

Who needs control? A cultural perspective on the process of compensatory control

W. Connor Gibbs¹  | Heejung S. Kim¹  | Aaron C. Kay²  |
David K. Sherman¹ 

¹Department of Psychological and Brain Sciences, University of California, Santa Barbara, Santa Barbara, California, USA

²Fuqua School of Business, Department of Psychology and Neuroscience, Duke University, Durham, North Carolina, USA

Correspondence

W. Connor Gibbs, Heejung S. Kim and David K. Sherman, Department of Psychological and Brain Sciences, University of California, Santa Barbara, Santa Barbara, CA 93106, USA.
Email: wcgibbs@ucsb.edu; h_kim@ucsb.edu and sherman@ucsb.edu

Aaron C. Kay, Fuqua School of Business, Department of Psychology and Neuroscience, Duke University, Durham, NC 27708, USA.
Email: aaron.kay@duke.edu

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Abstract

Compensatory control theory (CCT) provides a framework for understanding the mechanisms at play when one's personal control is challenged. The model suggests that believing the world is a structured and predictable place is fundamental, insofar as it provides the foundation upon which people can believe they are able to exert control over their environment and act agentically towards goals. Because of this, CCT suggests, when personal control is threatened people try to reaffirm the more foundational belief in structure/predictability in the world, so that they then have a strong foundation to reestablish feelings of personal control and pursue their goals. This review seeks to understand how the basic assumptions of these compensatory control processes unfold in different cultural contexts. Drawing on research and theorizing from cultural psychology, we propose that cultural models of self and agency, culturally prevalent modes of control, and culture-specific motivations all have implications for compensatory control processes. Culture determines, in part, whether or not personal control deprivation is experienced as a threat to perceiving an orderly world, how/whether individuals respond to low personal control, and the function that responses to restore a sense of order in the world serve. A theoretical model of compensatory control processes across cultures is proposed that

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has implications for how people cope with a wide range of personal and societal events that potentially threaten their personal control.

KEYWORDS

collectivism, compensatory control, conjoint agency, disjoint agency, independent self-construal, individualism, interdependent self-construal

1 | INTRODUCTION

To help manage the chaos and unpredictability of daily life, people strive to perceive the world as orderly, where all events follow clear cause and effect relationships (Kay et al., 2008; Lerner, 1980). Wanting to perceive the world as orderly and non-random is argued to be one of the few fundamental human motives (Jost, 2018; Lerner, 1980; Seligman, 1975). Compensatory control theory (CCT; Kay et al., 2008, 2009) argues that perceiving the world as orderly and structured is fundamental in facilitating the development of feelings of personal control—defined as “an individual's belief that [they] can personally predict, affect, and steer events in the present and future” (Kay et al., 2009, p. 264). CCT goes on to argue that when individuals perceive a lack of personal control, they engage in psychological processes to shore up their underlying perception that the world is orderly, and that this serves to rebuild the foundation upon which personal control and individual goal pursuit may be developed. Recent research inspired by CCT has addressed timely applied and theoretical issues such as: what fuels belief in conspiracy theories (Kofta et al., 2020), the relationship between believing in God as a moral authority and perceiving injustice in the world (Stanley & Kay, 2022), how patients and doctors cope with uncertainty (McKoane & Sherman, 2022), and how perceptions of structure can impact cultural transitions (e.g., from military to civilian employment, Kay & Gibbs, 2022; Shepherd et al., 2021).

The research utilizing CCT typically examines the antecedents and consequences of diminished personal control. Personal control, according to CCT, is supported by a belief that the world is orderly, not chaotic, and outcomes are not random. As such, perceiving personal control to be low threatens not only agency of the self, but also the underlying foundation that the world is structured and orderly. To maintain their perception of an orderly world, then, individuals can turn to an array of control strategies, including external sources of control (Kay et al., 2008; Landau et al., 2015). People take steps to restore a sense of predictability and structure, including by seeing patterns amidst noise (Whitson & Galinsky, 2008; cf. Van Elk & Lodder, 2018), by looking to trusted others (both spiritual and secular) to maintain order in the world (Kay et al., 2008; Verlegh et al., 2021), and through affirming a wide range of other order-conferring epistemic beliefs (see Landau et al., 2015, for a review).

However, another body of literature informed by cultural psychology shows that a great deal of cultural variation exists in how people define and exercise control. Indeed, the vast majority of research stemming from compensatory control theory has been conducted within Western cultural contexts (for exception, see Wang et al., 2012). If personal control is experienced differently across cultures, then its relations to perceived structure and order may be different as well. People in some cultural contexts incorporate others into their own sense of self (e.g., Markus & Kitayama, 1991). In so doing, they consider agency to belong not just to an individual, but to meaningful groups to which they belong (Iyengar & Lepper, 1999; Markus & Kitayama, 2003), and treat social fit as a form of control in and of itself (e.g., Morling & Evered, 2006). However, these culturally informed processes have not been considered, by and large, as aspects of the compensatory control toolbox (Landau et al., 2015). Our goal is to take a cultural perspective on compensatory control processes to argue that the processes are markedly different in cultures outside of WEIRD (Western, Educated, Industrialized, Rich, Democratic) cultures (Henrich et al., 2010). In so doing, we hope

to spark investigations into a deeper understanding of how people maintain perceptions of order and structure in everyday life.

2 | COMPENSATORY CONTROL THEORY

We begin by reviewing research derived from compensatory control theory to illustrate both the basic tenets of the approach, and their implications for broader phenomena identified in recent empirical studies (for more extensive review, see Landau et al., 2015). Three distinct stages of responses can be observed when personal control is reduced: (1) people's perception of the world as orderly and predictable is threatened; (2) people engage in a compensatory response to strengthen their perception of an orderly, predictable world; and (3) sense of personal control is reestablished which enables people to pursue their goals.

2.1 | Personal control and perception of the world

Evidence for the idea that low personal control influences people's perceptions of the world comes from early studies on compensatory control theory that show that reductions in personal control lead to defensiveness of individuals' perceptions of the world as orderly and predictable (Kay et al., 2008). Building on the idea that people respond defensively to threats to their worldview by zealously affirming the opposite perspective (Dunning, 2003; McGregor & Marigold, 2003; Sherman & Cohen, 2006), people with reduced personal control (achieved experimentally through a recall task) were more likely to deny that their life was "controlled by accidental happenings" and things in their life were "mostly a matter of chance" (Kay et al., 2008).

When people experience low personal control—both as an individual difference and as a result of an experimental manipulation to reduce it—they show a reduced tolerance for ambiguity (Ma & Kay, 2017) and more negative attitudes towards ambiguous situations in the world. People can see ambiguous situations as threatening (Budner, 1962), and in several studies, participants rated ambiguous workplace situations (i.e., being given several tasks by a supervisor to complete at once with no clarity as to what to prioritize) more negatively when they experienced reduced personal control. This occurred, in part, because the low personal control prompted a greater need for structure (Ma & Kay, 2017). The intolerance of ambiguity stems, in part, from a reduction of personal control because people desire to impose structure on the world.

2.2 | Perceptions of a disorderly world and reliance on external agents

When one's perception of the world as orderly is threatened by low personal control, reliance on compensatory strategies can strengthen and maintain one's perception of an orderly world (Kay et al., 2008; Landau et al., 2015). Empirical investigations of CCT have examined an array of compensatory strategies. Early CCT investigations focused on affirming external agents such as God and the government (Kay et al., 2008, 2009; Kay, Gaucher et al., 2010; Kay, Shepherd et al., 2010; see also Hoogveen et al., 2018) to maintain perceptions that the world is orderly during periods of low personal control. More recent investigations have expanded the scope of compensatory control strategies. For example, during periods of low personal control people have been shown to prefer more transactional, market relationships (inherently structured in nature) compared to less transactional, communal relationships (inherently less structured; Gąsiorowska & Zaleskiewicz, 2021). Measured and manipulated low personal control predicts increased support for gender and occupational stereotypes (Ma et al., 2019), as well as belief in moral objectivity (Stanley et al., 2020; Stanley & Kay, 2022).

Interestingly, when looking to specific agents (as opposed to environmental systems) as sources of external control, these agents do not have to be benevolent or from one's own group. Recent research suggests that, at times people would prefer to believe that world events are due to intentions of agents that are antagonistic to

themselves, rather than believing that the events are random. For example, those who have a greater desire for structure tend to attribute disputed news stories to intentional deception by news organizations (i.e., claiming fake-news; Axt et al., 2020) than those with a lower desire for structure. In addition, people who feel as though they have little personal control were more likely to believe in conspiracies that suggest an intentional agenda of powerful outgroups, believing to a greater extent conspiracies such as "Jews achieve their collective goals by secret agreements" (Kofta et al., 2020). Compensatory control processes appear to underly, in part, some of the pernicious conspiracy theories circulating in society because they provide a causal explanation that helps people perceive that the world is orderly when their feelings of personal control are diminished.

2.3 | Restoring perceptions of an orderly world facilitates personal control and goal pursuit

Low personal control leads individuals to seek out external sources of control and structure (e.g., God, the government, market relationships) or alter their perceptions to imbue the world with greater order (e.g., believing in/endorsing conspiracies, stereotypes, and moral objectivity; Landau et al., 2015). The function of these compensatory control responses is that they will restore perceptions of an orderly world, allowing for the reestablishment of a sense of personal control and enabling people to more effectively pursue their individual goals. When their personal control is reduced, people see greater patterns and structure in their environments (Whitson & Galinsky, 2008). And perceiving structure can facilitate individuals' willingness to take goal directed actions, such as investing effort and making sacrifices (Kay et al., 2014). For example, when potential job applicants experience lower personal control, a structured job is more appealing (than a less structured job) and people have greater efficacy about their employment success (Ma & Kay, 2017). Members of socially disadvantaged groups, those experiencing diminished resources or more likely to face racial prejudice, are more able to pursue their personal goals of individual achievement when they have stronger beliefs that fairness and justice in the world correspond to cause and effect (Laurin et al., 2011). In one study, ethnic minority participants in Canada who read that their society was becoming increasingly fair (implying a greater cause and effect relationship between events and outcomes) had greater motivation to pursue their long-term goals, relative to those who read irrelevant control information (Study 3; Laurin et al., 2011). Compensatory beliefs enable people to have a greater sense of control in their lives, which facilitates their goal pursuit.

In summary, CCT articulates that individuals recruit a sense of predictability and orderliness in response to perceived threats to personal control in order to restore the very sense that was initially lost. There are many personal, social, and structural factors that could impact this theorized process (e.g., Landau et al., 2015). One such factor that has not received theoretical and empirical attention is culture (see Kay & Sullivan, 2013 for discussion).

3 | CULTURAL VARIABILITY IN THE COMPENSATORY CONTROL PROCESS

We propose that variability in the cultural values of individualism and collectivism (Hofstede et al., 2010; Triandis, 1989) and independent and interdependent self-construals (Markus & Kitayama, 1999) have implications for each step of the compensatory control process. More individualistic cultures tend to prioritize individual goals and one's unique individual identity, and foster an independent self, the view of personhood as an independent, self-contained, autonomous entity. Individualistic values and independent self-construal have been shown to be associated with certain regions of the world (e.g., United States and Western Europe; Hofstede et al., 2010). In contrast, cultures that are higher on collectivism tend to prioritize collective goals, one's interconnectedness with the social group and foster an interdependent self, the view of personhood as fundamentally interconnected with others and defined by the social context (Markus & Kitayama, 1991; Triandis, 1989). Collectivistic values have been shown to be associated with geographic regions (e.g., East Asia; Hofstede et al., 2010) and within countries among certain groups. In this

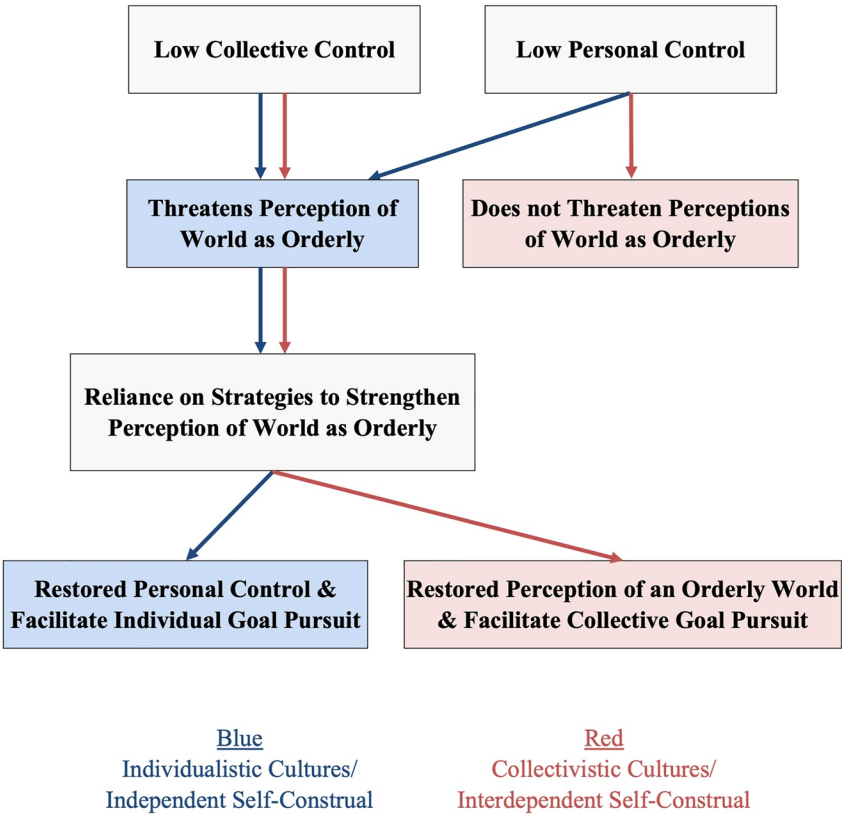


FIGURE 1 A theoretical model of culture's influence on the compensatory control process.

paper, we draw from the body of research using both frameworks of individualism-collectivism and independent and interdependent self-construals and suggest that these distinctions have important implications for CCT.

One key aspect of self-construal that is relevant to compensatory control processes is how people define and use a sense of agency. There are different models of agency or “the self in action” (Markus & Kitayama, 2003). With a more independent self-construal, people tend to hold a more *disjoint model of agency* where an individual's actions are driven by an active desire for control, to influence others and the world. With a more interdependent self-construal, people tend to hold a more *conjoint model of agency* where an individual's actions are driven by referencing others' actions and adjusting to others and one's environment (Markus & Kitayama, 2003). This fundamental difference in the view of agency implicates how people respond to personal control threat. In the following section, we address the questions (1) whether low personal control is universally threatening to perceptions of an orderly world; (2) whether culture moderates individuals' use of strategies to cope with threats to their perception of an orderly world; and (3) whether the goal of relying on external sources of control is to restore feelings of personal control to facilitate individual goal pursuit (see Figure 1).

3.1 | Personal control and perceptions of the world

The influence of these culture-specific forms of control is evident in a wide range of decision making. There is extensive research showing that reduced sense of personal choice, a form of control, does not threaten the self among people with interdependent self-construal (Kim & Sherman, 2007; Savani et al., 2011; see also Nanakdewa et al., 2021). People from collectivistic cultures do not experience dissonance from individual choices (as people from

Western cultures do), whereas they do when the choice is made on behalf of a close individual (Hoshino-Browne et al., 2005). Increasing the salience of choice leads to increased support for some policies focusing on individual rights (e.g., drug legalization) and decreased support for other policies focusing on collective good (e.g., environmental legislation) among Americans, but this impact is not seen among more collectivistic Indians (Savani et al., 2011). Another interesting example comes from marketing research which shows that although European American and Asian Americans are equally likely to play promotional games (e.g., scratcher cards with the possibility of winning a store discount), European Americans are significantly less likely to use a winning discount compared to Asian Americans (Briley et al., 2018), in part because the discounts are viewed as a way to persuade consumers to make a purchase, compromising personal free choice. European Americans viewed such compromises of personal control as threatening and resisted its use, but Asian Americans were not particularly threatened (Briley et al., 2018).

Low personal control may be threatening to the perception of a structured world for individuals with an independent self-construal, who tend to hold a more disjoint model of agency. Because disjoint models of agency foster self-focused actions and prioritize self-perspective (Markus & Kitayama, 2003), the self and one's own perspective serve as an anchor to understand the world (Sherman & Kim, 2005; Wu & Keysar, 2007). Moreover, individuals with a more independent self-construal are accustomed to or at least aspire to be in control with the belief that their intentions will bring desired outcomes in a predictable way (e.g., Eom et al., 2016, 2018). Thus, reduced sense of control may threaten the perception of an orderly world more strongly for those with an independent self-construal. In contrast, while individuals with an interdependent self-construal, who tend to hold a more conjoint model of agency, could also be threatened by reduced sense of personal control (Wang et al., 2012, Study 2), this response may be less common. They are less likely to interpret low personal control as threatening to how the world is structured. The conjoint model of agency fosters other- and relationship-focused actions and prioritizes the perspective of others (Markus & Kitayama, 2003). Those with an interdependent self-construal tend to engage in perspective-taking more readily (Wu & Keysar, 2007), and individuals from more collectivistic cultures are accustomed to modulating their own desires and needs to fit in with and facilitate the goals of their groups (Kim & Lawrie, 2019; Morling & Evered, 2006). From this perspective, the experience of having limited control does not necessarily mean that individuals see the world itself as unpredictable or disorderly, and indeed those who engage in perspective-taking more readily may anticipate and take actions that make their worlds more predictable. The belief in an orderly world could be maintained regardless of the degree of perceived personal control, and loss of personal control may not constitute the same degree of threat as in the case with individuals with an independent self-construal.

Supportive empirical evidence comes from research on psychological consequences of having or not having choice. Numerous studies show that having choice holds particular psychological importance for those with an independent self-construal and restricting choice tends to be self-threatening (e.g., Hoshino-Browne et al., 2005; Iyengar & Lepper, 1999; Snibbe & Markus, 2005), compared to those with an interdependent self-construal. The emphasis on choice as a means of achieving agency and control is a prevailing belief in individualistic cultures, and the dissonance-provoking and defensive responses that occur when choice is restricted is consistent with the compensatory control model that reductions in personal control threaten individuals' beliefs in a structured world (Kay et al., 2008; Landau et al., 2015). Based on these findings, we speculate that reductions in personal control may not always be interpreted as threats to the world as orderly and structured (Kay et al., 2008; Landau et al., 2015), and that the notion of what aspects of control deprivation are threatening vary as a function of cultural context.

Indeed, recent studies relevant to how people cope with the threat of contagious diseases provide evidence to support this idea. A study conducted during the heightened threat of Ebola examined the relationship between perceived vulnerability to the disease and people's perceived control to protect themselves and their groups (Kim et al., 2016). The relationship between perceived vulnerability and control varied as a function of collectivistic value orientation. For those with lower collectivistic orientation, the link between perceived vulnerability and perceived control to protect themselves from Ebola was stronger than for those with higher collectivistic orientation. That is, collectivistic orientation decoupled the link between perceived vulnerability and their groups' ability to control such that even those who felt highly vulnerable maintained relatively high efficacy about their group's ability to protect

themselves from Ebola. Responses to the COVID-19 pandemic provide additional evidence. The COVID-19 pandemic posed a universal threat to people's feeling of personal control. Japanese (more collectivistic) and United States (more individualistic) participants in one study reported an equivalent impact of the pandemic on their personal, family, and financial lives (Haas et al., 2021). However, believing in humans' control over nature was associated with greater negative affect in the U.S. sample compared to Japanese sample during the pandemic. Among individuals who believe humans have control over nature, American participants expressed greater negative affect about the pandemic compared to Japanese participants (Haas et al., 2021). Even for those with equivalent beliefs about control over the COVID-19 pandemic, this control-threatening event led to a more negative outcomes for people from an individualistic culture relative to a collectivistic culture.

Another cross-cultural examination of control deprivation and its effects provides evidence for the proposal that low personal control is not universally threatening to peoples' perceptions of an orderly world (Wang et al., 2012). A common compensatory control strategy consists of perceiving illusory patterns in one's environment, imposing structure on one's perception of the world in response to low personal control (Landau et al., 2015). In an experiment that manipulated personal control, American participants whose personal control was experimentally reduced were more likely to perceive an illusory pattern as they reported greater consistency between their personality and the personality predicted for them by a fictitious horoscope. This finding is consistent and predictable from CCT. However, for Singaporean participants (from a more collectivistic culture), when their personal control was reduced, they were relatively *less likely* to report consistency between their personality and the personality predicted for them by a fictitious horoscope (Wang et al., 2012, Study 1). These results suggest that individuals from more collectivistic cultures and/or with a more interdependent self-construal may be less likely to engage in individual-focused compensatory strategies, implying that low personal control is less threatening to their perception of the world being orderly and structured.

3.2 | Perceptions of a disorderly world and reliance on external agents

The need and desire to see the world as a predictable, orderly, and structured place is theorized to be universal (Jost, 2018; Lerner, 1980; Seligman, 1975). We also assume that this need itself exists in all cultures, as there is no theoretical reason to assume otherwise. People from all cultures may, at times, experience threats to their beliefs that their worlds are orderly and predictable because even for individuals from more collectivistic cultures, low collective control (as opposed to personal control) may pose a particular threat to their belief in an orderly world. Indeed, large-scale disasters (e.g., the COVID-19 pandemic) are likely to threaten beliefs in an orderly world, regardless of culture or state of personal control (see Kashima et al., 2021).

While the experience of such perceptions may be similarly aversive to people in all cultures, exactly how people engage in compensatory control processes may differ in important ways. Theories in cultural psychology inform which strategies are commonly used in different cultures when responding to threats to one's perception that the world is orderly. CCT research has identified several strategies that may be useful in strengthening perceptions of an orderly world among individuals from more individualistic cultures, such as revising one's own perception of the world (e.g., being more likely to see cause and effect relationships in other domains) or affirming an external agent's control (see Landau et al., 2015 for a review of strategies).

While these strategies may be useful regardless of cultural background, culture may influence specific aspects of their use such as what external agents are relied upon. CCT research has often focused on external agents such as God or institutions like the government (Kay et al., 2008, 2009; Kay, Gaucher et al., 2010; Kay, Shepherd et al., 2010; see also Hoogeveen et al., 2018) and trusted brands (Verlegh et al., 2021). However, agents need not be restricted to deities and organizations, but rather may include individuals such as family, friends, and close others.

The basis of social trust and cooperation between cultures with independent and interdependent self-views is known to differ. Among people with more interdependent self-construals, the basis of trust and cooperation is not only social identity group membership, but also the interconnected web of relationships, whereas among people

with more independent self-construals, it is predominantly social identity group membership (Yuki et al., 2005). Then, individuals from more collectivistic cultures and with more interdependent self-construals may rely on the agency of more informal and relational groups, in addition to well-documented agents, such as religion or government. People with a more interdependent self-construals (i.e., Singaporeans) responded to a loss of personal control by seeking predictability for a close other (e.g., endorsing horoscopes for a close friend; Wang et al., 2012, Study 2), and in another study, responded to reduced personal control by relying on structure to a greater extent in their informal relationships (using more gender stereotypes; Ma et al., 2019). In summary, although people from all cultures are theorized to find the perception that the world is unpredictable and disorderly as an epistemic threat, there are likely differences in how they respond to such threats. Even within the use of the same external agent control strategy, individuals from more individualistic versus collectivistic cultures may vary in the types of agents that are looked to.

3.3 | Restoring perceptions of an orderly world facilitates social affiliation and cooperation

To this point we have examined how individuals from different cultural contexts may respond to low personal control and/or perception of a disorderly world. In this last step in the model (Figure 1), we propose that individuals' motives behind strengthening perceptions of an orderly world may vary across cultures. That is, people from more individualistic cultures rely on external agents and other forms of compensatory control with the goal of restoring sense of personal control and in the service of helping them engage in motivated actions (Kay et al., 2014). It is theorized that using external agent control, for example, is a *compensatory* response to the loss of personal control (Kay et al., 2009). In contrast, we theorize that people from more collectivistic cultures may rely on external agents with the goal of restoring the belief that the world is predictable and orderly per se, which then may facilitate collective goal pursuit, such as social affiliation and cooperation.

Overall, when threatened, people with more independent self-construals think and behave in ways that maintain the view of the self as good and competent (Sherman & Cohen, 2006). For example, people with more independent self-construals engage in dissonance reduction processes when making choices in order to maintain positive self-views (Hoshino-Browne, 2012). Similarly, people with more independent self-construals use social support to cope with stressful situations in order to restore self-esteem (Ishii et al., 2017). By contrast, people with more interdependent self-construals think and behave to maintain positive social relationships and increase group solidarity. Dissonance reduction processes are engaged to maintain good relationships with close others (Hoshino-Browne, 2012), and social support is used to affirm relationship closeness (Ishii et al., 2017; see Kim & Lawrie, 2019 for review). We argue that the same tendencies extend to how people respond to relying on strategies designed to restore perceptions of an orderly world, particularly external agent control, a common compensatory control strategy.

Indeed, evidence shows that while reliance on religion or government is common in many cultures, psychological consequences of believing in God and government differ. The psychological outcomes of religion differ in individualistic and collectivistic cultures such that religion is associated with personal control (albeit self-control) in the U.S., but with social affiliation in Korea (Sasaki & Kim, 2011). Beyond these outcomes, an analysis of Church mission statements in the two countries show that people in these cultures explicitly state self-control (the U.S.) or social affiliation (Korea) as a primary mission of the religion. Thus, whereas in the U.S., religion may advance more personal goals, in Korea, it may advance more collective goals.

In addition, while trust in government—reflecting people's reliance on an external agent, government—is generally associated with individuals' compliance with COVID-19 precautionary measures (e.g., face covering and social distancing) that are designed to protect oneself *and one's community* from contracting the virus, the association is weaker among people with high individualistic tendencies (Shanka & Menebo, 2022). Taken together, unlike previous findings from Western individualistic cultures where compensatory control advances personal goals, relying on external agent control strengthens social affiliation and cooperation among people from collectivistic cultures.

4 | UNANSWERED QUESTIONS AND FUTURE DIRECTIONS

In our review, we have highlighted several areas where the compensatory control processes and assumptions may be informed by viewing them through a cultural lens. However, there are some important unanswered questions about the proposed model.

First, we have focused on collectivism and individualism as a cultural dimension within this review; however, there are other cultural dimensions that should be explored as well. One candidate, given the relationship of uncertainty and personal control is uncertainty avoidance. Uncertainty avoidance is conceptually related to a desire for perceiving the world as orderly, varies cross-culturally (Hofstede et al., 2010), and has been shown to relate to a sense of control in predicting important life outcomes (Lawrie et al., 2020; see also Lu, 2022). One hypothesis is that individuals from cultures with high uncertainty avoidance may find the loss of personal control to be particularly negative and justify the use of compensatory strategies consistent with CCT, while individuals from cultures with lower uncertainty avoidance may not find the loss of personal control to be particularly negative. Explorations of the role of uncertainty and personal control are important, and may vary by domain: in the political domain, for example, uncertainty was less associated with conspiracy theorizing (which is posited as a way of imposing structure on the world) than was loss of personal control (Kofta et al., 2020). The interplay between uncertainty avoidance and loss of control within different domains is an important topic for future research; indeed recent research has examined how cultural differences in uncertainty avoidance shape responses to (the control threatening experience of) COVID-19 (Lu, 2022).

Second, within a given culture there is great variability in how and when people conform to culturally normative behavior (Gelfand & Harrington, 2015; Morris & Liu, 2015). Individuals may engage in compensatory control processes more when they are consistent with cultural norms and when their deviation from cultural norms may influence their response to reduced personal control. The COVID-19 pandemic provides an interesting example of a control-threatening experience as several studies have found stronger compliance with public health interventions in more collectivistic countries as well as more collectivistic regions within the United States than less collectivistic countries and regions (e.g., Lu et al., 2021). One explanation is that people who are more collectivistic perceive stronger norms to comply with public health recommendations (Leong et al., 2022). Recent research on preference for tight versus loose cultures may also be relevant; in a series of experiments (Ma et al., 2022), researchers demonstrated that a lack of personal control was associated with a greater preference for tighter (vs. more loose) cultures (Gelfand et al., 2011; Triandis, 1996). These open questions raise several directions research can take to *directly* investigate the cross-cultural implications of compensatory control processes. It may be instructive to conduct cross-cultural experiments that manipulate control deprivation directly (e.g., Wang et al., 2012). We have cited exemplar studies, but clearly more research should be done explicitly motivated by testing different aspects of the theory.

Finally, how might transitions between cultures provide additional insights into how compensatory control processes are influenced by culture. As an example, consider the experience of transitioning between markedly different cultural contexts such as the military and civilian organizations (Kay & Gibbs, 2022; Shepherd et al., 2021). While in the military, soldiers work within a highly structured and organized system which provides them with clarity on when and how they are able to exercise their personal control over their employment. However, when transitioning to a civilian employer, veterans often find themselves in environments of significantly less structure compared to the military (Gibbs et al., 2023), reducing their sense of control and leading to poor transition experiences (Kay & Gibbs, 2022). How does moving from a culture that is relatively high in external control to one that is relatively low in external control influence goal pursuit? We speculate that when there is greater external control/structure (e.g., hierarchy, clear expectations, set routines) during a cultural transition, the challenges should be eased, resulting in improved goal pursuit (Shepherd et al., 2021). Incorporating other cultural frameworks and examining the process of changing from cultural contexts that vary in structure and the ability to exercise control will help to expand the basic understanding of compensatory control processes.

5 | CONCLUSION

Cultural psychology research has shed light on basic processes related to cognition (Nisbett, 2003), self (Markus & Kitayama, 2017), and motivation (Kim & Lawrie, 2019) by showing cultural diversity in responses that have led to a re-examination of many basic premises in the field. Compensatory control theory has provided a useful framework for understanding the mechanisms at play when one's perception of the world as structured and orderly is threatened by deprivations of personal control. By carefully considering the cross-cultural implications of CCT, it may be possible to not only better specify the compensatory control mechanisms at work for more groups, but also to better understand existing mechanisms, and to move toward a more universal understanding of how people cope with control-threatening situations.

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CONFLICT OF INTEREST

The authors have no known conflict of interest to disclose.

ORCID

W. Connor Gibbs  <https://orcid.org/0000-0002-2130-341X>

Heejung S. Kim  <https://orcid.org/0000-0001-9132-741X>

Aaron C. Kay  <https://orcid.org/0000-0001-7895-0987>

David K. Sherman  <https://orcid.org/0000-0003-4423-862X>

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