Response to restrictive policies: Reconciling system justification and psychological reactance

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ABSTRACT

Here we propose a dual process model to reconcile two contradictory predictions about how people respond to restrictive policies imposed upon them by organizations and systems within which they operate. When participants' attention was not drawn to the restrictive nature of the policy, or when it was, but their cognitive resources were restricted, we found evidence supporting a prediction based on System Justification Theory: Participants reacted favorably to restrictive policies, endorsing them and downplaying the importance of the restricted freedom. Only when we cued participants to focus their undivided attention on the restrictive nature of the policy did we find evidence supporting a prediction based on psychological reactance: Only then did participants display reactance and respond negatively to the policies.

Introduction

Danielle works for a small technology firm. One day, at the weekly staff meeting, her manager explains that, because of the nature of their particular industry, business is much heavier during the first two weeks of every month than during the last two weeks. As a result of this imbalance, the manager continues, employees may from now on only schedule vacation during the last two weeks of every month. How will Danielle respond? Will she resent her manager and the company for interfering with her ability to freely choose her vacation times, and come to view the beginning of the month as an even more desirable time for vacation? Or will she justify this new reality, finding ways to cast the policy in a positive light and downplaying the value she places on the freedom to choose her vacation days?

With the present research, we aimed to answer this question; more generally, we aimed to understand how people respond to restrictive policies imposed on them by the systems and organizations within which they live. We first review evidence and theory from the System Justification Theory (Jost, Banaji, & Nosek, 2004) tradition, which suggests that people have a broad tendency to rationalize the status quo, or perceive it in an especially positive light, simply because it exists and they are dependent on it. This perspective suggests that people will respond favorably to restric-

tive policies, rationalizing them and ultimately embracing them. We contrast this perspective with one based on the psychological reactance literature (Brehm, 1966; Brehm & Brehm, 1981), which demonstrates how attempts to restrict a person's behavioral options can often lead that person to prefer the restricted option more than they otherwise would. This literature suggests a very different prediction: That restrictive policies should lead to backlash and other negative responses. We then propose and test a resolution to this apparent contradiction, hypothesizing that justifying restrictive policies is a relatively implicit and spontaneous response, whereas reactance often requires more cognitive resources and attentional focus.

A System Justification Theory perspective

System Justification Theory (SJT; Jost et al., 2004) suggests that, for various reasons, which include regulating needs for certainty, order, and justice (Jost & Hunyady, 2005; Kay, Gaucher, Napier, Callan, & Laurin, 2008), people hold a motivation to rationalize and justify the rules and norms of their social systems – even those norms and rules they did not choose themselves (also see Kay et al., 2009). In other words, SJT predicts that, as soon as Danielle learns that her firm will prevent her from taking vacation days during the first two weeks of every month, she will begin searching for – or even constructing – reasons why this policy might suit her, or at least not be overly problematic. SJT research has demonstrated that people do in fact rationalize and justify what they perceive as the status quo within their social systems. For example, in one

set of studies, half of participants learned that it would become difficult for them to leave their country, and therefore that they could expect the state of affairs within that country to always be their status quo. These participants then rationalized that status quo more than other participants who were led to believe that they could easily escape their country's status quo: They attributed a gender inequality in their country less to systematic unfairness, and more to genuine differences between men and women (Laurin, Shepherd, & Kay, 2010). In another line of research, men and women who learned about restrictions society places on women's ability to succeed in upper-management viewed this reality as more legitimate than participants who did not learn the restriction information (Kay et al., 2009).

Importantly, system justification phenomena do not represent mere passive *acceptance* of changing circumstances (Wortman & Brehm, 1975) whereby people harbor negative feelings toward the system, but choose not to fight the inevitable. Rather, these phenomena arise from an active process whereby people change their attitudes and perceptions to bolster the legitimacy of their system. In other words, people do not simply accept that their social systems sometimes impose undesirable realities. They do not simply grin and bear realities they dislike; rather, they justify and legitimize them by altering their relevant cognitions so that these realities seem more desirable, or at least less undesirable. According to SJT, then, Danielle will not simply accept that her firm has chosen to implement a policy that is unfavorable to her and refrain from lashing out; rather, she will reconfigure her preferences so that the policy itself appears less unfavorable. Dozens of studies demonstrate this tendency to create change in the self to adapt to current norms and restrictions, particularly in contexts that heighten the justification motive (Kay & Zanna, 2009; for a review, see Jost et al., 2004).

Thus, SJT leads to the straightforward prediction that, when organizations adopt policies that restrict their constituents' freedoms, people will tend to justify the policies and find ways of making them seem less negative – for example, by downplaying the importance of the restricted behavior, or by coming up with reasons why the restriction might be legitimate.

A contrasting perspective: psychological reactance

This straightforward prediction is called into question by a different body of literature: That on psychological reactance. According to reactance theory (Brehm, 1966), people respond against restrictions imposed upon them by increasing the value they place on the restricted object or behavior (Brehm & Brehm, 1981). More generally, reactance theory suggests that when a freedom is lost, the value placed on that freedom increases. As Brehm, Stires, Sensenig, and Shaban (1966, p. 1) noted nearly fifty years ago, "...an elimination or threat of elimination of the freedom to engage in a given behavior creates 'psychological reactance' in the individual, that is, a motivational state directed toward restoration of the eliminated or threatened freedom."

Since Brehm's (1966) original treatise on reactance theory, a large and comprehensive body of literature has supported its basic tenet. When an option, such as a specific music album, is removed from a choice-set, that option takes on increased value to the chooser (Brehm et al., 1966). To give another example, public health measures that limit people's smoking options can backfire and result in *increased* smoking (Wiium, Aarø, & Hetland, 2009). Signs that explicitly prohibit placing graffiti on a wall can ironically result in a more graffiti-laden wall (Pennebaker & Sanders, 1976). And citizens of cities that ban a certain detergent for environmental reasons subsequently report stronger liking for that very detergent (Mazis, Settle, & Leslie, 1973). These are just a few of the many

examples of the reactance phenomenon, which has now become so well-accepted by experimental psychologists that the study of reactance over the past three decades has shifted almost entirely away from basic processes and towards applications in marketing, health, and other areas (Miron & Brehm, 2006).

There is no doubt, then, that reactance effects occur and are powerful drivers of behavior. With regards to responses to restrictive policies, reactance offers a prediction that diametrically opposes the SJT prediction described above: People should respond negatively to restrictive policies, and place greater value on the very behavioral options the policies aim to restrict.

Reconciling the two perspectives: the moderating role of deliberative processing and attentional cues

What might explain the seemingly divergent portraits of human behavior painted by reactance theory and SJT? We do not wish to suggest here that either is incorrect. What we propose instead is that when system justification occurs, it occurs as an implicit, spontaneous response, whereas reactance is a more deliberately controlled response, occurring only given a more limited set of circumstances. In other words, we propose a dual-process account (Chaiken & Trope, 1999) in which system justification is more likely to occur at implicit levels of processing, in response to restrictive policies, and reactance is more likely to occur when people are cued to consciously and deliberately attend to the restrictive nature of the policy. We now review existing support for conceiving of system justification as an implicit process, and reactance as a more controlled, deliberative process.[1]

System justification as an implicit process

Other research has begun to identify various conditions under which system justification will emerge. For instance, people are particularly likely to rationalize a specific system when they cannot escape it (Laurin et al., 2010), when it seems unlikely to change (Laurin, Gaucher, & Kay, in press), when they are dependent upon it (Kay et al., 2009), or when it has been threatened (Kay, Jost, & Young, 2005). Here, we suggest that even given the presence of conditions such as these, which promote system justification, it still may only occur if it is allowed to unfold implicitly.

First, even the earliest treatments of SJT suggest that the relevant processes are driven by motives of which people are largely unaware (Jost & Banaji, 1994). Needs to explain seemingly random acts and maintain a conception of a structured, cause-and-effect universe – which are both noted causes of system justification phenomena – are not motives that most people generally accept as guides to their actions and beliefs (see Kay et al., 2008; Lerner & Goldberg, 1999; cf. Nisbett & Wilson, 1977). Likewise, existential and epistemic needs for certainty and structure, and to shield oneself from mortality – also motives presumed to underlie system justification (Jost & Hunyady, 2005; Jost, Kruglanski, & Simon, 1999; Kay et al., 2008, 2009) – are thought to also guide behavior in ways mostly inaccessible to the individual (Adorno, Frankel-Brunswick, Levinson, & Sanford, 1950; Greenberg, Pyszczynski,

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[1] Some recent research has found that reactance can, in fact, occur non-consciously (Chartrand, Dalton, & Fitzsimons, 2007). In that research, participants high in dispositional reactance who were subliminally primed with a controlling other who chronically attempted to induce them to work hard actually worked *less* hard than participants primed with a controlling other who chronically attempted to induce them to have fun. In other words, non-conscious reactance occurred (a) in the context of restrictions against which participants had reacted many times in the past, and (b) among participants who were especially sensitive to restrictions. We return to these findings in the General Discussion and consider them in the light of our hypotheses, but we suspect that only a minority of responses to restrictive policies happen in the presence of these two conditions.

Solomon, Simon, & Breus, 1994; Kruglanski, 1996; Neuberg & Newsom, 1993; Rokeach, 1960).

Moreover, in reviewing the bulk of research on the just world motive (a motive closely linked to the system justification motive), Lerner and Goldberg (1999) concluded that, although people do report beliefs about the fairness of the world at an explicit level, people likely engage in phenomena of justification, such as victim-derogation or victim-avoidance, without any conscious awareness of why they are doing so, or even that they are doing it at all. In their words, whereas "we may blame innocent victims, or avoid them as a way of maintaining our confidence that, by and large, we live in a world where people get what they deserve... if asked, we may honestly state that we will only avoid or reject victims who deserve their suffering, and that we will react with compassion if the evidence indicates that someone is a truly innocent victim. No decent, sane person would do otherwise" (p. 638). Likewise, phenomena of system justification may be the result of processes that operate largely non-consciously, that is, without people's explicit awareness. The outcomes of the justification process can be conscious or non-conscious (Jost, Pietrzak, Liviatan, Mandisodza, & Napier, 2008) – indeed a number of validated scales assess people's explicit perceptions of system fairness (e.g., Jost & Thompson, 2000; Kay & Jost, 2003). But like self-enhancement processes, which can lead to explicit inflated beliefs about the self, the system justification process itself likely needs to unfold without people consciously attending to it.

System justification and cognitive resources

Contemporary approaches to social cognition suggest that implicit tendencies that people explicitly deny arise most strongly when cognitive capacity is limited, either by time constraints or attentional distraction (Campbell & Kirmani, 2000; Petty & Cacioppo, 1986; Wilson, Lindsey, & Schooler, 2000). For example, although people are reluctant to display prejudice, they become far more likely to rely on their automatic stereotypes as default modes of person perception when their cognitive resources are limited (Devine, 1989; Gilbert & Hixon, 1991). Likewise, the effects of needs for closure – another need that people do not readily admit guides their behavior (Kruglanski, 1996) – are most noticeable in situations that rush people (Kruglanski & Webster, 1996; also see Callan, Sutton, & Dovale, 2010). Thus, if the system justification motive is indeed implicitly held but explicitly rejected, research indicates that it should emerge more strongly under conditions that limit the opportunity for deliberate, controlled thinking. This reasoning leads to our first hypothesis:

H1. Participants should be more likely to exhibit system justification, and rationalize and justify restrictive policies, when their cognitive resources are taxed.

Consistent with H1, other researchers have found that the closely linked just world motive emerges more strongly under cognitive load, which disrupts the opportunity for conscious deliberation: Participants under cognitive load were more likely to justify a random misfortune by claiming it occurred as a result of an (objectively unrelated) past moral failing (Callan et al., 2010). Moreover, in a recent review, Eidelman and Crandall (2009) conclude that status quo endorsement is at least in part rooted in non-conscious biases. For example, the status quo may gain an evaluative boost from the mere exposure effect (Zajonc, 1968), and from loss aversion (Kahneman & Tversky, 1979), both of which likely occur with little effort or intention. While interesting, this research can only make limited contributions to the current ideas, where we focus on the justification of new restrictions, which by definition have not been seen before, and thus cannot have benefitted from mere exposure, and whose removal would not likely be seen as a loss. Nevertheless, these same

authors have also demonstrated that when people cannot engage in careful, deliberative thinking, they become more politically conservative (Eidelman & Crandall, 2012), an ideology linked to greater system justification (Jost, Glaser, Kruglanski, & Sulloway, 2003). Thus, this combination of theory and empirical evidence is consistent with our hypothesis about the influence of cognitive load on the justification of restrictive policies.

System justification and attentional focus

But even when cognitive resources are relatively unencumbered, we still hypothesize that system justification should be the primary response to restrictive policies unless people's attention is specifically drawn to the restrictive nature of the policy. Indeed, system justification effects routinely occur in spite of the fact that typical study paradigms leave participants' cognitive resources free. However, these effects are generally found with questions that do not focus directly on the event or state to be justified. In other words, system justification effects are not found by asking people how they feel about, for example, the fact that men occupy more prestigious positions in society than women; rather, researchers detect justification indirectly, by examining the extent to which people's explanations for this discrepancy *imply* that the system that perpetuates the gender hierarchy is fair (Laurin et al., 2010; see Jost et al., 2004). Similarly, research on the belief in a just world generally does not ask people direct questions about the fairness of a innocent victim's suffering, but instead taps processes of justification indirectly, by measuring attributions (such as whether or not the target person holds an irresponsible character) that *imply* less unfairness (Hafer & Bègue, 2005). This type of indirect questioning allows system justification processes to take place in order to satisfy people's implicit motivation, but also allows them to remain outside of awareness and avoiding tension with people's explicit reluctance to justify.

Thus, in addition to H1, we propose a second hypothesis, which is:

H2. When their cognitive resources are free, participants should still be more likely to exhibit system justification, and rationalize and justify restrictive policies, when their attention is not focused on the specific policy and its restrictive nature.

In other words, if SJT researchers asked participants directly whether it was fair that men outrank women in society, or whether an innocent victim's suffering was fair, they might fail to find traditional justification effects.

Reactance as a deliberate, controlled process

The psychological mechanism thought to underlie reactance has a much clearer connection to explicit, commonly endorsed ideologies and virtues, particularly in Western contexts. In these contexts, the values of freedom and independence are explicitly acknowledged as values that are worth at the very least fighting for – New Hampshire license plates are even stamped with the declaration "Live free or die" – and have been adopted and propagated over the course of many generations of enculturation (Markus & Kitayama, 1991; Nisbett, 2003). To be sure, cultural values and ideologies surrounding independence and freedom may at times influence behavior non-consciously (a point that we will return to in more detail in the general discussion). This may happen for example when priming manipulations make these cultural values highly accessible (Oyserman & Lee, 2007), or in circumstances which have repeatedly evoked concerns with independence and freedom (Chartrand et al., 2007). Nonetheless, people also explicitly and consciously acknowledge and draw upon them as useful guides for behavior (Schwartz, 2000). This observation points to a key distinction between system justification and reactance:

Whereas people likely do not even know they engage in system justification, freedom and independence are publically espoused values that we celebrate as admirable. Thus, whereas system justification processes may operate best when "under the radar," so to speak, and even cease operating when brought to conscious attention, the reverse may be true of reactance.

We predict, then, that contrary to system justification, which may occur when cognitive resources are relatively constrained, reactance may occur when cognitive resources are relatively available. However, reactance may require more than simply available cognitive resources; it may require appropriately focused available cognitive resources. In other words, it may require that people consciously and deliberately attend to the fact that the policy in question is restrictive. SJT proposes a broad tendency to perceive all features of a social system as relatively right and good, or at least justifiable. If system justification occurs every time people consider a feature of their social system, it is likely a well-rehearsed process that occurs spontaneously. By contrast, psychological reactance is thought to have a much narrower focus, occurring specifically in response to restrictions imposed by external forces. If this is the case, then reactance may occur only when people focus their attention on the fact that a restriction is present.

Thus, we add a third and final hypothesis:

H3. Participants will tend towards reactance in response to restrictive policies only when they have sufficient cognitive resources, and when their attention is drawn to the policy in question and its restrictive nature.

To summarize, we hypothesize that circumstances that limit people's cognitive capacity (H1) *or* that do not direct their attention towards the policy itself and the fact that it is restrictive (H2), will elicit system justification: More positive attitudes towards the policy and/or more negative attitudes toward the restricted freedom. We also hypothesize that circumstances that leave people's cognitive resources relatively available *and* that direct their unencumbered attention toward the restrictive policy itself, will not only prevent people from engaging in justification processes, but cue them to recognize that their inherently valuable personal freedoms are under attack (H3). Under such circumstances, explicit freedom-loving ideologies can guide people's behavior, and they should react against the restriction and denounce it as wrong and unjustified (Kay & Eibach, 2012).

In other words, under most circumstances, we submit that Danielle will spontaneously and without much awareness rationalize and justify the new vacation policy. However, if her unencumbered conscious attention becomes focused on the fact that this new policy will restrict her personal freedoms, we predict that she will instead engage in reactance.

Overview of studies

We test the hypotheses outlined above in four experimental studies. In Study 1, we establish the system justification phenomenon in response to a restrictive workplace policy. In this study, we allow participants their full set of cognitive resources, but assess their reaction without drawing their attention to the restrictive nature of the policy. In Study 2, we replicate this effect in a different context and also include an attentional focus manipulation to allow for a systematic test of H2 and H3: We vary whether we ask participants questions that draw their attention to the restrictive nature of the relevant policy or questions that do not, predicting that we should find reactance in the former case, but system justification in the latter. In Studies 3 and 4, which offer more direct tests of our dual process model, we hold constant the content of the questions (which all highlight the restrictive nature of the policy) and instead manipulate the availability of cognitive re-

sources to test H1 and H3. We predict that when their cognitive resources are relatively available, participants will display reactance, but when their cognitive resources are limited, either by time pressure (Study 3) or cognitive load (Study 4), they will instead revert to rationalization. In all studies, we focus on restrictions present in systems which people are likely motivated to justify: Systems upon which their lives clearly depend such as their workplace (Study 1), their country (Studies 2 and 3) or their school (Study 4).

Study 1

In Study 1, we sought to establish system justification as a plausible response to restrictive policies in the workplace. We manipulated whether or not participants learned that their workplace was imposing a restriction similar to the one described in the opening example of this paper. We then assessed participants' responses using indirect questions that did not draw their attention to the restrictive nature of the new policy, but instead focused on their own personal preferences and beliefs. Consistent with H2, we predicted that participants who learned of a new restriction on their ability to choose their vacation time would display system justification, because although we did not restrict cognitive resources, we did employ questions that avoided focusing participants' attention on the restrictive nature of the new policy.

Method

Participants

Fifty-eight students from a Canadian university participated in this experiment in exchange for partial course credit. Forty-seven of these participants were female, their mean age was 20.1 years old, and the majority of them reported a Caucasian (28%) or East/Southeast Asian (43%) ethnic background.

Procedure

Participants completed a survey online where they first completed a short demographics form. All participants then read instructions asking them to imagine that they worked at a mid-sized company doing a job they enjoy. They imagined that they had three weeks of vacation time every year that they could take at a time of their choosing. Participants in the restrictive policy condition then learned that things would be changing from now on: Because of the nature of their job, which was particularly important during the first two weeks of the month, their boss had decided they would no longer be able to take vacation during the first two weeks of every month. All participants then rated a series of items which included our dependent measure of interest: "It is important to be able to take my vacations at whatever times work for me," rated on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). If participants in the high restriction condition justified this restriction, this would be reflected in lower scores on this measure – i.e., decreasing the importance they attributed to a particular freedom they had just learned would be restricted. Finally, participants received a debriefing letter explaining the purpose of the study to them.

Results and discussion

Participants in the restrictive policy condition reported lower importance ratings ($M = 4.21$, $SD = 1.61$), compared to participants in the control condition ($M = 5.76$, $SD = 1.27$), $t(56) = 4.07$, $p < .001$, that is, participants told they were not free to pick their vacation time reported less personal interest in choosing their vacation time. We interpret this as system justification: Participants who learned that their organization had decided upon a new policy that

restricted their freedom subsequently attached less importance to the restricted freedom, compared to other participants. This evidence is consistent with H2: The measure we used did not specifically draw participants' attention to the policy nor its restrictive nature. A fuller test of H2, however, would incorporate a manipulation of this variable, predicting that participants would display reactance when their attention was directed toward the policy and its restrictive nature, but system justification otherwise. Study 2 provides such a test. Moreover, in Studies 2 through 4, we move away from hypothetical scenarios such as the one used in Study 1, and towards restrictions that could potentially affect participants' lives.

Study 2

In Study 2 we used a different restrictive policy, drawn from the system justification literature. In this paradigm (Laurin et al., 2010), participants learned that policy changes had made it either harder or easier to leave their country. Following this manipulation, we asked all participants two questions. The first simply asked participants about their personal preferences with regards to their present living arrangements. The second focused participants' attention on the restrictive nature of the policy, by asking them their opinions regarding emigration restrictions. We predicted that restricted participants' responses to the first question would follow the predicted pattern of system justification: That these participants would report personal preferences that make the policy seem less negative, compared to the responses of participants in the low restriction condition. We made the opposite prediction regarding the second question: Here, we predicted that participants would report more negative attitudes towards the policy itself in the high restriction condition compared to the low restriction condition.

Method

Participants

Sixty-five undergraduate students at a Canadian university participated in this experiment in exchange for partial course credit. Forty-six of these participants were female, fifteen were male and four did not report their gender; their mean age was 20.0 years old, and 39% of them reported a Caucasian ethnic background.

Procedure

Participants volunteered to participate in an online study of attitudes toward world issues. The website first randomly assigned participants to read a short paragraph describing experts' predictions regarding the future of emigration in Canada. Participants in the high restriction condition read the following paragraph:

> Since the 1950s, a group at Harvard University, in Boston, has been using current political and international trends to predict patterns of population movements. Recent reports by this group of experts have indicated that people who wish to move out of Canada will find it increasingly difficult to do so, in the coming years. Thus, even if the number of Canadians wishing to leave and settle elsewhere remains constant, we should expect a significant slow-down over the next few years in terms of those who actually are able to do so.

Participants in the low restriction condition read an identical paragraph with the words "easy" and "increase" respectively substituted for the words "difficult" and "slow-down." We adapted this manipulation from Laurin et al. (2010), whose pilot testing confirmed that the manipulation affected people's beliefs about how difficult it would be for them to leave the country.

Following this manipulation, participants rated two items designed to tap their attitudes toward restricted emigration. Participants rated both items on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The first item asked people about their personal feelings toward staying in Canada: "I wouldn't really be bothered to find myself unable to move away from Canada." The second asked participants directly about restrictive emigration policies: "There are very few valid reasons for preventing people from moving out of their country." We reverse-scored the second item so that it reflected agreement with the idea that there are many valid reasons for restricted emigration; we did this so that higher scores in both cases indicated more positive attitudes towards restricted emigration (i.e., system justification).

Finally, participants answered several demographic questions, and received a debriefing letter explaining the purpose of the study to them.

Results and discussion

We predicted that participants in the high restriction condition would exhibit system justification – or show more positive attitudes toward restricted emigration – when rating the first item, which did not direct their attention toward the restrictive nature of the state of affairs, but show reactance – or more negative attitudes toward restricted emigration – when rating the second item, which did direct their attention toward the restrictive nature of the state of affairs.

To test these predictions, we submitted participants' attitude scores to a 2×2 mixed model ANOVA, where condition (high vs. low restriction) served as the between-subjects factor, and question type (no attention drawn vs. attention drawn) served as the within-subjects factor. This analysis yielded a significant interaction, $F(1, 63) = 9.25$, $p < .01$, and no other effects (see Fig. 1). A simple effects analysis showed that when rating the first item, participants in the high restriction condition justified the restriction: They reported being less bothered by not being able to leave Canada ($M = 3.70$, $SD = 2.00$) than participants in the low restriction condition ($M = 4.74$, $SD = 1.72$), $F(1, 63) = 4.89$, $p = .03$. In contrast, when rating the second item (which we had reverse-scored), these same participants engaged in reactance: Their responses showed that they saw fewer valid reasons for – i.e., had more negative attitudes towards – restrictive emigration ($M = 2.69$, $SD = 1.06$) compared to participants in the low restriction condition ($M = 3.38$, $SD = 1.66$), $F(1, 63) = 4.08$, $p < .05$. Thus, when asked about their personal feelings about Canada, participants justified an expected restriction of their emigration rights; but when asked
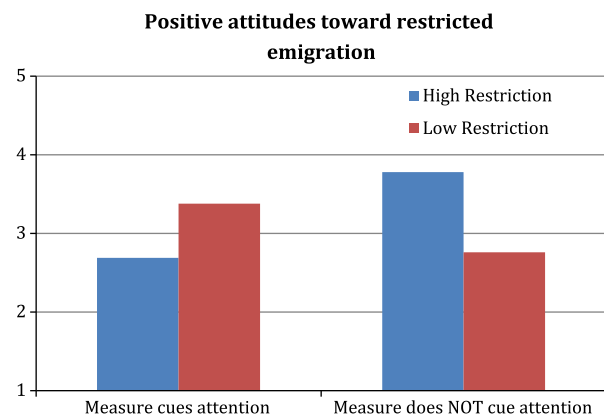

Fig. 1. Positive attitudes towards restricted emigration, as a function of restriction condition (high versus low) and measurement type (cues attention to restriction versus does not); Study 2.

more directly about the validity of a restriction to their rights to leave Canada, participants displayed reactance.

In Study 2, then, we built on the findings from Study 1, confirming H2 using an established system justification paradigm. It also provides some initial evidence for H3, demonstrating that when participants' full attention is drawn to the restriction itself, they display reactance instead of system justification. It is worth noting the subtlety of the manipulation in this study. Whereas on the item that did not draw participants' attention to the restrictive nature of the state of affairs, we perfectly replicated the system justification effect observed in previous research (Laurin et al., 2010), by simply directing participants' attention to the restriction itself, we observed an effect more akin to reactance. That is, the system justification effect did not simply disappear; it was replaced with a seemingly opposite pattern of responses.

In Study 2, we presented the items in a fixed order – the one that did not focus participants' attention on the restriction was asked first and then the one that did second. We intentionally chose this order because we suspected that, had we reversed the order and presented participants with the item that draws explicit attention to the restriction first rather than second, participants would have continued to show reactance on subsequent questions, even if ones which did not focus on the restriction itself. Counterbalancing the order in which we asked the questions would have allowed us to test this prediction, and provided additional evidence for our hypothesis.

Study 3

In Studies 1 and 2, we found evidence suggesting that participants justify restrictive states of affairs when their attention is not drawn to the restrictive nature of the state of affairs, but that they react against them when the questions asked highlights the restrictive nature of the state of affairs– that is, it explicitly mentions the restriction. These findings provide consistent evidence for H2, and some initial support for H3. They are also important, we believe, because they can help explain why the literature is replete with demonstrations of both system justification and reactance effects. By demonstrating that, within a single study, the same restriction manipulation can produce either reactance or justification, depending on which type of measure is used, Study 2 in particular is useful in tying our theoretical proposal to previous literature. One problem with our approach in Study 2, however, is that it necessarily required that justification and reactance be assessed using responses to different questions, which leaves open the possibility that it was some spurious difference between the questions, other than the extent to which they drew participants' explicit attention to the restrictions on their freedom, that drove the findings. For example, a sceptic might argue that the question we used to draw participants' attention to the restriction was less personal than the question we used to draw their attention away from the restriction, and suggest that participants simply failed to justify when the items did not directly concern them. This argument is inconsistent with System Justification Theory, which posits that people seek to perceive their system's rules and regulations as being fair and good for everyone. However, it is certainly true that there may be differences between the two items beyond the one we intended to create, and that these differences might lead to plausible alternative explanations. We remedy this problem in Studies 3 and 4 by using the identical measure to capture both reactance and rationalization.

In addition, full support for our dual process model would also require that reactance can only happen if people focus sufficient cognitive resources on the restriction itself (H3), and that system justification occurs if people's cognitive resources are insufficient,

even if they focus their (limited) attention on the restriction (H1). In Studies 3 and 4, we use an approach that resolves both these issues: We ask participants to respond to a single question, but directly manipulate their available cognitive resources, providing the ultimate test of a dual process model. Although this approach may be less useful for sorting out past findings in the literature, it can more directly illuminate our presumed mechanism – i.e., the role of deliberative thought and attention. In Study 3, we employ the same emigration manipulation used in Study 2, and the same measure designed to highlight the restriction itself. We add to this a manipulation of cognitive load employed by Wegner and Erber (1992; see also Bargh & Thein, 1985; Strack, Erber, & Wicklund, 1982). We predicted that when participants in the high restriction condition had the opportunity to recruit all of their cognitive resources, they would display reactance, replicating Study 2. However, we predicted that the opposite pattern – rationalization – would emerge when cognitive resources were obstructed.

Method

Participants

Sixty undergraduate students at a Canadian university participated in this experiment in exchange for partial course credit. Forty-three of these participants were female, their mean age was 19.3 years old, and 37% of them reported a Caucasian ethnic background.

Procedure

Participants volunteered to participate in an online study of attitudes toward world issues. The website first randomly assigned participants to read a short paragraph describing experts' predictions regarding the future of emigration in Canada. This manipulation was identical to the one used in Study 2. Following this manipulation, the website informed participants that they would rate a set of items designed to tap their "feelings about the information [they] had just read." The website instructed participants randomly assigned to the no-load condition to "please take as much time as you feel is necessary to think about each of the statements below, and rate your agreement using the scale provided." In a procedure modeled after Wegner and Erber (1992), the website told participants randomly assigned to the cognitive load condition that researchers were interested in people's immediate, gut reactions, and to "answer as quickly as you possibly can, without stopping to think about it." To emphasize the importance of this instruction, participants were also told that their responses would be discarded if they took too long to answer.

Following these instructions, participants rated a number of filler items, at a rate of one item per page. Embedded within these items was the direct attitude item used in Study 1, "There are very few valid reasons for preventing people from moving out of their country." To remain consistent with Study 2, we reverse-scored responses such that higher numbers in our analyses represented more positive attitudes towards restricted emigration. [To ensure the manipulation was successful, we recorded participants' response times; as intended, participants in the load condition took significantly less time to read and respond to the crucial question ($M = 7000$ ms) than participants in the no-load condition ($M = 11,310$ ms), $t(58) = 4.06$, $p < .0001$.]

Once participants had rated all the items, they answered several demographic questions, and received a debriefing letter explaining to them the purpose of the study.

Results and discussion

We predicted that participants in the no-load condition would replicate the reactance pattern displayed by participants in Study

2. That is, we predicted that those in the high restriction condition would report more negative attitudes toward restricted emigration. In contrast, we predicted that when participants' cognitive resources were taxed by time pressure, we would find evidence more consistent with SJT, and that those in the high restriction condition would report less negative attitudes. To test these predictions, we submitted participants' ratings to a 2 (condition: high vs. low restriction) × 2 (load: cognitive load vs. no load) between-subjects ANOVA. This analysis yielded a significant interaction, $F(1, 56) = 8.38$, $p < .01$, and no other significant effects (see Fig. 2). A simple effects analysis revealed that participants in the no load condition showed a pattern replicating that found in Study 2, with marginal significance: Those in the high restriction condition reacted against the restriction, reporting more negative attitudes toward it ($M = 3.11$, $SD = 1.45$), compared to participants in the low restriction condition ($M = 4.15$, $SD = 1.95$), $F(1, 56) = 3.06$, $p < .09$. In contrast, participants in cognitive load condition showed the opposite pattern: those in the high restriction condition rationalized the restriction, and reported more positive attitudes toward it ($M = 3.90$, $SD = 1.85$), compared to participants in the low restriction condition ($M = 2.13$, $SD = 1.12$), $F(1, 56) = 5.37$, $p < .03$. Broken down differently, the responses of participants in the high restriction condition showed a trend toward being more positive (but not significantly so) when under cognitive load, $F(1, 56) = 2.14$, $p < .15$, but the responses of participants in the low restriction condition were significantly more negative when under cognitive load, $F(1, 56) = 6.36$, $p < .02$. We had not anticipated this latter effect, and as we did not observe it in Study 4, where we used a more traditional load manipulation, we do not discuss it further.

Thus, as in Study 2, and consistent with H3, when we drew participants' full attention to the restriction itself, they displayed reactance, reporting more negative attitudes toward the restriction – as long as they had all their cognitive resources at their disposal (although in contrast to Study 2, in this study the effect only attained marginal significance). Consistent with H1, though, when we limited participants' cognitive resources via time pressure we found evidence of justification: Those whose freedoms were restricted displayed more positive attitudes toward the restriction. We must, however, be cautious in interpreting the results from Study 3. Although our load manipulation was drawn from past work (e.g., Eidelman & Crandall, 2012; Wegner & Erber, 1992), it could have had additional, incidental effects beyond restricting participants' cognitive resources. For example, participants in the high load condition were told to respond with their gut, and could have interpreted this as a reflection of the researchers' opinion that the policy in question did not matter very much. More generally,

participants could have made other unintended attributions about the instruction to respond with their gut feeling. In Study 4, we resolve these ambiguities by using a more typical manipulation of cognitive load.

Study 4

In Study 4, we improve upon the design of Study 3 in four ways. First, we employ a more standard manipulation of cognitive load: Digit rehearsal (e.g., Lupfer, Clark, & Hutchinson, 1990; Uleman, Newman, & Winter, 1992). Second, we include three levels of cognitive load (none, moderate, high). This modification allowed us to more stringently test whether decreasingly available cognitive resources would lead to increasing justification. Third, we used a different kind of restrictive policy, one that focused on an organizational context: We told our student participants that their university (i.e., their organization) either was or was not planning to introduce a more restrictive policy concerning their ability to modify their course schedule at the beginning of the semester. Finally, we took steps to ensure that participants took the restriction seriously, as one that would affect their lives, labeling our materials with the university's official student union logo.

Method

Participants

One hundred and twenty-five undergraduate students at an American university participated in this experiment in exchange for partial course credit. Seventy-nine of these participants were female, their mean age was 19.7 years old, and 38% of them reported a Caucasian ethnic background. The original sample contained 132 participants; six were excluded because of procedural problems (e.g., participant walked in on a previous participant's debriefing session) and one was excluded because the participant volunteered that s/he was in the final semester of college, and that the restriction was therefore irrelevant. Including these seven participants yielded results nearly identical to those described below.

Procedure

Students volunteered to participate in a study on memory. The experimenter, who was blind to the study's hypotheses, first told participants they would have to remember a digit or series of digits for a certain number of minutes. She said they also might or might not have to complete a "distractor task" during that time interval. In fact, all participants completed the "distractor task", during which they read about and responded to questions about a restrictive policy.

The experimenter randomly assigned participants to one of three cognitive load conditions (see Lupfer et al., 1990; Uleman et al., 1992). In the no-load conditions, participants had to remember a single digit (6). In the medium-load condition, participants had to remember a sequence of 8 digits (83027543), which we expected would be relatively taxing for participants in our sample. In the high-load condition, participants had to remember a sequence of 12 digits (845639978188), which we expected would be extremely taxing for participants in our sample. After allowing participants 1 min. to memorize their sequence of digits, the experimenter told them they had been assigned to the distraction condition, which would consist of a survey distributed by their university's student union. The experimenter handed participants a booklet of materials, featuring the logo of the university's student union on the front page, and left participants alone to complete the survey.

Participants read about a new policy that their university was poised to introduce. They read that under current policy, students
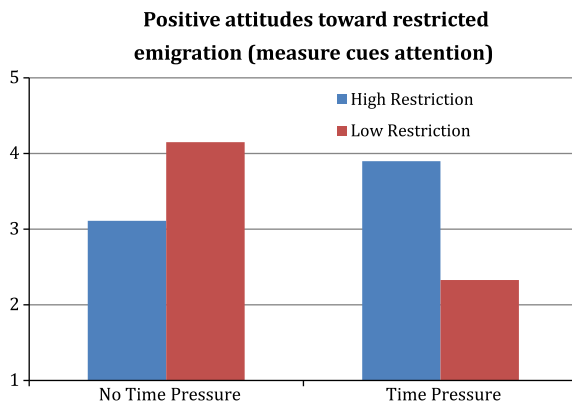

Positive attitudes toward restricted emigration (measure cues attention)

■ High Restriction
■ Low Restriction

Fig. 2. Positive attitudes towards restricted emigration as assessed by measure that cued attention to the restriction, as a function of restriction condition (high versus low) and time pressure (present versus absent); Study 3.

had two weeks to add or drop courses from their schedule with no repercussions. In the high restriction condition, participants read that policy-makers planned to reduce that period to one week starting next semester, and that as a result, "students will have a good deal less flexibility in adding and dropping courses each semester." In the low restriction condition, participants read that policy makers had planned to extend that period to three weeks starting next semester, and that as a result, "students will have a great deal more flexibility in adding and dropping courses each semester."

The survey then asked participants to answer the following two questions on seven-point scales: "Do you think there are many valid reasons for *shortening* the add/drop period from its current length?" (1 = *no, none*; 7 = *yes, many*), and "Do you think it is justifiable to have a policy that restricts students' ability to add/drop courses?" (1 = *not at all*; 7 = *very much so*). We combined participants' responses (r = .49) into a single index of positive attitudes toward restrictive add/drop policies. Both questions asked participants directly about restrictive policies, which in the high restriction condition were policies they believed were about to start influencing their lives. Therefore, among participants in the no-load condition, we expected to find evidence of reactance: Participants in the high restriction condition expressing more negative attitudes than participants in the low restriction condition. As we increased cognitive load, however, we expected that participants would tend more and more toward system justification, or more positive attitudes in the high restriction condition.

When the experimenter returned, she asked participants to record the digits they had been rehearsing. Eight participants reported the wrong sequence of digits (one in the medium load condition and seven in the high load condition). No error was so egregious as to suggest that the participant simply did not try to memorize the digits, and analyses including these participants produced results which were virtually identical to analyses excluding them. Because we suspect that errors were due to cognitive limitations, and not failure to comply with the load instructions, we report results including these eight participants.

Results and discussion

We predicted that in the no-load condition, we would find evidence of reactance, but that as load increased, participants would tend more and more toward system justification. We tested this prediction with a 3 (load: none- vs. medium vs. high) × 2 (restriction: low vs. high) ANOVA.

The ANOVA yielded only the predicted load × restriction interaction, $F(2, 119) = 3.61$, $p = .03$ (see Fig. 3). In the no-load condition, we found evidence of reactance: Participants who anticipated a future with a more restrictive add/drop policy reported marginally less positive attitudes toward it ($M = 2.60$, $SD = 1.40$) compared to participants who did not ($M = 3.21$, $SD = 1.20$), $F(2, 119) = 2.71$, $p = .07$. In the medium load condition, the reactance effect disappeared, and participants reported similar attitudes regardless of their expectations ($M_{high\ restriction} = 3.40$, $SD_{high\ restriction} = 1.46$; $M_{low\ restriction} = 2.87$, $SD_{low\ restriction} = 0.94$), $F(2, 119) = 2.05$, $p = .13$. In the high load condition, participants who anticipated a future where their ability to add and drop courses was restricted appeared to justify this future, reporting more positive attitudes toward restrictive add/drop policies ($M = 3.78$, $SD = 1.09$) compared to participants who anticipated a freer future ($M = 3.07$, $SD = 1.04$), $F(2, 119) = 3.26$, $p = .05$. Broken down differently, participants in the high restriction condition showed a significant effect of load, $F(2, 119) = 4.91$, $p < .01$, with participants in the low load condition reporting more negative attitudes compared to participants in the medium load, $F(2, 119) = 4.98$, $p < .01$, and high load, $F(2, 119) = 9.13$, $p < .001$, conditions (responses of partici-
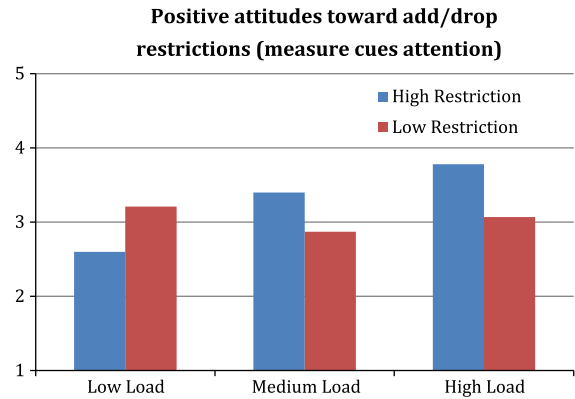

Fig. 3. Positive attitudes towards tightened add/drop restrictions as assessed by measure that cued attention to the restriction, as a function of restriction condition (high versus low) and cognitive load (low versus medium versus high); Study 4.

pants in the latter two conditions did not differ significantly, $F(2, 119) = 1.00$, $p = .37$). Participants in the low restriction condition showed no effect of load, $F(2, 119)$ 0.40, $p = .67$.

In other words, consistent with H3 participants displayed reactance in response to a restrictive policy when their cognitive resources were free and their attention was directed toward the policy itself, reporting more negative attitudes toward it compared to participants who did not expect to face the restrictive policy (as in Study 3, but contrary to Study 2, this effect attained only marginal significance). But, consistent with H1, the more their cognitive resources were limited, the more they tended toward system justification instead, reporting more positive attitudes toward the policy they expected to face, compared to other participants. Participants in the medium load condition seemed closer to justifying than to reacting against the policy, with the pattern of means being consistent with justification, and the significance test approaching marginal significance.

We tested the notion that cognitive load exerted a linear effect on participants responses using a regression analysis predicting attitudes as a function of year (centered), load (none = −1, medium = 0, high = 1), restriction (low = −1, high = 1), and the load × restriction interaction. This regression yielded the predicted interaction, $\beta = .22$, $t(121) = 2.48$, $p < .02$. More importantly, using the Aiken and West (1991) technique, we found that in the high restriction condition, our cognitive load exerted a linear effect on participants attitudes, such that the more we taxed their cognitive resources, the more positively they viewed the restrictive policy they expected to face in the near future, $\beta = .39$, $t(121) = 3.07$, $p = .002$. In the low restriction condition, consistent with the simple effects analysis, the cognitive load manipulation had no effect on participants' attitudes, $\beta = −.05$, $t(121) = 0.38$, $p = .70$.

General discussion

Existing scholarship offers two divergent conclusions about people's reactions to restrictive policies imposed on them by the systems and organizations within which they operate. One program of research has suggested that, when imposed rules or restrictions eliminate or constrain specific freedoms, people will react against those rules or restrictions, feeling hostile towards the restriction and experiencing a heightened desire for whatever has been restricted (Brehm, 1966; Brehm & Brehm, 1981). At the same time, other research, typically without recognizing the contrast with reactance findings, has suggested that people are actually remarkably adept at coming to terms with the constraints of reality, even if these constraints run contrary to their objective self-interest (e.g., Jost & Banaji, 1994). Importantly, this latter body

of research suggests that people will not merely have a muted negative reaction to unwanted constraints, but that they will often come to prefer the constraints, once they exist, and view them more positively compared to baseline levels.

How can we resolve this apparent contradiction in the literature? Given the impressive bodies of literature demonstrating each of these phenomena, it is unlikely either is incorrect. Instead, we reasoned, certain contextual or psychological variables likely moderate the expression of these two seemingly distinct psychological phenomena. In the studies described above, we demonstrate one such moderator: The extent to which people have available cognitive resources that they are cued to focus on the restrictive nature of the policy in question. Specifically, across four studies, using different experimental paradigms, we have observed a very consistent pattern: When people have ample cognitive resources, and those resources are drawn towards the policy itself and its restrictive nature, reactance ensues. Under these conditions, participants, compared to baseline, felt more negatively about restrictive emigration policies (Studies 2 and 3) and restrictive university policies (Study 4). By contrast, if either of these conditions is not met – if participants are not led to focus on the restrictive policy (Studies 1 and 2), or if they have restricted cognitive resources (Studies 3 and 4) – system justification ensues. These effects were consistent across studies, despite the fact that the predicted interaction in each study required two separate effects: A departure from baseline in one direction in one condition, and in the other direction in the other condition.

Theoretical implications and future directions

Beyond the obvious implications these studies hold for the integration of the two different literatures and for our understanding of motivated cognition more generally, they also have important implications for both of the relevant individual literatures in their own right. Our findings are consistent with the notion that reactance may be mostly a learned, explicitly endorsed phenomenon, one tied to culturally communicated and then adopted ideologies (although see the "limitations and future directions" section for a more nuanced speculation). In terms of system justification, as described in the introduction, many theorists and researchers have noted that the relevant processes, if they are to unfold at all, likely happen without deliberate intention. These psychological processes, scholars have suggested, need to happen mostly in the background, hidden from conscious attention towards their operation. In fact, given the extent to which system justification phenomena often result in beliefs that seem contrary to the self-interest of members of certain groups, these processes may need to happen unconsciously if they are to happen at all (see Jost & Hunyady, 2005). This is not to say the output of the justification process need be unconscious; people can explicitly and consciously hold the attitude they have arrived at. It is only to say that the process by which people come to hold these attitudes likely needs to remain relatively unconscious.

Although there has been general consensus surrounding this implicit nature of rationalizing tendencies more broadly (Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998; Lerner & Goldberg, 1999), we are aware of no empirical research that directly demonstrates it. The studies presented here offer the first demonstration that at least some forms of rationalization may require the absence of conscious attention. In all of our studies, processes predicted by SJT did in fact occur: People did justify restrictive policies. But this happened only when the justification process could occur without conscious awareness: That is, when participants' conscious processing was disrupted, or focused away from the restrictive policy. In other circumstances, the justification process not only vanished, but was replaced with an opposite reaction: System backlash. This

may help explain why researchers so often observe phenomena of system justification in the laboratory (for reviews, see Jost et al., 2004; Kay & Zanna, 2009), but so few people appear willing to admit that they themselves engage in this or in related motivated processes (Adorno et al., 1950; Greenberg et al., 1994; Kay et al., 2008; Kruglanski, 1996; Lerner & Goldberg, 1999; Neuberg & Newsom, 1993; Rokeach, 1960).

Limitations and future directions

The studies we report here are not without their individual flaws. Some of these we have noted throughout the article, but there are two we wish to highlight here. First, three of our four studies used single-item measures for our constructs of interest. Although these items had good face validity, we acknowledge that future research should use multi-item measures to allow researchers to hone in more precisely on the latent variables of interest. Second, throughout the studies we have attributed differences between conditions to effects of the high restriction condition. However, all of our studies pitted high restriction conditions against low restriction conditions; none included a true control condition where participants received no restriction information. We did this in part for methodological reasons: We suspect that, at least in our Western samples, participants given no restriction-relevant information would have assumed they were unrestricted. For example, we suspect that participants simply asked about their preferences for vacation days or for moving out of their home country would have answered under the assumption that they had the freedom to take their vacation days, or to relocate outside of the country, whenever they pleased. However, this assumption remains untested, and the absence of a baseline control condition means we should be cautious in our interpretation of the differences between low- and high-restriction conditions.

With regard to future directions, our findings particularly on the reactance side deserve some attention. For one thing, twice the reactance effect only achieved marginal significance. This may reflect a difference in effect size between reactance and rationalization phenomena; however, it may also indicate the presence of unidentified moderators of psychological reactance. Moreover, although we have shown here that reactance more often happens in the presence of conscious awareness, it is important to note that our findings still leave open the possibility that reactance can happen automatically, given the right circumstances. For some people, culturally learned ideologies may be especially (or chronically) accessible (see Higgins, 1996). In addition, certain contextual cues may make ideologies of freedom and choice temporarily high in accessibility for all individuals (Bryan, Dweck, Ross, Kay, & Mislavsky, 2009; Kay & Eibach, 2012). In both cases, reactance may ensue even in more automatic and unconscious forms. Though limited, some research supports both of these possibilities. With respect to the effects of chronic accessibility, Chartrand et al. (2007) observed that, among those chronically high in values consistent with reactance (e.g., people who agree that "When something is prohibited I usually think 'that's exactly what I am going to do'"), non-consciously priming them with reminders of a controlling significant other led to the pursuit of goals opposite to the goals their significant others hold for them. This type of "restriction" differs from the ones we studied here, insofar as it represents a perceived restriction that the chronically reactant individual is exposed to (and has reacted against) many thousands of times, thus potentially automating an otherwise elaborative response. By contrast, in the present studies, all restrictions are novel and imposed by a large entity. These findings are nonetheless worth noting in the current context, especially as they demonstrate the moderating role of a chronic ideology: Participants who reported strong reactance-re-

lated values showed non-conscious reactance in an interpersonal context, and they might well in an organizational one as well.

With respect to temporary activation, we (Laurin, Kay, & Fitzsimons, 2013) have observed that subliminally priming people with symbols related to the United States of America (e.g., Statue of Liberty, American Flag, Bald Eagle) leads people to evince reactance without participants' conscious attention being drawn to the restrictive policy in question, even when under cognitive load. Thus, although all else equal, system justification may be the more likely unconscious response to restrictive policies, reactance may occur even in situations that minimize the opportunity for deliberative, conscious attention, so long as ideologies associated with reactance are especially accessible or salient.

Finally, just as reactance can occur non-consciously, given the right circumstances, it may also be possible that rationalization can occur even when people's full cognitive resources are directly focused on the restriction in question. In our previous research (Laurin, Kay, & Fitzsimons, 2012), we found that reactance is particularly likely in the context of restrictions that are not necessarily certain and can potentially be overcome. In response to these kinds of restrictions, reactance may in fact be the more sensible, adaptive option, since it may lead to a greater likelihood of regaining the lost freedom. In contrast, in the context of restrictions that are inevitable and certain – i.e., restrictions to which reactance makes little sense, because they simply cannot be escaped – we found that rationalization is the dominant response, even though we did not restrict participants' cognitive resources or draw their attention away from the restriction. Thus, when restrictions are described as 100% certain, we may see rationalization under a range of conditions even broader than those identified here. This possibility is especially intriguing given the argument that we and numerous other scholars have made that system justification and rationalization more generally are responses people would not explicitly endorse, and which therefore can only unfold non-consciously. Future research might examine the differences between the mental processes involved in the kinds of rationalization we have observed here, and those involved in the rationalization we have observed in earlier work specifically in response to completely inevitable restrictions. It might be that people do explicitly endorse the idea of engaging in rationalization when confronted with inevitable restrictions, and that those restrictions are, in fact, rationalized consciously. Alternatively, it might be that people do not explicitly endorse rationalization even when confronted with inevitable restrictions, and that instead they engage in a sort of "doublethink" (Orwell, 1949) to distract their conscious minds so that rationalization can unfold.

Concluding remarks

For large – and even small – organizations, systems of rules and governance – that tell people which behaviors are permissible and which are not – are necessary. Most organizations have leverage over their constituents that they can use to force compliance. Nevertheless, to the extent that doing so is costly to the organization, or that the behaviors in question are difficult to monitor, organizations could benefit immensely by obtaining buy-in from their constituents. System Justification Theory suggests that this buy-in should happen naturally: People should rationalize and justify whatever status quo the organization imposes upon them. The findings presented here suggest that this theory paints an incomplete picture: Justification may be the spontaneous response to a new restrictive policy, but under some conditions, reactance may emerge instead. Organizations who find themselves struggling with buy-in may want to consider the circumstances under which they introduce new policies, and identify elements that might be

helping to induce reactance. The research presented here provides some initial guidelines for such an endeavor.

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