.18]					
Realistic (vs. Baseline)	03	-0.02	[-0.10, 0.08]				.08	0.12	[-0.11, 0.35]					
Step 2				6.14***	.21	.01				2.35*	.07	.04		
Political orientation	.42***	0.21	[0.14, 0.29]				.13+	0.19	[-0.01, 0.41]					
Ideal (vs. Baseline)	24**	-0.13	[-0.22, -0.04]				04	-0.06	[-0.29, 0.18]					
Realistic (vs. Baseline)	03	-0.02	[-0.10, 0.08]				.05	0.08	[-0.15, 0.32]					
Ideal x Political orientation	.03	0.02	[-0.06, 0.09]				.21**	0.30	[0.08, 0.50]					
Realistic x Political orientation	.07	0.04	[-0.04, 0.11]				.05	0.08	[-0.14, 0.30]					
Ideal x Realistic	04	-0.02	[-0.11, 0.06]				02	-0.03	[-0.26, 0.21]					

Note. +p < .10. *p < .05. **p < .01. ***p < .001. BCI95% = bias corrected bootstrapped confidence intervals based on 5000 samples.

To decompose this interaction, I analysed the effects of the ideal possible worlds (vs. baseline) manipulation for different levels of political orientation, using PROCESS, whilst controlling for the realistic (vs. baseline) manipulation (see Figure 1; Hayes & Matthes, 2009; Johnson & Neyman, 1936). Particularly, to probe the interaction, I used the Johnson-Neyman (1936) technique, which identifies the regions of significance of the political orientation continuum where the effect of ideal possible worlds manipulation (relative to its baseline) is statistically significant and where it is not. Ideal possible worlds (vs. baseline) manipulation significantly negatively predicted system justification for political orientation lower than 1.77. For higher values the relationship was not significant, but it became significantly positive for values higher than 3.88. This indicated that following the ideal possible worlds manipulation (vs. baseline), more liberal participants were less likely to justify the system, whilst more conservative participants were more likely to justify the system (Figure 2.1).

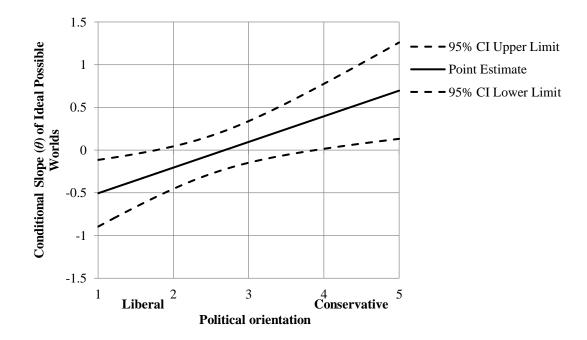


Figure 3.1. Conditional effects of ideal possible worlds on system justification at values of political orientation, controlling for realistic possible worlds

3.5. Study 4

3.5.1. Introduction

In Study 4, I sought to conceptually replicate results of the Pilot Study using a slightly different manipulation: instead of generating three alternative characteristics of society in the future, participants were asked to write a short paragraph describing either an ideal or realistic possible world. Because realistic possible worlds did not differ from baseline in the pilot study, I only compared ideal and realistic possible worlds.

Asking participants to write a longer description of their ideal (vs. realistic) possible world allowed the investigation of the content of the alternatives. In line with the premise that utopias represent alternative systems of arrangement based on higher-order principles, I examined whether ideal (vs. realistic) possible worlds were morally loaded. Building on findings from Chapter 2, which showed that best (vs. worst) possible worlds are mentally

represented on higher construal and appear to activate virtues relevant to fairness and harm/care foundation, I examined whether participants' responses in the ideal possible worlds condition contained different moral content relative to participants' responses in the realistic possible worlds condition. Additionally, I examined whether ideal (vs. realistic) possible worlds activated conceptually different moral content for more liberal, compared to more conservative, participants.

Research suggests that moral intuitions and judgments are based on, at least, five foundations (for a review see Haidt, 2012; Haidt & Graham, 2007). In brief, the five moral foundations are harm/care (i.e., prevention of suffering and care for others), fairness (i.e., notions of justice and equality), in-group loyalty (i.e., loyalty to own group and general group-based orientation), authority (i.e., preference for hierarchical social arrangements) and purity/sanctity (i.e., concerns about physical and spiritual contagion; Graham, Haidt, & Nosek, 2009). Harm and fairness are often referred to as individuating foundations, as their main concern are the freedom and rights of individual people. On the other hand, in-group loyalty, authority and purity are often called binding foundations, as they are primarily concerned with preserving the group as a whole (Haidt & Graham, 2007).

Evidence suggests that there are ideological differences in the degree of reliance on the different foundations. Liberals appear to rely more on individuating foundations than binding ones, while evidence for conservatives are mixed. While some studies showed that conservatives use all five foundations equally (Haidt & Graham, 2007), other studies showed that conservatives tend to value binding foundations more than individuating ones (Graham et al., 2009). Relying on the five moral foundations framework, I sought to explore not only the moral content of ideal (vs. realistic) thinking but also whether liberals and conservatives responded to the manipulation in a different manner.

3.5.2. Method

Participants

Two hundred and twelve American citizens were recruited online using the Prolific Academic crowdsourcing labour marketplace. Participants were rewarded with £0.84 (ca. \$1.18) for their participation. Sample size was determined with G*Power based on the ΔR_2 from Study 1 for the significant interaction assuming power of .80. The analysis yielded a sample size of 184, so I aimed to recruit over 200 participants to allow for exclusions. Six participants were excluded because they completed less than 50% of the study (N=4) or exceeded 2.5 hours to complete the study (N=2; although including the latter does not affect the pattern of results). Given that the manipulation was an open-ended task, three independent judges were recruited to assess the quality of responses. I excluded participants who provided: i) random/unrelated responses (N=24); (ii) ambiguous responses (a vision with both positive and negative elements; N=21); and (iii) a negative (rather than positive) alternative vision. (N = 25; see Table S3.6 in Supplement). The latter formed a separate group of dystopian alternatives. Please see Supplementary for details on the judges' assessment (Table S3.7) as well as for exploratory analyses including the dystopian group (Table S3.8). The final sample size included 146 American participants, 67 men, 79 women, aged 18-76 (M=36.49, SD=14.55). A sensitivity analysis on the final sample size using G*Power indicated an 80% power to detect an R₂ increase of 0.05 for the interaction term

Procedure

Participants were randomly assigned to one of the two experimental conditions.

Participants were asked to write a paragraph describing a utopian versus a realistic future society. Additionally, unlike the Pilot Study, in Study 4 participants were not instructed to be

as imaginative (vs. factual), but they were simply prompted to describe an ideal (vs. realistic) possible world:

We would like you to spend a couple of minutes imagining a utopian (realistic) US society in 2050AD. In the space provided below, please write down a short paragraph of the utopian (realistic) society you have just imagined. This is your own imagined utopian (realistic) world so there are no right or wrong answers. Spend approximately 4 minutes on this task.

As the manipulation task did not explicitly instruct participants to generate positive alternatives, many participants generated negative alternatives. This tendency was particularly evident for participants assigned to the realistic alternatives condition, thereby leading to a higher number of participant exclusions from this condition, relative to the ideal possible worlds condition. This resulted in an uneven sample size between the two conditions: utopian (N=92) vs. realistic (N=54) possible worlds. Again, I included PANAS as a neutral filler task (again, results remain the same after controlling for positive and negative affects; see Supplement Table S3.10).

Materials

Actual-Desired Status Arrangements

Actual-desired status arrangements were measured as in Pilot Study. For the mean ratings for the groups that constituted the measure of actual-desired status arrangements please see Table S3.1 in the Supplement. Again, the pattern of results is unaffected when the untransformed measure is used (see Supplement Table S3.9).

System Justification

System justification was measured as in the Pilot Study using System Justification Scale (Kay & Jost, 2003). However, participants marked their responses using a 7-point scale from 1= Strongly Disagree to 7= Strongly Agree (α =.86).

Political orientation

Political orientation was measured with the same items as in the Pilot Study ($\alpha = .92$).

Moral Foundations

Moral Foundations content was coded using the Linguistic Inquiry and Word Count (LIWC; Pennebaker, Boyd, Jordan, & Blackburn, 2015) software. LIWC is a software that enables the quantification of texts and offers objective counts of instances of different categories (i.e. dictionaries) by scanning the text for any words present in the dictionary for each category (in our case, moral foundations). It produces percentages that represent the number of times any word in the dictionary for a specific foundation was used, divided by the total number of words in the text, multiplied by 100 (Pennebaker et al., 2015). The moral foundation dictionary (Volume 2; created by Graham and Haidt; moralfoundations.org; Graham et al., 2009) was used to quantify the prevalence of words relevant to the five moral foundations in participants' open-ended responses to the manipulation. The dictionary contains 295 words and word stems (for instance, protect* would cover protection, protectionism, etc.) covering central concepts of the five moral foundations. Each foundation in the dictionary contains two independent word lists to separately capture foundationsupporting and foundation-violating words. For current purposes these were aggregated, as I was primarily interested in the general activation of each foundation (Graham et al., 2009). Accordingly, I created separate variables for each of the moral foundations. Sample words in the dictionary relevant to harm included compassion, peace, care (M = .44, SD = .75); for fairness: equal, justice, tolerant (M = .28, SD = .54), for in-group loyalty: nation, homeland,

collective (M = .30, SD = .62); for authority: obedience, respect, law (M = .22, SD = .48) and for purity: clean, innocent, virtuous (M = .17, SD = .39).

3.5.3. Results

Zero-order correlations

Zero-order correlations across conditions and descriptive statistics of the main variables are presented in Table 3.1. As in the pilot study, system justification was significantly positively correlated to actual-desired status arrangements. Political orientation was significantly positively correlated with system justification, and actual-desired status arrangements.

Regressions

I performed hierarchical regression analyses to investigate the effects of the ideal (vs. realistic) possible worlds manipulations and political orientation. In all analyses, experimental conditions were coded as -1= realistic possible worlds and 1 = ideal possible worlds. Political orientation was mean-centred. The experimental variable and political orientation were included in Step 1. In Step 2, to examine whether the effects of the experimental manipulation depended on political orientation, I introduced the two-way interaction between ideal (vs. realistic) possible worlds and political orientation.

Possible worlds and political orientation as predictors of actual-desired status arrangements.

In Step 1, I found a significant positive effect of political orientation on actual-desired status arrangements, p=.003. Also, I found a significant negative effect of ideal (vs. realistic) possible worlds on actual-desired status arrangements, p = .027, d = 0.44. Participants in the ideal possible worlds condition (M = -.02, SD = .45) legitimised the status arrangements less,

than participants in the realistic condition (M = .17, SD = .39). As in the pilot study, in Step 2, I did not find a significant interaction between political orientation and the experimental manipulation, p = .387 (Table 3.3).

Possible worlds and political orientations as predictors of system justification

In Step 1, I only found a significant positive effect of political orientation on system justification, p<.001. As in the pilot study, I did not find a significant effect of ideal (vs. realistic) possible worlds on system justification, p = .521.

In Step 2, I found a significant positive interaction effect between ideal (vs. realistic) possible worlds and political orientation on system justification, p = .004, indicating that the relationship between utopias and system justification depended on political orientation.

I analysed the effects of the ideal (vs. realistic) possible worlds for different levels of political orientation, using of PROCESS (see Figure 2). Ideal (vs. realistic) possible worlds significantly negatively predicted system justification for political orientation lower than 1.04. For higher values, the relationship was not significant, but it became significantly positive for values higher than 3.07. This indicated that after envisioning ideal (vs. realistic) possible worlds, extremely liberal participants were more likely to perceive the system as illegitimate, whilst moderate and more conservative participants were more likely to perceive the system as legitimate.

Table 3.3.

Possible worlds and political orientation Predicting Actual-Desired Status Arrangements and System Justification (Study 4)

Variable $\frac{Ac}{\beta}$	Actual	Desired Status	s Arrangements		System Justification							
	β	В	BCI95%	F	R_2	ΔR_2	β	В	BCI95%	F	R_2	ΔR_2
Step 1				7.37***	.11					23.06***	.24	
Political orientation	.26**	0.11	[0.03, 0.19]				.50***	0.54	[0.37, 0.69]			
Ideal (vs. Realistic)	20*	-0.09	[-0.16, -0.01]				.05	0.06	[-0.11, 0.23]			
Step 2				5.15**	.12	.01				19.11***	.29	.04
Political orientation	.28**	0.12	[0.05, 0.19]				.46***	0.49	[0.32, 0.65]			
Ideal (vs. Realistic)	20*	-0.09	[-0.16, -0.02]				.04	0.05	[-0.12, 0.21]			
Pol. orientation x Ideal	08	-0.03	[-0.10, 0.04]				.21**	0.23	[0.07, 0.43]			

Note. *p < .05. **p < .01. ***p< .001. BCI95% = bias corrected bootstrapped confidence intervals based on 5000 samples.

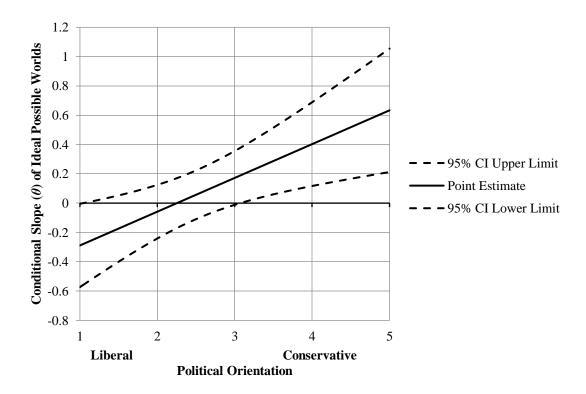


Figure 3.2. Conditional effect of ideal possible worlds on system justification at values of political orientation

Possible worlds and political orientation as predictors of the five moral foundations

I also analysed the effects for the five moral foundations. Because the proportions of moral foundations content are naturally not normally distributed, I relied on bias-corrected bootstrapped confidence intervals to interpret the findings.

I first looked at the individuating moral foundations. For harm, there were no significant effects of ideal (vs. realistic) possible worlds, political orientation, or their interaction (all *ps* >.072; all bootstrapped CIs included zero).

For fairness, bootstrapped CIs indicated a significant positive effect of the experimental manipulation, b = 0.09, [0.01, 0.17], $\beta = .15$, p = .057, d = 0.36. Participants in the ideal possible worlds condition (M = 0.35; SD = 0.61) were more likely to use words relevant to the foundation of fairness, than participants in the realistic possible worlds condition (M = 0.16; SD = 0.36). Additionally, I found a significant negative effect of political orientation, b = -0.12, [-0.20, -0.05], $\beta = -.24$, p = .004, on use of words relevant to fairness. Specifically, participants reporting more liberal orientation were more likely to use words relevant to fairness. The interaction between ideal (vs. realistic) possible worlds and political orientation on fairness was marginally significant, b = -0.07, [-0.14, -0.01], $\beta = -.14$, p = .084. Nonetheless, because the bootstrapped confidence intervals did not include zero, I decided to decompose this interaction. Ideal (vs. realistic) possible worlds significantly positively predicted reliance on fairness for political orientation lower than 2.47. For higher values the relationship was not significant. This analysis provides tentative evidence that more liberal participants were more likely to write about fairness in the ideal (vs. realistic) possible worlds condition.

I then looked at the binding moral foundations. For in-group loyalty, bootstrapped confidence intervals indicated a positive effect of the experimental manipulation, b= 0.10, [0.01, 0.19], β =.16, p=.058, d=0.32. Participants in the ideal possible worlds condition (M= 0.37; SD=0.70) were more likely to use words relevant to the foundation of in-group loyalty, than participants in the realistic condition (M= 0.18; SD=0.42). Further, the effects of political

orientation and its interaction with ideal possible worlds were not significant (all *ps*>.373; all bootstrapped CIs including zero).

Moreover, I did not find any evidence suggesting that political orientation, experimental manipulation or their interaction predict use of moral language related to authority (all ps > .210; all bootstrapped CIs included zero).

Finally, for purity, I found a significant positive effect of the experimental manipulation, b= 0.09, [0.03, 0.14], β =.21, p=.012, d=0.43. Participants in the ideal possible worlds (M= 0.24; SD=0.44) were more likely to use words relevant to the foundation of purity, than participants in the realistic condition (M= 0.07; SD=0.26). Further, the effects of political orientation and its interaction with ideal possible worlds were not significant (ps>.593; all bootstrapped CIs included zero; see Supplement for details of the effects on the five moral foundations).

3.6. Discussion: Pilot Study and Study 4

Although academics and political thinkers have theorised about the human tendency to construct alternative ideal worlds (Levitas, 1990; Rawls, 2009; Tajfel, 1978), individual-level motivational effects of alternatives have rarely been examined empirically. One of the few exceptions is research by Fernando et al. (2018), which demonstrated that compared to considering the present, utopian thinking decreases satisfaction with the system. Building on this work, the pilot study and Study 4 demonstrate that the effects of ideal versus realistic possible worlds on perceptions of legitimacy depend on political ideology. In two experiments, envisioning ideal possible worlds (vs. realistic or baseline) led people to perceive a discrepancy between actual and desired arrangement of status relations. This discrepancy, however, was accompanied by different declarative support for the system among those with different political

orientations. Specifically, when primed with ideal (vs. realistic or baseline) possible worlds, more liberal participants were more likely to perceive the system as illegitimate, while more conservative ones tended to justify the system.

This research is one of the few empirical tests of Tajfel's (1978) hypothesis that security of status arrangements may be threatened when such arrangements appear to violate superordinate values and alternatives become cognitively available (Jost, 2001). In both studies, ideal (but not realistic) possible worlds created a discrepancy between what people perceived the status arrangements were and what they desired them to be. Generating utopian visions for society seems to lead to lower satisfaction with status relations in their present form. Consistent with Levitas' (1990) criticism function, according to which utopias are ethical critiques of contemporary society, I suspected that higher-order ideals would become salient upon imagining utopian alternatives (Bain et al., 2013; Levitas, 1990). Study 4 provided tentative support for this hypothesis. Specifically, utopian alternatives increased prevalence of moral language related to the foundations of fairness, in-group loyalty and purity. Consequently, actual status arrangements were possibly examined against subjective ideals and failed to live up to them. The present findings suggest that in order to challenge existing arrangements, cognitive alternatives (i.e., possible worlds) do not necessarily need to be viable (i.e., realistic) but rather should aspire to inherently superior goals and ideals. Furthermore, these findings suggest that system change may be promoted not only by negative information about the status quo (Johnson & Fujita, 2012), but also by positive and idealistic prospects of the change envisioned.

However, the two studies demonstrated that despite utopias' potential to highlight a discrepancy between what is and what should be, people's response in terms of defending or

challenging the system depended on their political orientation. Relatively more conservative participants responded with increased system justification, while more liberal ones—with decreased system justification. These findings are in line with motivated social cognition account of ideology (Jost et al., 2003a): conservatives show preference for social stability and are more likely to defend existing arrangements, while liberals show preference for social change and are more likely to challenge existing arrangements. Ideal possible worlds are excessively unrealistic, and as such inherently ambiguous and uncertain. I suspect that this imbued conservatives with feelings of uncertainty and threat, ultimately resulting in a defence of existing arrangements. In contrast, being more comfortable with uncertainty, liberals were more likely to reject the system after envisioning ideal alternatives.

Where do the divergent effects for the actual-desired status arrangements and the declarative support for the system come from? While the former is a subtle measure and captures perceived legitimacy indirectly, in the latter participants had to explicitly endorse/reject a set of statements about the overarching socio-political system. Liberals (particularly extreme liberals) were more likely to explicitly express their dissatisfaction with existing arrangements, after envisioning utopias. Possibly, utopian visions not only caused liberals to think more about notions of fairness, but also matched their motivation for social change and, thus, served as an expression of their identity (Kivetz & Tyler, 2007).

For conservatives, perceiving a discrepancy between their ideals and the system they typically endorse may have created a dissonance (Festinger, 1962), which resulted in an explicit need to defend the status quo. This could explain why oftentimes conservative politicians advocate for change which aims to in fact bring back old, traditional ways of governing

(Azevedo, Jost, & Rothmund, 2017). For example, both Reagan and Trump were not only seeking to make America great, they wanted to make it great *again*. Although conservatives' increased system justification tendency may suggest a threat-reduction mechanism, other cognitive and/or motivational processes may account for this effect. For instance, given conservatives' higher general support for the system (Jost et al., 2008), utopian thinking may have increased salience of their system justifying beliefs and, thus, augment their initial confidence in the system. In this way, supporting the system would serve as an expression of conservative identity (Kivetz & Tyler, 2007).

It is also possible that conservatives may hold a general negative attitude towards ideal possible worlds and, thus, rejected the alternative from the beginning (although did not succeed at that completely, as evident from their lower actual-desired status arrangements scores). Indeed, Fernando et al. (2018) showed anti-utopianism (i.e., a priory rejection of utopian alternatives) to be positively associated with system justification. Nevertheless, the two studies do not allow to examine the causal relations between perceptions of actual-desired status arrangements and system justification. Future research is warranted in order to discern the ways they affect each other.

Future research could also address other limitations of our work. In Study 4 and the Pilot Study, participants were freely generating alternatives, while in real-life they are often confronted with ideas of future societies that are ideologically laden. Future studies should explore people's reactions to specific left-wing versus right-wing utopias (e.g., Fernando et al., 2020). Further, these two studies were based on US population samples. Although, this allowed for consistency with previous research, it is important that future studies explore differences and

variations across societies (cf. Hornsey et al., 2018). Additionally, this research is confined within the initial steps of prospection where desired outcomes were generated, yet potential obstacles and actions required were not (Oettingen, 2012). Future research should explore how issues of feasibility of alternatives envisioned may impact perceived legitimacy and security of status arrangements.

Overall, these findings hold implications for the understanding of motivational consequences of alternative visions of society more broadly, and utopias specifically. They reconcile two theoretical approaches to understanding social stability and social change. In line with Tajfel's hypothesis (Tajfel, 1978), I found that imagining utopian alternatives to the system can challenge the existing social order. In line with its extensions proposed by system justification theory (Jost et al., 2007), this challenge might backfire for those who hold conservative political views. In the end, liberals are the ones who are comfortable with imagining alternative worlds. For conservatives, there is often no alternative.

3.7. Study 5

The aim of the presented study was two-fold: first, to replicate the findings of Study 4 which demonstrated that the effects of ideal possible worlds on system justification are moderated by political orientation. Second, the current study attempted to show that the effects of the experimental manipulation on system justification are due to idealistic tendencies on a societal, rather than at a personal level. This was achieved by introducing a variation in the experimental manipulation, where half the participants were asked to imagine idealistic features of future society, while the remaining half were asked to imagine idealistic features of their daily routine in the future.

Data were collected online, via Prolific Academic, on 5th November 2016, 3 days before the United States Presidential Elections (8th November 2016) via Prolific Academic. The 2016 Elections proved to be a particular case, with the election of Trump, confirmed the rise of nationalist populist ideas, riveting the nation (Cox, 2017).

Despite losing the popular vote to Democrat nominee Hilary Clinton, leading an unconventional campaign capitalising on anti-immigrant attitudes and politics of resentment Trump won the elections and became the 45th president of the United States (Hooghe & Dassonneville, 2018). Trump support was seen by many as a revolt against the status quo (Bump, 2016). Following an anti-elitist stance, Trump attacked the "business as usual" approach of previous administrations and promised to restore America's greatness. Eventually, Trump enjoying the support of angry and resentful Americans (mostly Republicans) was elected as president. The 2016 US Presidential Elections thus poses as a particular case, where the primary candidate of Republican Party opposed (at least some aspects of) the status quo and advocated for some form of change, thus diverging from traditional party lines. Accordingly, this study takes into consideration the political climate permeated during this election campaign.

3.7.1. Method

Participants, design, and procedure

An a priori power analysis was conducted for sample size estimation (G*Power 3.1; Faul et al., 2007). With an α =.05 and power=0.80, the projected sample size to replicate the effect of unpublished results (MSc Study; η 2=.045) was approximately N=50 for a between groups comparison global effects. I recruited people who had previously identified themselves as either Democrats or Republicans. Two hundred and sixty-two participants were recruited using the

Prolific Academic crowdsourcing platform. In exchange, each participant was compensated with £0.90. Participants who failed to pass the attention 13 task were excluded, leaving a final sample of 209 participants. Of the 209 participants, 115 were female, 107 were affiliated with the Democratic party. Also, 54.5% stated their intention to vote for Hilary Clinton. Further, 64% reported holding a university-level qualification or above; the age range was 18 to 71 years $(M_{age}=36.10; SD_{age}=13.98)$.

Participants were asked to fill out a questionnaire package ostensibly about attitudes in the American society. The package included two generative-tasks and an attention task. Then, the actual-desired status arrangements and system justification measures which, constituted the two primary dependent variables of this study were completed in a counterbalanced order. Upon completion participants were debriefed and contact information was provided for possible further questions.

This study was a 2 (Ideal possible state: society/world vs. self/personal) x 2(Partisanship: Democrat vs. Republican) between subjects' design. Participants were randomly assigned to imagine and write about either three idealistic features of a future US society (N=105) or three

13 Attention check: Participants were presented with a text which contained unrelated research followed up by a question. In the text participants were explicitly instructed to ignore the question and proceed to the next section. Fifty-three answered the question, indicating that they failed to read the instructions carefully and therefore were excluded from the analyses (although when these participants are included the pattern of results remains the same).

ideal features of one self's daily routine in the future (*N*=104). By asking participants to generate ideal alternatives either at the social- or the self-level, I aimed to differentiate the effects of idealism based on the level of focus, contrasting ideal (i.e., utopian) possible worlds and ideal possible selves. However, to maintain a simple design, as in Study 4, baseline conditions were omitted. The wording of the experimental vignette is provided below. Participants in the ideal possible worlds condition read the words in italics, whereas participants in the ideal possible selves condition read the words in the brackets:

Imagine *a utopian US society* [an ideal daily routine] in 2040AD. In the space provided below, please write down three *ideal improvements* that could be made to *American society* [your daily routine]. There are no right or wrong answers, please do not hesitate to give your thoughts and images free reign. Spend approximately 2 minutes on this task.

Partisanship identification constituted the other factor in this design, where Democratic Party vs. Republican Party affiliation constituted its two levels. 14

14 This first between-subjects factor was a quasi-experimental variable as participants were not randomly assigned to each level but where pre-determined based on their political party affiliation

Materials

System Justification

As in the studies above, participants' system justification tendencies were gauged using the Social System Justification Scale was used (Kay & Jost, 2003; M=4.55, SD= 1.49). Participants marked their responses using a 9-point scale from 1= Strongly disagree to 9= Strongly agree (α =.80).

Actual-Desired Status Arrangements

As in the previous studies, to gauge support (vs. rejection) of the status quo at a subtle and indirect level, subjective ratings of actual and desired status arrangements were used (Baryla et al., 2015). Since the original list of groups included in previous studies was adopted from research concerned with the Polish society, a pilot study was conducted to develop and update the list with groups that were relevant to the American Society. In the pilot study, 40 US citizens were asked to generate a list of groups that are considered typical of US society. The final list was compiled from the 30 most frequently mentioned groups. Additionally, any groups that would refer to same or similar group were collapsed together under the level of the most generic group. Compared to the measure used in the Pilot Study (and Study 4), the pre-tested measure included 30 rather than 34 groups, but overall, the two lists were very similar (see Appendix II, Table S3.1.).

Demographics

Finally, participants were asked to indicate their gender, age, and highest educational qualification achieved. Given that the data were collected prior to the US presidential elections, a

dichotomous measure asking participants to indicate who they intended to vote (Donald Trump or Hilary Clinton) was included.

3.7.2. Results

Zero-order correlations

First the correlation between system justification and legitimacy of status arrangements was examined. Similar to Study 4 and the pilot study, system justification positively correlated with actual-desired status arrangements, r(174) = .23, p=.002, BCI95%[0.08, 0.37], suggesting that as declarative levels of status quo endorsement increased, legitimacy of status arrangements in American society also increased.

Regression Analyses

A hierarchical regression analysis on system justification was performed with the experimental manipulation and partisanship in Step 1, and their interaction in Step 2 (see Table 3.4. for results). In all analyses, experimental conditions were coded as -1= ideal possible selves and 1 = ideal possible worlds. Partisanship was coded as -1 = Democrat and 1= Republican (similar results emerge on both system justification and actual-desired status arrangements when Partisanship is replaced with Intended Vote, coded as H. Clinton = -1 and D. Trump = 1; see Supplement Table S3.15).

Possible states and partisanship as predictors of actual-desired status arrangements.

In Step 1, a significant positive effect of partisanship on actual-desired status arrangements was found, p=.002, which suggests that participants affiliated with the Republican

party were more likely to perceive status arrangements as legitimate compared to participants affiliated with the Democratic party. However, against the criticism hypothesis and previous findings, I did not find a statistically significant effect of possible worlds (vs. selves) on actual-desired status arrangements, p = .477. Further, in Step 2, the interaction between partisanship and the experimental manipulation was not statistically significant, p = .988 (results remain the same after controlling for both positive and negative affect; see Supplement Table S3.16).

Possible states and political orientation as predictors of system justification.

In Step 1, there was a significant positive effect of partisanship on system justification, p=.001. Participants affiliated with the Republican party justified the status quo more (M = 5.04, SD = 1.15), than participants affiliated with the Democratic party (M = 4.20, SD = 1.37). Also, there was a significant negative effect of ideal possible worlds (vs. selves), p=.003. Specifically, participants in the ideal possible worlds (M = 4.33, SD = 1.30) justified the status quo less than participants in the ideal possible selves (M = 4.87, SD = 1.32). However, unlike previous findings, in Step 2, the interaction between partisanship and the experimental manipulation did not reach statistical significance (results remain the same after controlling for both positive and negative affect; see Supplement Table S3.16).

Table 3.4.

Possible states and political orientation predicting Actual Desired Status Arrangements and System Justification (Study 5)

	Actual Desired Status Arrangements						System Justification					
Variable	β	В	BCI95%	F	R_2	ΔR_2	β	В	BCI95%	F	R_2	ΔR_2
Step 1				5.38**	.06					11.24***	.10	
Republican (vs. Democrat)	.24**	0.13(0.04)	[0.05, 0.21]				.23***	0.34(0.10)	[0.15, 0.53]			
Possible Worlds (vs. Selves)	.01	0.03(0.04)	[-0.05, 0.10]				20**	-0.30(0.10)	[-0.43, -0.08]			
Step 2				3.57*	.06	.00				7.48***	.10	.00
Republican (vs. Democrat)	.24**	0.13(0.04)	[0.05, 0.21]				.23***	0.34(0.10)	[0.15, 0.53]			
Possible Worlds (vs. Selves)	.05	0.03(0.04)	[-0.05, 0.11]				20**	-0.30(0.10)	[-0.49, -0.11]			
Partisanship x Worlds	-0.001	-0.001(0.04)	[-0.08, 0.08]				.01	-0.02(0.10)	[-0.21, 0.17]			

Note. *p < .05. **p < .01. ***p < .001. BCI95% = bias corrected bootstrapped confidence intervals based on 5000 samples.

3.7.3. Discussion

Study 5, capitalising on the 2016 US presidential election, attempted to provide further support to the conditioning effects of political orientation on system justification, following utopian thinking. This study introduced an experimental variation, where ideal possible worlds were compared with ideal possible selves, rather than with a non-reactive baseline (pilot study) or realistic possible worlds (Study 4). This was done to ascertain that the effects of utopian thinking on the legitimacy of status arrangements and declarative levels of system support (i.e., system justification) stem from system-level idealism, rather than self-level idealism. Also, this study employed a factorial design comparing participants affiliated with the Democratic party versus participants affiliated with the Republican party.)

Study 5 provided evidence that on average participants affiliated with the Republican party were more likely to declare their support to the status quo, compared to participants affiliated to the Democratic party. This resonates with findings from the pilot study and Study 4. A similar effect was also observed for the actual-desired status arrangements measure. Participants affiliated with the Republican party were more likely to perceive status arrangements as more legitimate compared to participants affiliated to the Democratic party.

Study 5 did not reveal a similar conditioning pattern by political orientation as the two previous studies (i.e., Study 4 and the Pilot Study). Rather, ideal possible worlds (vs. selves) thwarted system justification, irrespective of political orientation. This result was in line with previous research which holds that utopian thinking elicits motivations to criticise the status quo (Fernando et al., 2018). Crucially, this study demonstrates that criticism is specifically elicited from idealistic notions that target society, rather than a more general form of idealism which targets the self. Nonetheless, unlike Study 4 and the pilot study, utopian thinking was

not associated with the subtle measure of status quo satisfaction. Taken together, it might be that in the context of elections, satisfaction with and endorsement of extant arrangements becomes more explicit and declarative

Further, potential explanation for the absence of interaction between possible worlds and political orientation might be the socio-political climate that permeates during election campaigns. Presidential candidates travel the country to present their agenda of how society can be improved under their reign. Accordingly, this can be seen as a period were discussions were possibly dominated by social change ideas (– either by messages of restoring a great past state of the country or by pointing to a fairer and just future; Robinson, Cassidy, Boyd, & Fetterman, 2015). This may have resulted in people, irrespective of party affiliation to feel more comfortable and encouraged in disputing, at least some components of extant arrangements (Azevedo et al., 2017).

In fact, the 2016 Presidential Elections appear to be a special case as Donald Trump, the Republican candidate who eventually got elected, promoted an agenda that rejected the liberal and progressive aspects of the status quo (i.e., opposing equality of gender in preference for more traditional gender roles). Indeed, Azevedo, Jost and Rothmund (2017) demonstrated that support for Donald Trump (vs. Hilary Clinton) was negatively associated with support of the social system, after controlling for legitimacy of the economic system and gender relations.

Nonetheless, the way Study 5 operationalised political orientation (i.e., relying on party affiliation) may, also, explain the absence of the conditioning effects of utopian thinking on system justification by political orientation. Compared to categorical groupings based on party affiliation, a self-reported measure can capture points of inflection at any point across the scale. In contrast, categorisation based on party affiliation allowed only for group

comparisons. Admittedly a nominal measure of party affiliation is less nuanced, as it does not allow to separate more moderate from more extreme participants on either side of the ideological spectrum. Thus, the absence of the condition effect political might not be surprising, considering that condition effects by political orientation were identified at relatively moderate to extreme values across the scale and tended to vary across the two previous studies (e.g., Study 4 point estimates were 1.04 and 3.05; Pilot study point estimates were 1.77 and 3.88). Further it is also possible that the decision to compare ideal possible worlds versus ideal possible selves (rather than realistic possible world) to have played a role for the absence of the conditioning effects.

3.8. Study 6

Study 6, capitalising on the 2017 UK general election, attempted to replicate the conditioning effects of political orientation on the link between utopian thinking and system justification, relying on a British, rather than a US sample. This study, similar to the pilot study, orthogonally manipulated ideal (vs. baseline) and realistic (vs. baseline) possible worlds. Yet, participants were encouraged to envision a possible world in the near future (i.e., by the end of the term in office of the party they were affiliated with), rather than a possible world far in the future (previous studies: in 2050 A.D.).

Data were collected online, via Prolific Academic, during the week prior to UK general elections held on 8th of June 2017. The aim of the presented study was to examine whether political orientation would condition the effects of possible worlds on system justification. Study 6, like Study 5, has been collected prior to elections, which allowed to examine whether elections would influence this relationship in a similar way (i.e., a main effect of possible worlds on system justification) as observed in Study 5. Further, rather than relying on a US sample, for this study I collected a sample from the UK, just prior to the General elections held on 8th of June 2017. Against the backdrop of economic instability and the migrant/refugees crisis, a referendum was held on June 23 that asked British citizens whether they wanted to remain or exit in the European Union. In a landmark vote, Britain voted to exit the European Union. In that way, social change processes were largely stemming from right-wing (rather than left-wing) voters.

3.8.1. Method

Participants, design, and procedure

The presented study was conducted among 398 (181 men and 217 women; age 18-71, M_{age} =39.34, SD_{age} =12.59) participants recruited via Prolific Academic. Data were collected on 2nd June 2017, six days before the British General Election (8th June 2017). Participants were asked to imagine that the party they support won the 2017 General Elections and write down, according to condition, either three ideal or realistic improvements they would like their party to produce during their term in office. Participants in the baseline conditions were not asked to complete any tasks. As evident, the experimental manipulation differed compared to the previous studies. First, in this study participants, across conditions, were asked to imagine their society in the near (i.e., after the party they were affiliated with ended its term in office), rather than in the far future (i.e., 2050AD; Studies 4 – 5). Second, in the previous studies, participants in the ideal possible world condition were instructed to give their thoughts and images free reign (a primer to think abstractly), while participants in the realistic possible world condition were instructed to remain matter of fact in their descriptions (a primer to think concretely). In this study, however, participants, across conditions, were instructed to think abstractly.15The instructions read:

We would like you to take a moment and imagine that in the upcoming 2017 General Election the party you support wins the majority of the votes. In the space provided

15 Encouraging participants in the realistic alternatives condition to think abstractly was due to a mistake. As the manipulation checks, reported below, show the experimental manipulation did not yield the expected effects.

below write down three ideal [realistic] improvements you would desire [expect] the party to produce during their term in office. There are no right or wrong answers, please do not hesitate to give your thoughts and images free reign. Spend approximately 2 minutes on this task.

Participants were randomly assigned to different levels of each factor in a 2 (Ideal Possible Worlds vs. Baseline) x 2 (Realistic Possible Worlds vs. Baseline) factorial design.

Random assignment resulted in 112 participants in the full baseline condition, 108

participants in the ideal only condition, 101 participants in the realistic only condition, and 77

participants who were exposed to both manipulations. To avoid order effects, manipulations appeared in a counterbalanced order. Having completed writing task, participants completed a number of measures.

Materials

All questionnaire items were measured on 7-point Likert-type scales unless otherwise stated. Single indices were calculated for those variables measured with several items by obtaining mean responses over items for each participant.

System Justification

System justification was measured with 3 items taken from the Kay and Jost (2003) scale and adapted to the British context: (1) In Great Britain, everyone has a fair shot at wealth and happiness"; (2) In general, the British Political system operates as it should"; (3) "British society needs to be radically restructured (reverse-coded)". Participants indicated their strength of agreement/disagreement with each statement on a scale ranging from $1 = Strongly\ disagree$ to $7 = Strongly\ agree$. Responses from the three items were averaged to form a system justification index (α =.75, M=3.58, SD=1.32).

Political Orientation

Political orientation was measured using a single item: "Many people think of political attitudes being on the "left" or "right". This is a scale stretching from Extremely Left-wing to Extremely Right-Wing. When you think of your own political attitudes, where would you place yourself? Participants responded a scale from 1=Extremely Left-wing to 5=Extremely Right-wing (M=2.78, SD=.90).

Demographics

Finally, participants were asked to indicate their gender, age, and highest educational qualification achieved and were fully debriefed. Given that the data were collected just prior to the UK General Elections, participants were also asked to indicate the party they supported, their intention to vote or not, and their opinion about Brexit. Specifically, participants were asked to indicate which of the political parties participants would support in the upcoming general elections out of the total 398 participants, 397 reported the party they support: 45.5% of participants reported of supporting the Labour Party, 26.9% the Conservative Party and the remaining 27.6% indicated other parties. Vote intention was gauged using a single item asking: "Do you intend to vote in the upcoming General Elections?". Out of the total 398 participants, 352 indicated that they intended to vote, 17 reported no intention of voting, whilst 29 reported being undecided. Participants opinion about Brexit was measured using a single item: "What is your opinion about the UK leaving the European Union?". Participants responded a scale from 1=strongly oppose leaving to 7=strongly support leaving (M=3.42, SD=2.41).

3.8.2. Results

Preliminary Analyses

Before carrying out the main analysis, two manipulation checks, using two novel measures aimed at gauging ideal social change beliefs and realistic social change beliefs 16. were performed to assess whether the possible states manipulations were successful.

Manipulation Checks

To check whether the experimental manipulations were successful, ideal and realistic beliefs about social change were used as dependent variables on two separate GLM analyses, with ideal (vs. baseline) and realistic (vs. baseline) possible worlds as the two between-participants factors with two levels each.

The first analysis revealed no main effect of realistic possible worlds and no significant interaction (both Fs<1) on ideal social change beliefs. However, the analysis showed a significant main effect of ideal possible worlds on ideal social change beliefs, F(1, 396)=4.05, p=.045, $\eta p_2=.01$. However, participants assigned to the ideal possible worlds condition scored significantly lower on ideal social change beliefs (M=4.94, SD=1.14) than did those in the baseline condition (M=5.15, SD=1.00). This suggests that the ideal possible worlds manipulation was not successful, as higher scores were expected by participants assigned to the ideal possible world, not the baseline.

16 More details on these two measures and their empirical differences supplementary analyses of Study 6).

The second GLM analysis revealed a marginally significant main effect of realistic possible worlds on realistic social change beliefs, F(1, 396) = 3.74, p = .054, $\eta p = .01$. Participants assigned to the realistic possible worlds condition scored higher on realistic social change beliefs (M = 5.60, SD = 0.84) than participants assigned to the realistic baseline condition (M = 5.40, SD = 0.94). Further, the analysis showed that the main effect of ideal possible worlds on realistic social change beliefs did not reach statistical significance, F(1, 396) = 2.50, p = .11. The interaction between ideal and realistic possible worlds was not significant (F < 1). These findings suggest that the manipulation of realistic possible worlds was successful.

Overall, it appears that the experimental manipulation of ideal possible worlds did not yield the expected effects. Participants in the ideal baseline condition scored significantly higher than participants in the ideal possible worlds condition. The mistake in the instructions of the manipulation should be taken into account. Despite this, analyses were conducted as intended, yet results should be treated with caution.

Main Analyses

Possible worlds and political orientation as predictors of system justification

I performed hierarchical regression analyses to investigate the effects of the ideal (vs. baseline) and realistic (vs. baseline) possible worlds and political orientation on the three functions of utopia. In all analyses, experimental conditions were coded as -1 = ideal baseline and 1 = ideal possible worlds; -1 = realistic baseline and 1 = realistic possible worlds.

Political orientation was mean-centred prior to the analysis. Experimental variables and political orientations were included in Step 1. In Step 2, to examine whether the effects of the experimental manipulation depend on political orientation, I introduced the two-way interaction terms between: (a) ideal possible worlds (vs. baseline) and political orientation; (b) realistic possible worlds (vs. baseline) and political orientation; and (c) ideal (vs. baseline) and realistic (vs. baseline) possible worlds₁₇.

In Step 1, the analysis revealed a marginally significant negative effect of ideal possible worlds on system justification p=.052. Participants assigned in the ideal possible worlds condition (M =3.45, SD =1.34) scored lower on system justification compared to participants assigned in the baseline condition (M = 3.69, SD =1.29). Further, there was a significant positive effect of political orientation on system justification, with participants reporting more right-wing tendencies scoring higher on system justification, p <.001. The

17 Three-way interaction was not included in this model as I did not have a specific hypothesis of how the three variables may interact. Nonetheless, the three-way interaction term was not significant, and the pattern of our primary results remained the same (see Supplement Table S3.5)

effects of realistic possible worlds manipulation in Step 1, as well as the two-way interactions in Step 2 were all not statistically significant, all p > .118. Finally, to examine whether the order of presentation of the possible worlds manipulations influenced the pattern of results, the analysis was repeated with a variable encoding the order of presentation (-1 = realistic first, utopian second; 1 = utopian first, realistic second) added to the model. The order of presentation did not predict system justification, $\beta = .004$, b = 0.01(0.06), p = .938, [-0.12, 0.13].

Table 3.5.

Possible Worlds and Political Orientation Predicting System Justification (Study 6)

	System Justification							
Variable	β	В	BCI95%	F	R_2			
Step 1				23.45***	.15			
Ideal (vs. Baseline)	09+	-0.12(0.06)	[-0.24, 0.00]					
Realistic (vs. Baseline)	07	-0.10(0.06)	[-0.22, 0.03]					
Political orientation	.37**	0.54(0.07)	[0.40, 0.68]					
Step 2				11.87***	.15			
Ideal (vs. Baseline)	10*	-0.13(0.06)	[-0.24,-0.01]					
Realistic (vs. Baseline)	08	-0.10(0.06)	[-0.22, 0.02]					
Political orientation	.37**	0.54(0.07)	[0.40, 0.68]					
Ideal x Political orientation	02	-0.03(0.07)	[-0.17, 0.11]					
Realistic x Political orientation	.03	0.04(0.06)	[-0.10, 0.18]					
Ideal x Realistic Possible Worlds	04	-0.05(0.06)	[-0.17, 0.07]					

Note. +p<.10. *p<.05. **p<.01.***p<.001. BCI95% = bias corrected bootstrapped confidence intervals based on 5000 samples.

3.8.3. Discussion

Study 6 utilised a British sample, collected prior to the 2017 UK General Elections, which was dominated by the question whether Britain should remain in or leave the European Union. With two modifications in the experimental instructions, the presented study marshalled tentative evidence in support of the criticism functions of utopian thinking (Fernando et al., 2018). Ideal possible worlds were shown to negatively influence system justification, yet the effect was only marginally significant. As expected, political orientation positively predicted system justification. That is, more left-wing participants were less likely to justify the status quo, compared to more right-wing participants.

In line with previous research (Fernando et al., 2018) and Study 5, utopian thinking decreased system justification, this effect, however, was marginally significant. Further, similar to Study 5, this effect was not conditioned by political orientation. That is, on average individuals who envisioned an ideal future world rejected the status quo, irrespective of their ideological placement. In fact, this is contrast, to the central hypothesis of this chapter, that utopian thinking effects on system justification depend on political orientation.

Given that, similar to Study 5, Study 6 was collected prior to elections, provides further support to the suggestion that during elections, satisfaction with and endorsement of extant arrangements becomes more explicit and declarative. Additionally, considering that the 2017 UK general election (similar to 2016 US Presidential election) stands out as the traditionally conservative parties advocated for some form of status quo change (i.e., UK to leave the EU), may also account for the lack of conditioning effect of political orientation on the link between utopian thinking and system justification. Accordingly, this further supports that the social context and the political climate may shape utopian thinking and its associated

effects. However, this finding should be treated with caution as it was only marginally significant and as I discuss further below, Study 6 also contained certain issues with respect to the manipulation of possible worlds.

Unlike the manipulation of possible worlds in previous studies (Studies 1-5), in Study 6 manipulations of possible worlds were temporally set in the near- (i.e., by the end of the next term in office), rather than the far-future (i.e., 2050 AD). Further, the realistic possible worlds condition contained an error in the instructions provided. Specifically, participants assigned in this condition were encouraged, similarly to participants in the utopian condition, to think more abstractly (i.e., give your thoughts and images free reign), rather than more concretely (i.e., to remain matter of fact in your description).

While the former modification, attempted to examine whether a similar pattern of effects would emerge when possible worlds are envisioned in temporal proximity (rather than distance), the latter modification (by error) may have influenced the level of construal the possible worlds were envisioned and mentally represented in the opposite direction. That is, both tapped on and presumably eventually tampered with the psychological distance possible worlds were envisioned. Given that instructions were paralleled and varied only in the use of prime words (i.e., ideal vs. realistic), the presented study can also be seen as an opportunity for a stringent test of the effects of possible worlds which vary only in the prime words used (ideal vs. realistic features). Nonetheless, it should be noted that the manipulation check for the ideal possible worlds was not successful, which warrants further caution on the findings of this study.

3.9. Summary and Conclusions: Chapter 3

Chapter 3 sought to better understand the link between utopian thinking and system justification. Study 4 and the pilot study supported the contention that the effects of utopian thinking on system justification are conditioned by political orientation. Indeed, more liberal participants were more likely to reject the status quo, while more conservative participants were more likely to support the status quo, following ideal (vs. realistic) possible worlds.

However, in Studies 5 and 6, conducted in the context of the 2016 US presidential election and 2017 UK General election showed that system justification decreased following ideal possible worlds (vs. ideal possible selves in Study 5; vs. baseline in Study 6), but this effect was not conditioned by political orientation. Considering that both elections stand out as the traditionally conservative parties in both countries advocated for some form of status quo change. This may account for the lack of conditioning effect of political orientation on the link between utopian thinking and system justification. This raises implications that the social context and the political climate may shape utopian thinking and its associated effects. Implications about the role of social context and the political climate, as well as the conditioning role of political orientation in utopian thinking are further considered in the General Discussion (Chapter 5).

CHAPTER 4

4.1. Introduction

"Every utopia - let's just stick with the literary ones - faces the same problem: What do you do with the people who don't fit in?

Margaret Atwood (2013)

Lessons from history demonstrate that whenever a society engages in utopian social engineering the result is unprecedented violence and the ultimate collapse of the utopian vision (Gray, 2007). For instance, Stalinism and Nazism are prime examples of the dangers of utopia in practice (Overy, 2005; Benn, 2006). While ideologically inspired by different visions about human nature, society, and progress₁₈, both Nazism and Stalinism, contributed to inhumane atrocities in their utopian visions (Overy, 2005; Gray, 2007). Such historical events can attest to the fact that our conviction to pursue an ideal future, may cause harm to others.

Accordingly, in Chapter 4, I examine whether utopian thinking can cause violence. I address the role of utopian thinking in determining support for radical and/or violent forms of societal engagement. I also examine the association between utopian thinking and inter-group hostility with respect to collective narcissism. In this examination, I use collective narcissism because of its link with external validation of an assumed superiority, the tendency to idealise the in-group and its past and its link with out-group hostility (Cichocka, 2016; Golec de

18 Overy (2005), for instance, argues that Soviet communism aspired to human progress in general, while Nazism was intended to further the progress of a particular group.

Zavala et al., 2009; 2019). I contend that the relationship between collective narcissism and out-group hostility may be mediated by utopian thinking.

This chapter broadens the scope of this thesis by: a) moving beyond the motivation to challenge the status quo and examining the impact of utopian thinking on behavioural intentions for radicalism and/or violence; b) considering whether the way people identify with their social groups is linked to utopian thinking and extreme behaviour. Thus, in this chapter, I investigate whether utopian thinking can lead to endorsement of violent or otherwise radical acts against out-groups who are perceived as obstacles to one's ideal vision.

To this end, I discuss the notion of idealistic evil (Baumeister, 1997) and then consider theories of terrorist mindset (Stankov, Higgins, Saucier, & Knežević, 2010) and quest for significance (Kruglanski et al., 2013). Finally, I propose collective narcissism as a particularly useful concept in studying the role of utopian thinking in inter-group violence (Cichocka, 2016; Golec de Zavala et al., 2009).

4.1.1. Idealistic Evil: Utopia, Moral Principles, and Violence

"Humans are an extremely violent species; there are plenty of examples of mass killing in non-western societies. Where the West is distinctive is in using force and terror to alter history and perfect humanity".

John Gray (2007) Black Mass: Apocalyptic Religion and the Death of Utopia,

Baumeister (1997) has provided a theoretical account for a potential relationship between idealism and (collective) violence. The author argues that higher-order principles and ideals (i.e., ideological convictions) may promote violent acts, rather than prevent them. Baumeister (1997) argues that collective violence may be the consequence of moral reasoning (Bandura, 1999; see also, Bandura, 1991). For instance, Baumeister (1997)

suggests that religious-motivated violence is "divinely sanctioned" 19. In that way, in the context of utopianism, the desire to make the world a better place (in line with their moral convictions) may lead people to radicalisation and violence (Stankov, Knežević, Saucier, Radović, & Milovanović, 2018).

In fact, utopianism has been identified as a key characteristic in individuals prone to support militant extremist groups (Stankov et al., 2010; Stankov et al., 2018). Stankov et al. (2018) analysed contemporary terrorists' texts and showed that utopianism is typically accompanied by millenarianism and Machiavellianism. Millenarianism and Machiavellianism refer to – beliefs that the creation of utopia in this world or in the afterlife is possible and that beliefs in superordinate goals justify the taking of human life. Such beliefs provide justification for violence by alluding some higher-order principles and values. Stankov et al. (2018) suggest that the centrality of utopianism in militant and extremist behaviour does not necessarily lie in the need to justify morally questionable actions. Rather, the authors posit that idealistic goals of creating a better world make pro-violent actions appear more acceptable (Atran, 2010).

19 A contemporary example of religiously motivated violence is the phenomenon of antiabortion violence. Such violence is perpetrated by individuals who hold strong religious beliefs that abortion is (morally) wrong. Specifically, since 1977, there have been 11 murders, 26 attempted murders, 42 bombings and 188 arsons at abortion clinics across the United States (NAF 2018 Violence and Disruption Statistics - https://prochoice.org/wp-content/uploads/2018-Anti-Abortion-Violence-and-Disruption.pdf)

Relatedly, the quest for significance theory (Kruglanski et al., 2013; Kruglanski, Gelfand, Bélanger, Hetiarachichi, & Gunaratna, 2015) posits that ideological convictions imbue individuals with a sense of purpose which often leads to a search for significance and recognition either at an individual (i.e., from personal experience) or at a collective level. Collective significance is often rooted in beliefs that the group has been undermined, humiliated, or somehow unfairly deprived (Kruglanski, Jasko, Chernikova, Dugas, & Webber, 2017). Indeed, search for significance is considered a strong predictor of radicalisation, political extremism, and violence (Kruglanski et al., 2013; 2015; 2017). The quest for significance theory (Kruglanski et al., 2013) recognises deprivation, as well as economic and social marginalisation as important antecedents of radicalisation and violence (Jasko et al., 2019, see also Smith, Pettigrew, Pippin, & Bialosiewicz, 2012; Piazza, 2006; Lyons-Padilla, Gelfand, Mirahmadi, Farooq, & van Egmond, 2015). The theory also highlights that this quest is often rooted in a set of values which define what is moral and what the possible world one should aspire to and pursue is (Atran, Axelrod, & Davis, 2007; Atran, 2010). Thus, quest for significance, idealistic evil, and militant extremist mindset appear to similarly suggest that violence can stem from idealistic convictions.

Moreover, Baumeister (1997) highlights that idealistic violence is primarily a group phenomenon. Collective narratives and legitimising myths engraved in collective memory, often enable hostile attitudes towards an identified enemy and justify violent acts against them (Baumeister, 1997). Such abstract conceptions shape social reality and enable the construction of (imagined) enemies, and thus offer "a licence to hate" (Baumeister, 1997). That is, narratives prescribe how things ought to be (i.e., desired to be) and rationalise hostility towards relevant out-groups. This, in turn, might imbue a determination to eliminate them as the way to realise the desired alternative. Therefore, the group acts as a moral

authority, leading committed members to do what is deemed necessary to further the positive goals of the group (Baumeister, 1997).

4.1.2. Out-group Hostility Stemming from In-group Identification

"Step forward: We hear that you are a good man [...] Listen, we know you are our enemy. Therefore we now shall put you against a wall. But in consideration of your merits and virtues, it will be a good wall, and we shall shoot you with good bullets from good guns, and we shall bury you with a good shovel in good soil."

Bertolt Brecht, "The Interrogation of the Good"

Baumeister (1997) suggests that the need to belong and the sense of shared reality reinforce justifications for violence (Baumeister & Leary, 1995). Importantly however, the way in which individuals identify with groups they belong to may influence violence towards non-conforming groups. Recent research demonstrates that in-group identification is dynamic and multi-faceted (for review see, Leach et al., 2008; see also Cameron, 2004). These different facets, while often overlapping, tend to have independent, and at times opposite effects on inter-group attitudes (Roccas, Klar, Liviatan, 2006; Cichocka, Dhont, Makanwa, 2017; Golec de Zavala, Cichocka, & Bilewicz, 2013; for reviews see, Cichocka, 2016, Golec de Zavala & Lantos, 2020; Roccas, Sagiv, Schwartz, Halevy, & Eidelson, 2008).

Distinctions typically pertain to national identities and include: blind versus constructive patriotism (Staub, 1997; Schatz, Straub, & Lavine, 1999), attachment versus glorification (Roccas et al., 2006), and secure in-group identification versus collective narcissism (Cichocka, 2016). While, constructive patriotism, group attachment, and secure in-group identification predict out-group tolerance, blind patriotism, in-group glorification, and collective narcissism predict out-group hostility (Cichocka, Marchlewska, Golec de

Zavala, & Olechowski, 2016; Leidner, Castano, Zaiser, & Giner-Sorolla, 2010; Roccas et al., 2006; Schatz et al., 1999). Importantly however, the latter concepts point to beliefs of the superiority of the in-group with respect to relevant out-groups—an often exaggerated, idealised in-group image (Cichocka, 2016, Golec de Zavala et al., 2019; Roccas et al., 2008). In fact, this inflated sense of superiority is what allows political and social psychologists to distinguish conventional, secure forms of identification with the in-group from narcissistic, defensive identification (Cichocka, 2016).

Furthermore, while in-group glorification and blind patriotism exclusively concern national identity, collective narcissism is not limited to it (Cichocka, 2016). Research shows that collective narcissism is evident across different social identities (i.e., football teams, university) and tends to similarly predict inter-group attitudes (e.g., Golec de Zavala et al., 2009; Golec de Zavala, et al., 2013; Golec de Zavala, Cichocka, & Iskra-Golec, 2013). In addition, research shows that the effects of in-group identification and collective narcissism on inter-group attitudes can effectively be partialled out, allowing for the separation of their independent and unique contributions on positive and negative attitudes towards relevant outgroups (Golec de Zavala et al., 2013; see also Cichocka, 2016).

In an inter-group context, research shows that collective narcissism predicts a number of negative and/or hostile attitudes towards relevant out-groups including: prejudice (Cichocka et al., 2017, Cai & Gries, 2013) unwillingness to forgive past wrongdoings, (Golec de Zavala et al., 2009), hostile feeling and behaviours towards minorities (Cichocka et al., 2016; Dyduch-Hazar, Mrozinski, & Golec de Zavala, 2019), military aggression (Golec de Zavala et al., 2009) retaliatory aggression against relevant out-groups (Golec de Zavala et al., 2013), radical behaviour (Yustisia, Eka Putra, Kavanagh, Whitehouse & Rufaedah, 2020).

Out-group negativity and hostility is particularly pronounced when the in-group's greatness

and perceived superiority appear to be threatened (Cichocka, 2016; Golec de Zavala et al., 2009; Golec de Zavala, Peker, Guerra, & Baran, 2016; for reviews Golec de Zavala, 2011; Golec de Zavala et al., 2019).

In the context of utopian thinking, idealisation may no longer be exclusively concerned with a group's image but also with its goals and prospects (Boldero & Francis, 2002). Specifically, a group's goal may include a set of desires and expectations for the future position of the group, which are defined in relation to other groups and the in-group's role in society (Cinnirella, 1998). Conceptually, an idealised image is primarily concerned with past achievements that shape the narrative and create symbolic capital about the group's worth and greatness. On the other hand, an idealised goal "looks" forward in the future, seeking the materialisation and manifestation of such symbolic greatness into a tangible entity. Following the rationale that a group may perceive out-groups as not particularly "fitting" to their own utopia (and so, as a threat to its realisation), I expect idealistic notions about the future betterment of society to mediate the effects of collective narcissism on outgroup violence and/or radical action.

This is not to say that in-group image idealisation (i.e., collective narcissism) does not predict out-group hostility due to other factors. Rather, I argue that idealised group goals may be one of the facilitators which drive the effects of image idealisation on out-group hostility. In other words, future goals may confer the recognition and greatness, which collective narcissists long for. Thus, I hypothesise, that beliefs about ideal changes to the society would explain part of the variance in the association between collective narcissism and inter-group violence and hostility.

4.2. Overview and Hypotheses

I test my predictions related to collective violence in five studies. The first study (Study 7) is cross-sectional and explores the proposed relationships between collective narcissism, idealistic beliefs about social change (i.e., current operationalisation of utopian thinking), and collective violence. Study 8 attempts to further explore the proposed relationships on radical action, rather than collective violence. Also, rather than relying on national identity, this study capitalised on vegan identity. The remaining three studies (Studies 9–11), are experimental whereby I attempt to yield support for a causal effect of utopian thinking on collective violence.

Therefore, in this chapter I expected, idealistic beliefs about social change (i.e., utopian thinking) to be positively associated with justification of violence or (in Study 8) radical behaviour (the idealistic violence hypothesis). Secondly, collective narcissism to be positively associated with idealistic beliefs about social change (the narcissistic idealism hypothesis) and justification of violence (the narcissistic violence hypothesis). Finally, I expected the association between collective narcissism and justification of violence to be positively mediated by idealistic beliefs about social change (the idealism pathway hypothesis).

4.3. Study 7

In Study 7, using a nationally representative sample from Poland, I investigated the relationships between ideal (and realistic) change, collective narcissism, and collective violence. Specifically, I sought to examine whether utopian thinking (i.e., in Study 7 operationalised as idealistic beliefs about social change) is associated with collective violence. In line with the idealistic violence hypothesis, I expected utopian thinking to be

positively associated with endorsement of verbal and physical forms of collective violence. Furthermore, I expected: a) a positive relationship between utopian thinking and collective narcissism (i.e., narcissistic idealism hypothesis), b) a positive relationship between collective narcissism and collective violence (i.e., narcissistic violence hypothesis) and c) the latter to be mediated by utopian thinking (i.e., idealistic pathway hypothesis).

4.3.1. Method

Participants and procedure.

Study 7 involved a 2018 nationally representative sample of the 1285 Polish adults: 622 men, 663 women, aged 18-87 (M_{age} =47.59, SD_{age} =17.59). Several measures and scales were presented to participants, including national narcissism, national identification, idealistic and realistic beliefs about social change, physical and verbal collective violence along with demographics (ethnicity, gender, and age).

Measures.

Idealistic beliefs about social change was operationalized as perceived importance and centrality of ideals in beliefs about social change in society. Four items, reported in Table 4.1, measured idealism on a scale from 1=definitely disagree to 5=definitely agree (α =.86, M=3.32, SD=0.83).

Realistic beliefs about social change was operationalized as the perceived importance and centrality of having a realistic approach with respect to change in society. Because both ideal and realistic change are concerned with the nature of beliefs, this scale was included to control for associated variance with the idealistic beliefs about social change (Burger & Bless, 2016; Kivetz & Tyler, 2007). Four items, reported in Table 4.1, measured realistic

change on a scale from 1=definitely disagree to 5=definitely agree (α =.87, M=3.90, SD=0.74).

National narcissism was measured with the 5-item version of the Collective Narcissism Scale (Golec de Zavala et al., 2013), e.g., "The Polish nation deserves special treatment." Participants responded on a scale from 1=definitely disagree to 6=definitely agree (α =.92, M=3.63, SD=1.25).

National identification was operationalized using selected items which captured all three dimensions of social identity suggested by Cameron (2004; Polish adaptation by Jaworska, 2016). Two items measured satisfaction with the in-group, e.g., "Overall, I am satisfied with being a Pole," two items measured centrality of the in-group, e.g., "Being Polish is an important part of who I am," and two items measured solidarity with in-group members, e.g., "I feel a strong bond with Polish people." Participants responded on a scale from 1=definitely disagree to 6=definitely agree (α =.92, M=3.69, SD=0.87).

Physical collective violence was operationalized as the endorsement and justification of physical acts of violence against an out-group of migrant refugees, e.g. "Residents of the city devastate cars belonging to newcomers". Three items measured physical collective violence on a scale from 1= not justified at all to 7= fully justified ($\alpha=.95,$ M=2.12, SD=1.44; Winiewski & Bulska, in press).

Verbal collective violence was operationalised as the endorsement and justification of verbal abuse of an out-group of migrant refugees, e.g. "Residents of the city spread rumours about newcomers". A total of three items measured verbal collective violence on a scale from 1 = not justified at all to 7 = fully justified ($\alpha = .93$, M = 2.76, SD = 1.58; Winiewski & Bulska, in press).

Prior to responding to the verbal and physical collective violence questions, participants were primed with a short story describing an inter-group encounter between native Polish residents and a minority group of newcomers. The target out-group of newcomers varied across participants. Specifically, participants were randomly presented with one of four different groups: Vietnamese, Roma, Jews, or Ukrainians (Winiewski & Bulska, in press).

4.3.2. Results

Factor Analysis

First, I performed an exploratory factor analysis (EFA) on the full set of items gauging beliefs about social change (8 in total) to ascertain the underlying factor structure using a Polish sample. For factor extraction, I relied on the Kaiser's criterion (eigenvalues set to 1) in conjunction with the scree test. Maximum likelihood estimator with direct oblimin rotation was used. According to both Kaiser's criterion and scree test, the EFA yielded two factors explaining 71.76% of the variance. Ideal and realistic beliefs about social change items loaded strongly on their respective factor (factor loadings >.73; see Table 4.1). There were no significant cross-loadings (<.096) and the two factors were moderately correlated, r = .42. The factor analysis ascertains that idealistic and realistic beliefs about social change are empirically distinguishable, and thus lend justification of the use of these two factors as distinct variables.

Table 4.1

Pattern matrix of the Exploratory Factor Analysis

Items	Loadings (λ)			
	Idealistic Change	Realistic Change		
Social change is only possible if you have an ideal vision of what you are aiming at.	.81	04		
In the pursuit of social change, one must be an idealist.	.79	05		
If you want to change something in society, you must strive for an ideal.	.77	.10		
We should strive to create an ideal society	.72	.04		
Social change is only possible if you have a realistic vision of what you are aiming at.	.06	.73		
In the pursuit of social change, you must be a realist.	07	.83		
If you want to change something in society, you have to act realistically.	04	.86		
We should strive to make realistic changes in society	.07	.76		

Note. Method of extraction: maximum likelihood; rotation: Oblimin

Zero-order correlations

Intercorrelations among the variables are presented in Table 4.2. National narcissism was significantly positively correlated with national identification, idealistic and realistic beliefs about social change, as well as, physical and verbal collective violence. The correlation between national narcissism and idealistic beliefs about social change was moderate to large. This suggests that idealisation is central in both scales (and thereby supporting the idealistic narcissism hypothesis). National identification was significantly positively correlated with idealistic and realistic beliefs about social change. The correlations between national identification and physical and verbal forms of collective violence, however, were not significant (which is consistent with past research; see Cichocka, 2016).

Idealistic beliefs about social change was significantly positively associated with physical collective violence. However, the association between idealistic beliefs about social change and verbal collective violence was not significant. Realistic change was significantly negatively associated with both forms of collective violence. Realistic and idealistic beliefs

about social change were positively moderately correlated. This was expected as both measures are concerned with social change. Nonetheless, the observation that the former correlates negatively, while the latter correlates positively with collective violence indices, suggests that these measures underline different distinct approaches to social change. Finally, as expected, verbal and physical forms of collective violence were significantly positively correlated.

Table 4.2.

Summary of Variables Intercorrelations									
Variable	1	2	3	4	5				
1. National identification	_								
2. National narcissism	.62***	_							
	[0.58, 0.65]								
3. Realistic beliefs about social change	.36***	.16**	_						
	[0.30, 0.42]	[0.03, 0.10]							
4. Idealistic beliefs about social change	.35***	.45***	.38***						
	[0.28, 0.40]	[0.03, 0.39]	[0.31, 0.44]						
5. Physical collective violence	07*	.19**	23**	.09**					
	[-0.13, -0.01]	[0.02, 0.14]	[-0.28, -0.17]	[0.02, 0.14]					
6. Verbal collective violence	03	.15**	16**	.05	.76***				
	[-0.09, 0.03]	[0.09, 0.20]	[-0.22, -0.10]	[-0.01, 0.11]	[0.73, 0.79]				

Note. N=1285; *p < .05; **p < .01, ***p < .001; two-tailed tests; Bias corrected confidence intervals based on 5000 bootstrapped samples are reported in brackets.

SEM Model

I used structural equation modelling (Mplus v.8; Muthén & Muthén, 2017) to test whether the relationships between national narcissism and verbal and physical collective violence are mediated by idealistic beliefs about social change (i.e., idealistic pathway hypothesis).

To account for deviations from normality in the data, I used the Robust Maximum Likelihood (MLR) estimation method with robust standard errors, a corrected normal theory method which allowed me to adjust for deviations from normality (Savalei, 2014). To adjudge whether the model fit the data, I relied on a combination of inferential and descriptive fit indices. The overall model fit was assessed through the chi-squared test, the χ2/df, RMSEA, CFI, and SRMR. I used data in their raw form, and missing data were handled through full information maximum likelihood (FIML) approach, which is the Mplus default for datasets with missing data.

Cut - off criteria: inferential and descriptive fit indices

A non-significant chi-square (χ_2) test value indicates that the proposed model (i.e. model-implied covariance matrix) is not different from the data (i.e. population covariance matrix). However, given the sensitivity of the chi-squared tests to large sample sizes, I relied on a number of fit indices to assess model fit (Byrne, 2013; Schermelleh-Engel, Moosbrugger, & Müller, 2003). I also used the ratio of chi-squared to degrees of freedom (χ_2 /df), where a χ_2 /df < 3 suggests a good fit whereas a value \leq 5 suggests an acceptable fit.

Further, I used the root mean square error of approximation (RMSEA). This is a measure of approximate fit in the population, which enables adjustment for sample size when chi-squared tests are used. This test produces values that range from 0 to 1, where smaller

ones indicate better fit. RMSEA values \leq .05 indicate a good fit, while values between .05 and .08 an adequate fit (Browne & Cudeck, 1993). I assumed a cut-off of \leq .08 to indicate minimally acceptable fit (Kenny, 2015).

Further, I relied on the standardized root mean square residual (SRMR), another descriptive measure of fit which indicates the square root of the discrepancy between the observed covariance matrix and the hypothesised covariance matrix (Hu & Bentler, 1995). With a range from 0 to 1, smaller values indicate better fit. SRMR values of \leq .05 indicates a good fit, while values smaller than .10 may be deemed acceptable (Schermelleh-Engel et al., 2003). I set a cut-off at \leq .08 to indicate minimally acceptable fit.

Finally, I used the comparative fit index (CFI): a relative fit index that compared the fit of the hypothesized model to the fit of a baseline model and compared to other incremental fit indices tends to be less affected by sample size (Bollen, 1990; Geiser, 2012). CFI yields values from 0 to 1 and higher values indicate better fit. Values ≥.95 suggest a good fit, which I set as the minimally acceptable level =.

CFA (measurement model)

First, allowing all latent variables to correlate with each other without specifying any paths, I tested the measurement model (Kline, 2005). It should be noted that I also allowed items 1 and 2 (in-group ties), items 3 and 5 (in-group centrality) and items 5 and 6 (in-group affect) of the national identification factor to be correlated (Cameron, 2004). The measurement model showed a good fit to the data: $\chi_2(257, N = 1285) = 795.303$ (p < 0.001), $\chi_2/df = 3.09$, RMSEA= 0.040 [0.037, 0.044], SRMR = 0.037, CFI = 0.969.

Structural Model

SEM, using robust maximum likelihood estimation method, was employed to test the hypothesis that ideal social change would mediate the relationships between national narcissism and physical and verbal collective violence. I also included national identification as an exogenous variable and realistic beliefs about social change as a second mediator. The proposed structural relationships among these variables are presented in Figure 4.1.

National narcissism positively predicted idealistic beliefs about social change (β = 0.43, p <.001), physical (β = 0.36, p <.001) and verbal collective violence (β = 0.24, p <.001), and negatively predicted realistic beliefs about social change (β = -0.17, p <.001). On the contrary, national identification positively predicted realistic beliefs about social change (β = 0.49, p <.001), and negatively predicted physical (β = -0.25, p <.001) and verbal collective violence (β = -0.14, p =.004). National identification was positively associated with idealistic beliefs about social change, however, this association was marginally significant (β = 0.10, p =.057). Idealistic beliefs about social change positively predicted physical (β = 0.12, p < .001) and verbal collective violence (β = 0.09, p = .04). Realistic beliefs about social change negatively predicted physical (β = -0.20, p < .001).

Mediating role of idealistic and realistic beliefs about social change

The significance of the mediation effects of idealistic and realistic beliefs about social change were tested using bias-corrected bootstrap estimation methods₂₀. A total of 5000 bootstrap samples were produced using random sampling with replacement from the actual data set to estimate the 95% bias-corrected confidence intervals (BCI_{95%}; MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). The mediation test results are presented in Table 4.3. The associations between national narcissism and both physical and verbal collective violence were mediated by ideal change, supporting the idealistic pathway hypothesis. The associations between national identification and physical and verbal collective violence were mediated by realistic change.

20 Given that indirect effects are the product of two or more regression coefficients and thus not normally distributed, conventional tests of significance are rendered unreliable (MacKinnon, 2008; Preacher & Hayes, 2008). Hence, bias-corrected bootstrapping was preferred as it relies on asymmetric confidence intervals, rather than forcing symmetry on the sampling distribution of the indirect effects (MacKinnon, 2008). Thus, to conduct the mediation analyses I used maximum likelihood estimation method, allowing for bias corrected bootstrapped confidence intervals to be generated.

Table 4.3

Mediation bootstrap test results (Study 7)

Path	Mediator	Point estimate (β)	BCI95%	
National Narcissism – Physical Violence	Idealistic Change	0.05	[0.03, 0.09]	
	Realistic change	0.05	[0.02, 0.07]	
National Narcissism – Verbal Violence	Idealistic Change	0.04	[0.002, 0.08]	
	Realistic change	0.03	[0.01, 0.06]	
National Identification – Physical Violence	Idealistic Change	0.01	[0.00, 0.03]	
	Realistic change	-0.13	[-0.18, -0.09]	
National Identification – Verbal Violence	Idealistic Change	0.01	[0.00, 0.03]	
	Realistic change	-0.10	[-0.14, -0.06]	

Note. Standardised coefficients are reported.

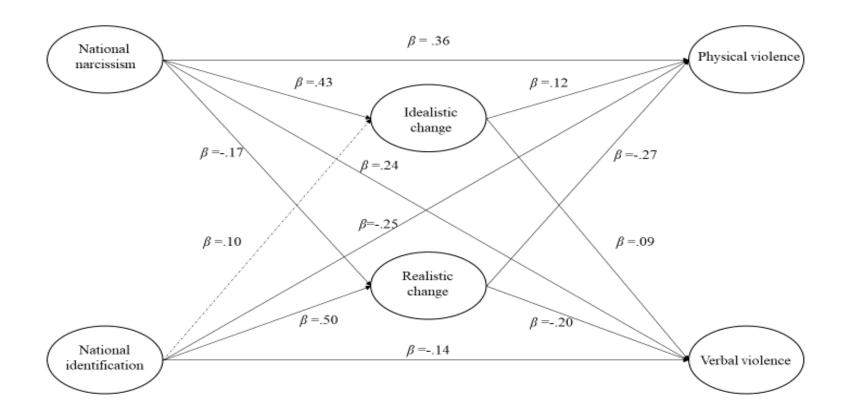


Figure 4.1. Indirect pathways (Study 7). Significant paths (p<.05) are presented by solid arrows, whereas non-significant effects (p>.05) by dashed arrows. Standardised coefficients are reported. Correlations between: 1) national narcissism and identification, (2) physical and verbal violence, and (3) idealistic and realistic beliefs, as well as the observed indices are omitted.

4.3.3. Discussion

Study 7 shows that idealistic beliefs about social change positively predict collective violence and mediate the association between national narcissism and the two forms of collective violence. Furthermore, this study suggests that idealistic beliefs are negatively associated with national identification. Conversely, realistic beliefs about social change appear to be positively associated with national identification and negatively associated with national narcissism and the two measures of collective violence.

As expected, national narcissism predicts endorsement of collective violence. This finding is in line with previous findings, which have associated collective narcissism with aggression and animosity towards relevant out-groups (Golec de Zavala et al., 2013). Also, analyses reveal that high levels of collective narcissism were associated with high levels of idealistic beliefs about social change, thus supporting the idealistic narcissism hypothesis.

Moreover, the idealistic violence hypothesis which suggests that utopian thinking (and its elements of idealism in particular) can be a risk factor contributing to out-group hostility and aggression was supported. Participants scoring high on idealistic beliefs about social change were also more likely to endorse physical and verbal violence towards marginalised groups. This suggests that utopian thinking is likely to elicit hostility towards groups which are perceived as non-conforming to the in-group's ideals. This also lends support to Baumeister's (1997) postulation that violence sometimes stems from idealistic convictions. Crucially, analyses reveal that the associations between collective narcissism and physical and verbal collective violence is mediated by idealistic beliefs about social change. Thus, Study 7 demonstrates that collective narcissism which confers a positive image

of the in-group by maintaining an idealised in-group image and its past, seems to permeate the in-group's future goals.

In contrast, those scoring high on realistic social change were less likely to score high on both physical and verbal forms of collective violence. The latter suggests that a realistic attitude towards social change dampens justifications of violence towards marginalised/minority out-groups. It might be that individuals, who approach the future and social change more realistically might consider secondary and contextual information. For instance, in the example of migrants settling in, they may recognise the conditions (i.e., war in home country, poverty, opportunity) which may have led that group to migrate. This is not necessarily to suggest that a realistic approach makes one more empathetic, but rather more cognisant of the limitations of a given situation.

Overall, Study 7 modelled a utopian feature (i.e., idealistic beliefs about social change) through which national narcissism influences intentions for physical and verbal forms of collective violence, using a large, representative national sample. Consistent with the hypotheses, I found that higher narcissistic identification with the national in-group was associated with increased endorsement of physical and verbal violence against non-conforming out-groups. These effects were mediated by endorsement of idealistic beliefs about social change, but not by endorsement of realistic beliefs about social change. This supports the contention that idealised future goals may confer the recognition and greatness, which national narcissists feel is undermined. Nonetheless, the present study is cross-sectional, which precludes inference of a causal direction from national narcissism to idealistic beliefs of social change or collective violence. This concern is addressed in Studies 9 – 11, while Study 8 attempts to examine the present contentions using vegan, rather than

national. Associated implications of these findings as well as potential limitations are discussed in the general discussion section of this chapter.

4.4. Study 8

In Study 7, I examined the idealistic violence hypothesis on national identity. The present study examines whether the idealistic violence hypothesis is supported using vegan identity. At the individual level, veganism describes the practice of abstaining from the use of animal products whilst on a collective level, the effort to eliminate the use of animals as a commodity (see Dhont, & Hodson, 2019). Thus, the focus in-group (i.e., vegans), in this study, constitutes a group that attempts to change the status quo (i.e., large-scale production and consumption of animal-based products), while the relevant out-groups are groups and individuals that operate in line with the status quo. In fact, this is in contrast to Study 7 which focused on the national context, where the focus in-group (i.e., Polish nationals) presumably had a preference for maintaining the status quo (e.g., restricted access to refugees). The attenuation of the status quo may suggest that idealistic change beliefs may be more relevant in this context (Badaan et al., 2020). Thus, this study, not only enabled testing the idealistic violence hypothesis in a different context, but also within a context in which the inter-group dynamics, at least in theory, are reversed.

In this study I collected data from participants that self-identified as vegan and gauged their willingness to endorse and justify the use of radical action against non-vegan individuals. For the purposes of this study, rather than collective violence, I relied on radical action. This concerns non-normative forms (i.e., actions do not conform to the norms of the existing social system) of collective action which sometimes can be violent (e.g., Tausch et al., 2011).

4.4.1. Method

Participants.

Seven hundred and eighty-nine participants were recruited online relying on snowballing sampling method in social media. The target was to recruit at least 200 participants. Two hundred and ninety-one participants were excluded for not completing parts of or the whole study. Further, eight participants were excluded from the initial sample as they did not identify as vegan (six participants classified themselves as vegetarian, one participant reported being an omnivore, and one participant did not classify themselves). The final sample included 490 vegan participants, 422 females, 48 males, 12 non-binary, and 8 participants who preferred not to or did not indicate their gender. Participants' age ranged from 18 to 75 years (M_{age} =34.70, SD_{age} =12.59). Given that one of the selection criteria was proficiency in the English language, the final sample predominantly consisted of participants from English-speaking countries (i.e., United Kingdom, United States, Australia, etc.; 87.8%).

Design & Procedure 21

21 The measures of idealistic and realistic beliefs about social change, collective narcissism, and group identification were collected as part of another research project, which examined the role of threat and personality in vegan protest support. In fact, identity threat was manipulated prior to gauging participants' levels of radical support. For succinctness, however, unrelated personality measures are omitted, whilst more details about the

First, participants completed scales gauging their propensity on idealistic and realistic beliefs about social change, as well as conventional vegan identification and collective narcissism.22Then, participants were presented with a short video (approx. 53 seconds) of a vegan activist discussing different radical protest tactics used by vegans. A sample quote from the video mentioned:

"Vegans have used some forms of protest that are considered to be 'radical'. We have pretended to barbecue a dog in the middle of a busy high street, we have spray painted Butcher's shops, and we routinely call farmers murderers and rapists ..."

Then, participants were asked to report the extent to which they supported radical protest actions by vegans. Finally, participants were asked to provide some demographic information including their dietary preferences, age, gender and the country in which they currently live before being debriefed and thanked for their participation.

Materials

Vegan identification was measured using a total of 12 items which captured all three dimensions of social identity suggested by Cameron (2004). Four items measured the ingroup ties dimension, e.g., "I have a lot in common with other vegans", four items measured centrality, e.g., "In general, being a vegan is an important part of my self-image", and four

experimental manipulation and its direct and interactive effects (with collective narcissism and idealistic beliefs about social change) are reported in the Study 8 Supplementary Section.

22Threat to participants' vegan identity was presented following these measures (details in supplementary).

items measured affect, e.g., "Generally, I feel good when I think about myself as a vegan". All items were collapsed to form a composite measure of identification with veganism. Participants responded on a scale from 1=Definitely disagree to 7=Definitely agree (α =.80, M=5.57; SD=0.69; range 2.85 – 7).

Collective narcissism was assessed with 5 items, yet the focus was on participants' vegan identity, rather than their national identity, e.g., "Not many people seem to fully understand the importance of vegans." (1=Definitely disagree to 6=Definitely agree; α = 0.74, M= 3.82, SD = 0.87, range: 1.40 – 6).

Idealistic and realistic beliefs about social change were assessed using the same 8 items as in Study 7 (1=Definitely disagree to 7=Definitely agree; α = 0.75; M_{Idealistic}= 5.19, SD_{Idealistic}= 1.03, , range: 1.75 – 7; α = 0.86, M_{Realistic}= 5.33, SD_{Realistic}=1.11, range: 1–7).

Radical action was measured using four items. The first item asked participants to indicate the extent to which they support radical vegan protest actions as the ones described in the video/quote. Then the remaining three items asked participants to indicate how justified, effective, and necessary such protest actions were, e.g., "To what extent do you perceive the 'radical' vegan protest actions to be necessary?" ($1 = Completely\ oppose\ to\ 5 = Completely\ support;\ \alpha = 0.88,\ M = 3.10,\ SD = 1.05,\ range:\ 1-5$).

Note that participants responded to vegan identification, collective narcissism, ideal and realistic change prior to the manipulation. Finally, following the writing task, participants completed the radical action measure along with demographics (i.e., age, gender, political interest, and political orientation).

4.4.2. Results

Zero-order correlations

Zero-order correlations between the main variables are presented in Table 4.4. As expected, collective narcissism was significantly positively correlated with vegan identification, idealistic beliefs about social change, and radical action. Collective narcissism and realistic beliefs about change were not associated. Vegan identification was positively correlated with idealistic beliefs about social change and radical action, but negatively associated with realistic change. Idealistic beliefs about social change, as expected was positively associated with realistic beliefs about social change and radical action. Finally, realistic beliefs about social change was negatively correlated with radical action.

Table 4.4. Intercorrelations between Collective Narcissism, Vegan Identification, Ideal Change, Realistic change, and Radical Action (Study 8; Listwise N = 490)

Variable	2.	3.	4.	5.
1. Vegan narcissism	.37***	.25***	05	.43***
	[0.29, 0.45]	[0.15, 0.34]	[-0.13, 0.04]	[0.35, 0.50]
2. Vegan identification		0.14***	06	.35***
		[0.06, 0.22]	[-0.14, 0.03]	[0.28, 0.44]
3. Ideal Change			.17**	.18***
			[0.06, 0.26]	[0.09, 0.26]
4. Realistic Change				16***
				[-0.25, -0.07]

5. Radical Action

Note. *p < .05. **p < .01. ***p< .001. Bias corrected confidence intervals based on 5000 bootstrapped samples are reported in brackets.

To examine whether idealistic beliefs about social change mediate the relationship between collective narcissism and radical action, I conducted a mediation analysis (Model 4, Hayes, 2013) whilst controlling for conventional vegan identification and identity threat.23 Realistic beliefs about social change was included as a second mediator.

The full model accounted for a significant portion of variance in radical action, R_2 =.26, F(5, 484) = 34.34, p<.001. The total effect of collective narcissism on radical action was statistically significant, B = 0.42 (0.05), t(486) = 8.03, p<.001, [0.31, 0.52] effect size (standardised) = .34. Also, the direct effect of collective narcissism on radical action was statistically significant, B = 0.39 (0.05), t(484) = 7.39, p<.001, [0.28, 0.49]. Further, the effect of conventional identification on radical action was also statistically significant, B = 0.35 (0.06), t(484) = 5.46, p<.001, [0.23, 0.48].

23 Hierarchical regression analysis investigating the effects of collective narcissism, and idealistic beliefs about social change on radical action and how these may interact with the experimental manipulation of identity threat was conducted. Analyses revealed that identity threat did not predict support for radical action, β =-.05, BCI95% [-0.13, 0.02], p=.18. Conversely, collective narcissism, β =.30, BCI95% [0.28, 0.47], conventional identification, β =.24, BCI95% [0.25, 0.48], and idealistic beliefs about change, β =.09, BCI95% [-0.02, 0.17], positively predicted radical action. Further, identity threat did not interact with collective narcissism, β =.06, BCI95%[-0.02, 0.17], or idealistic beliefs about social change, β =-.05, p = .18, BCI95%[-0.06, 0.08], in predicting radical action (both ps >.13; please find full report in the Study 8 Supplementary materials and analyses).

The path from collective narcissism to idealistic beliefs about social change was statistically significant, B = 0.27 (0.06), t(486) = 4.77, p < .001, [0.16, 0.38]. The direct effect of idealistic beliefs about social change on radical action was significant: B = 0.09 (0.04), t(484) = 2.13, p = .03, [0.01, 0.17]. The indirect effect of idealistic beliefs about social change on the relationship between collective narcissism and radical action was statistically significant, B = 0.02, BCI95% [0.01, 0.05]. The path from collective narcissism to realistic beliefs about social change was not statistically significant, B = -0.04 (0.06), t(486) = 0.59, t=0.16, [-0.16, 0.09]. The direct effect of realistic beliefs about social change on radical action was significant: t=0.14 (0.04), t(484) = 3.78, t=0.01, [-0.21, -0.07]. The indirect effect of realistic beliefs about social change on the relationship between collective narcissism and radical action, however, was not statistically significant, t=0.01, BCI95%[-0.01, 0.03].

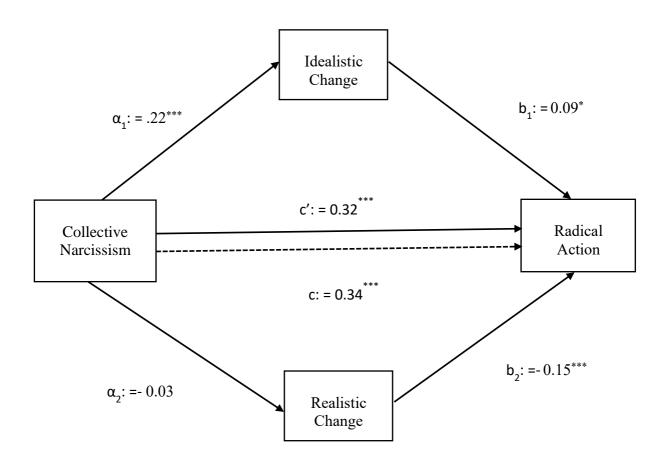


Figure 4.2. Entries are standardized coefficients (Study 8).

4.4.3. Discussion

In this study, moving beyond the national context, I investigated the role of utopian thinking on radical action (rather than collective violence) in the context of veganism (i.e., vegan identity). Similar to Study 7, I examined the idealistic violence, narcissistic violence, and idealistic pathway hypotheses.

First, in line with the idealistic violence hypothesis findings showed that participants who endorsed idealistic beliefs about social change were more likely to support radical action. It seems that the zeal for change in line with one's ideals removes restrictions and renders some non-normative behaviours and actions acceptable. Conversely, realistic beliefs about social change, in line with Study 7, negatively predicted radical action. As suggested before, individuals approaching change in a realistic manner may be more attentive to secondary and contextual information (Kivetz, & Tyler, 2007; Deci & Ryan, 1985). In this context, vegans who tend to be more realistic, may have recognised that meat consumption, being intertwined to culture, tradition, and the status quo in general, is difficult to change, especially via radical means and indiscriminate violence.

Further, in line with the narcissistic violence hypothesis, participants high in collective narcissism were also more likely to endorse and justify radical action. In contrast to Study 7, however, conventional identification with veganism positively predicted radical action. At face-value, this finding may be surprising, as out-group hostility often stems from insecure and defensive group identification which is accompanied by beliefs of entitlement and/or superiority (i.e., collective narcissism). Conversely, secure in-group positivity is often associated with outgroup positivity (Cichocka, 2016). Nonetheless, the positive effect of ingroup identification on radical action is maintained, while the effects of collective narcissism are accounted for (Golec de Zavala et al., 2013).

Considering the differences between the national and vegan context, and particularly the socio-structural conditions of vegan groups and individuals, endorsement of radical action driven by in-group identification may constitute a viable strategy. First, broadly speaking, in the national context, the focus in-group (i.e., national identity) attempted to maintain the status quo, while, the target out-group (i.e., refugees) can be seen as the group more interested in a change in the status quo. Conversely, in the current context, the focus in-group (i.e., vegans) is interested in a changing the status quo, where the target out-group is the group who prefers to maintain it. Further, considering that vegans do not aspire to consume animal-based products, but rather choose to abstain from them and boycott relevant industries, permeability (i.e., individual mobility from the in-group to higher status outgroups) is not possible (at least for high identifiers). Second, vegans do not only cognitively envision viable alternatives but, in fact, experience and practice such alternatives (i.e., abstain from animal-based foods and other products). Thus, the availability and viability of cognitive alternatives to extant practices may render the perceived stability of the relations between vegan and non-vegan groups as low. Finally, vegans also tend to believe that animal-based products are ethically questionable, problematic for public and private health and environmentally unsustainable (Allen, Wilson, Ng, & Dunne, 2000; Sneijder & te Molder, 2004). In other words, they perceive the extant arrangements to conflict with their superordinate ideals and values. This renders the legitimacy of the status quo as low. Taken together, these conditions render competition/social change as a viable strategy for positive identity. This appears to be the case, even without the beliefs of exceptionalism, superiority and/or idealism, which, nonetheless, also – as the evidence suggests- positively predict outgroup hostility. Another explanation may be that, the centrality of an encompassing universality which stems from an empathetic stance towards nonhuman animals. That is,

merely identifying with veganism may be enough to imbue a conviction of the righteousness of their cause. Nonetheless, the above are mere implications which warrant further research.

As in Study 7, the presented study is cross-sectional, which precludes inference of causal effects of collective narcissism to idealistic beliefs of social change or radical action. These concerns are addressed in Studies 9-11. Associated implications of these findings as well as potential limitation are discussed in the general discussion section of this chapter

4.5. Studies 9 – 11 Overview

In the final three studies, I attempted to provide experimental support for the idealistic violence hypothesis. Specifically, Study 9, relying on a British sample recruited online, examined whether ideal and realistic possible worlds compared to control, predicted justification of verbal and physical forms of collective violence.

Similarly, Study 10, relying on a Polish sample, investigated whether ideal and realistic possible worlds (vs. status quo preservation condition) predicted justification of collective violence. Both studies were pre-registered on the Aspredicted.org web platform.24

Finally, Study 11, relying on a British sample, compared ideal and realistic possible worlds on justification of collective violence. Study 11, also, aimed to provide experimental support to the idealistic pathway hypothesis. That is, whether utopian thinking mediated the relationship between national narcissism and collective violence. To examine this, I relied on recommended experimental analysis of mediation (Bullock, Green, & Ha, 2010; e.g., Bolger & Amarel, 2007)

24 Pre-registration forms:

Study 9 (https://aspredicted.org/blind.php?x=7rb2kz);

Study 10 (https://aspredicted.org/blind.php?x=h2rh47)

4.6. Study 9

4.6.1. Method

Participants

Three hundred and ninety-two British participants took part in this study. Participants were recruited online on the Prolific academic crowdsourcing platform. I assumed average effect sizes for social psychology of d = .43 for each comparison (Richard et al., 2003). I aimed for an overall power of .80. Because the study included three experimental conditions, with two key comparisons, I estimated a sample size with G*Power (Faul et al., 2007) assuming power of .90 for differences between two independent means (two-tailed), which resulted in a total power of .81 (.90 x .90). This analysis yielded 115 participants per condition. I aimed to collect 130 participants per condition to allow for exclusions. From the initial sample, 27 participants were excluded because they provided either ambiguous (i.e., the possible world they imagined contained both positive and negative elements; N=16) or negative (i.e., the possible world imagined was a negative one; N = 11) responses. The quality of responses was assessed by three coders blind to conditions. The final sample included 365 British participants, 138 males, 226 females (1 participant did not provide their gender), aged 20 - 76 years ($M_{age}=41.47$, $SD_{age}=12.54$). The final sample predominantly consisted of White-British (89.9%) and was relatively educated with 70.7% reporting having completed a university degree or gained qualification outside school/university.

Design & Procedure

Participants were randomly assigned to a possible world condition (ideal vs. realistic vs. baseline) in a between-subjects' design with three conditions. As in Study 4 in Chapter 3, for the utopian (N = 113) and positive realistic (N = 107) possible worlds conditions the

manipulation consisted of the open-ended writing task, where participants were asked to imagine and describe British society in the future. Participants were encouraged to spend approximately three minutes on this task. For the baseline condition (N=145), participants were simply instructed to press a button to proceed to the next section.

Following the completion of the experimental manipulation participants were asked to complete a battery of questionnaires which included measures of self-reported political orientation, blatant dehumanisation₂₅, and collective violence.

Measures

Political orientation was measured by a single item on a scale from 1 = Extremely Left-wing to 5 = Extremely Right-wing. Particularly, the item read: "Many people think of political attitudes being on the 'left' or 'right'. This is a scale stretching from Extremely Left-Wing to Extremely Right-Wing. When you think of your own political attitudes, where would you place yourself?" (M = 3.19, SD = 0.77, range = 1 - 5).

Physical and verbal collective violence were measured as in Study 7. As before, prior to completion of this scale, participants were primed with a short story describing an intergroup encounter between native English residents and a minority group of refugees settling in an English town. Three items measured physical collective violence (α =.86, M=1.42, SD=0.92, range = 1 – 6.67), and three items measures verbal collective violence (α =.76, M=3.05, SD=1.27, range = 1 – 7).

25 More details about how blatant dehumanisation was measured and relevant analyses are reported in Study 9 Supplementary Materials and Analyses.

4.6.2. Results

Zero-order correlations.

All zero-order correlations were statistically significant and positive (all ps<.001). Specifically, physical violence was positively associated with verbal violence (r=.44, BCI95% [0.33, 0.53]) and right-wing political orientation (r=.18, BCI95%[0.08, 0.29]). Verbal violence was positively associated with right-wing political orientation (r=.31, BCI95%[0.20, 0.40]).

Hierarchical regression

Hierarchical regression analyses were performed to investigate the effects of the experimental manipulations on the two measures of collective violence. In all analyses, experimental conditions (ideal vs. positive realistic vs. baseline) were recoded into two dummy variables: one encoded the difference between positive realistic and the baseline; the other encoded the difference between utopia and the baseline26. Dummy variables were

26The data were re-analysed with dummy variables comparing: i) the ideal and realistic possible worlds and ii) baseline and realistic possible worlds. The analyses did not reveal any significant effects. Specifically, the main effects of baseline, β = -.001, b= -0.001 (0.12), p=.993, BCI_{95%} [-0.23, 0.23] and ideal possible worlds, β = -.001, b= -0.001 (0.12), p=.993, BCI_{95%} [-0.23, 0.23], did not significantly predict physical collective violence. Similarly, for verbal collective violence, neither baseline (vs. realistic), β = .08, b= -0.20 (0.16), p=.221, BCI_{95%} [-0.12, 0.52] nor ideal (vs. realistic) possible worlds, β = .003, b= 0.01 (0.13), p=.965, BCI_{95%} [-0.33, 0.35], reached statistical significance.

entered in Step 1. In Step 2, to control for the potential effects political orientation and ethnicity (whites = 1; other = 0) were included. Given that the distributions of both verbal and physical collective violence were exhibiting flooring effects, for the purposes of these analyses I used bias corrected bootstrapped confidence intervals based on 5000 samples.

Possible worlds as predictors of physical collective violence.

In Step 1, bias-bootstrapped confidence intervals indicated that neither ideal nor positive realistic possible worlds had a significant effect on physical collective violence. In Step 2, the effects of experimental conditions did not reach statistical significance (even after controlling for political orientation and ethnicity). Finally, as evident in the Table 4.5. political orientation had a significant positive effect, suggesting that more right-wing participants were more likely to endorse physical acts of violence against refugees.

Possible worlds as predictors of verbal collective violence.

As in the case of physical collective violence, I did not find a statistically significant effect of utopian or positive realistic conditions on verbal violence even after controlling for ethnicity and political orientation (Table 4.5.). As before, political orientation had a significant positive effect, suggesting that more right-wing participants were more likely to endorse verbal forms of violence against refugees.

Table 4.5.

Possible Worlds and Political Orientation Predicting Physical and Verbal Collective Violence (Study 9)

	Physical Collective Violence					Verbal Collective Violence						
Variable	β	B(SE)	BCI	F	R_2	ΔR_2	β	B(SE)	BCI	F	R_2	ΔR_2
Step 1				.207	.001					1.03	.01	
Realistic Possible World	.000	-0.001(0.12)	[-0.23, 0.23]				07	-0.20(0.16)	[-0.52, 0.12]			
Ideal Possible World	03	-0.07(0.12)	[-0.29, 0.16]				07	-0.19(0.16)	[-0.50, 0.11]			
Step 2				3.16*	.03	.03				10.04***	.10	.09
Realistic Possible World	003	-0.01(0.12)	[-0.23, 0.23]				08	-0.21(0.15)	[-0.52, 0.08]			
Ideal Possible World	03	-0.07(0.11)	[-0.29, 0.16]				07	-0.19(0.15)	[-0.48, 0.10]			
Political orientation	.18***	0.22(0.06)	[0.09, 0.34]				.31***	0.51(0.08)	[0.34, 0.68]			
Ethnicity (0 = other; 1 = White British)	001	-0.04(0.16)	[-0.31, 0.31]				.01	0.02(0.21)	[-0.45, 0.47]			

Note. *p < .05. **p < .01. ***p < .001. Bias corrected confidence intervals based on 5000 bootstrapped samples are reported in brackets

4.7. Study 10

Study 9 did not elicit experimental support for the idealistic violence and idealistic pathway hypotheses. However, unlike Study 7 which was conducted in Poland using a national representative sample, Study 9 relied on a British sample recruited online. These reasons may stand behind the lack of experimental support to current hypotheses.

Accordingly, in Study 10, I relied on a Polish sample with in-person recruitment and aimed to experimentally test whether ideal possible worlds (vs. status quo/control) elicit justifications of physical and verbal violence against non-conforming groups (i.e., *idealistic violence hypothesis*).

4.7.1. Method

Participants

Three hundred and eighty-nine Polish citizens were approached in public areas of Warsaw and invited to take part in this study. Two hundred and fifty-three participants identified as women (65.0%), 130 participants identified as men (33.4%) and six participants indicated identifying with other gender categories or preferred not to provide their gender (1.6%). Participants were not asked to provide their age. As in Study 9, Study 10 included three experimental conditions, with two key comparisons. I estimated a sample size with G*Power (Faul, et al., 2007) assuming power of .90 for differences between two independent means (two-tailed), which resulted in a total power of .81 (.90 x .90). This analysis yielded 115 participants per condition. As in Study 9, I aimed to collect 130 participants per condition to allow for exclusions.

Design, measures, and procedure.

Participants were randomly assigned to one of the three experimental conditions: ideal possible world (i.e., utopia, N=126) vs. realistic possible world (N=124) vs. status quo preservation (N=125). Participants were asked to imagine the future of Polish society and then report, according to condition, three characteristics such society may have. The instructions participants received for ideal and realistic possible worlds were the same as the ones used in Chapter 3 (i.e., Studies 5-6 and the Pilot Study). For the status quo/control condition, however, participants were asked to imagine and report three characteristics of the status quo that should be preserved in the society in the future. Specifically, participants assigned to this condition read:

"We would like you to spend a few minutes thinking about the Polish society today. In the space provided below, please write down three features of the present society that should be preserved (i.e. should not change) in the society in the future. This is the most important part of this study, so please take your time to really think about all the details of this society. This is your own opinion, so there are no right or wrong answers. Spend approximately 4 minutes on this task"

The quality of participants' responses was assessed by a trained coder. The coder was not blind to the condition each participant was assigned to. Specifically, the judge was instructed to assess whether the responses participants provided were positive (rather than negative or ambivalent) and according to the instructions participants had received (i.e., positive traits of the status quo in the baseline condition and positive change in the ideal and realistic possible worlds conditions). Thirteen participants who either did not answer the open-ended manipulation or did not follow the instructions (i.e., describing a negative rather than a positive future of the Polish society) were excluded. Thus, the final sample consisted

of 362 participants, 121 participants in the ideal possible worlds condition, 115 participants in the realistic possible worlds condition, and 116 in the status quo/control.

After completing the open-ended task, participants completed measures of physical $(M=1.36, SD=0.96, range: 1-7; \alpha=.95)$ and verbal collective violence²⁷ $(M=2.43, SD=1.49, range: 1-7; \alpha=.88)$.

4.7.2. Results

Hierarchical Regressions

I performed a multiple regression to investigate the effects of the experimental manipulation on physical and verbal forms of collective violence. In both analyses, reported below, experimental conditions (ideal possible worlds vs. realistic possible worlds vs. status quo /control) were recoded into two dummy variables. The first dummy variable encoded the difference between the ideal possible world and the status quo control, the second dummy variable encoded the difference between the realistic possible world and the control. I entered the two dummy variables₂₈ into the regression analyses. As before, bias corrected

27 Physical and verbal forms of collective action were significantly positively correlated r(343) = .66, BCI95%[0.56, 0.71]

28 As in Study 9, the data were re-analysed with dummy variables comparing: i) the ideal and realistic possible worlds and ii) status quo preservation and realistic possible worlds. The analyses did not reveal any significant effects. Specifically, the main effects of status quo

bootstrapped confidence intervals based on 5000 samples were used to assess the statistical significance of the examined effects.

Possible Worlds effects on Physical Collective Violence

Ideal possible worlds (b = 0.15, BCI95% [-0.06, 0.38], $\beta = .08$, p = .23) and realistic possible worlds (b = 0.18, BCI95% [-0.04, 0.41], $\beta = .09$, p = .16) did not have a significant effect on endorsement of physical forms of violence towards minority out-groups.

Possible Worlds effects on Verbal Collective Violence.

Ideal possible worlds (b = 0.18, BCI95%[-0.20, 0.57], $\beta = .06$, p = .35) and realistic possible worlds (b = 0.07, BCI95%[-0.29, 0.44], $\beta = .02$, p = .73) did not have a s significant effect on endorsement of verbal forms of violence towards minority out-groups.

preservation, β = -.09, b= -0.18 (0.13), p=.164, BCI_{95%} [-0.43, 0.05] and ideal possible worlds, β = -.01, b= -0.03 (0.13), p=.831, BCI_{95%} [-0.30, 0.26], did not significantly predict physical collective violence. Similarly, for verbal collective violence, neither status quo preservation (vs. realistic), β = -.02, b= -0.07 (0.20), p=.732, BCI_{95%} [-0.44, 0.30] nor ideal (vs. realistic) possible worlds, β = .04, b= 0.11 (0.20), p=.561, BCI_{95%} [-0.27, 0.50], reached statistical significance.

4.8. Study 11

Study 11 presents another attempt to yield experimental support for the idealistic violence and idealistic pathway hypotheses. In contrast to previous failed attempts (Studies 9 & 10), Study 11 included measures of national narcissism and identification. Hence in Study 11, I aimed to, also, test whether the effects of national narcissism on physical and verbal collective violence would depend on ideal (vs. realistic) possible worlds (i.e., *idealistic pathway hypothesis*). That is, I expected the effect of collective narcissism on collective violence to be heightened following ideal possible worlds, but not following realistic possible worlds.

4.8.1. Method

Participants

A hundred and seventy-seven British citizens were approached on the main streets of Canterbury and were asked to complete a battery of questionnaires. I aimed for a sample size that would provide 80% power to detect average effect size in social psychology of d=.43 (Richard et al., 2003). Using G*Power, I estimate a target sample size of at least 172 (Faul et al., 2007). Nine participants were excluded because they did not respond to the experimental manipulation. The final sample included 168 British participants, 59 males, 107 females (2 participants did not provide their gender), aged 18-87 years (M_{age} =22.30, SD_{age} = 16.27). The final sample predominantly consisted of White-British (79.9%) and was relatively highly educated (62.9% reported having a university degree).

Design & Procedure

Participants were randomly assigned to one of the two experimental manipulations: idealistic alternatives (*N*=83) vs. realistic alternatives (*N*=85). As before, participants were asked to imagine British society in the future, and then report, according to condition, three characteristics such society may have. In contrast to Study 9, in this study the baseline condition was omitted. This was based on the fact that in the previous studies in which openended manipulations (Study 9 in this chapter but also Studies 4 and 6 in Chapter 3 on system justification) the realistic possible worlds condition did not yield significant effects compared to the baseline. Further, given the fact that the wording of the realistic and ideal possible worlds conditions were paralleled, (the two differed only in the use of realistic or ideal word-prime depending on condition), ensured that any differences yielded are due to the use of these priming words. The writing task was identical to the one used in the Pilot Study reported in Chapter 3, where participants, depending on condition, were asked to provide either three idealistic or realistic features of British society in the future.

Following the completion of the experimental manipulation, participants were asked to complete a battery of questionnaires which included measures of national narcissism, national identification, self-reported political orientation, blatant and subtle dehumanisation²⁹,. Finally, participants completed various demographic questions including, age, gender, ethnicity, & nationality.

²⁹ More details about how blatant and subtle dehumanisation were measured and relevant analyses are reported in Study 11 Supplementary.

Measures.

National narcissism was measured with the 5-item English version of the Collective Narcissism Scale (Golec de Zavala et al., 2013), e.g., "British people deserve special treatment." Participants responded on a scale from 1=definitely disagree to 7=definitely agree (α =.86, M=2.50, SD=1.28).

National identification was operationalized as the group level-self-investment dimension of Leach et al.' (2008) social identification scale. Five items measured satisfaction, e.g., "Being British gives me a good feeling", and solidarity with in-group members, e.g., "I feel solidarity with the British people". Participants responded on a scale from 1=definitely disagree to 7=definitely agree (α =.91, M=5.09 SD=1.31).

Political orientation was measured by a single item, the same used in Study 9 (M= 3.43, SD=1.20, range = 1 – 6).

Physical and Verbal collective violence were measured as in Study 7, by gauging participants' endorsement and justification of verbal and physical acts of violence against an out-group of migrant refugees. Similar to Study 7, prior to completion of this scale, participants were primed with a short story describing an inter-group encounter between native English residents and a minority group of refugees settling in an English town. Three items measured physical collective violence (α =.83, M=1.15, SD=0.54, range = 1 – 5.33), and three items measures verbal collective violence (α =.82, M=1.77, SD=1.08, range = 1 – 6.67).

4.8.2. Results

Zero-order correlations

The intercorrelations of the main variables across conditions are presented in Table 4.6. As before, national narcissism was positively correlated with national identification, physical and verbal forms of collective violence, as well as right-wing political orientation (all ps<.001). Political orientation was also positively correlated with national identification and the two measures of collective violence (all ps<.001). However, unlike Study 7, national identification was positively associated with both verbal and physical collective violence (both ps<.05).

Table 4.6

Intercorrelations between Political Orientation, National Narcissism, National Identification, Blatant

Dehumanisation, Physical Collective Violence, and Verbal Collective Violence (Study 11, Listwise N= 160)

Variable	1.	2.	3.	4.
1. Political orientation	_			
2. National narcissism	.36*** [0.18, 0.52]			
3. National identification	.47*** [0.35, 0.58]	.46*** [0.32, 0.58]		
4. Physical collective violence	.22** [0.07, 0.35]	.38*** [0.23, 0.50]	.19* [0.07, 0.28]	
5. Verbal collective violence	.30*** [0.12, 0.45]	.39*** [0.24, 0.52]	.16* [0.03, 0.27]	.49*** [0.25, 0.66]

Note. *p < .05. **p < .01. ***p< .001. Bias corrected confidence intervals based on 5000 bootstrapped samples are reported in brackets.

Regression analyses.

Hierarchical regression analyses were performed to investigate the effects of the experimental manipulations and national narcissism on the two measures of collective

violence, whilst controlling for political orientation and national identification. In all analyses experimental conditions were coded as -1 = realistic alternative and 1 = utopian/idealistic alternatives. (see Table 4.7. for results). The experimental conditions were included in Step 1. In Step 2, political orientation, national narcissism, and national identification were introduced.

As before, given that the distributions of both verbal and physical collective violence were exhibiting flooring effects, for the purposes of these analyses bias corrected bootstrapped confidence intervals based on 5000 samples were used.

Possible Worlds and Collective Narcissism as predictors of Physical Collective Violence.

In Step 1, I did not find a significant effect of ideal (vs. realistic) possible worlds on physical collective violence, p=.98. In Step 2, I found a positive effect of national narcissism on physical collective violence, p<.001. Nonetheless, the experimental manipulation, political orientation and national identification did not have an effect on physical collective violence, all ps>.29. The results are reported in detail in Table 4.7.

Possible Worlds and Collective Narcissism as predictors of Physical Collective Violence.

In Step 1, I found a significant effect of ideal (vs. realistic) possible worlds on verbal collective violence, p=.012. In Step 2, I found positive effects of national narcissism, p<.001, and right-wing political orientation on verbal collective violence, p=.003. I did not find a significant effect of national identification, p=.28, on verbal collective violence. The significant effect of ideal (vs. realistic) possible worlds on verbal collective violence remained significant, p=.017, after accounting for the contribution of national narcissism,

national identification, and political orientation. The results are reported in detail in Table 4.7.

Table 4.7

Possible Worlds, Political Orientation, and National Narcissism Predicting Physical and Verbal Collective Violence (Study 11)

	Physical Collective Violence					Verbal Collective Violence						
Variable	β	B(SE)	BCI95%	F/p	R_2	ΔR_2	β	B(SE)	BCI95%	F	R_2	ΔR_2
Step 1				0.00	.00					6.44*	.04	
Ideal (vs. Realistic) Possible Worlds	002	-0.01(0.04)	[-0.07, 0.08]				.20*	0.21 (0.08)	[0.05, 0.37]			
Step 2				7.76	.16	.00				10.72*	.21	
Ideal (vs. Realistic) Possible Worlds	04	-0.02(0.04)	[-0.09, 0.05]				.17*	0.18 (0.08)	[0.03, 0.34]			
Political Orientation	.09	0.04(0.04)	[-0.03, 0.12]				.24**	0.22 (0.07)	[0.05, 0.39]			
National Narcissism	.37***	0.16 (0.04)	[0.08, 0.26]				32***	0.27 (0.07)	[0.12, 0.43]			
National Identification	02	-0.01(0.04)	[-0.07, 0.06]				09	-0.08 (0.07)	[-0.19, 0.03]			

Note. +p < .10. *p < .05. **p < .01. ***p < .001. BCI95% = bias corrected bootstrapped confidence intervals based on 5000 samples. t.

An experimental test of the idealistic pathway hypothesis

Following the suggestions by Bullock, Green, and Ha (2010), I manipulated ideal possible worlds to better understand how this may moderate the association between collective narcissism and (physical and verbal) collective violence. Specifically, I expected collective narcissism effects on collective violence to be bolstered when imagining ideal possible worlds, but not realistic possible worlds. Accordingly, I ran a moderation analysis (Process, Model 1) examining whether utopian thinking moderates the relationship between national narcissism and verbal collective violence. This was an attempt to yield experimental support of the idealistic pathway hypothesis (see Bullock et al., 2010; e.g., Bolger & Amarel, 2007).

For physical collective violence, the interaction between ideal (vs. realistic) possible worlds and collective narcissism, did not reach statistical significance, F(1, 159) = .306, p=.58, $\Delta R_2 = .002$. This was rather expected, as the regression analysis above suggests, the experimental manipulation of possible worlds did not predict physical collective violence. Similarly, for verbal collective violence, however, the interaction between ideal (vs. realistic) possible worlds and collective narcissism, did not reach statistical significance, F(1, 159) = .02, p=.88, $\Delta R_2 = .0001$

4.9. Discussion Studies 9 - 11

Overall, the three studies did not yield convincing experimental support for the idealistic violence hypothesis. Specifically, in Study 9, for physical and verbal collective violence, right-wing political orientation was the only consistent predictor, while the ideal (vs. control) possible worlds did not exert any significant effects on either measure of collective violence. In fact, in the case of physical collective violence, the analysis suggests negligible effects by ideal possible worlds condition. Further, for verbal collective violence, despite the effect of ideal possible worlds being non-significant, it was nonetheless negative and thus in the opposite direction than expected.

In Study 10, I attempted to provide experimental support for the idealistic violence hypothesis, relying on a Polish sample. Nonetheless, as before, neither ideal possible worlds (vs. status quo preservation) nor realistic possible worlds (vs. status quo preservation) predicted increased justification of verbal and physical forms of collective violence.

Study 11 yielded partial support for the idealistic violence hypothesis. Particularly, the analysis revealed a significant positive effect of ideal (vs. realistic) possible worlds on verbal collective violence. For physical collective violence, however, there was no effect of possible worlds. The lack of effect of ideal possible worlds on physical collective violence might be due to the general floor effect evident on this measure. Further, Study 11 did not yield experimental support for the idealistic pathway hypothesis, as the interaction between collective narcissism and possible worlds on the two forms of collective violence was not statistically significant. Overall, while cross-sectional evidence (i.e., Studies 7 & 8) supported the idealistic violence and idealistic pathway hypotheses, experimental evidence failed to provide convincing evidence for these.

4.10. General Discussion: Chapter 4

Using a range of national samples (i.e., British and Polish), social identities (i.e., national and vegan), operationalisations of hostility (i.e., collective violence and radical action), and methodologies (i.e., correlational and experimental designs) Chapter 4 offers an empirical investigation of the (causal) effects of utopian thinking on non-normative behaviour (i.e., radical action, collective violence). The evidence on the idealistic violence hypothesis has been mixed. The hypothesis was supported by correlational evidence.

However, experimental evidence on the causal effects has been inconsistent and limited. As such, findings cannot offer conclusive support for the idealistic violence hypothesis. Chapter 4 also found tentative evidence for the mediating role of utopian thinking on the relationship between collective narcissism and out-group hostility (i.e., radical action, collective violence). In Study 11, the attempt to provide experimental support to the idealistic pathway hypothesis was not successful. The following sections discuss findings in the context of relevant theoretical and empirical findings, more broadly.

Studies 7 and 8 provided correlational support for the proposed hypotheses. Study 7, in line with the idealistic violence hypothesis showed that, utopian thinking (operationalised as idealistic beliefs about social change) positively predicted both physical and verbal forms of collective violence against refugees. Similarly, in Study 8, vegan participants who endorsed idealistic beliefs about social change were more likely to support radical action. In both Studies 7 and 8, realistic thinking about social change negatively predicted violence/radical action. Taken together, these findings suggest that the way in which social change is approached may influence which actions and behaviours are seen as acceptable. These provide tentative support for the contention that idealism is an active ingredient leading people to endorse extreme and violent means of change.

However, in contrast to Study 7 and previous research (see Cichocka, 2016), Study 8 showed that conventional identification predicted support for radical action. Earlier in this thesis (discussion section of Study 8), I reasoned that the status quo attenuating nature, and centrality of the need for social change within the ideological narrative of veganism, may justify competition/social change processes as a viable strategy. Also, both Study 7 and Study 8 found collective narcissism, to be positively associated with collective violence and radical action, respectively. These results support the narcissistic violence hypothesis. Overall, the proposed hypotheses received correlational support. Broadly speaking, these suggest that utopian thinking (and its elements of idealism in particular) can be a risk factor contributing to out-group hostility and aggression was supported.

The experimental support for the proposed hypotheses was, however, limited. Specifically, Studies 9 – 11 did not find strong evidence that utopian thinking exerts causal effects on collective violence. In fact, the only support of the causal idealistic violence hypothesis was demonstrated in Study 11. In this study, ideal possible worlds increased endorsement of verbal forms of collective violence against migrant refugees settling in England. Nonetheless, further analyses in Study 11, did not provide experimental support to the idealistic pathway hypothesis. That is, the effects of collective narcissism on the two forms of collective violence were not moderated by possible worlds.

The current findings did not provide definitive evidence about the direction of association (i.e., utopian thinking causing violence) or about the psychological processes facilitating this association. With respect to the former, it could be argued that utopian thinking (and associated ideals) operates as an after-the-fact excuse (Stankov et al., 2018), rather than as a motivating force, in endorsing non-normative behaviours for realising an ideal possible world (Baumeister, 1997). For instance, in line with compensatory conviction

(McGregor, & Marigold, 2003), an appeal to ideals and/or a higher purpose may allow perpetrators of violence to maintain meaning and purpose, rather than sink in guilt, shame, and/or uncertainty (e.g., McGregor, Zanna, Holmes, & Spencer, 2001; McGregor, & Marigold, 2003). Nonetheless, it is also likely that the relationship between utopian thinking is bidirectional, where ideals may sometimes operate as excuses while at other times motivators for perpetrating violence. Further research is warranted to examine the possibility of a bidirectional relationship.

In turn, social desirability responding may have also affected the outcomes of findings. Specifically, in the current set of studies, participants were asked the extent to which they endorse violent actions against other people. Social desirability is, in fact, reflected in the flooring effects exhibited particularly in measures of collective violence. Specifically, effects of utopian thinking on collective violence were mostly evident when variables had adequate variance. For instance, in Study 7, which relied on nationally representative Polish sample, the two measures of violence had more variance, compared to other studies reported (which relied on convenience samples). In turn, findings from Study 11 showed an effect of utopian thinking on verbal violence. However, the mean score for verbal violence was slightly higher than the mean score on the physical violence measure. While flooring effects were statistically addressed by relying on bootstrapped confidence intervals, further research should consider using more subtle measures of hostility and/or violence.

Further, Study 7 was conducted at the backdrop of the EU refugee crisis, with many Polish people, as well as government officials rejecting the acceptance of refugees from the Middle East and Africa (Cienski, 2017). This may also explain the higher acceptance of collective violence measures, but also raises implications about the role of context (i.e., socio-political climate). The latter suggests such issues (i.e., social desirability/floor effects)

may also be circumvented in contexts where violence is or becomes the norm, as the social context appears to condition violent and extreme behaviour (Jasko et al., 2019; see also Bilali & Vollhardt, 2019).

Although this chapter provides some evidence in support of the link between utopian thinking and violence, it does not address factors that may influence this relationship. For instance, idealistic violence may be driven by moral conviction (Skitka & Mullen, 2002). Moral convictions are perceived as non-arbitrary recognitions of fact and can motivate political engagement (Smith, 1994; Skitka & Bauman, 2008). For instance, Skitka et al. (2015) argued that moral convictions often lead to acceptance of violent solutions (Skitka, Washburn, & Carsel, 2015). Accordingly, the conviction for the realisation of a utopia may be seen as morally mandated and may elicit motivation to pursue the imagined vision at all costs. This echoes the quest for significance theory, which holds that ideological convictions prescribe what is moral and the kind of possible world one should aspire to and pursue (Atran et al., 2007; Atran, 2011; Kruglanski et al., 2013). It could be argued that utopian thinking may activate a sense of moral truth which transcend normative conventions and, in that way, allows immoral actions (i.e., violence against refugees; Stankov et al., 2018). Future research should examine whether moral conviction mediates the relationship between utopian thinking and violence. Another potential pathway may be instrumental harm (e.g., Kahane et al., 2018). That is, violence may be blatantly recognised as a means to an end and thus seen as instrumental, and rationalised strategy.

Moreover, although support of the idealistic violence hypothesis was inconsistent, the support for the narcissistic violence hypothesis remained throughout (with the exception of Study 11). Evidence demonstrated that collective narcissists were systematically more likely to endorse justifications of violence and/or radical action against out-groups. Thus, the

current chapter, extends the effects of collective narcissism to inter-group relations, beyond prejudice and direct hostility to include blatant, indiscriminate violence against out-groups (Golec de Zavala et al., 2013). According to past research, collective narcissists tend to exhibit aggressive and hostile attitudes towards out-groups due to their underlying belief that their exceptionalism (as a group) and superiority is undermined rather than recognised (Cichocka, 2016; Golec de Zavala et al., 2019; Golec de Zavala et al., 2009).

Further, collective narcissists appeared to rely on idealised notions of social change. This is arguably due to their need for external validation of superiority (Golec et al., 2009). In fact, further analyses revealed that narcissistic violence was mediated by utopian thinking. By shifting the temporal focus to the future, utopian thinking may have enabled collective narcissists to imagine the idealised notion of their in-group image being actualised. Utopian thinking may, thus, bridge the gap between an idealised past (which collective narcissists feel that are entitled to but, nonetheless, feel it is not sufficiently recognised) and an idealised future where their exceptionalism and greatness has been restored (Marchlewska, Cichocka, Jaworska, Golec de Zavala, & Bilewicz, 2020). Nonetheless, the robustness of idealistic beliefs about social change in facilitating collective narcissists' tendency to be hostile and aggressive towards relevant out-group hostility should be examined in parallel to other potential mediators. For instance, potential mediators may concern affective components, such as group-based anger and contempt which are often been associated with physical and verbal non-normative behaviours, respectively (Fischer & Roseman, 2007). Alternatively, potential mediators may include conventional predictors of non-normative action such as the role of efficacy, where at low levels appears to be associated with non-normative action (Saab, Spears, Tausch, & Sasse, 2016; Tausch et al., 2011; see also Becker & Tausch, 2015).

Relating to psychological approaches of utopian thinking and models of societal engagement, the present chapter provides tentative evidence that utopian thinking elicits motivation to pursue non-normative forms of engagement (i.e., violence, radical action; Kashima & Fernando, 2020). However, the potential pathways and conditions which may shape non-normative engagement stemming from utopian thinking have not been identified. As suggested above, moral conviction and instrumental harm may constitute such pathways among others such as efficacy, group-based anger and other affective components (van Zomeren et al., 2004; 2011). Further, an important question stemming from models of societal engagement, is whether utopian thinking would also (or less so) predict more normative forms of collective actions, as models proposed by Badaan et al. (2020) suggest or whether such effects are limited to rather non-normative forms of action (i.e., radicalism and violence; Tausch et al., 2011).

4.10.1. Limitations and Future Directions

Studies 7 and 8 operationalised utopian thinking as idealistic beliefs about social change. While research often equates utopia with idealism, (and contrasts it with pragmatism; Gray, 2007; Popper, 1971; cf Wright, 2010), the current conceptualisation excludes more "realistic utopias" and so, may not fully examine the role of utopian thinking in social change (i.e., piece-meal/gradual change; see Levitas, 2008). This limitation was, however, partly addressed by measuring realistic beliefs about social change.

Further, given that idealistic beliefs about social change positively predicted non-normative engagement and negatively predicted non-normative engagement, it is important to consider the role of individual tendencies towards maximisation and sufficiency principles (Hornsey et al., 2018). Maximisation principle refers to aspirations for the highest possible positive outcome when practical limitations are eliminated, while the principle of sufficiency

maintains moderation as aspired and desired (Hornsey et al., 2018; see also Deci & Ryan, 1985; Howard, 2000). The present chapter identified collective narcissism as a form of ingroup identification that was shown to not only predict violence but also to be mediated via utopian thinking. In this vein, I argue that idealised in-group image stemming from glorified narratives of the past appear to permeate goals collective narcissists hold for the future of the group. Taken together, whether individuals ascribe to the principle of sufficiency or maximisation may be predicted by collective narcissism. Future research should examine whether collective narcissists' belief that their group is exceptional (yet undermined) may reflect an affinity towards the principle of maximisation, rather than sufficiency.

Additionally, this research places emphasis on idealistic beliefs about social change and on the assumption that utopian thinking reflects higher-order ideals and principles. Accordingly, it does not directly examine the extent to which ideals may be involved in eliciting idealistic violence nor does it directly examine the content of ideals (presumably) involved. Instead, the activation of ideals is assumed. Accordingly, future research should examine the role, content, and magnitude of ideal and/or moral foundations involved in idealistic violence. For instance, future research could examine whether idealistic violence in the national context might be driven by concerns of purity and in-group loyalty, as national utopias tend to be more exclusionary and the boundaries between the in-group and nonconforming out-groups more apparent. In summary, moving beyond the motivation to criticise the status quo this chapter examined the influence of utopian thinking on two forms of non-normative collective action (i.e., radical action and violence; Tausch et al., 2011). The central hypothesis of this chapter was that utopian thinking would elicit hostility towards groups which are perceived as non-conforming to the in-group's ideals. I, also, hypothesised that utopian thinking would mediate the otherwise robust link between collective narcissism and out-group hostility (i.e., violence/radical behaviour; Golec de Zavala et al., 2009; Golec

et al., 2013; Yutisia et al., 2020). Studies 7 and 8 provide correlational support to both hypotheses. Indeed, idealistic beliefs about social change predicted both collective violence (Study 7) and radical behaviour (Study 8). Further, in both studies, idealistic beliefs about social change mediated the link between collective narcissism and justification of nonnormative action. Studies 9 – 11, attempted to provide experimental support to both hypotheses with limited success, rendering support for both hypotheses as tentative.

Limitations considered included the general reluctance, across studies, of participants to endorse items relating to non-normative action (particularly collective violence), as well as the need to assess the robustness of the facilitative effect of idealistic beliefs about social change along with other potential mediators. Nonetheless, this chapter presents an initial attempt to understand the role of utopian thinking in eliciting violence and non-normative action.

CHAPTER 5

5.1. Introduction

The presented thesis investigates a variety of psychological concomitants of utopian thinking: psychological distance, system justification, and collective violence. I examined these phenomena in 11 studies (with over 3900 participants in total), conducted in three countries, with nationally representative and convenience samples, using both cross-sectional and experimental methods.

Specifically, this thesis marshalled evidence suggesting that utopian thinking elicits a discrepancy between the imagined alternative and present reality inducing abstract thinking and system criticism motivations (Badaan et al., 2020; Fernando et al., 2018; see also Kashima & Fernando, 2020). Further, this thesis offers tentative evidence demonstrating that utopian thinking carries the potential to elicit hostility towards relevant out-groups. Crucially, the investigation of how utopian thinking relates and/or interacts with dispositional levels of political orientation, system justification, and group identification raise implications for an expressive motive underlying utopian thinking.

This final chapter comprises a general discussion of the present findings, their wider theoretical (and practical) implications, along with limitations and potential avenues for future research. The following section provides a review and general discussion of Chapters 1 – 4. Following sections engage with the broader implications of utopian thinking for processes of societal engagement and social change. Particular attention is given to: 1) the potential of utopian thinking in eliciting expressive motivations to maximise relevant social identities (and associated ideological convictions); (2) the dual nature of possible worlds to operate both as a standard and goals; (3) the potential of psychological distance to operate as

a "proto-function" shaping which societal engagement process is subsequently activated (4) the contextual and social identity dependencies of utopian thinking, among others. Finally, general limitations particularly with respect to the present operationalisation and omitted components of utopian thinking and relevant motivations are discussed, along with suggestions for potential directions for future research.

5.2. Summary of Chapters 1-4

Chapter 1 briefly outlined the sociological foundations of a relatively understudied topic in social psychology, utopian thinking. Levitas' (1990) functional conceptualisation of utopian thinking has been pivotal for a social psychological understanding and specifically, in enabling the derivation of motivational hypotheses (e.g., Fernando et al., 2018). Moreover, this chapter pinpointed emerging social psychological approaches of utopian thinking which appear to be particularly predictive of its effects on societal engagement (Fernando et al., 2018; 2020). Following a combination of the social identity framework intertwined with the concepts of possible selves and prospection enabled the understanding of utopian thinking as a self-regulatory process operating at the collective level (Kashima & Fernando, 2020; see also Bain et al., 2013; Fernando et al., 2018). Accordingly, in the current thesis utopian thinking was defined as a process of envisioning possible worlds that are superior to the status quo and hold a dual-nature to operate as a vision-goal, as well as a standard.

I also considered emerging research which postulated a dual-pathway model of utopian thinking on social change processes, where utopian thinking may thwart system justification processes and bolster societal engagement and social change processes (Badaan et al., 2020). Nonetheless, although the two main pathways to processes of social change, namely the affective pathway (via hope) and a cognitive-motivational pathway (via abstract thinking) were identified, the present thesis paid attention to the latter. Finally, I outlined the

aims of the presented thesis: to better understand the functions of psychological distance, criticism and violence. The overarching aim was to understand some of the underlying cognitive-motivational components of utopian thinking

Therefore, this thesis aimed to better understand the potential of utopian thinking to imbue psychological distance (Chapter 2). This raises implications about its potential to activate abstract thinking (Kashima & Fernando, 2020). The potential of utopian thinking to elicit criticism of the status quo (Chapter 3), raising implications about the role of political orientation. But also, whether utopian thinking elicits violence against non-conforming outgroups (Chapter 4), with particular attention given to group identification. Overall, in this thesis I sought to address this gap by examining some of the cognitive processes and motivational consequences of utopian thinking in relation to system challenge and social change processes.

In Chapter 2, I sought to understand the psychological distance utopias and dystopias are perceived. Specifically, in this chapter, I reported three experimental studies demonstrating that utopias are perceived as more psychologically distant than dystopias. In Study 3, I demonstrated that this asymmetry stems from valence, yet this effect appears to be especially pronounced when negative possible worlds are labelled as dystopian. Further, in Studies 2 and 3, I showed that this asymmetry in distance is driven by cultural exposure and tends to be more prevalent among individuals low in system justification.

In Chapter 3, I sought to better understand the link between utopian thinking and system justification. Specifically, by employing experimental designs, the pilot and Studies 4 – 6 investigated how utopian thinking influences system justification tendencies. I investigated this relationship in tandem with political orientation, due to well-documented

disparities between liberals and conservatives on acceptance of the status quo (Jost et al., 2003a).

The results of Study 4 (and the pilot) supported this contention, demonstrating that the effects of ideal (vs. realistic) possible worlds on system justification were conditioned by political orientation: liberals rejected, while conservatives supported the system when imagining ideal (vs. realistic) possible worlds. Studies 5 and 6, in contrast, found only main effects (marginal in Study 6) of ideal (vs. realistic) possible worlds on lower system justification. I suggested that this might be due to the fact that both studies were collected prior to elections where the traditionally conservative parties advocated for some form of status quo change. This suggest that the social context and the political climate may shape utopian thinking and its associated effects. However, the positive associations between system justification and political orientation in these studies cast doubt on this interpretation.

Further, results from text analyses from Study 4 suggest that ideal (vs. realistic) possible worlds elicit considerations of fairness virtues (i.e., supporting words) for liberal (vs. conservatives). Based on the presumption of a close affinity between liberal ideology and social change, this result suggests that liberal utopian thinking is an opportunity to express the values and principles most relevant to their political identity (i.e., identity maximisation; Kivetz & Tyler, 2007). While the liberal response appears to be underlined by expressive motivations, for conservatives it is somewhat equivocal. That is, for conservatives, results of Study 4 (and the pilot) cannot ascertain the underlying motivation involved in the bolstering effect on system justification following ideal possible worlds. Conservative utopian thinking may imbue a sense of uncertainty eliciting system justification to restore the legitimacy of extant arrangements (Jost & Hunyady, 2005; Jost et al., 2009). Conversely, given the close affinity between conservative ideology and the status quo maintenance, conservative utopian

thinking may elicit expressive identity-maximising intentions leading to declarations of support to the status quo.

In Chapter 4, I sought to address the role of utopian thinking in shaping support of radical and/or violent forms of societal engagement. This chapter moved beyond the motivation to criticise the status quo and examined the influence of utopian thinking on two forms of non-normative collective action: radical action and violence (Tausch et al., 2011). Chapter 4 reports two cross-sectional (Studies 7 & 8) and three experimental studies (Studies 9 – 11) attempting to provide evidence in support of the idealistic violence and idealistic pathway hypotheses.

Results of Studies 7 and 8 suggest idealistic beliefs about change encourage justification of verbal and physical forms of collective violence against non-conforming groups. Conversely, realistic beliefs about social change tend to dampen such justifications. This is in line with Baumeister's (1997) postulation that idealism can constitute a root of violence (i.e., idealistic evil). This evidence also resonates with quest for significance theory, which holds that convictions stemming from ideological narratives and higher-values promote radical behaviour in pursue of a better possible world (Kruglanski et al., 2013; 2017; see also Atran, 2011).

Taken together, Studies 7 and 8 suggest that the link between utopian thinking and non-normative action manifests in both status quo enhancing and status quo attenuating contexts. Study 7 also suggests that conventional national identification tends to impede justifications of both forms of collective violence. In contrast, Study 8 suggests that conventional vegan identification, also predicts radical action (albeit not via idealistic nor realistic beliefs about social change). This result suggests that for vegans such behaviour does not solely stem from insecurity. It might be that the status quo attenuating nature and

centrality of the need for social change within the ideological narrative of veganism to justify competition/social change processes as a viable strategy (see also Study 8 Discussion; Tajfel, 1978; Turner & Brown, 1978).

Studies 9 – 11, attempted to provide experimental support to the contention that utopian thinking predicts non-normative behaviour. Apart from Study 11, findings do not support this contention of a causal effect of utopian thinking on collective violence. In Study 11, ideal possible worlds promoted justification of verbal but not physical collective violence. Overall, Chapter 4 provides limited support to the contention that utopian thinking leads to non-normative action (i.e., collective violence, radical action). Nonetheless, as highlighted in the discussion of Chapter 4, the weak experimental effects may be due to social desirability. This is, in fact, reflected in the flooring effects exhibited in the measures of collective violence. Although, statistically this was addressed by relying on bootstrapped confidence intervals, further research using more subtle measures of hostility and/or violence is warranted. As I suggested in the discussion of Chapter 4, however, this issue may also be circumvented in contexts where violence is or becomes the norm, as the social context appears to condition violent and extreme behaviour (Jasko et al., 2019; see also Bilali & Vollhardt, 2019).

I, also, contended that utopian thinking would mediate the otherwise robust link between collective narcissism and out-group hostility (i.e., violence/radical behaviour; Golec de Zavala et al., 2009; Golec et al., 2013; Yutisia et al., 2020). Results from Studies 7 and 8 suggest that collective narcissists' inclination to justify violence/radicalism towards non-conforming groups is mediated via idealistic beliefs about social change (although there was no evidence of experimental mediation in Study 11). This mediating role of utopian thinking suggests that collective narcissists' inclination for out-group hostility can be stimulated by the

prospection of a possible world that aligns with their ideals. Previous research contends that the sense of superiority pertained in collective narcissism stems from an idealised image of the group promoted by collective narratives of past achievements (Golec de Zavala et al., 2009; see also, Golec de Zavala, 2018). The facilitative effect via idealistic beliefs about social change suggests that, for collective narcissists, out-group hostility can also be stimulated when future-oriented idealised in-group goals are considered (i.e., restoration of the greatness of the past; Reicher, 2008).

5.3. Theoretical Implications

The findings of this thesis have several theoretical implications for the cognitive-motivational processes underlying utopian thinking. First, important implications concern the activation of high-construal processing and the (related) identity-maximising (i.e., expressive) motivations. These implications are based on: 1) the observation that, upon envisioning best (vs. worst) possible worlds, prospection entails an increase in psychological distance (i.e., Studies 1 – 3), and 2) the assumption that psychological distance is related to abstract thinking and motivations to express values and ideals related to one's social identities (Agerström & Björklund, 2009; Eyal et al., 2008; Kivetz & Tyler, 2007; Soderberg et al., 2015; Liberman & Trope, 2014). I discuss these in relation to the present findings on psychological distance (Chapter 2) and societal engagement (Chapter 3 – 4), as well as previous theory and research. Implications on the role of relevant social identities and the social context are also considered.

Under an abstract mindset, individuals may consider the central features that convey the essence and desired-end goals of the ideal possible world (Berson, Halevy, Shamir, & Erez, 2015). Support for the activation of an abstract mindset, following utopian thinking, is provided in text analyses of participants' responses in Studies 1-4. Specifically,

supplementary text analyses suggest that best (vs. worst) possible worlds activate the virtues of fairness and harm/care moral foundations (Studies 2 & 3) and appear to involve more morally-laden language in general (Studies 1 & 3). Furthermore, text analyses reported in Study 4 provided tentative evidence that for more liberal individuals, dampening of system justification, following utopian thinking, is facilitated by identity relevant moral foundations (i.e., endorsed notions of fairness). Taken together, people seem to engage in utopian thinking in a teleological manner, in the sense of a desired-end goal in the future (Baumeister et al., 2016). That is, people attempt to symbolically create a society based on ideals and values that enhances the relative importance of their social identities (see also Pilot Study & Study 4; Kivetz & Tyler, 2007). Hence, broadly speaking, utopias appear to operate as teleological, superordinate goals which are abstractly constructed based on identity relevant ideals (i.e., identity-maximising motive; Kivetz and Tyler, 2007).

These characteristics raise implications about the dual nature of utopian thinking to operate both as a standard against which to evaluate extant arrangements, as well as a goal to pursue (Badaan et al., 2020). The high-construal (Chapter 2) and value laden structure (Studies 2 – 4) of ideal possible worlds suggest that utopian thinking promotes criticism by enacting comparisons between superordinate ideals and the status quo (Chapter 3, Fernando et al., 2018). This may explain why utopias make the status quo appear problematic by comparison, as it fails to fulfill the activated ideals. This is supported by the observed rejection of the status quo, following utopian thinking (Chapter 3, Fernando et al., 2018). It is possible that utopian thinking obstructs processes of injunctification preventing people to conflate the way things are with the way things should be (e.g., Kay et al., 2009).

Nonetheless, as discussed below, utopia criticism appears to depend on political orientation (Study 4 and the pilot study). More generally, however, this echoes a prevalent postulation in utopian theory that utopia serves as a vessel for breaking through the cultural hegemony of

the society (i.e., ideological apparatuses, dominant belief systems, and socialisation processes) which may otherwise render citizens blind to the limitations and injustices of their reality (Levitas, 1990; Jameson, 2005; Mannheim, 1991; Sargent, 2010). In this way, utopias can be seen as ideal standards for society, which activate moral reasoning and promote rejection of the status quo.

Although the present research only directly examined the effects of utopian thinking on system justification (i.e., criticism function), it seems probable that the same processes also influence other components of societal engagement (i.e., the change function). For instance, the observed reduction of system justification raises implications about the potential of utopia to promote collective action (i.e., utopia as a goal; Badaan et al., 2020; Fernando et al., 2018; Jost, 2019; Jost et al., 2012). Collective self-regulation processes may be activated eliciting goal-directed behaviours to address the discrepancy between the ideal/desired vision and actual reality (Kashima & Fernando, 2020). The present research provides some support for an association between utopian thinking and collective action intentions, in the form of violence and radical actions (Chapter 4; for reasons already highlighted, however, these findings are treated with some reservation). Additionally, previous research suggests that utopian thinking promotes collective action (Fernando et al., 2018; see also Fernando et al., 2020). Previous research, also, suggests that system justification motivation and collective action motivations are negatively associated, particularly when action (i.e., protest) aims to attenuate the status quo (Jost et al., 2012; Osborne, Jost, Becker, Badaan, & Sibley, 2017). Taken together, these suggest that utopian thinking reduces motivation to justify the status quo and promotes motivation to challenge and change it.

Whether a reduction in system justification motivation, following utopian thinking, would lead to the promotion of collective action intentions, however, has been postulated but

not empirically examined (Badaan et al., 2020; Jost, 2019). Although, this might be the case, the present findings may suggest otherwise. Perhaps, the social-identity enhancement properties of utopian thinking (i.e., symbolically expressing relevant values and ideals) might subside motivations for further societal engagement. That is, the maximisation of identity relevant values, via criticisms of the status quo, might appease related motivations to engage in collective action. These, however, are speculations and the present studies do not allow their empirical examination. Future research could examine the association between system justification and collective action, that is criticism and change functions, following utopian thinking.

Following considerations of utopia's dual nature as a standard and a goal, it is, also, important to consider the implications of utopian thinking on social change strategies (Tajfel, 1978). In Chapter 3, I provide evidence that ideal (but not realistic) possible worlds created a discrepancy between what people perceived the status arrangements were and what they desired them to be (Study 4 and the pilot). This raises implications about Tajfel's (1978) hypothesis that groups may follow strategies of social change when the status quo appears as illegitimate. Specifically, Tajfel (1978) postulated that perceptions of illegitimacy may arise when extant arrangements appear incongruent with superordinate principles, such as fairness, justice, and equity. The present findings provide some support not only that utopian thinking instills perceptions of illegitimacy (Chapter 4), but also in the involvement of superordinate principles such as fairness (text analyses in Studies 2-4). Considering this, in parallel with presumed elicitation of cognitive alternatives, following utopian thinking, utopias may also give rise to perceptions that the status quo is unstable. Indeed, research suggest that perceived legitimacy and stability tend to be positively highly correlated (Bettencourt, Charlton, Dorr, & Hume, 2001). Broadly speaking, therefore, utopias, by offering alternative ways things ideally be, appear to satisfy the conditions for the activation of competition/social change

processes as a strategy to manage social identity (Tajfel, 1978; see also, Turner & Brown, 1978). Nonetheless, the present findings do not directly examine whether social change strategies were activated following utopian vision.

Previous research and theory, as highlighted above, suggest that utopian thinking promotes collective action and intentions for social change (Badaan et al., 2020; Fernando et al., 2018; 2020; Kashima & Fernando, 2020). Nonetheless, echoing the abovementioned speculation about utopian identity-maximisation motivation, it is possible that envisioning an ideal possible world might instead enact social creativity strategies (Tajfel, 1978). Indeed, previous research suggest that social creativity to manage negative distinctiveness often entails a moral dimension, where people evaluated the in-group as more moral than the relevant out-group (Becker, 2012). Social creativity, however, tends to reduce motivation for collective action (Becker, 2012). Further research is warranted to better understand the separate effects of utopian thinking on perceived stability and legitimacy, and how the later may interact to determine which strategy is followed.

Moreover, Badaan et al (2020) posited that utopian thinking would increase high construal thinking (i.e., psychological distance) which, in turn, may reduce system justification and promote collective action. The authors reasoned that psychological distance would facilitate abstract thinking (Soderberg et al., 2015) bring superordinate goals into consideration, and activate goal – directed behaviour. The present thesis provides separate support for increased psychological distance (Chapter 2), decreased system justification (Chapter 3), increased radical/violent action (Chapter 4) and the consideration of values and ideals, following utopian thinking (Studies 1 – 4). These findings, although scattered and separate seem to be in line with this model of utopian change (Badaan et al., 2020).

among these variables need to be tested together, as implications above highlight alternative possibilities.

Moreover, it is, also, possible that the effects of utopian thinking on system justification (and collective action) to be contingent upon cognitive appraisals that often accompany psychological distance. That is, the psychological distance of possible worlds (from actual reality) may involve cognitive appraisals including: status quo mutability (i.e., how mutable the actual reality is perceived to be) and attainability (i.e., how attainable the possible world appears to be). These, in turn, may influence the activation of criticism, change, and/or compensation functions of utopian thinking. For instance, at low levels of distance, the status quo may appear immutable, while possible worlds may fail to activate abstract thinking. Subsequently, this may fail to elicit motivations to challenge and change extant arrangements. Conversely, at intermediate levels of distance, the imagined utopia, as suggested above, may assume its properties as a standard and as a goal, thus eliciting processes for societal engagement (i.e., criticism and change functions). At high levels of distance, however, possible worlds may appear completely disconnected from actual reality, eliciting appraisals that the vision is unattainable. This may increase feelings of low efficacy, and control, thereby, hampering motivations for criticism and change (Cichocka, Górska, Jost, Sutton, & Bilewicz, 2018). Rather, at high levels of distance, utopian thinking may lead to political alienation (Barakat, 1969) and/or activate the function of compensation (i.e., possible world imagined used as a mental refugee of escape). These postulations highlight the pivotal role psychological distance and accompanied appraisals may play in determining which societal engagement function is activated. Nevertheless, future research is warranted in order to discern the ways variations in distance may interact with related cognitive appraisals in shaping societal engagement.

Although the present thesis did not directly examine the effects of dystopian thinking on societal engagement, certain implications are raised from the findings reported in Chapter 2. Kashima and Fernando (2020) suggest that worst possible worlds may also instigate similar societal engagement motivations, in order to avoid their realisation. In Chapter 2, I provide systematic support that the worst possible worlds are envisioned in lower-construal levels (i.e., in greater proximity). In fact, the prevalence of dystopian fiction and discourses in contemporary society (i.e., high cultural exposure) appears to facilitate the psychological proximity of worst possible worlds. This raises questions about the underlying regulation strategy of dystopian thinking and the potential of worst possible worlds to elicit criticism of the status quo and activate societal engagement and change (Badaan et al., 2020; Kashima & Fernando, 2020; see also, Higgins, 1998). Dystopias - cautionary tales of the prospect of a negative state - may instigate regulation via a prevention focus. Specifically, the prevention system tends to be concerned with the approach of safety and security and avoidance of dangers and threats (for a review see Higgins, 1997). Forewarning of an abysmal future may induce motivation either to approach or avoid it. The former suggests that dystopian prospection carries the potential to elicit criticism towards the status quo and mobilise efforts to prevent it. For instance, recent climate change activism such as the Extinction Rebellion movement, aptly demonstrates how forewarning (e.g., of a mass extinction and eradication of the planet and its resources) and apparent routes for realisation (e.g., heavy reliance on fossil fuels; changes in local climates) has led many (particularly youth) to participate in various collective actions. Such abysmal portrayals of the future may, thus, instigate a sense of duty and responsibility to prevent it from realising.

This further suggests that efficacy may play a role in activating the potential of possible worlds to elicit criticisms towards the status quo and related social change processes. Previous research, in fact, suggests that group efficacy predicts collective action (Tausch et

al., 2011; van Zomeren, Spears, Leach, & Fischer, 2004), even under unfavourable conditions (Hasan-Aslih et al., 2020). Paradoxically, the apparent visibility of dysfunctions and limitations of extant arrangements which might lead to a dystopian future (i.e., routes of realisation) may lead groups and individuals to feel more efficacious. This coupled with associated affective components such as anger may drive societal engagement processes following dystopian thinking (van Zomeren et al., 2004). It is, nonetheless, possible that people may try to suppress such concerns, and thus avoid coping with dystopian possibilities by escaping the situation (Norman & Aron, 2003). This would, in fact, suggest the activation of the compensation function. The underlying regulation strategies of dystopian (and utopian) thinking are beyond the scope of this thesis. Nonetheless, for a more complete understanding of collective self - regulation processes it is important to further study the differences between worst and best possible worlds, their relation to prevention and promotion focus as well as the conditions which may elicit approach or avoidance tendencies.

Moreover, the present thesis raises implications about the role of ideology on the relationship between utopian thinking and societal engagement. That is, the activated ideals and values related to one's ideology (or social identity) may moderate the relationship between utopian thinking and system justification. Here, ideology is treated as a social identity (van Bavel & Pereira, 2018). Ideologies tend to differ in terms of their enhancement or attenuation of the status quo (i.e., advocate social change; Jost et al., 2003a; Sidanius & Pratto, 1999). Broadly speaking, ideologies differ from each other as they uphold and promote competing views about how society should be ordered and how life should be lived (Caprara & Vecchione, 2018). Indeed, the pilot and Study 4 demonstrates that utopian thinking elicits asymmetrical effects on system justification as a function of political orientation. Specifically, it seems that conservatives and liberals imagine possible worlds that uphold the central ideals of their ideologies. In line with their respective identities and

encompassing ideologies, conservatives reinforced their support of the status quo, while liberals challenged the status quo, as they tend to promote change. In fact, Studies 5 – 6, might, paradoxically, provide further support to this implication. In these two studies, criticism towards the status quo was boosted following utopian thinking, across the spectrum of political orientation. Crucially, this generalised boost in criticism was observed in periods (i.e., prior to 2016 US presidential election in Study 5; prior to 2017 UK general election in Study 6) in which social change and status quo attenuating rhetoric characterised conservative/right-wing campaigns which traditionally adopt system enhancing positions. However, the positive associations between system justification and political orientation in these studies cast doubt on this interpretation. Future research should examine these processes in more detail.

Another possibility is that the effects of utopian thinking depend on context. As Studies 5 – 6 show, contextual parameters (i.e., elections) may shape the effects of utopian thinking on the function of criticism. Indeed, Kashima and Fernando (2020) also highlight the contextual dependency of utopian thinking. The researchers suggest that utopias may often shift from system attenuating to system enhancing visions. Contextual parameters appear to shape the effects of utopian thinking on psychological distance. Studies 2 -3 show that the contextual salience of dystopia facilitates the proximity of worst possible worlds, while the limited contextual presence (i.e., low cultural exposure) of utopia casts them further in the distance. It is possible, for instance, that when society is characterised by a positive rather than a negative Zeitgeist (van der Bles et al., 2015) to observe a reverse asymmetry in psychological distance with best possible worlds being contextually salient relative to worst possible worlds.

Further, although Chapter 4 did not directly examine contextual parameters of utopian thinking, their relevance is implied in the reluctance of participants to endorse items gauging justifications of collective violence. Accordingly, the effects of utopian thinking on collective violence may become more apparent in contexts where violence and extreme behaviour are the norm (Jasko et al., 2019; see also Bilali & Vollhardt, 2019). This is indirectly suggested by Study 7 which was conducted at the backdrop of the EU refugee crisis which saw many Polish people, as well as government officials rejecting the acceptance of refugees from the Middle East and Africa (Cienski, 2017). In the context of the recent Black Lives Matter protests against police brutality, it could be argued that individuals in the USA may be more willing to justify the use of violence. The importance of contextual parameters should be taken into account in future studies of utopian thinking.

Moreover, a common distinction in utopian theory is drawn between utopian and realistic prospection. In fact, this reflects an ongoing debate in utopian theory and research (e.g., Levitas, 2007; 2008). Specifically, this focuses on whether more realistic versions of a future society which consider more practical and pragmatic aspects of both the status quo and the change envisioned, should be considered as utopias or not. This realistic approach tends to focus more on possible short-term gains, recognises the limitations of contemporary reality, and proposes an overall gradual, piecemeal change, primarily via peaceful means (Rotry, 1998; Unger, 1998). This pragmatic approach to utopia tends to be critical and rejecting of idealistic visions which tend to be more abstract, envisioning complete transformations and express human desire and social hope (Levitas, 2007; 2008; see also, Rotry, 1998). Crucially the latter holds that the purpose of utopia is not to be realisable, but rather unattainable and set to fail. It is seen as a process of collective learning and a method to educate hope about the possibility of progress and positive social change, rather than as a goal to be realised (Levitas, 1990, 2008; see also Bloch, 1986; Mannheim, 1991).

Indeed, in the experimental designs in Chapters 3 and 4, operationalisation of utopian thinking focused on contrasting utopian (i.e., idealistic and unattainable) and realistic (i.e., practical and pragmatic) possible worlds. Similarly, in Chapter 4 the introduced self-reported measure by gauging participants endorsement of idealistic and realistic beliefs for social change, draws similar parallels. Broadly speaking, considering these parallels, the current findings suggest that in order for visions of future societies to have the potential to elicit criticism, they need to be primarily utopian. For instance, in Chapter 4 rejection of the status quo, as a function of political orientation (Study 4 and the pilot) or irrespective of political orientation (Studies 5 & 6), is elicited following utopian but not realistic possible worlds. Similar effects following only realistic possible worlds or the interaction between the two, would suggest that holding practical concerns might be necessary for utopias to assume their function of criticism. However, this is not the case. Similarly, in Chapter 4 (Studies 7 & 8), idealistic beliefs about social change predicted collective violence and/or radicalism, while realistic beliefs about social change did not. This further suggest that the elements of idealism and unattainability may be pivotal in catalysing action. Nonetheless, given that the focus of Chapter 4 was on the negative impact of utopian thinking (i.e., collective violence and radicalism), this lends some merit to the realistic utopianism approach which holds that utopian dangers such as violence and totalitarianism lie in the excessive and idealistic elements of such visions (Popper, 1971). Nonetheless, the limited experimental support of violence stemming from utopian thinking holds this claim tentative and subject to further research.

Finally, given the inconsistent effects of utopian thinking on collective violence, and particularly, the limited support of a causal relationship between utopian thinking and collective violence, we can draw only limited conclusions from Chapter 4. However, the fact that utopian thinking (i.e., idealistic beliefs about social change) seem to link collective

narcissism and non-normative action (i.e., violence in Study 7; radical action in Study 8) suggests that idealised goals and prospection might be important for narcissistic identification. Specifically, in their desire for external validation of their superiority, those high in collective narcissism appear to rely on idealised notions of social change. By shifting the temporal focus to the future, utopian thinking may have enabled collective narcissists to imagine the idealised notion of their in-group image being actualised. Utopian thinking might, thus, bridge the gap between an idealised past (which collective narcissists feel that are entitled to but, nonetheless, feel it is not sufficiently recognised) and an idealised future where their exceptionalism and greatness has been restored.

5.4. Practical implications and implications for research

I hope that the current studies will help us better understand processes of social change that may be elicited among ordinary citizens. Most research examines societal engagement and social change using bottom-up approaches. Particularly, research generally looks at how social injustices may result in collective action (i.e., marginalisation and oppression; see Becker & Tausch, 2015; van Zomeren et al., 2008). Conversely, utopian thinking provides the researcher with an opportunity to approach social issues using a top-down approach. Such an approach enables us to understand how visions (i.e., superordinate goals) of possible futures may contribute to collective action and participation. This has been increasingly recognised in recent years with the advent of research relating to the importance of superordinate identities (Barth, Jugert, Wultzler, & Fritsche, 2015; Rosenmann, Reese, & Cameron, 2016), politicisation through multiple identities with congruent ideological content (Curtin, Kende, & Kende, 2016; Curtin & McGarty, 2016; Smith et al., 2015), imagination (Hawlina et al., 2020), hope (Cohen-Chen & van Zomeren, 2018; Greenaway et al., 2016;

Hasan-Aslih et al., 2020), as well as the emerging interest in utopian thinking (see Kashima & Fernando, 2020).

Today's global challenges and require that we ask ourselves: "what should the future be like?". Utopian thinking is pivotal in answering this question. Utopian thinking is primarily a political act which raises questions about extant arrangements and its projected future trajectories for progress. The findings produced in this thesis concern both those who aim at preserving the status quo (e.g., decision makers) and those who desire to challenge and change it (e.g., social movements, marginalised groups, non-governmental organisations, etc.). The present findings lend support to a more nuanced understanding of utopian thinking and certain motivational consequences, particularly to critically question and challenge the status quo. This implication addresses the psychological obstacles that marginalised and disadvantaged groups face and which may, reduce motivations for actions (for reviews see, Friesen, Laurin, Shepherd, Gaucher, & Kay, 2018; Jost, 2019). Utopian thinking heightens the prospect of a better future and generates potential ways the structural barriers that limit their social standing could be challenged. Considering that system enhancing ideologies are often consensually held among the marginalised and tend to discourage societal engagement, utopian thinking might, thus, serve as a vessel for breaking through the cultural hegemony of the society (Badaan et al., 2020).

For decision makers, this thesis demonstrates the potential utopian visions have in capturing the attention of the public and potentially unite them behind certain goals, but also highlights the dangers of such visions when confined within a particular identity (i.e., race) in eliciting extreme behaviour. This is, particularly, important given the recent rise of ethnic and nationalistic attitudes in many liberal democracies (Swyngedouw & Ivaldi, 2001; Rydgren, 2017). Overall, I hope to pinpoint utopian thinking as an imaginative process for distancing

oneself from extant arrangements and thus a tool for collectives and social movements to generate visions and goals concerned with what the future should or should not be (Hawlina et al., 2020).

5.5. Limitations and directions for future research

The current research is of course not without limitations. One important limitation of this thesis concerns the omission of a neutral condition in most of the experimental studies.

Inclusion of a neutral (i.e., a possible world where the status quo is preserved), in Studies 1 -3 for instance, would have enabled comparisons between best and worst possible worlds against this control. This would have provided a more rigorous test to better understand whether the apparent asymmetry stems from the concrete characteristics of dystopia (i.e., routes of manifestation via cultural exposure) or from the abstract features of eutopias (consideration of higher-order principles and relevant moral foundations). Future research could explore these avenues and attempt to replicate findings with the inclusion of baseline condition which primes participants to imagine a possible world where the status quo is preserved (e.g., Study 10).

Moreover, another general limitation is that I relied exclusively on self-reported measures. As demonstrated in Chapter 4, which focused on non-normative behavioural tendencies, self-report measures can often suffer from social desirability effects. Recording actual behaviour measures might have provided stronger support to the presented hypotheses. However, given the focus on violence and radicalism, their use has certain practical and ethical limitations. Another methodological concern stems from the way I operationalised utopian thinking across this thesis. As abovementioned, I mostly relied on open-ended manipulations where participants were asked to provide descriptions of their ideal (vs. realistic) version of future society. This approach enabled to conduct further text analyses and

avoid priming participants with ideologically or otherwise biased narratives. Nonetheless, in real life people are often confronted with ideas of future societies which are ideologically laden. Future studies should explore people's reactions to specific left-wing versus right-wing utopias (e.g., Fernando et al., 2020).

Further, the current operationalization limits my working definition of utopian thinking to idealistic and maximalist notions of future societies. Although this constitutes one way to approach utopia (i.e., express what is ultimately desired for an ideal human condition), many theorists contend that utopian thinking can be a form of idealism combined with practical reason (e.g., Rawls, 2009; Wright, 2010). This is also highlighted by the fact that this research is confined within the initial steps of prospection where desired outcomes were generated, yet potential obstacles and actions required were not (Oettingen, 2012). Future research should explore how issues of feasibility of alternatives envisioned may impact perceived legitimacy and security of status arrangements. For instance, an operationalisation which simultaneously recognises both aspects might have yielded different results. For instance, practical reason combined with idealism may have led participants to consider routes for realisation and depending whether these were identified or not (i.e., appraised as attainable) influence whether to support or criticise the status quo.

Following this, future research could examine how possible worlds interact with such potential routes. Construal level theorists proposed that fit between concrete goals x abstract vision may elicit goal-related behaviours (Liberman & Trope, 1998; Rabinovich, Morton, Postmes, & Verplanken, 2009; cf. MacDonnel & Dahl, 2011). Accordingly, future research could examine how routes of realisation influence the feasibility of possible worlds. For instance, Wright (2010) suggested that potential pathways in realising a better society include, unconditional basic income and participatory city budgeting. Future research could

provide such pathways and examine how these interact with best/ideal possible worlds. It is possible that consideration of routes (i.e., concrete goals) may lead people to challenge extant arrangements and their apparent immutability, following positive possible worlds (i.e., abstract vision). Also, availability of routes for realisation may increase willingness to engage in collective action, presumably due to heightened feelings of efficacy, as suggested above.

Beyond methodological limitations, this thesis has a limited scope on a number of processes that may influence societal engagement including: cognitive appraisals about actual reality and the possible world imagined (i.e., how mutable the status quo appears to be; see Fernando, Kashima, & Laham, 2014), efficacy beliefs (i.e., how efficacious collectives/groups and individuals feel about bringing change; van Zomeren et al., 2004; 2008) and affective components such as hope and despair (Cohen-Chen & van Zomeren, 2018). For instance, Tausch et al. (2011) suggested that that low efficacy can dampen motivation for normative collective action and bolster motivation for non-normative collective action (e.g., Tausch et al., 2011; Becker & Tausch, 2015). Indeed, in Chapter 4 I provided partial support for the role of utopian thinking on non-normative action. Still, Chapter 4 did not examine the role of efficacy in such processes. Further, Badaan et al (2020) postulated that social hope (i.e., affective component) may be important in yielding the positive effects of utopian thinking on societal engagement and social change processes. Indeed, psychological research submits evidence of the motivational potential of hope to activate processes of social change (Greenaway et al., 2016). As a positive emotion, hope is likely to be elicited when the status quo is appraised as mutable. Future research should examine the associations between utopian thinking, related appraisals (i.e., perceived immutability), efficacy, and hope and despair in shaping motivations for engagement and social change.

5.6. Conclusion

To conclude, this thesis demonstrates that utopian thinking elicits high construal processing and suggests that these may influence processes of societal engagement and particularly criticism to extant arrangements. This thesis unveils expressive motives to maximise identity-relevant ideals as particularly relevant in utopian thinking. Further, this thesis highlights that relevant social identities and contextual parameters shape the way utopian thinking may affect processes of societal engagement and particularly the functions of criticism and to a lesser extent the function of change. Overall, the present research underscores the importance of imagining possible worlds and their interaction with context and identity in shaping critical thought and reactionary behaviour.

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APPENDIX I: CHAPTER 2 SUPPLEMENTARY

Supplementary 2.A.: Possible Worlds predicting Moral Foundation Supporting and Violating Words

In Supplementary 2.A., I attempted to provide empirical support to an underlying common thread across this thesis, that utopian thinking activates expressive motives (i.e., higher-level values and principles), by demonstrating that following utopian thinking relevant moral foundations are activated.

Research suggests that moral intuitions and judgments are based on, at least, five foundations (for a review see Haidt, 2012; Haidt & Graham, 2007). In brief, the five moral foundations are harm/care (i.e., prevention of suffering and care for others), fairness (i.e., notions of justice and equality), in-group loyalty (i.e., loyalty to own group and general group-based orientation), authority (i.e., preference for hierarchical social arrangements) and purity/sanctity (i.e., concerns about physical and spiritual contagion; Graham, Haidt, & Nosek, 2009). Harm and fairness are often referred as individuating foundations, as their main concern are the freedom and rights of individual people. On the other hand, in-group loyalty, authority and purity are often called binding foundations, as they are primarily concerned with preserving the group as a whole (Haidt & Graham, 2007).

Moral Foundations content was coded using the Linguistic Inquiry and Word Count (LIWC; Pennebaker, Boyd, Jordan, & Blackburn, 2015) software. LIWC is a software that enables the quantification of texts and offers objective counts of instances of different categories (i.e. dictionaries) by scanning the text for any words present in the dictionary for each category (in our case, moral foundations). It produces percentages that represent the number of times any word in the dictionary for a specific foundation was used, divided by the total number of words in the text, multiplied by 100 (Pennebaker et al., 2015). The moral

foundation dictionary (Volume 2; created by Graham and Haidt; moralfoundations.org; Graham et al., 2009) was used to quantify the prevalence of words relevant to the five moral foundations in participants' open-ended responses to the manipulation. The dictionary contains 295 words and word stems (for instance, *protect** would cover *protection*, *protectionism*, etc.) covering central concepts of the five moral foundations. Each foundation in the dictionary contains two independent word lists to separately capture foundation-supporting and foundation-violating words.

Table S2.1.

Raw Percentages of Foundation Related Words in Best and Worst Possible Worlds Conditions, Study 1

				Perce	entages			
Foundation		Support	ting			Vi	olating	
	Utopia	Dystopia	t	Effect size (d)	Utopia	Dystopia	t	Effect size (d)
Harm/Care	1.08	0.76	1.55	-	0.42	1.28	4.47***	0.91
Fairness	0.57	0.45	0.83	-	0.54	0.26	2.10*	0.44
Ingroup Loyalty	0.57	0.37	2.32*	0,49	-	0.08	-	_
Authority	0.53	0.95	1.85+	-	-	-	-	-
Purity/Sanctity	0.51	0.50	0.10	-	0.36	0.54	1.44	-
General Morality (MFD v.1)	0.53	0.20	2.93**	0,62	_	_	_	_

Note. Percentages represent the number of times any word in the dictionary for that foundation was used, divided by the total number of words in participants' possible worlds descriptions, then multiplied by 100.

Table S2.2.

Raw Percentages of Foundation Related Words in Utopian vs. Dystopian Conditions, Study 2

				Perce	entages			
Foundation		Suppor	ting			Vio	olating	_
	Utopia	Dystopia	t	Effect size (d)	Utopia	Dystopia	t	Effect size (d)
Harm/Care	1.19	0.70	3.95**	0.44	0.49	1.18	4.58***	0.63
Fairness	0.81	0.47	2.37*	0.33	0.23	0.33	1.07+	_
Ingroup Loyalty	0.67	0.58	0.58	_	_	_	_	_
Authority	0.44	1.19	4.59***	0.64	_	0.30	_	_
Purity/Sanctity	0.61	0.63	0.16	_	0.19	0.48	2.80**	0.39
General Morality (MFD v.1)	0.64	0.56	0.60	-	_	_	_	_

Note. Percentages represent the number of times any word in the dictionary for that foundation was used, divided by the total number of words in participants' possible worlds descriptions, then multiplied by 100.

Table S2.3.

Raw Percentages of Foundation Related Words in Best versus Worst Possible Worlds, Study 3

				Perce	entages			
Foundation		Suppor	ting			Vie	olating	
	Utopia	Dystopia	t	Effect size (d)	Utopia	Dystopia	t	Effect size (d)
Harm/Care	0.95	0.52	3.16***	0.42	0.31	0.73	3.36***	0.46
Fairness	0.55	0.34	2.09*	0.29	0.22	0.16	0.79	_
Ingroup Loyalty	0.67	0.83	1.20	_	_	_	_	_
Authority	0.57	1.20	3.57***	0.48	_	0.28	_	/
Purity/Sanctity	0.51	0.50	0.07	_	0.32	0.38	0.55	_
General Morality (MFD v.1)	0.54	0.32	2.45*	0.34				

Note. Percentages represent the number of times any word in the dictionary for that foundation was used, divided by the total number of words in participants' possible worlds descriptions, then multiplied by 100.

Supplementary 2.B.: Conditional effects of dispositional beliefs about society and human nature on the relationship between possible worlds and psychological distance (Studies 2 & 3)

In Supplementary 2.C., I report further details on the other moderators included in Studies 2 and 3, along with their descriptive statistics, zero-order correlations (Tables S.2.8. & S2.9.), and their interactions with possible worlds on psychological distance (Table S.2.10.)

Moderators

Generalised Trust Scale

Participants' trust in people was assessed using a 5-item scale adapted from Yamagishi & Yamagishi (1994). This scale includes items like "most people are basically honest" and "Most people will respond in kind when they are trusted by others", on a 5-point scale (1 = strongly disagree, 5 = strongly agree). This scale had a good internal reliability (a = .88).

Human Nature Cynicism

Cynicism toward human nature was assessed using a 5-item scale taken from Wuensch, Jenkins, & Poteat (2002). Participants responded on items such as "humans are by nature basically corrupt" and "planet earth would be better off if humans would just disappear from it", on a 5-point scale ($1 = strongly\ disagree$, $5 = strongly\ agree$). These items had acceptable internal reliability (Cronbach's $\alpha = .67$).

Cynicism towards Social Institutions

Cynical beliefs about social/collective institutions were measured using items adapted from research on social axioms (Bond et al, 2004), including "power and status make people arrogant" and "put people - even good people - in any social system and sooner or later, things will go bad". Participants responded to a total of 4 items on a 5-point scale (1 = $strongly\ disagree$, 5 = $strongly\ agree$). Cynicism about social institutions had acceptable internal reliability (Cronbach's α = .65).

Note that participants responded to all moderator items prior to the manipulation.

Table 2.8.

Variable	M	SD	2.	3.	4.	5.
1. Psychological Distance	4.57	1.69	.05	08	.06	.02
2. System Justification	3.59	1.17	_	.28***	34***	45***
3. General Trust	3.34	0.74		_	62***	30***
4. Cynicism towards Human	2.61	0.69			_	.43***
5. Cynicism towards Social Institutions	3.77	0.63				_

Note. **p* < .05. ***p* < .01. ****p*< .001.

Table S2.9.

Correlations and Descriptive Statistics f	or Study 3					
Variable	M	SD	2.	3.	4.	5.
1. Psychological Distance	4.71	1.75	.22***	.02	21**	.01
2. System Justification	3.64	1.28	_	.40***	58***	11
3. General Trust	4.60	1.15		_	32***	10
4. Cynicism about Social Institutions	4.04	0.70			_	.38***
5. Cynicism about Human nature	5.09	1.08				_

Note. **p* < .05. ***p* < .01. ****p*< .001.

Table S2.10.

Regression Analysis for Possible Worlds and Preconceived beliefs about Society and Human Nature Predicting Psychological Distance (Studies 2 & 3)

		Psychological Distance								
			Study 2					Study 3		
Variable	β	В	BCI95%	F	R_2	β	В	BCI95%	F	R_2
Step 1				5.02***	.11				5.00***	.12
Best (vs. Worst) Possible Worlds	.32***	0.54 (0.11)	[0.32, 0.76]			.20**	0.35 (0.11)	[0.13, 0.59]		
Label (Presence Vs. Absence)	-	-	_			12+	-0.21 (0.12)	[-0.43, 0.02]		
Step 2				4.59***	.17				6.75***	.24
Possible Worlds x System Justification	17***	-0.25 (0.10)	[-0.46, -0.05]			21**	-0.28 (0.11)	[-0.49, -0.08]		
Possible Worlds x Institutional Cynicism	09	-0.18 (0.14)	[-0.43, 0.07]			.07	0.12 (0.13)	[-0.15, 0.34]		
Possible Worlds x Human Nature Cynicism	.13	0.40 (0.25)	[-0.11, 0.88]			.12+	0.29 (0.17)	[-0.37, 0.05]		
Possible Worlds x Trust	.02	0.05 (0.19)	[-0.30, 0.46]			-0.11	-0.16 (0.10)	[-0.10, 0.70]		

Note. +p < .10. *p < .01. **p < .001. BCI95% = confidence intervals based on 5000 bootstrapped samples.

APPENDIX II: CHAPTER 3 SUPPLEMENTARY

The groups that constituted the measure of actual-desired status arrangements are presented in Table S3.1, along with the mean rating of actual and desired status reported in each Study.

Table S3.1.

Mean Ratings of the Actual and Desired Status (Pilot Study, Study 4 and 5)

		Pilot	Stu	dy 4		Study 5
				Status		
Group	Actual	Desired	Actual	Desired	Actual	Desired
Politicians	6.25	4.11	6.14	4.05	6.23	3.96
Rich people	6.18	3.92	6.23	3.92	6.22	3.87
Bankers	5.32	3.85	5.35	3.79	-	-
Men	5.30	4.53	5.26	4.46	5.37	4.55
Lawyers	5.22	4.09	5.09	4.13	5.03	3.90
White people	4.97	4.41	5.21	4.42	5.36	4.42
Journalists	4.81	4.14	4.62	4.38	-	-
Economists	4.76	4.48	4.58	4.75	-	-
Christians	4.65	4.20	4.67	4.02	4.67	4.01
Educated people	4.57	4.97	4.53	4.99	4.68	4.94
Military officers	4.50	4.24	4.64	4.33	4.40	4.10
Physicians	4.48	4.66	4.31	4.76	4.39	4.55
Scientists	4.47	5.02	4.41	5.29	-	-
Jews	3.94	4.04	3.83	4.24	3.97	3.84
IT workers	3.83	4.29	3.98	4.45	-	-
Women	3.78	4.64	3.73	4.77	4.02	4.52
Teachers	3.65	4.82	3.52	4.75	3.71	4.69

Black professionals	3.64	4.48	3.58	4.53	-	
Middle-class people	3.56	4.61	3.73	4.66	3.78	4.70
Retired people	3.49	4.22	3.54	4.24	3.73	4.04
Workers	3.49	4.77	3.40	4.73	3.25	4.42
LGBT	3.37	4.11	3.45	4.26	3.50	3.80
Young people	3.37	4.43	3.47	4.40	3.24	4.15
Elderly people	3.32	4.30	3.51	4.28	-	-
Asian people	3.29	4.34	3.39	4.42	3.11	4.04
Black people	3.29	4.36	3.14	4.46	3.47	4.03
Students	3.14	4.37	3.12	4.28	3.01	4.07
Hispanic people	3.07	4.22	3.05	4.42	3.27	4.00
Muslims	2.88	3.67	2.79	4.10	2.74	3.47
Native Americans	2.70	4.41	2.52	4.47	2.36	4.10
Disabled people	2.61	4.28	2.58	4.34	-	-
Welfare recipients	2.45	3.82	2.40	4.03	-	-
Poor people	2.12	4.21	2.20	4.27	2.08	4.20
Homeless	1.82	3.84	1.82	3.93	-	-
Police officers	-	-	-	-	4.51	4.21
Athletes	-	-	-	-	4.39	3.38
Hindus	-	-	-	-	2.27	3.58
Mormons	-	-	-	-	2.94	4.55
Atheists	-	-	-	-	2.98	3.67
Buddhists	-	-	-	-	2.20	3.52

Pilot Study Additional Analyses

I repeated the regression analyses: a) without applying the Fisher's z_r transformations on the Actual-Desired Status arrangements measure (Table S3.2); (b) without excluding participants that failed the attention check task (n=17; Table S3.3); and (c) controlling for Positive and Negative Affect (Table S3.4). Results were similar to those reported in Pilot Study. Also, the effects of the three-way interactions between utopian alternatives, realistic alternatives, and political orientation on actual-desired status arrangements and system justification are reported (Table S3.5).

Table S3.2

Possible Worlds and Political Orientation Predicting Actual-Desired Status Arrangements

(untransformed; Pilot Study)

		Actual-Des	ired Status Ar	rangement	ts	
Variable	β	B(SE)	CI95%	F	R_2	ΔR_2
Step 1				13.50***	.22	
Political orientation	.44***	0.16 (.03)	[0.11, 0.22]]		
Utopian (vs. Baseline)	25**	-0.10 (.03)	[-0.16, -0.04	!]		
Realistic (vs. Baseline)	05	-0.02 (.03)	[-0.08, 0.04]		
Step 2				6.73***	.23	.01
Political orientation	.43***	0.16 (.03)	[0.10, 0.22]			
Utopian (vs. Baseline)	26**	-0.10 (.03)	[-0.16, -0.04	!]		
Realistic (vs. Baseline)	06	-0.02 (.03)	[-0.08, 0.04]		
Utopian x Political orientation	.01	0.01 (.03)	[-0.05, 0.06]		
Realistic x Political orientation	.06	0.02 (.03)	[-0.04, 0.08]		
Utopian x Realistic	01	-0.01 (.03)	[-0.07, 0.06]		

^{*}p<.05. **p<.01.***p<.001.

Table S3.3 Possible Worlds and Political orientation Predicting Actual-Desired Status Arrangements and System Justification (all participants included; Pilot Study)

		Actual-De	esired Status Arr	angemen	ts		System Justification					
Variable	β	B(SE)	CI95%	F	R_2	ΔR_2	β	B(SE)	CI95%	F	R_2	ΔR_2
Step 1				12.06	.20					1.82	.03	
Political orientation	.42***	0.21 (.04)	[0.14, 0.29]				.15*	0.23 (.11)	[.01, .44]			
Utopian (vs. Baseline)	23**	-0.13 (.04)	[-0.21, -0.05]				03	-0.05 (.12)	[27, .18]			
Realistic (vs. Baseline)	03	-0.02 (.04)	[-0.10, 0.07]				.08	0.12 (.12)	[11, .35]			
Step 2				6.14**	.21	.01				2.35*	.07	.04
Political orientation	.42***	0.21 (.04)	[0.13, 0.28]				.13*	0.19 (.11)	[02, .41]			
Utopian (vs. Baseline)	24**	-0.13 (.04)	[-0.22, -0.05]				04	-0.06 (.12)	[28, .17]			
Realistic (vs. Baseline)	03	-0.02 (.04)	[-0.10, 0.07]				.05	0.08 (.11)	[14, .31]			
Utopian x Political orientation	.03	0.02 (.04)	[-0.06, 0.09]				.21**	0.30 (.11)	[.09, .51]			
Realistic x Political orientation	.07	0.04 (.04)	[04, .11]				.05	0.08 (.11)	[14, .29]			
Utopian x Realistic	04	0.02 (.04)	[10, .07]				02	-0.03 (.12)	[25, .20]			

^{*}*p*<.05. ***p*<.01.****p*<.001.

Table S3.4

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Possible Worlds and Political Orientation Predicting Actual-Desired Status Arrangements and System Justification, controlling for Positive and Negative Affect (Pilot Study)

		Actual-D	esired Status Arra	ingements				Sy	stem Justificatio	n		
Variable	β	B(SE)	CI95%	F	R_2	ΔR_2	β	B(SE)	CI95%	$\boldsymbol{\mathit{F}}$	R_2	ΔR_2
Step 1				9.33***	.25					3.13*	.08	
Political orientation	.37***	0.19 (.04)	[0.11, 0.26]				.14	0.20 (.11)	[-0.01, 0.41]			
Utopian (vs. Baseline)	23**	-0.13 (.04)	[-0.21, -0.05]				02	-0.03 (.11)	[-0.25, 0.19]			
Realistic (vs. Baseline)	03	-0.02 (.04)	[-0.10, 0.06]				.10	0.16 (.11)	[-0.06, 0.39]			
Negative Affect	09	-0.08(.06)	[-0.20, 0.05]				22**	-0.54(.17)	[-0.88, -0.20]			
Positive Affect	.20	0.12(.04)	[0.03, 0.21]				03	-0.05(.13)	[-0.30, 0.20]			
Step 2				5.82***	.25	.00				2.77*	.11	.03
Political orientation	.37**	0.18 (.04)	[0.11, 0.26]				.12	0.18 (.11)	[-0.03, 0.39]			
Utopian (vs. Baseline)	24**	-0.13 (.04)	[-0.21, -0.05]				03	-0.05 (.11)	[-0.27, 0.18]			
Realistic (vs. Baseline)	03	-0.02 (.04)	[-0.10, 0.06]				.08	0.13 (.11)	[-0.10, 0.35]			
Negative Affect	09	-0.07(.07)	[-0.20, 0.06]				20**	-0.48(.18)	[-0.82, -0.13]			
Positive Affect	.20	0.12(.05)	[0.03, 0.21]				04	-0.07(.13)	[-0.32, 0.19]			
Utopian x Political orientation	.01	0.01 (.04)	[-0.07, 0.08]				.17*	0.25 (.11)	[0.04, 0.46]			
Realistic x Political orientation	.06	0.03 (.04)	[-0.04, 0.11]				.05	0.07 (.11)	[-0.14, 0.28]			
Utopian x Realistic	01	-0.01 (.04)	[-0.09, 0.08]				05	-0.07 (.12)	[-0.30, 0.16]			

^{*}*p*<.05. ***p*<.01.****p*<.001.

Table S3.5

Three-way Interactions Summary for Political Orientation and Possible Worlds Predicting ActualDesired Status Arrangements and System Justification (Pilot Study & Study 6)

Dependent Variable	β	В	p	BCI95%	F	<i>R</i> ₂
Pilot Study						
System Justification	03	-0.5	.658	[-0.27, 0.18]	2.03+	.08
Actual-Desired Status	01	-0.01	.883	[-0.08, 0.07]	5.230	.17
Study 6						
System Justification	01	-0.01	.966	[-0.14, 0.12]	10.15***	.15

Note. For Actual-Desired Status Arrangements confidence intervals (BCI95%) were based on 3588 bootstrapped samples; for System justification confidence intervals were based on 3619 bootstrapped samples.

Study 4 Additional Analyses

Data treatment

Three independent judges were assigned to assess the quality of responses of the open-ended manipulation task we used in Study 1. This approach was implemented for three reasons. First, the task did not explicitly instruct participants to describe a positive alternative. Although positivity is an inherent characteristic of utopian possible worlds, for realistic visions this is not necessarily the case. Participants assigned in the realistic possible worlds condition were more likely to produce either a negative or an ambivalent vision (n=50), compared to participants assigned in the utopian alternative condition (n=14). This resulted in an unequal size sample between conditions: utopian (n=92) vs. realistic (n=54) alternatives. Second, upon careful inspection of participants' responses, I noticed that many participants responded by mentioning either something random and unrelated to the question, or failed to address the question in any way. Third, the study did not include a separate attention check, so examining the text served as an additional data quality check.

Accordingly, a code (see Table S3.6) was created to separate positive visions from negative or ambivalent visions but as also to exclude participants due to inadequate effort or poor understanding of the task.

Table S3.6

Code and instructions given to judges to assess quality of responses

Code	Category	Instruction
0	Random	Participant provides an answer that does not correspond to the task
1	Treatment	Participant provides an answer that is according to the conditions
		they have been assigned.
2	Negative in Realistic	Participant, assigned in the realistic condition, provides a negative
		vision of society in the future.
3	Negative in Utopian	Participant, assigned in the utopian condition, provides a negative
		vision of society in the future.
4	Ambiguous	Participant, assigned in either condition, provides a vision of society
		that contains both positive and negative elements.

The final filter was created based on the responses of the three judges (Table S3.7). A response was assigned to a given category code when either all three judges agreed about the specific code of that response (83%) or at least two out of three judges agreed on a specific code (16.1%). Two responses were excluded due to complete disagreement among the judges (0.9%). Effects remain significant when only responses that judges had complete agreement upon are included.

Table S3.7

Number of responses assigned to each code-category

Category	Frequency (n)	
Realistic	54	
Utopia	92	
Dystopia	27	
Ambiguous	15	
Random	22	
Total	210	

Note. Two participants have been dropped due to complete

disagreement among the judges

Dystopian Possible Worlds

Based on the categories summarised in Table S3.7, I identified participants included in the main analyses reported for Study 2 in the main text. Below additional exploratory analyses comparing realistic and utopian possible worlds, to dystopian ones (i.e., clearly negative visions generated either in the utopian or realistic condition) are reported. In the following analyses, derived groups (dystopian vs. realistic vs. utopian possible worlds) were recoded into two dummy variables. In order to explore how dystopian possible worlds differed from the other two conditions, dystopian possible worlds were treated as the reference. Hence, one dummy variable encoded the difference between realistic and dystopian possible worlds. Groups were coded as 1= realistic possible worlds and 0= dystopian possible worlds. The other one encoded the difference between utopian possible worlds and dystopian possible worlds (1 = utopian and 0 = dystopian). I entered the two dummy variables and mean-centred political orientation into the regression.

Possible worlds and Political Orientation predicting System Justification. To examine the effects of dystopias in relation to the other two alternatives and political orientation on system justifications, I performed multiple regression analyses.

In Step 1, I introduced the two dummy variables and political orientation as predictors. I found a significant positive effect of realistic alternatives on system justification, indicating that explicit support of the status quo was higher in the realistic alternatives group than in the dystopic alternatives group. Further, I found a significant positive effect of utopian possible world group on system justification, suggesting that participants in the Utopian alternatives group reported increased perceived legitimacy, compared to participants in the dystopian alternatives group. Also, I found a significant positive effect of political orientation on system justification (Table S3.8).

In Step 2, we introduced the two-way interaction terms between: (a) utopian (vs. dystopic) alternatives and political orientation; and (b) realistic (vs. dystopic) alternatives and political orientation. We did not find significant effects for any of the two two-way interactions, all ps>.065.

Actual-Desired Status Arrangements. We, also examined the effects of dystopias in relation to the other two alternatives and political orientation on our second measure of perceived system legitimacy: actual-desired status arrangements.

In Step 1 we introduced the two dummy variables and political orientation as predictors. We found a significant positive effect of realistic alternatives on actual-desired status arrangements, indicating that participants in the realistic alternatives group were more likely to legitimise the status quo compared to participants in the dystopic alternatives group. We did not, however, find a significant effect of utopian (vs. dystopic) alternatives on actual-desired status arrangements. Further, we found a significant positive effect of political orientation on actual-desired status arrangements (Table S3.8).

In Step 2, we introduced the two-way interaction terms between: (a) utopian (vs. dystopic) alternatives and political orientation; and (b) realistic (vs. dystopic) alternatives and political orientation. We did not find significant effects for any of the two two-way interactions, all ps>.148

Table S3.8

Possible Worlds and Political Orientation Predicting Actual-Desired Status Arrangements and System Justification (Study 4)

		Actual-De	esired Status Arı	rangement	S			Sy	stem Justification	on		
Variable	β	B(SE)	CI95%	F	R_2	ΔR_2	β	B(SE)	CI95%	F	R_2	ΔR_2
Step 1				8.40***	.15					23.57***	.30	
Political orientation	.30***	0.13(.03)	[0.06, 0.20]				.50***	0.55(.07)	[0.41, 0.70]			
Realistic (vs. Dystopian)	.31**	0.30(.11)	[0.08, 0.51]				.19*	0.48(.24)	[0.01, 0.94]			
Utopian (vs. Dystopian)	.14	0.12(.10)	[-0.08, 0.32]				.25**	0.59(.22)	[0.16, 1.02]			
Step 2				5.51**	.17	.02				16.58***	.33	.03
Political orientation	.52**	0.22(.08)	[0.06, 0.39]				.60***	0.66 (.18)	[0.31, 1.01]			
Realistic (vs. Dystopian)	.29*	0.28(.11)	[0.06, 0.49]				.25*	0.50 (.23)	[0.04, 0.96]			
Utopian (vs. Dystopian)	.12	0.11(.10)	[-0.09, 0.30]				.21**	0.58 (.22)	[0.15, 1.00]			
Political orientation x Realistic (vs. Dystopian)	10	-0.07, (.10)	[-0.28, 0.13]				21	-0.40(.21)	[-0.82, 0.03]			
Political orientation x Utopian (vs. Dystopian)	23	-0.14 (.10)	[-0.33, 0.05]				.04	0.06(.20)	[-0.34, 0.47]			

<.05. **p < .01. ***p < .001.

Further, we repeated the regression analyses reported in Study 1: a) without applying the Fisher's z_r transformations on the Actual-Desired Status arrangements measure (Table S3.9); and (b) controlling for Positive and Negative Affect (Table S3.10). Results were similar to those reported in Study 1.

Table S3.9

Possible Worlds and Political Orientation Predicting Actual-Desired Status Arrangements

(untransformed; Study 4)

		Actual-Desi	Actual-Desired Status Arrangements								
Variable	β	B(SE)	BCI95%	F	R ₂	ΔR_2					
Step 1				7.27***	.11						
Political orientation	.26**	0.09 (.03)	[0.03, 0.16	5]							
Utopian (vs. Realistic)	19*	-0.08 (.03)	[-0.14, -0.0	1]							
Step 2				5.21**	.12	.01					
Political orientation	.28**	0.10 (.03)	[0.04, 0.16	5]							
Utopian (vs. Realistic)	19*	-0.07 (.03)	[-0.14, -0.0	1]							
Utopian x Political orientation	09	-0.03 (.03)	[-0.10, 0.03	3]							

^{*}p<.05. **p<.01.***p<.001.

Table S3.10

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Possible Worlds and Political Orientation Predicting Actual-Desired Status Arrangements and System Justification, controlling for Positive and Negative Affect (Study 4)

		Actual-D	esired Status Arra	System Justification								
Variable	β	B(SE)	BCI95%	F	R_2	ΔR_2	β	B(SE)	BCI95%	F	R_2	ΔR_2
Step 1				4.87***	.14					13.44***	.28	
Political orientation	.24**	0.10 (.04)	[0.03, 0.18]				.49***	0.53 (.08)	[0.38, 0.68]			
Utopian (vs. Realistic)	18*	-0.08 (.04)	[-0.16, -0.01]				.04	0.04 (.09)	[-0.13, 0.22]			
Negative Affect	.10	0.08(.07)	[-0.06, 0.21]				.06	0.11(.15)	[-0.18, 0.41]			
Positive Affect	.16	0.09(.05)	[-0.01, 0.18]				.17*	0.23(.10)	[0.04, 0.42]			
Step 2				3.97**	.15	.01				12.94***	.32	.04
Political orientation	.26**	0.11 (.04)	[0.03, 0.18]				.45***	0.49 (.08)	[0.34, 0.64]			
Utopian (vs. Realistic)	18*	-0.08 (.04)	[-0.16, -0.01]				.03	0.04 (.09)	[-0.13, 0.21]			
Negative Affect	.10	0.07(.07)	[-0.06, 0.21]				.06	0.11(.14)	[-0.17, 0.40]			
Positive Affect	.16	0.08(.05)	[-0.01, 0.17]				.16*	0.22(.09)	[0.03, 0.40]			
Utopian x Political orientation	06	-0.25 (.04)	[-0.10, 0.05]				.20**	0.22(.08)	[0.07, 0.37]			

^{*}p<.05. **p<.01.***p<.001.

Below the correlations between the five moral foundations and political orientation, system justification, and actual-desired status arrangements (Table S3.11) as well as effects of alternative visions and political orientation on the moral foundations of purity (Table S3.12), authority and ingroup loyalty (Table S3.13), harm/care and fairness (Table, S14) are reported.

Table S3.11

Correlations with Moral Foundations (Study 1)

Variable	1.	2.	3.	4.	5.	6.	7.
1. Political orientation	-						
2. System justification	.50*** [0.37, 0.69]	-					
3. Actual-desired status arrangements	.27** [0.10, 0.43]	.38*** [0.21, 0.53]	-				
4. Harm/Care	06 [-0.22, 0.10]	.05 [-0.13, 0.22]	07 [-0.24, 0.10]	-			
5. Fairness	25** [-0.36, -0.12]	23** [-0.38, - 0.07]	15 [-0.34, 0.08]	.12 [-0.08, 0.32]	-		
6. In group Loyalty	.06 [-0.10, 0.24]	.06 [-0.12, 0.25]	18* [-0.34, -0.01	.02 [-0.14, 0.17]	.12 [-0.13, 0.38]	-	
7. Authority	06 [-0.23, 0.12]	.03 [-0.13, 0.21]	.02 [-0.20, 0.24]	08 [-0.20, 0.10]	.18* [-0.04, 0.41]	02 [-0.12, 0.12]	-
8. Purity	.03 [-0.11, 0.18]	.04 [-0.13, 0.23]	04 [-0.19, 0.11]	004 [-0.13, 0.15]	01 [-0.19, 0.20	03 [-0.15, 0.13]	05 [-0.16, 0.10]

Note. *p < .05. **p < .01. ***p < .001. Actual-desired status arrangements z-scored for the correlation. BCI_{95%} = confidence intervals based on 5000 bootstrapped samples.

Table S3.12

Possible Worlds and Political Orientation Predicting the Moral Foundation of Purity (Study 4)

			Purity		
Variable	β	В	BCI95%	F	R_2
Step 1				3.31*	.04
Political orientation	.04	0.02	[-0.04, 0.07]		
Utopian (vs. Realistic)	.21*	0.09	[0.03, 0.14]		
Step 2				2.20+	.04
Political orientation	.05	0.02	[-0.03, 0.07]		
Utopian (vs. Realistic)	.21*	0.09	[0.03, 0.14]		
Political orientation x Utopian (vs. Realistic)	01	-0.002	[-0.05, 0.04]		

Note. $_+p$ <.10 * $_p$ <.01. ** $_p$ <.001. BCI_{95%} = confidence intervals based on 5000 bootstrapped samples.

Table S3.13

Possible Worlds and Political Orientation Predicting the Moral Foundations of Ingroup Loyalty & Authority (Study 4)

	Ingrou	p Loyalty		Author	Authority							
Variable	β	В	BCI95%	F	R 2	ΔR_2	β	В	BCI95%	F	R_2	ΔR_2
Step 1				2.11	.03					1.07	.02	
Political orientation	.07	0.04	[-0.05, 0.13]				05	-0.03	[-0.11, 0.05]			
Utopian (vs. Realistic)	.16+	0.10	[0.01, 0.19]				.11	0.05	[-0.02, 0.13]			
Step 2				1.43	.03	-	-			.97	.02	-
Political orientation	.07	0.04	[-0.05, 0.12]				07	-0.03	[-0.11, 0.04]			
Utopian (vs. Realistic)	.16+	0.10	[0.01, 0.19]				.10	0.05	[-0.03, 0.13]			
Political orientation x Utopian (vs. Realistic)	.03	0.02	[-0.08, 0.10]				.07	0.03	[-0.04, 0.11]			

Note.+ p<.10 *p<.01. **p<.001. BCI_{95%} = confidence intervals based on 5000 bootstrapped samples.

Table S3.14

Possible Worlds and Political Orientation Predicting Individuating Moral Foundations (Study 4)

	Individuating Moral Foundations											
			Harm/Care						Fairness			
Variable	β	В	BCI95%	F	R_2	ΔR_2	β	В	BCI95%	F	R 2	ΔR_2
Step 1				1.94	.03					6.65**	.09	
Political orientation	05	-0.04	[-0.14, 0.08]				24**	-0.12	[-0.20, -0.05]			
Utopian (vs. Realistic)	.15+	0.12	[-0.01, 0.24]				.15+	0.09	[0.01, 0.17]			
Step 2				1.70	.04	.01				5.50***	.10	.01
Political orientation	04	-0.02	[-0.14, 0.09]				21*	-0.11	[-0.18, -0.04]			
Utopian (vs. Realistic)	.15+	0.12	[-0.01, 0.24]				.16*	0.09	[0.01, 0.16]			
Political orientation x Utopian (vs. Realistic)	09	-0.07	[-0.19, 0.06]				14+	-0.07	[-0.14, -0.01]			

Note. +p < .10. *p < .01. **p < .001. BCI95% = confidence intervals based on 5000 bootstrapped samples.

Study 5 Additional Analyses

The regression analyses were repeated: a) controlling for positive and negative affect (Table S3.16) and (b) replacing Partisanship (Democrats vs. Republicans) with Vote intention (Hilary Cliton Vs. Donald Trump; Table S3.15).

Table S3.15

Possible States and Vote Intention Predicting Actual Desired Status Arrangements and System Justification (Study 5)

	Actua	l Desired Status	Arrangements				System	Justification				
Variable	β	В	BCI95%	F	R_2	ΔR_2	β	В	BCI95%	F	R_2	ΔR_2
Step 1				2.68+	.03					5.53***	.05	
D. Trump (vs.	17.	0.00(0.04)	[0.01.0.17]				07	0.11(0.00)	[0 07 0 20]			
H.Clinton)	.17*	0.09(0.04)	[0.01, 0.17]				.07	0.11(0.09)	[-0.07, 0.29]			
Possible Worlds (vs.	05	0.02(0.04)	F O O F O 111				21	0.21(0.00)	F O 44 O 001			
Selves)	.05	0.03(0.04)	[-0.05, 0.11]				21***	-0.31(0.09)	[-0.44, -0.09]			
Step 2				2.01+	.03	.00				3.69***	.05	.00
D.Trump (vs.	177	0.00(0.04)	[0.01.0.17]				07	0.11(0.00)	[0 07 0 20]			
H.Clinton)	.17*	0.09(0.04)	[0.01, 0.17]				.07	0.11(0.09)	[-0.07, 0.29]			
Possible Worlds (vs.	0.6	0.02(0.04)	F 0 0 7 0 111				10	0.26(0.00)	F O 44 O 001			
Selves)	.06	0.03(0.04)	[-0.05, 0.11]				18***	-0.26(0.09)	[-0.44, -0.09]			
Vote x Possible States	.06	0.03(0.04)	[-0.05, 0.12]				01	-0.02(0.09)	[-0.19, 0.16]			

Note. *p < .05. **p < .01. ***p < .001. BCI95% = bias corrected bootstrapped confidence intervals based on 5000 samples.

Hierarchical Regression Analysis Summary for Political Orientation and Experimental Manipulations Predicting Actual Desired Status Arrangements and System Justification (Study 5)

	Actual	Desired Status A	Arrangements				System	Justification				
Variable	β	В	BCI95%	F	R_2	ΔR_2	β	В	BCI95%	F	R_2	ΔR_2
Step 3				2.65*	.07	.01				6.87***	.15	.05
Republican (vs. Democrat)	.23**	0.12(0.04)	[0.04, 0.21]				.22***	0.33(0.10)	[0.14, 0.51]			
Possible Worlds (vs. Selves)	.04	0.02(0.04)	[-0.06, 0.10]				23***	-0.34(0.10)	[-0.52, -0.15]			
Partisanship x Possible State	003	-0.001(0.04)	[-0.08, 0.08]				04	-0.06(0.10)	[-0.26, 0.13]			
Positive affect	.12	0.08(0.05)	[-0.04, 0.18]				.13+	0.23 (0.12)	[-0.02, 0.48]			
Negative affect	02	-0.01(0.06)	[-0.11, 0.09]				15*	-0.35(0.15)	[-0.72, -0.02]			

Note. *p < .05. **p < .01. ***p < .001. BCI95% = bias corrected bootstrapped confidence intervals based on 5000 samples.

Table 3.16

Study 6 Additional Analyses

Here I provide further details on the ideal and realistic beliefs about social change items.

Measures

Ideal Social Change Beliefs

Ideal social change was measured with 3 items which particularly gauged participants' idealism in relation to societal change: (1) "We should strive for an ideal society"; (2) "We should not stop until we create an ideal society"; (3) "We should only be limited by our imagination when it comes to improving the society". Participants indicated their strength of agreement/disagreement with each statement on a scale ranging from 1 (*Strongly disagree*) to 7 (*Strongly agree*). The three items were created for the purposes of the current study. Responses from the three items were averaged to form an index of idealistic social change expectations (α =.73, M=5.05, SD=1.07). This measure was intended to be used as a manipulation check, to ensure that the utopian (vs. realistic) alternatives was successful.

Realistic Social Change Beliefs

Realistic social change was measured with 3 items which gauged participants' pragmatism in relation to societal change: (1)" We should pursue realistic improvements for the society"; (2)" We should be as realistic as possible about our expectations of what can be changed in a society"; (3)" The goals we set for improving society must be as realistic as possible." Participants indicated their strength of agreement/disagreement with each statement on a scale ranging from 1 (*Strongly disagree*) to 7 (*Strongly agree*). The three items were created for the purposes of the current study. Responses from the three items were averaged to form an index of realistic social change expectations (α =.74, M=5.60, SD=.80).

This index was intended to be used as a manipulation check, to ensure that the realistic possible worlds manipulation was successful.

Factor Analysis

A factor analysis was conducted using a maximum likelihood method of estimation with direct oblimin rotation. Two factors with eigenvalue greater than 1 emerged. According to both Kaiser's criterion and scree test, the EFA yielded 2 factors explaining 68.41% of the variance in the 6 items. Societal idealism items loaded on the first factor (factor loading > .45), whereas societal realism items loaded strongly on the second factor (factor loading > .60). The KMO measure of sampling adequacy was .68, above the recommended value of .6. There was one significant cross-loadings (=.39; all other <.28). Specifically the item which read "we should pursue realistic improvements for the society" loaded on both the ideal (=.39) and the realistic social change (=.60). Accordingly, I decided to drop this item30 and

30 Analysis when cross-loading item is not dropped from the computation of realistic social change: The second GLM analysis revealed a significant main effect of realistic possible worlds on realistic social change, F(1, 396) = 4.87, p = .03, $\eta p_2 = .01$. Participants assigned to the realistic possible condition scored higher on realistic social change (M = 5.70, SD = 0.63) than participants assigned to the realistic possible baseline condition (M = 5.52, SD = 0.86). Further, the analysis showed a marginally significant main effect of ideal possible worlds on realistic social change, F(1, 396) = 3.62, p = .06, $\eta p_2 = .01$. Participants assigned to the ideal possible world condition scored lower on realistic social change (M = 5.51, SD = 0.83) than participants assigned to the ideal possible worlds baseline (M = 5.51, SD = 0.83). The

thus realistic social change measure was computed using just two items. The two factors were moderately correlated, r = .42. Thus, there is tentative evidence that of the construct validity of the novel measures employed.

interaction between ideal and realistic possible worlds was, nonetheless, not significant (F<1). These findings suggest that the manipulation of realistic possible worlds was successful.

APPENDIX III: CHAPTER 4 SUPPLEMENTARY

Study 8 Additional Materials and Analyses

Here I provide further details on the experimental manipulation of identity threat and its effects on radical action (Table S4.1).

Design

A between participants design was employed for the purposes of this study. First, participants completed scales gauging their propensity on idealistic and realistic beliefs about social change as well as conventional vegan identification and collective narcissism. Next, threat to participants' vegan identity was manipulated.

Specifically, participants were randomly assigned to either an identity threat (n = 278) or a control (n = 267) condition. Participants assigned in the threat condition were asked to think and report three behaviours they partake in which are not strictly vegan (i.e., identity threat). Participants in the control condition were asked to think about and report three daily behaviours they partake in. Specifically, participants read (instructions for the threat condition in *italics*; for the control condition in parentheses):

"Spend a moment thinking about behaviours and actions you partake in *that are not considered 'strictly vegan'* (on a day to day basis). For example, wearing non-vegan clothes such as wool or leather, or drinking non-vegan alcohol etc please think hard and respond accordingly (These do not have to be related to veganism). List three of them below."

As mentioned in the relevant method section following the identity threat manipulation, participants were presented with a short video (approx. 53 seconds) of a vegan activist discussing different radical protest tactics used by vegans.

Hierarchical regression accounting for the identity threat experimental manipualtion

Experimental conditions were coded as -1= No threat and 1 = Threat. Collective narcissism and ideal change were mean centred. The experimental variable, collective narcissism, and ideal change were included in Step 1. Vegan identification and realistic change were also included in Step 1 to account for the variance. In Step 2, to examine whether the effects of collective narcissism and Ideal Change were conditioned by the presence/absence of identity threat, I introduced the two-way interaction between collective narcissism and identity threat and Ideal Change and identity threat.

In Step 1, I found that the effects of identity threat on radical action did not reach statistical significance, p = .18. Further, as expected, collective narcissism was significantly positively associated with radical action (p < .001), lending support to the *narcissistic* violence hypothesis. Similarly, the idealistic violence hypothesis was also supported, as Ideal Change was significantly positively associated with radical action (p = .02). Further, Ideal Change was significantly negatively associated (p < .001), while vegan identification was significantly positivel associated with radical action (p < .001). Moreover, in Step 2, the two-way interactions did not reach statistical significance (both ps > .13).

Table S4.1.

Regression Analysis Summary for Ideal Change, Realistic Change, Vegan Identification & Collective Narcissism Radical Action (Study 8)

	-	_	Radical Action			
Variable	β	B(SE)	BCI95%	F	R_2	ΔR_2
Step 1				37.99***	.26	
Identity Threat (1=Yes; -1=No)	05	-0.05(0.04)	[-0.13, 0.02]			
Collective Narcissism	.30***	0.37 (0.05)	[0.28, 0.47]			
Ideal Change	.09*	0.10 (0.04)	[0.02, 0.17]			
Vegan Identification	.24***	0.37 (0.06)	[0.25, 0.48]			
Realistic Change	16***	-0.15 (0.04)	[-0.22, -0.07]			
Step 2				27.56***	.26	.01
Threat Manipulation (1=Yes; -1=No)	05	-0.05(0.04)	[-0.13, 0.02]			
Collective Narcissism	.30***	0.37 (0.05)	[0.27, 0.46]			
Ideal Change	.09*	0.09 (0.04)	[0.01, 0.17]			
Vegan Identification	.25***	0.38 (0.06)	[0.26, 0.49]			
Realistic Change	16***	-0.15 (0.04)	[-0.22, -0.07]			
Threat X Collective Narcissism	.06	0.07 (0.05)	[-0.02, 0.17]			
Threat X Ideal Change	.01	0.01(0.01)	[-0.06, 0.08]			

Note. *p < .05. **p < .01. ***p < .001. Bias corrected confidence intervals based on 5000 bootstrapped samples are reported in brackets.

Study 9 Supplementary

In Study 9, I also examined whether utopian thinking influences blatant dehumanisation. In this section I report: (1) details about the measure of blatant dehumanisation; (2) zero-order correlations between blatant dehumanisation with the political orientation and physical and verbal collective violence (3) regression analyses examining whether possible worlds, along with the variables mentioned above predicted blatant dehumanisation (Table S4.2).

Blatant Dehumanisation was measured using the Ascent measure (Kteily et al., 2015), where a diagram depicting the 'Ascent of Man' was presented to participants followed by these instructions: "People can vary in how human-like they seem. Some people seem highly evolved whereas others seem no different than lower animals. Using the image below as a guide, indicate using the sliders how evolved you consider the average member of each group to be". Groups that appeared below the diagram were Europeans, English, Scottish, Americans, Muslims, Polish, and Refugees. Responses on the slider were converted to a rating from 0 = least 'evolved' to 100 = most 'evolved'. Blatant dehumanisation score was calculated by subtracting the mean rating of target outgroup (in this case refugees) from the rating of the ingroup (i.e., English). Thus, a positive difference (i.e. positive scores) indicate dehumanisation of the target outgroup (Mdifference = 11.89, SD = 23.89).

Zero - order correlations

Blatant dehumanisation was positively associated with physical violence, (r = .35, [0.22, 0.48]), verbal violence, (r = .36 [0.24, 0.47]), and right-wing political orientation, (r = .13 [0.02, 0.23]).

Table 4.2.

Possible worlds predicting Blatant Dehumanisation of refugees (Study 9)

<u> </u>	Blatant Dehumanisation							
Variable	β	B(SE)	BCI95%	F	R_2	ΔR_2		
Step 1				0.01	.00			
Realistic Possible World	.01	0.36(3.05)	[-5.44, 6.30]					
Ideal Possible World	.004	0.20(3.01)	[-5.56, 6.04]					
Step 2				1.55	.02	.02		
Realistic Possible World	.01	0.27(3.04)	[-5.40, 6.13]					
Ideal Possible World	.01	0.24(2.99)	[-5.39, 6.02]					
Political orientation	.13**	4.02(1.62)	[0.46, 7.60]					
Ethnicity (0 = other;	.02	1.53(4.14)	[-7.41, 9.79]					

Note. *p < .05. **p < .01. ***p< .001. Bias corrected confidence intervals based on 5000 bootstrapped samples are reported in brackets.

Study 11 Supplementary Materials and Analyses

In Study 11, I also examined whether utopian thinking influences subtle and blatant dehumanisation. In this section I report: (1) details about the measures of blatant and subtle dehumanisation; (2) zero-order correlations between blatant and subtle dehumanisation with the national narcissism, national identification, political orientation and physical and verbal collective violence (Table S4.3); (3) regression analyses examining whether possible worlds, along with the variables mentioned above predicted subtle and blatant dehumanisation (Table S4.4).

Measures

Blatant Dehumanisation was measured as in Study 9 using *the Ascent measure* (Kteily et al., 2015). Groups that appeared below the diagram were Europeans, English, Scottish, Americans, Muslims, Polish, and Refugees. Responses on the slider were converted to a rating from 0 = least 'evolved' to 100 = most 'evolved'. Blatant dehumanisation score was calculated by subtracting the mean rating of target outgroup (in this case refugees) from the rating of the ingroup (i.e., English). Thus, a positive difference (i.e. positive scores) indicate dehumanisation of the target outgroup (Mdifference = 0.09, SD = 1.19).

Subtle Dehumanisation was measured with three items adopted from [source] e.g., "We do not need any more refugees flooding our country, the unsettling hostility they've brought with them has spread too much already." Subtle dehumanisation alluded to animalistic forms of dehumanisation which have been shown to be associated with prejudice against low status and marginalised outgroups (Haslam, Kashima, Loughnan, Shi, & Suitner, 2008). Participants responded on a scale from $1=strongly\ disagree$ to $7=strongly\ agree$ ($\alpha=.93$, M=2.11, SD=1.53)

Table S4.3

Intercorrelations for Political Orientation, National Collective Narcissism, National Identification, Blatant Dehumanisation,

Physical Collective Violence, and Verbal Collective Violence (Study 11)

Variable	1	2	3	4	5	6
1. Political orientation						
2. National collective narcissism	.36*** [0.18, 0.52]					
3. National identification	.47*** [0.35, 0.58]	.46*** [0.32, 0.58]				
4. Subtle dehumanisation		.62*** [0.48, 0.73]				
5. Blatant dehumanisation			.35*** [0.15, 0.49]			
6. Physical collective violence	.22** [0.07, 0.35]	.38*** [0.23, 0.50]		.34*** [0.13, 0.51]		
7. Verbal collective violence		.39*** [0.24, 0.52]			.24** [0.02, 0.52]	.49*** [0.25, 0.66]

Note. *p < .05. **p < .01. ***p < .001. Bias corrected confidence intervals based on 5000 bootstrapped samples are reported in brackets.

Table 4.4

Possible Worlds, Political Orientation, and National Collective Narcissism Predicting Subtle and Blatant Dehumanisation (Study 11)

	Subtle Dehumanisation					Blatant Dehumanisation				
Variable	β	B(SE)	BCI95%	F/p	R 2	β	B(SE)	BCI95%	F	R_2
Step 1				32.07***	.45				7.39***	.16
Ideal (vs. Realistic) possible worlds	04	-0.07(0.09)	[-0.24, 0.11]	.47		04	-0.05 (0.09)	[-0.22, 0.14]	.58	
Political orientation	.25***	0.31(0.09)	[0.15, 0.48]	.001		.003	0.003 (0.08)	[-0.16, 0.16]	.97	
Collective narcissism	.54***	0.65 (0.08)	[0.44, 0.81]	.001		.22***	0.20 (0.08)	[0.03, 0.37]	.01	
National identification	.01	0.01(0.08)	[-0.13, 0.15]	.931		.24**	0.22 (0.08)	[0.001, 0.52]	.01	

Note. +p < .10. *p < .05. **p < .01. ***p < .001. BCI95% = bias corrected bootstrapped confidence intervals based on 5000 samples.

APPENDIX IV: Materials and Measures

Text for 'Best (Worst) Possible Worlds, **Studies 1 – 2**

We are interested in utopias [dystopia]. A utopia is an imagined society in which everything is ideal or perfect [terrible]. A common way of describing a utopia [dystopia] is that it is the best of all possible worlds that can be imagined (the worst of all possible worlds that can be imagined). Everyone has images of what an ideal [a worst possible] society would look like. In this study, we are interested in *your* ideas, so we would like you to take a few minutes to imagine and describe utopia [dystopia] as you picture it. In particular, we would like you to imagine the best [worst] possible version of British society as it might be in 50 years' time. Please describe this ideal [nightmare] future Britain below.

This is the most important part of this study, so please take your time to really think about all the details of a utopian British society. Describe it as vividly and clearly as you can, and be as specific as you can about the details of this world. What would it look like? What would life be like in it? Remember, your answers are completely anonymous!

After you've finished this task, we'll be asking you some questions about the ideal [nightmare] version of Britain that you've imagined. It's important that you've imagined this society as vividly as possible. For that reason, there is a timer on this page, so the 'next' button will appear when 5 minutes have passed; but please feel free to take more time to write about your utopia [dystopia]. We would like you to write approximately 200-300 words in this time, so you have plenty of time and space!

Psychological distance

- 1. How realistic do you think the society you described in your utopia (dystopia) is?
- 2. How likely do you think the society you described in your utopia (dystopia) is?
- 3. How distant do you think the society you described in your utopia (dystopia) is from the current world?

```
1 = \text{Not at all } [...]; 7 = \text{Very } [...]
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System Justification (Kay & Jost, 2003), **Studies 2 – 6*** (and Pilot Study)

- 1. In general, the US political system operates as it should.
- 2. Most policies serve the greater good.
- 3. Everyone has a fair shot at wealth and happiness.
- 4. US society needs to be radically restructured.
- 5. In general, society is fair.
- 6. The US is the best country in the world to live in.
- 7. Society is set up so that people usually get what they deserve.
- 8. Our society is getting worse every year.
- 1 = Strongly disagree; 7 = Strongly agree

(scaling varied as indicated in the relevant method sections)

*In Study 6 only items 1, 3, & 4 were used

Generalised Trust (Yamagishi & Yamagishi, 1994), Studies 2 – 3

Most people...

- 1. are basically honest.
- 2. are trustworthy.
- 3. are trustful of others.
- 4. are basically good and kind.
- 5. will respond in kind when they are trusted by others.
- 1 = Strongly disagree; 5 = Strongly agree

Cynicism about Human Nature (Wuensch, Jenkins, & Poteat, 2002), Studies 2 – 3

- 1. Humans are by nature basically corrupt.
- 2. Both history and current events show that human beings are basically wicked.
- 3. Planet earth would be better off if humans would just disappear from it.
- 4. Most people are basically good natured.
- 5. I am proud to be a member of the human race.
- 1 = Strongly disagree; 5 = Strongly agree

Institutional Cynicism (Bond et al., 2004), Studies 2 – 3

- 1. Power and status make people arrogant
- 2. Powerful people tend to exploit others
- 3. The various institutions in society are biased towards the rich,
- 4. Put people even good people in any social system and sooner or later, things will go bad

1 = Strongly disagree; 5 = Strongly agree

Text for 'Best [Worst] Possible Worlds', **Studies 2 – 3***

We would like you to imagine the best [worst] possible human society you can. This should be the kind of society that you would hope or wish [not] to live in - in which everything is as pleasant [unpleasant] and/or good [bad] as can be imagined.

This is the most important part of this study, so please take your time to really think about all the details of this society. Describe it as vividly and clearly as you can, and be as specific as you can about the details of this world. What would it look like? What would life be like in it?

After you've finished this task, we'll be asking you some questions about your society. It's important that you've imagined this society as vividly as possible. For that reason, there is a timer on this page, so the 'next' button will appear when 3 minutes have passed; but please feel free to take more time to write about this society. We would like you to write approximately 100-200 words in this time, so you have plenty of time and space!

(*Study 3 contained two variation noted in the relevant method section)

Cultural Exposure, **Studies 2 – 3**

How often you come across societies like the one you imagined in:

- 1. Fictional literature
- 2. Films
- 3. Political advocacy or debate.
- 4. Human history
- 5. Environmental advocacy or debate.
- 6. Religious teaching.
- 7. The media, e.g., in newspapers or on TV.

1 =Never; 7 =Very often

Psychological Distance (Fiedler et al., 2012), **Studies 2 – 3**.

Does the society you imagined seem rather:

- 1. 1 = Located at a near place; 8 = located at a distant place
- 2. 1 = in the near future; 8 = in the distant future
- 3. 1 = likely; 8 = unlikely
- 4. 1= a familiar society that you know; 8 = an unfamiliar society that you don't know.

Moral Foundation Dictionaries; created by J. Graham & J. Haidt (moralfoundations.org) **Studies** 1-4; these be found in the following link

https://osf.io/j42ns/?view_only=109bfee7cc3f480d90f3b59a809fc249

Text for 'Ideal [Realistic] Possible Worlds', Pilot Study

Imagine a utopian [improved] US society in 2040AD. In the space provided below, please write down three ideal [realistic] improvements that could be made to American society. There are no right or wrong answers, please do not hesitate to give your thoughts and images free reign [please do your best to remain matter of fact in your description].

Text for 'Ideal [Realistic] Possible Worlds', Study 4, Study 9*, Study 10+

We would like you to spend a couple of minutes imagining a utopian [realistic] US society in 2050AD. In the space provided below, please write down a short paragraph of the utopian [realistic] society you have just imagined. This is your own imagined utopian [realistic] world so there are no right or wrong answers. Spend approximately 4 minutes on this task.

- *For Study 9 the text was adapted for British participants
- +For Study 10 the text was translated and adapted for Polish Participants

Text for Status Quo Possible World/Control, Study 10

We would like you to spend a few minutes thinking about the Polish society today. In the space provided below, please write down three features of the present society that should be preserved (i.e. should not change) in the society in the future. This is the most important part of this study, so please take your time to really think about all the details of this society. This is your own opinion, so there are no right or wrong answers. Spend approximately 4 minutes on this task"

Text for 'Ideal Possible Worlds [Selves]', Study 5*

Imagine *a utopian US society* [an ideal daily routine] in 2040AD. In the space provided below, please write down three *ideal improvements* that could be made to *American society* [your daily routine]. There are no right or wrong answers, please do not hesitate to give your thoughts and images free reign. Spend approximately 2 minutes on this task.

Text for 'Ideal [Realistic] Possible Worlds', Study 6+, Study 11*

We would like you to take a moment and imagine that in the upcoming 2017 General Election the party you support wins the majority of the votes. In the space provided below write down three ideal [realistic] improvements you would desire [expect] the party to produce during their term in office. There are no right or wrong answers, please do not hesitate to give your thoughts and images free reign [please do your best to remain matter of fact in your description]. Spend approximately 2 minutes on this task.

- + see Study 6 Method for the error in manipulation
- * For Study 11 the text was adapted for British participants

Political Orientation (Carney, Jost, Gosling, & Potter, 2003), the Pilot Study, Study 4

- 1. Overall, where would you place yourself, on the following scale of liberalism conservatism?
- 2. In terms of social and cultural issues (e.g. abortion, separation of church and state, affirmative action), where would you place yourself, on the following scale of liberalism conservatism?
- 3. In terms of economic issues (e.g., taxation, welfare, privatization of social security), where would you place yourself, on the following scale of liberalism conservatism?

1= Extremely liberal; 5 = Extremely Conservative

Political Orientation, Study 6

"Many people think of political attitudes being on the "left" or "right". This is a scale stretching from Extremely Left-wing to Extremely Right-Wing. When you think of your own political attitudes, where would you place yourself?

1 = Extremely Left-wing; 5 = Extremely Right-wing

Positive and Negative Affect Schedule (Filler), Watson & Tellegen (1988), Pilot Study, Study 4

A number of words that describe different feelings and emotions are presented. Read each item and then list the number from the scale below next to each word. Indicate to what extent you are feeling this way now.

1.	Interested	11. Ashamed
2.	Distressed	12. Inspired
3.	Excited	13. Alert
4.	Upset	14. Nervous
5.	Strong	15. Determined
6.	Guilty	16. Attentive
7.	Scared	17. Jittery
8.	Hostile	18. Irritable
9.	Enthusiastic	19. Active
10.	Proud	20. Afraid

1 = Very slightly or not at all; 5 = Extremely

Actual – Desired Status Arrangements (Baryla, Wojciszke, & Cichocka, 2015)**Pilot Study**, **Studies 4 & 5**

A number of different groups that constitute US society are listed below. Please indicate on a 1 – 7 scale, the amount of influence you believe each of these groups ACTUALLY [SHOULD] has within the country.

1 = Has no influence at all; 7 = Has very strong influence

1 = Should have no influence at all; 7 =	= Should have very	strong influence
--	--------------------	------------------

- 1. Politicians
- 2. Rich people
- 3. Bankersb
- 4. Men
- 5. Lawyers
- 6. White people
- 7. Journalists
- 8. Economists
- 9. Christians
- 10. Educated people
- 11. Military officers
- 12. Physicians
- 13. Scientists_b
- 14. Jews
- 15. IT workers_b
- 16. Women
- 17. Teachers
- 18. Black professionals_b
- 19. Middle-class people
- 20. Retired people
- 21. Workers

- 22. LGBT
- 23. Young people
- 24. Elderly peopleь
- 25. Asian people
- 26. Black people
- 27. Students
- 28. Hispanic people
- 29. Muslims
- 30. Native Americans
- 31. Disabled people
- 32. Welfare recipients_b
- 33. Poor people
- 34. Homelessb
- 35. Police officersc
- 36. Athletesc
- 37. Hindusc
- 38. Mormonsc
- 39. Atheistsc
- 40. Buddhistsc

 $b = only \ Pilot \ Study \ and \ Study \ 4; \ c = only \ Study \ 5$

Idealistic beliefs about social change, Studies 7 – 8

- 1. Social change is only possible if you have an ideal vision of what you are aiming at.
- 2. In the pursuit of social change, one must be an idealist.
- 3. If you want to change something in society, you must strive for an ideal.
- 4. We should strive to create an ideal society
- 5. Social change is only possible if you have a realistic vision of what you are aiming at.
- 6. In the pursuit of social change, you must be a realist.
- 7. If you want to change something in society, you have to act realistically.
- 8. We should strive to make realistic changes in society

Collective Narcissism, Golec de Zavala et al., (2013); Studies 7, 8, & 11

- 1. British/Polish/Vegan people deserve special treatment
- 2. I will never be satisfied until British/Polish/vegan people get the recognition they deserves.
- 3. It really makes me angry when others criticise British/Polish/vegan people.
- 4. If British/Polish/vegan people had a major say in the world, the world would be a much better place.
- 5. Not many people seem to fully understand the importance of British/Poland/vegan people.
- 1 = Strongly Disagree; 7 = Strongly Agree;

(any variations in scaling are noted in the relevant method section)

National Identification, Leach et al., (2008), Study 11 (Jaworska, 2016; Polish translation)

- 1. I am glad to be British
- 2. Being British gives me a good feeling.
- 3. I feel solidarity with the British people
- 4. I feel committed to the British people
- 5. The fact that I am British is an important part of my identity.
- 1 = Strongly disagree; 7 = Strongly agree

Group Identification, Cameron (2004), **Study 8** & **Study 7*** (Jaworska, 2016; Polish translation)

- 1. I have a lot in common with other vegans.
- 2. I feel strong ties to other vegans.
- 3. I find it difficult to form a bond with other vegans.
- 4. I don't feel a sense of being "connected" with other vegans.

- 5. I often think about the fact that I am a vegan.
- 6. Overall, being a vegan has very little to do with how I feel about myself.
- 7. In general, being a vegan is an important part of my self-image.
- 8. The fact that I am a vegan rarely enters my mind.
- 9. In general, I'm glad to be a vegan.
- 10. I often regret that I am a vegan.
- 11. I don't feel good about being a vegan.
- 12. Generally, I feel good when I think about myself as a vegan.
- 1= Strongly disagree; 7 = Strongly agree

*For Study 7 items were adapted for Polish national identity; only items 1, 2, 5, 6, 9 & 12 were used.

Collective Violence Text, Winiewski & Bulska (in press), Studies 7, 9 – 11

Please think about the ways English/Polish residents of the town can behave towards the group of newcomers. In a moment, we will present you with a list of statements describing various possible behaviours of English/Polish residents of the town in relation to the refugees.

Please read carefully each of them and decide to what extent, in your opinion, would each behaviour, in the described situation, be justified, using a scale from 1 to 7, where 1 means that such behaviour is not justified at all, and 7 that is i fully justified.

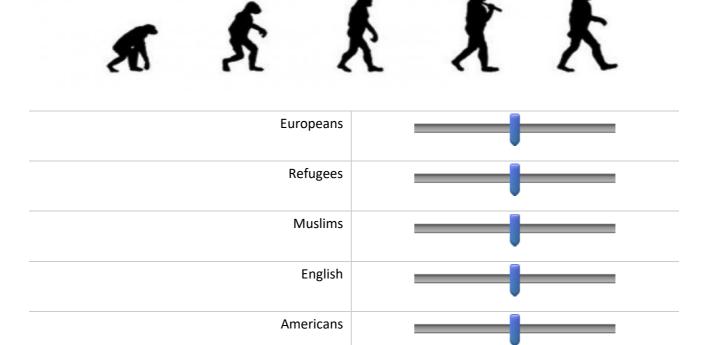
Physical and Verbal Collective Violence, Winiewski & Bulska (in press), Studies 7, 9 – 11

- 1. Native inhabitants of the town beat up the newcomers.
- 2. Inhabitants of the down devastate the cars belonging to the newcomers
- 3. Residents of the town spit on the newcomers
- 4. The town's inhabitants talk about the newcomers behind their backs
- 5. Residents of the town spread rumours about the newcomers
- 6. The town's inhabitants get into arguments with the refugees.
- 1 = Completely unjustified; 7 = Completely justified

Blatant dehumanisation, Kteily, Bruneau, Waytz, & Cotterill (2015), Studies 9 & 11

People can vary in how human-like they seem. Some people seem highly evolved whereas others seem no different than lower animals. Using the image below, indicate using the

sliders how evolved you consider the average member of each group to be:



Subtle Dehumanisation, Study 11

- 1. We do not need anymore refugees flooding our country, the unsettling hostility they've brought with them has spread too much already
- 2. We don't need anymore refugees flooding our country, their settlement will bring suffering to our people.
- 3. I don't understand why the English people have to take the burden of refugees fleeing their war-torn home-countries.
- 1 = Strongly disagree; 7 = Strongly agree