



# How perceptions of one's organization can affect perceptions of the self: Membership in a stable organization can sustain individuals' sense of control<sup>☆</sup>

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## ABSTRACT

Building on contemporary perspectives regarding the role that group identification can play in sustaining control motives, we propose that being a member of a stable organization—one experienced as predictable and consistent rather than changing and in flux—can maintain individuals' sense of control. Four studies test this prediction. We observe that higher social identification as an organizational member (as compared to lower identification) is associated with an increased generalized sense of personal efficacy in life specifically when one's organization is experienced as relatively stable (Study 1 and Study 2). Further, the perceived stability of one's organization moderates the extent to which those who recently experienced a threat to personal control—and are thereby motivated to reestablish feelings of control—seek increased social identification as an organizational member (Study 3 and Study 4). Results suggest that membership in a stable organization can provide a psychological buffer against threats to personal control encountered in daily life outside work. Contributions to understanding the ways in which people maintain feelings of personal control in the social world are discussed.

## 1. Introduction

Understanding how people manage to maintain a subjective sense of control in an unpredictable world is a question receiving increasing attention within the field of social psychology (cf. Landau, Kay, & Whitson, 2015). People generally want to feel that they possess control over their environment (Langer, 1975). Individuals' subjective sense that they possess personal agency—that is, that they can control their environment and have the capacity to act efficaciously and achieve desired outcomes—is associated with a host of positive psychological and behavioral outcomes (Kelly, 1955; Seligman, 1975, 1976; Skinner, 1995). Conversely, reduced feelings of personal control have been shown to be psychologically aversive (Pennebaker & Stone, 2004). Importantly, people have been shown to respond to deficits in perceived personal control by seeking to restore a subjective sense of control (for a recent review, see Landau et al., 2015). Here, by building both theoretically and empirically on recent perspectives on control restoration, we suggest that there are nuanced ways to think about how membership in particular kinds of social groups may help individuals maintain a subjective sense of control in life more generally.

Consider Dan—Dan works at a company that he would describe as steady and predictable. In contrast to some of the organizations that Dan's friends work at, which seem in a perpetual state of change and flux, Dan's company has an air of permanence and consistency—it is experienced by its employees as highly stable. In the current research, we suggest that membership in such an organization—one perceived as possessing a high degree of stability—can help individuals maintain a subjective feeling of efficacy and control in their lives more generally. Specifically, we propose that being a member of a stable organization, or, precisely, thinking of oneself in terms of one's membership in a stable organization, provides an effective means of (re-)establishing a sense of personal control.

Our research makes two key contributions. First, we build on theory on social group membership as a source of control (e.g., Fritzsche et al., 2013; Greenaway et al., 2015) by introducing a novel factor—perceptions of group stability—that we suggest may be crucial in determining whether membership in a given group may enhance its members' subjective sense of personal agency in life. Second, we provide novel evidence that control motives underlie group identification processes, thus empirically testing a central proposition put forth by the group-based

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model of control restoration (Fritsche et al., 2013; Fritsche, Jonas, & Fankhänel, 2008). We expand on both of these below.

### 1.1. Control restoration through group identification

According to Fritsche et al.'s (2008, 2013) group-based model of control restoration, when feelings of personal control are threatened—for instance, when people find themselves in situations where they lack control, or are reminded of the ways in which the world is uncontrollable—individuals may seek to re-establish their subjective sense that they personally possess agency in the world by identifying as a part of a collective. The group-based model of control restoration (Fritsche et al., 2008, 2013, 2017) draws on theories of social identity to propose why group identification may be an effective means of achieving a sense of efficacy and control. According to social identity theorists, a central part of an individual's self-concept derives from his or her membership in social groups, and individuals come to understand themselves through these group memberships. Thus, characteristics of the in-group may come to be seen as characteristics of the self (Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987).

Compared to the individual acting alone, groups are powerful social agents. Individuals working together as a collective constitute an especially effective means of achieving goals and acting consequentially in the world. Thus, an important attribute of groups is that they can be highly efficacious—groups have the ability to control their external environment and thus exert influence in the world. Therefore, from a group-based control restoration perspective, membership in a social group might not only assist individuals in achieving group-based goals (Ellemers, De Gilder, & Haslam, 2004; Haslam, Powell, & Turner, 2000), but incorporating group attributes into one's sense of self may help individuals maintain a sense that they personally are someone who is in control and efficacious. That is, "...the sense of agency derived from social identification is not experienced solely at a group level...[r]ather, drawing on the social identity view of "the social self,"...individuals can derive feelings of control from group memberships and incorporate these into their self-concept (Greenaway et al., 2015, pg. 4). Experiencing a sense that one is a person who can control their environment is a necessary precursor to believing that one can act efficaciously in the world, achieving one's desired goals.

Two lines of research have emerged which provide evidence consistent with the group-based model of control restoration. In one line of research, Greenaway et al. (2015) have shown that social identification with groups may enhance individuals' feelings of personal control. For example, the authors find that U.S. participants made to feel highly identified as an American reported higher feelings of control in their lives compared to U.S. participants made to feel less social identification as an American. Greenaway et al. (2015) also show that high identification with a social group can diminish the negative effects of control threats on feelings of personal control—suggesting that group identification itself may be a source of control.

In another line of research, Fritsche et al. (2013) have demonstrated that threats to personal control increase ethnocentrism and similar actions presumed to bolster cultural in-group esteem. For example, in a sample of Austrians, Germans, and Croations, when individuals who were highly identified as a member of their national in-group were made to think of aspects of their life in which they lacked power and influence (the control threat manipulation used in this study), they subsequently demonstrated greater in-group bias by rating their own national in-group more favorably on a series of positive traits relative to outgroups (Fritsche et al., 2013). In related work, Stollberg, Fritsche, and Bäcker (2015) find that control threats increase the attractiveness (i.e., participants' interest in joining) goal-oriented groups. Together, these findings indicate that reduced personal control may trigger individuals' attraction to, and desire to reinforce the power and esteem of, control-affording ingroups. Furthermore, in demonstrating increased

attractiveness of groups and an enhanced tendency to bolster in-group esteem, these findings also indirectly suggest that social identification processes may be at play in response to control threat.

This approach has provided important evidence that individuals may turn to their in-groups (and seek to bolster them) in response to threats to their feelings of personal control. However, by focusing on group attraction and in-group bolstering in response to control threats, this approach has not been able to distinguish psychological attempts at control restoration through the process of identifying the self as an in-group member—a central tenet of the group-based model of control—from attempts at control restoration through other compensatory mechanisms, such as outsourcing control to social entities external to the self (Kay, Gaucher, Napier, Callan, & Laurin, 2008). It is worth noting that in Stollberg et al.'s (2015) work on the effects of control threat on attractiveness of goal-oriented groups, the authors present one study wherein they measure identification as a proxy for attractiveness and demonstrate that control threats increase identification with task groups, but not other types of groups such as intimacy groups or loose associations. This study presents the first evidence that control threats may increase social identification with certain types of groups.

In the current research, we build on this initial finding and Fritsche et al.'s (2013) body of work on the effects of control threat on in-group bias and support, by developing and testing a priori hypotheses that directly examine, across four studies, whether the process of social identification itself—that is, the tendency to construe the self in terms of social group membership—is a means by which individuals may re-establish their sense of personal control. We employ two novel empirical approaches to do so. We assess whether increased identification with a (stable) organization can lead to increased feelings of personal control. We also assess whether threatening individuals' own subjective sense of control—thus triggering their motivation to re-establish a sense of control—may increase their tendency to define the self in terms of group membership.

Second, we build on past theory by positing the importance of a moderator. Specifically, we empirically examine whether a characteristic that has been theorized to be related to control—perceived stability—might moderate this group identification process. That is, we examine whether perceptions of how predictable and unchanging a group seems might moderate the extent to which individuals seek to restore their sense of control—specifically, their personal sense of efficacy in life—through group membership. In doing so, we extend the group-based model of control restoration (Fritsche et al., 2013) and build on Greenaway et al.'s (2015) findings by suggesting the particular kinds of social groups (e.g., those experienced as relatively stable) that are most likely to serve a control-restoring or control-enhancing function for their members. We assess our predictions in the context of employees and their work organizations—a particular context in which the group-based model of control has yet to be tested and one especially useful in examining our proposed moderator of group stability.

### 1.2. From group stability to a personal sense of efficacy

Identifying as a group member as a means of control restoration may be most effective when the group itself is characterized by unified agency—that is, when the group is experienced as a collection of individuals working together in a goal-directed manner (Fritsche et al., 2013; Fritsche, Jonas, & Kessler, 2011; Stollberg et al., 2015). We suggest that a certain level of perceived group stability is likely necessary in order to experience a sense of being part of an efficacious collective. If a group is unpredictable or constantly changing, it is unlikely to be perceived as having a sustained goal, thus making it difficult for individuals to achieve a shared sense of agency through group membership. We thus propose that perceived group stability might be a key factor influencing whether individuals derive a sense of personal control through group identification. We expand on this reasoning below.

The perceived stability of the particular group may be an important signal to its members of its level of unified efficacy. Much like perceiving the external world in general as disordered or chaotic may diminish individuals' sense of global structure and order (cf. Kay, Shepherd, Blatz, Chua, & Galinsky, 2010; Landau et al., 2015), perceiving one's group as turbulent or in flux may disrupt individuals' sense of their group is a coherent collective that is in control. For a social identity derived from membership in particular group to sustain an individual's sense of personally being someone who is agentic and can act effectively in the world, we suggest that the group itself must be experienced in this way.

Social entities vary in the extent to which they are experienced as stable—that is, as predictable and unchanging over time (Sani et al., 2007). The social groups previously studied in the context of group-based control have mainly been national and cultural in-groups—a particular type of social group characterized by a high degree of stability. Such groups are explicitly defined by an enduring set of shared customs and values (Lickel et al., 2000)—they are relatively coherent and consistent collectives and are likely experienced by their members as such. However, other types of social collectives that individuals may commonly find themselves members of (such as work organizations) may sometimes be experienced as less stable—as changing and inconstant over time.

Organizations are a particular kind of social collective that vary in their level of stability (Burton, Obel, & DeSanctis, 2011). While some organizations may be experienced as meaningful, long-term social entities, other organizations have structures and goals that are often subject to forces that may undermine their perceived constancy and cohesion of purpose. At the whim of one individual, an organization may change direction, become fragmented, or suddenly undergo restructuring or downsizing (Scott, 1992), all of which are likely to diminish members' sense of their organization as a group exerting predictable and lasting effects on the world. Because of this, organizations offer a unique opportunity to study a potentially important moderator of the control-restoring function of social groups—that is, their perceived stability. For those individuals who are members of organizations perceived as relatively stable—that is, experienced as a group that is predictable and enduring rather than changing or in flux—construing oneself as an organizational member may affirm individuals' own feelings of efficacy and control. For those individuals operating in organizations experienced as relatively unstable, however, organizational membership is unlikely to afford this sort of social identity-based sense of efficacy and control.<sup>1</sup>

## 2. Overview of present research

In the current research, we build on the group-based model of control to propose that incorporating one's organizational membership as a central part of one's identity should satisfy individuals' broad needs for control and efficacy when that organization is perceived as relatively stable. This suggests two novel predictions. First, an unexplored psychological benefit of working at a relatively stable organization may be an enhanced sense of personal efficacy in life. That is, we predict that, for those who work at relatively stable organizations, identification as a member of that organization may bolster individuals' sense of personally being someone who is able to act as an effective agent in the world.

**Hypothesis 1.** For those who perceive their organization as relatively stable, higher social identification as an organizational member (as

compared to lower identification) will be associated with an increased generalized sense of personal efficacy.

Second, when motivated to re-establish feelings of control, such as when confronted with experiences in life that threaten one's sense of personal control, perceptions of organizational stability may moderate how strongly individuals then seek organization identification. That is, we predict that the tendency to re-affirm one's sense of control through organization identification may vary as a function of whether individuals experience their organization as a group that is relatively stable.

**Hypothesis 2.** Those who perceive their organization as relatively stable should show a greater tendency toward organization identification following a threat to personal control compared to those who perceive their organization as relatively unstable.

This prediction thus suggests that some organizations (i.e., those with a relatively high degree of stability) may be more likely to function as a control-restoring psychological resource for their members.

We test our predictions across four studies. In Study 1 and Study 2, we survey individuals working at a wide range of organizations and examine whether perceived organizational stability moderates the extent to which social identification as an organizational member is associated with an increased sense of personal efficacy in life. In Study 3, we experimentally threaten participants' sense of control (which has been shown in prior work to induce control restoration strategies) and examine whether perceived organizational stability moderates the extent to which personal control threat leads to increased organizational identification. To the extent that we are correct that an organization with a high degree of stability should be most effective as a control-restoring group, we should observe that, under control threat, employees in relatively stable organizations respond with increased organization identification as compared to employees in relatively unstable organizations. In Study 4, we conceptually replicate Study 3's findings.

## 3. Study 1

Study 1 was our first attempt at examining whether, in a diverse sample of working adults recruited through an executive education program, identifying as a member of a stable organization is associated with an increased sense of personal efficacy. We examined the relationship between employees' identification with their organization, their perceptions of how stable their organization was, and their belief in their capacity to achieve their long-term personal goals in life. We predicted an interactive effect of identification and stability on efficacy: that is, we expected that higher social identification (as compared to lower social identification) with an organization would be associated with increased sense of personal efficacy specifically when that organization was perceived as relatively stable (*Hypothesis 1*).

### 3.1. Method

#### 3.1.1. Participants

Our sample consisted of two hundred and thirty-three individuals who took part in a survey that was administered as part of an executive education course at a business school at a private American university. Sample size was determined by how many respondents completed the survey prior to the survey deadline provided by the course administrators. No data analysis was conducted prior to the end of all data collection. Students in this executive education course were each asked to recruit several of their work colleagues to complete a feedback survey about their leadership abilities. The students also completed the survey themselves. Measures of organizational identification, organizational stability, and efficacy were included at the end of this leadership survey. Participants were from seventeen different countries:

<sup>1</sup> One could imagine situations in which an individual may be a highly identified member of a group that subsequently goes through a period of instability. For example, employees of particular company may be highly identified with the company but may still experience their organization as unstable at times, such as when the company goes through changes (e.g. CEO turnover, restructuring). Similarly, fans of professional sports teams often remain highly identified as fans of a particular team even as the team undergoes substantial changes in terms of the particular players it employs.

**Table 1**  
Participant demographics for all studies.

	Study 1	Study 2	Study 3	Study 4
Gender	Female – 21% Male - 79%	Female – 41% Male - 59%	Female – 32% Male – 68%	Female – 30% Male – 70%
Age	$M = 38.39$ $SD = 20.43$	$M = 35.00$ $SD = 11.22$	18–24 – 24% 25–34 – 46% 35–44 – 20% 45–64 – 10%	18–24 – 27% 25–34 – 48% 35–44 – 13% 45–64 – 12%
Ethnicity		Caucasian - 78% Asian - 11% Black – 6% Hispanic - 4% Other - 1%	Caucasian - 77% Asian - 9% Black – 6% Hispanic - 7% Other - 1%	Caucasian - 80% Asian - 10% Black – 4% Hispanic - 5% Other - 1%
Education		Some high school – 1% High school graduate - 9% Some college – 32% College graduate – 42% Some post graduate - 3% Post graduate degree - 13%	Some high school – 1% High school graduate – 8% Some college – 35% College graduate – 47% Some post graduate – 3% Post graduate degree – 6%	High school graduate – 7% Some college – 33% College graduate – 43% Some post graduate – 5% Post graduate degree - 12%
Income		< \$15,000 – 10% \$15,000–\$24,999 – 13% \$25,000–\$34,999 – 20% \$35,000–\$49,999 – 18% \$50,000–\$74,999 – 24% \$75,000–\$99,999 – 8% \$100,000–\$149,999 – 5% \$150,000–\$199,999 – 2%	< \$15,000 – 11% \$15,000–\$24,999 – 17% \$25,000–\$34,999 – 18% \$35,000–\$49,999 – 22% \$50,000–\$74,999 – 18% \$75,000–\$99,999 – 10% \$100,000–\$149,999 – 3% \$150,000–\$199,999 – 1%	< \$15,000 – 12% \$15,000–\$24,999 – 16% \$25,000–\$34,999 – 19% \$35,000–\$49,999 – 23% \$50,000–\$74,999 – 17% \$75,000–\$99,999 – 8% \$100,000–\$149,999 – 4% \$150,000–\$199,999 – 1%
Tenure		$M = 5.62$ $SD = 5.15$ Min = 0, max = 34	$M = 4.60$ $SD = 4.34$ Min = 0, max = 30	$M = 4.49$ $SD = 4.81$ Min = 0, max = 38

Note. Tenure = number of years working at current organization.

USA (140), Canada (8), Brazil (7), India (7), Czech Republic (3), Sweden (2), Italy (2), Ireland (2), France (2), United Kingdom (1), Palestine (1), Germany (1), Belgium (1), Australia (1), China (1), Mexico (1), Afghanistan (1) and Switzerland (1). Fifty-one participants did not specify their country of origin. Twenty-seven percent of participants described their functional specialty as General Management, 20% Sales/Marketing, 10% Engineering, 5% Finance, 4% Manufacturing, 3% Human Resources, 2% Research & Development, 2% Accounting, and 27% selected 'Other' for their functional specialty. No participants in the sample were excluded from the analysis. Table 1 shows participant demographics for all studies reported here.

### 3.1.2. Materials and procedure

We included items assessing our variables of interest at the end of a longer survey administered by other researchers. Participants received a link to the survey via email. While the survey allowed us to have access to a unique sample of working adults recruited through an executive education program, due to space constraints in the survey, we were only permitted to include three items, hence our variables of interest were assessed using one-item measures. The first item assessed organizational identification (“How often do you feel that being a part of your organization is an important part of your self-image?”). The second item assessed perceived organizational stability (“How often do you experience your organization as stable?”) The third item assessed feelings of personal efficacy in life (“How often are you confident that you will be able to achieve your long term personal goals in life?”). Participants responded to each of the three items on a 6-point scale (1 = Never, 2 = Seldom, 3 = Occasionally, 4 = Often, 5 = Very Often, 6 = Almost Always).<sup>2</sup> Survey respondents also had the option of selecting “Not Applicable” for each item.

<sup>2</sup> Our items were designed in terms of frequency for Study 1 because we were limited to the existing response options used in the leadership survey.

### 3.2. Results and discussion

We predicted that perceived organizational stability would moderate the effect of organization identification on individuals' feelings of efficacy, with higher identification associated with higher reported efficacy specifically for those who perceived their organization as relatively stable. Therefore, using the Aiken, West, and Reno (1991) method for multiple regression, we tested for an interaction between organizational identification  $\times$  organizational stability on participants' self-reported efficacy, using mean centered scores for organizational identification and organizational stability.

As Fig. 1 illustrates, this analysis revealed a main effect of identification,  $b = 0.49$ ,  $SE = 0.20$ ,  $t(212) = 2.52$ ,  $p = .013$ , with higher organizational identification associated with higher feelings of efficacy, qualified by a stability  $\times$  identification interaction,  $b = 0.13$ ,  $SE = 0.04$ ,  $t(212) = 2.98$ ,  $p = .003$ . Probing of the simple slopes at one standard deviation above and below the mean on perceived organizational stability revealed that, consistent with Hypothesis 1, for participants who perceived their organization as relatively stable, those who were more highly identified as an organizational member reported higher general efficacy in their lives compared to those who were less identified as an organizational member,  $b = 0.22$ ,  $SE = 0.07$ ,  $t(212) = 2.92$ ,  $p = .004$ . For those who perceived their organization as relatively unstable, there was no effect of identification on feelings of efficacy,  $b = -0.08$ ,  $SE = 0.07$ ,  $t(212) = -1.07$ ,  $p = .28$ .

Also, for participants who were relatively high in organizational identification, those who perceived their organization as more stable reported higher general efficacy in their lives than those who perceived their organization as less stable,  $b = 0.41$ ,  $SE = 0.08$ ,  $t(212) = 5.45$ ,  $p < .001$ . For participants relatively low in organizational identification, the effect of stability on efficacy did not reach significance,  $b = 0.11$ ,  $SE = 0.07$ ,  $t(212) = 1.62$ ,  $p = .11$  Table 2 shows all means, standard deviations and intercorrelations of variables in Study 1.

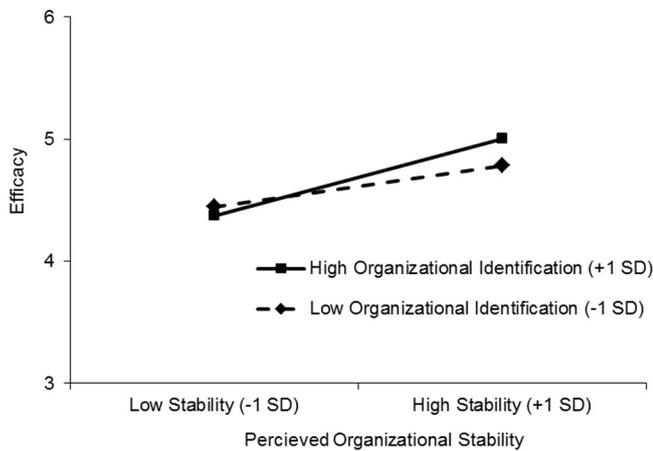


Fig. 1. Relationship between participants' level of organizational identification, how stable they perceived their organization to be, and their sense of efficacy (Study 1).

**Table 2**  
Means, standard deviations, and intercorrelations of variables (Study 1).

Variable	<i>M</i>	<i>SD</i>	1	2
1. Identification	4.50	1.13	–	
2. Stability	4.30	1.13	0.128 <sup>†</sup>	–
3. Efficacy	4.87	0.94	0.122 <sup>‡</sup>	0.318 <sup>**</sup>

<sup>†</sup>  $p = .06$ .

<sup>‡</sup>  $p = .07$ .

<sup>\*\*</sup>  $p < .001$ .

## 4. Study 2

Study 1 was primarily correlational in nature, making it difficult to infer causality. In Study 1, we conceptualized stability as a fixed feature of an individual's organization and assessed variance in perceptions of organizational stability by sampling individuals working at different organizations. Study 2 aimed to build on the findings of Study 1 by employing an experimental manipulation of perceived organizational stability, rather than treating it as a measured variable. In doing so, our goal was to provide stronger causal evidence for Hypothesis 1—that social identification as an organizational member should be associated with enhanced feelings of efficacy specifically when participants perceive their organization as relatively stable. Thus, in Study 2, we first measured participants' level of organizational identification, then introduced a recall task aimed at varying participants' perceptions of how stable their organization was, and then measured participants' sense of personal efficacy.

### 4.1. Method

#### 4.1.1. Participants

Three hundred and five U.S. residents were recruited from Mechanical Turk. Following the guidelines suggested by Simmons, Nelson, and Simonsohn (2011), in Study 2 and all studies that follow, we decided on the rule for terminating data collection before data collection began and sample size was determined before any data analysis. Specifically, we determined a priori that we would aim to recruit at a minimum 50 participants per cell, at twice the recommended minimum cell sample size suggested by Simmons et al. (2011). We recruited our sample from Mechanical Turk rather than relying on a university laboratory sample because Mechanical Turk allowed us to survey working adults in a diverse range of occupations and organizations. All participants were currently employed at a job in

an organization. Participants worked in twenty-three different industries; the most common industries were Sales/Retail/Business Development (14%), IT/Software Development (14%) and Education/Training (8%). Table 1 presents complete participant demographics. No participants were excluded from the analysis.

#### 4.1.2. Materials and procedure

All measures and manipulations administered are reported below. First, to assess participants' level of social identification with their organization, we used Allen and Meyer's (1990) six-item measure of affective commitment. We selected this measure because it is an established scale capturing group identification specifically in the context of individuals' relationship with their work organization. Affective commitment, a unique component of Allen and Meyer's (1990) conceptualization of organizational commitment, specifically refers to an individual's "emotional attachment to the organization, such that the strongly committed individual identifies with, is involved in, and enjoys membership in the organization" (Allen & Meyer, 1990, pg. 2). Example items are, "I really feel as if this organization's problems are my own" and "I do not feel a strong sense of 'belonging' to my organization" (reverse coded) which participants rated on a 7-point scale from 1 ("Strongly Disagree") to 7 ("Strongly Agree"). These six items were combined to form an organizational identification index with Cronbach's alpha of 0.89.

Next, participants were then randomly assigned to one of two perceived organizational stability conditions. In the high organizational stability condition, participants read: "In the space below, write down some examples of how the organization you work at has a structure and/or set of priorities and goals that are steady and enduring." In the low organizational stability condition, participants read, "In the space below, write down some examples of how the organization you work at has a structure and/or set of priorities and goals that are in flux and changing over time." After completing the recall task, all participants completed a manipulation check question, rating how stable the organization they worked at was, on a 7-point scale from 1 ("Not at all stable") to 7 ("Very stable").

Next, participants' sense of personal efficacy was measured using four items from Chen, Gully, and Eden's (2001) general self-efficacy scale. Items were selected from the scale that assessed global feelings of personal efficacy. Participants first read the following prompt: "Thinking about your long term goals in life, rate your agreement with the following statements." Participants then rated the following four items on a 6-point scale ranging from 1 ("Strongly Disagree") to 6 ("Strongly Agree"): "I will be able to achieve most of the goals that I have set for myself," "In general, I think that I can obtain outcomes that are important to me," "I believe I can succeed at most any endeavor to which I set my mind," and "I will be able to successfully overcome many challenges." These items were averaged to form an efficacy index with Cronbach's alpha of 0.92.

### 4.2. Results and discussion

#### 4.2.1. Manipulation check

First, we assessed whether our perceived organizational stability manipulation was successful in varying participants' perceptions of the stability of their organization. While we found an expected main effect whereby those in the high organizational stability condition reported that their organization was more stable ( $M = 5.60$ ,  $SD = 1.31$ ) compared to those in the low organizational stability condition ( $M = 5.08$ ,  $SD = 1.46$ )  $t(303) = 3.26$ ,  $p = .001$ ,  $d = 0.37$ , we also found a significant interaction between stability condition and participants' level of organizational identification,  $b = 0.27$ ,  $SE = 0.09$ ,  $t(301) = 2.91$ ,  $p = .004$ . Probing this interaction at one standard deviation above and below the mean on identification revealed that while the stability manipulation was successful for participants who were relatively low in organizational identification,  $b = 0.95$ ,  $SE = 0.19$ ,  $t(301) = 4.92$ ,

$p < .001$ , for participants relatively high in organizational identification, there was no effect of experimental condition; that is, the manipulation did not systematically alter their perceptions of how stable their organization was,  $b = 0.15$ ,  $SE = 0.20$ ,  $t(301) = 0.768$ ,  $p = .443$ .<sup>3</sup>

#### 4.2.2. Post-hoc supplementary analysis

Because our experimental manipulation failed to systematically alter perceptions of organizational stability for those relatively high on organizational identification, we were not able to use the data from the present study to investigate the interactive effects of manipulated perceptions of organizational stability and measured organizational identification on participants' feelings of efficacy. We did, however, find that we conceptually replicated the pattern of effects we found in Study 1 when we examined the interactive effects of measured organizational stability (our manipulation check item) and participants' level of organizational identification on efficacy. Specifically, we found a main effect of identification,  $b = 0.23$ ,  $SE = 0.11$ ,  $t(301) = 2.00$ ,  $p = .047$ , with greater identification associated with greater efficacy, qualified by a significant stability  $\times$  identification interaction,  $b = 0.07$ ,  $SE = 0.02$ ,  $t(301) = 3.35$ ,  $p = .001$ . As depicted in Fig. 2, supporting Hypothesis 1, for participants who rated their organization as relatively high in stability, higher identification was associated with higher reported efficacy,  $b = 0.22$ ,  $SE = 0.04$ ,  $t(301) = 5.16$ ,  $p < .001$ . For participants who rated their organization as relatively low in stability, identification was not significantly associated with efficacy,  $b = 0.03$ ,  $SE = 0.05$ ,  $t(301) = 0.732$ ,  $p = .465$ .

Also, for those participants relatively high in identification, those who perceived their organization as more stable reported higher general efficacy in their lives compared to those who perceived their organization as less stable,  $b = 0.37$ ,  $SE = 0.06$ ,  $t(301) = 6.44$ ,  $p < .001$ . For those participants relatively low in identification, the effect of stability on efficacy was also positive,  $b = 0.17$ ,  $SE = 0.04$ ,  $t(301) = 4.17$ ,  $p < .001$ , but to a lesser degree. Table 3 shows all means, standard deviations and intercorrelations of variables in Study 2.<sup>4</sup>

## 5. Study 1 and study 2 discussion

Study 1 and Study 2 provided initial evidence that social identification as a member of a stable and permanent entity may serve to sustain feelings of efficacy, or a sense that one possesses agency and control over one's environment. We examined this prediction in two ways: i) We tested whether perceived organizational stability (high vs. low) moderated the positive association between identification and efficacy, and ii) we tested whether organizational identification (high vs. low) moderated the positive association between perceived organizational stability and efficacy. To summarize, Study 1 and Study 2 showed that there was only a positive and significant relationship between social identification with one's organization and efficacy for those who perceived their organization as relatively stable, thus supporting Hypothesis 1. These results thus build on Greenaway et al.'s (2015) findings by suggesting that group membership may be most likely to provide individuals with a sense of control when the group is experienced as relatively stable. Study 1 also showed that perceptions of how stable one's organization was predicted individuals' sense of efficacy specifically for those individuals who were relatively highly identified as a member of their organization, suggesting that perceiving one's group as relatively stable may enhance the extent to which one

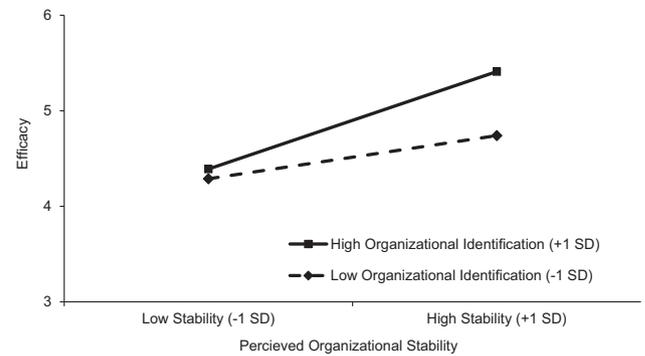


Fig. 2. Relationship between participants' level of organizational identification, how stable they perceive their organization to be, and their sense of efficacy (Study 2).

Table 3

Means, standard deviations, and intercorrelations of variables (Study 2).

Variable	M	SD	1	2
1. Identification	4.22	1.54	–	
2. Stability	5.33	1.41	0.427**	–
3. Efficacy	4.77	0.96	0.359**	0.423**

\*\*  $p < .001$ .

feels efficacious in life, specifically through the process of social identification with that group.<sup>5</sup>

The results of Study 1 and Study 2 are limited in that they only provided correlational support for our predictions. In Study 2, in an effort to provide stronger causal evidence, we attempted to experimentally manipulate perceptions of organizational stability but found that we were not able to effectively do so for those individuals relatively high in organizational identification. Thus in the studies that follow, we employ a different paradigm to test our general predictions and examine Hypothesis 2, with the aim of providing clearer evidence of causal process.

## 6. Study 3

In Study 3, rather than examining whether perceived organizational stability and identification interacted to predict participants' sense of self-efficacy, we employed a paradigm very common to studies assessing control restoration strategies: namely, we experimentally engendered feelings of personal control threat in participants and then observed its effects on feelings of organizational identification. As reminding people of past experiences in which they lacked control has been shown to elicit responses aimed at reestablishing a sense of control (i.e., Kay et al., 2008), this paradigm provided a direct means of assessing whether control restoration motives may underlie group identification processes. If identifying with a stable organization provides a psychological means of re-establishing a sense of personal control in life more generally, as we predict, then when feelings of control are experimentally threatened, we expect that individuals who perceive their organization as relatively stable should show a greater tendency toward organizational identification as compared to those who perceive their organization as relatively unstable (Hypothesis 2). Thus, in this study, we first measured participants' beliefs about how stable their organization was, then experimentally manipulated participants' sense of personal control (by asking them to recall a time when they either did

<sup>3</sup> In Study 2, participants' mean level of organizational identification did not differ across the two stability conditions ( $M_{highstability} = 4.15$ ,  $SD = 1.60$  vs.  $M_{lowstability} = 4.28$ ,  $SD = 1.50$ )  $t(303) = -0.705$ ,  $p = .481$ ,  $d = 0.08$ ).

<sup>4</sup> All reported effects for Study 2 remain virtually identical after controlling for participants' tenure at their organization, and participants' income and education level.

<sup>5</sup> In Study 2, while we found a positive association between perceived stability and efficacy both at one standard deviation above and below the mean on identification, a follow-up floodlight analysis (Spiller, Fitzsimons, Lynch, & McClelland, 2013) revealed that the effect of stability on efficacy was only statistically significant for scores of 1.76 or above on identification, thus consistent with our general predictions.

or did not have control), and then measured the extent to which they then identified with their organization. Thus Study 3 employed a 2 (condition: personal control threat vs. personal control affirmation)  $\times$  continuous: perceived organizational stability between-participants design.

## 6.1. Method

### 6.1.1. Participants

Two hundred U.S. residents employed in full-time jobs were recruited from Mechanical Turk. Six failed an attention check question and were thus excluded from analyses, leaving a sample of one hundred and ninety-four participants. Participants worked in twenty-two different industries, the most common of which were IT/Software Development (12%), Sales/Retail/Business Development (12%), and Manufacturing/ Production/Operations (9%). Participant demographics are reported in Table 1.

### 6.1.2. Materials and procedure

All measures and manipulations administered are reported below. All participants first responded to a set of questions about the organization at which they worked, including items assessing organizational stability, size, hierarchy, and geographical dispersion. Four items assessed participants' perceptions of organizational stability. Participants were asked to rate the degree to which their current organization is: stable, predictable, fragile (reverse coded) and in flux (reverse coded), on a 7-point scale, from 1 ("Not at all") to 7 ("Extremely"). Responses on these four items were averaged to form an organizational stability index with Cronbach's alpha of 0.75. Organizational size was measured using two items: participants were asked to indicate how many people their organization employed and also to indicate the size of their organization on a 9-point scale ranging from 1 ("Extremely small") to 9 ("Extremely large"). Organizational hierarchy was measured using two items: participants were asked to indicate the levels of administration or hierarchy within their organization, and were also asked to indicate how hierarchical their organization was on a 9-point scale ranging from 1 ("Not hierarchical at all") to 9 ("Extremely hierarchical"). Participants were asked to indicate the geographical dispersion of their organization on a 9-point scale ranging from 1 ("Not at all geographically dispersed") to 9 ("Extremely geographically dispersed") (see Table 4).

Following this, participants' sense of personal control was experimentally manipulated using materials adopted from Kay et al. (2008). Specifically, participants were assigned to one of two experimental conditions. In the Personal Control Threat condition, participants' sense of personal control was threatened. Specifically, participants were asked to try and think of something that happened to them in the past

**Table 4**  
Participants' reported organizational characteristics for studies 3 and 4.

	Study 3	Study 4
Number of employees	Fewer than 10 - 7% 10–50 - 20% 51–200 - 17% 201–500 - 9% 501–1000 - 10% More than 1000 - 36%	Fewer than 10 - 7% 10–50 - 21% 51–200 - 14% 201–500 - 9% 501–1000 - 8% More than 1000 - 41%
How large?	$M = 5.37$ $SD = 2.31$	$M = 5.53$ $SD = 2.38$
Levels of hierarchy	1–3–36% 4–5–34% 6 or more - 30%	1–3–30% 4–5–35% 6 or more - 35%
How hierarchical?	$M = 6.18$ $SD = 2.23$	$M = 6.49$ $SD = 1.80$
How geographically dispersed?	$M = 4.79$ $SD = 2.84$	$M = 4.74$ $SD = 2.83$

Note. Scale items ranged from 1 to 9.

few months that they had absolutely no control over and to describe this event in no more than 100 words. In the Personal Control Affirmation condition, participants were asked to try and think of something that happened to them in the past few months that they had control over and to describe that event in no more than 100 words. Following the manipulation, participants reported their level of organizational identification. To ensure that the effects we observed in Study 2 were not limited to one particular measure of group identification, rather than using Study 2's affective commitment scale to measure identification, for Study 3, we selected a measure of group identification widely used within the field of social psychology—Luhtanen and Crocker's (1992) Collective Self-Esteem Scale, designed to measure the degree to which individuals' self-image stems from membership in a particular group. We adapted items from this scale to measure participants' level of social identification with their organization. Participants responded to six items on a 7-point scale from 1 ("Strongly disagree") to 7 ("Strongly agree"). Example items were, "In general, being a part of my organization is an important part of my self-image" and "My organization is unimportant to my sense of what kind of person I am (reverse coded)." These six items were combined to form an organizational identification index with Cronbach's alpha of 0.86. These six items were averaged to form an organizational identification index with Cronbach's alpha of 0.85.<sup>6</sup>

## 6.2. Results and discussion

To examine our prediction that perceived organizational stability should moderate the effect of control threat on participants' tendency to identify with their organization, we tested for a two-way interaction between organizational stability  $\times$  condition (Personal Control Threat vs. Personal) on organizational identification, using mean centered scores for stability.<sup>7</sup> The main effect of control threat condition on identification was non-significant,  $b = 0.14$ ,  $SE = 0.18$ ,  $t(190) = 0.753$ ,  $p = .452$ . As predicted, there was a significant condition  $\times$  stability interaction,  $b = 0.35$ ,  $SE = 0.16$ ,  $t(190) = 2.20$ ,  $p = .029$ .

As Fig. 3 illustrates, probing of the simple slopes revealed that, consistent with Hypothesis 2, for participants who recalled an event wherein they lacked control, higher perceived organizational stability was associated with greater organizational identification,  $b = 0.50$ ,  $SE = 0.10$ ,  $t(190) = 4.86$ ,  $p < .001$ . However, for participants who recalled an event wherein they had control, there was no effect of perceived organizational stability on identification,  $b = 0.15$ ,  $SE = 0.12$ ,  $t(190) = 1.18$ ,  $p = .24$ . Furthermore, examining the effects of experimental condition (personal control threat vs. personal control affirmation) at one standard deviation above and below the mean on perceived organizational stability, we observed that while there was no effect of condition on identification at relatively low stability,  $b = -0.28$ ,  $SE = 0.26$ ,  $t(190) = -1.08$ ,  $p = .28$ , at relatively high organizational stability, participants in the control threat condition reported significantly higher organizational identification compared to

<sup>6</sup> For transparency, we would like to note that, in this study, we also explored an unrelated hypothesis: specifically, whether Kay et al.'s (2008) finding that low perceived control increased defense and justification of benevolent external systems would replicate in an organizational context. Two items measuring organizational benevolence were therefore included at the beginning of the study with the other organizational characteristics ("My organization has its employees' best interests at heart" and "My organization ensures, for the most part, that its employees are well taken care of") and two items assessing participants' system justifying tendencies were included as dependent measures ("In general, my organization operates as it should" and "My organization needs to be radically restructured" (reverse coded). Conceptually replicating Kay et al.'s (2008) findings, among those who perceived their organization as relatively benevolent, threats to personal control outside work increased organizational system justification.

<sup>7</sup> In Study 3, participants' mean level of reported organizational stability differed marginally by control threat condition, with marginally higher stability reported in the control threat condition compared to the control affirmation condition ( $M_{\text{controlthreat}} = 5.01$ ,  $SD = 1.25$  vs.  $M_{\text{controlaffirmation}} = 4.71$ ,  $SD = 1.05$ ,  $t(192) = -1.85$ ,  $p = .065$ ,  $d = 0.26$ ).

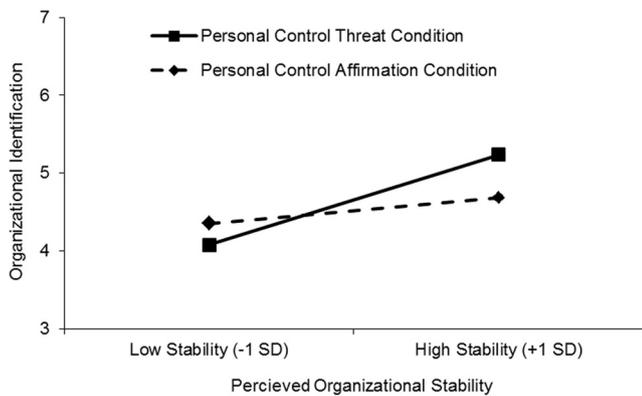


Fig. 3. Effect of condition and perceived organizational stability on organizational identification (Study 3).

participants in the control affirmation condition,  $b = 0.54$ ,  $SE = 0.26$ ,  $t(190) = 2.05$ ,  $p = .041$ .

### 6.2.1. Post-hoc exploratory analyses

As the free recall memory task we employed in this study to manipulate feelings of personal control allowed participants to potentially recall events in different domains of their life, we thought to examine the content of their responses in order to test whether group-based control restoration might be most likely to occur specifically when participants recalled threats to their sense of personal control originating in their lives outside their work organization, rather than threats originating inside their work organization. Consistent with the self-affirmation literature, which shows that, in general, compensation for threats to the self-occur in domains distinct from the one in which the threat itself originates (cf. Cohen & Sherman, 2014), it is possible that the predicted tendency to increasingly define the self as a member of a stable organization in response to control threat might depend on that organization not also being the source of that threat. That is, it is possible that our predicted effect might be more robust when the control threat participants recalled originated outside (rather than inside) their own organization.

Thus, we coded participants' responses in both experimental conditions (control threat and control affirmation) in terms of whether the event they recalled was work-related (i.e., an event inside their organization) or non-work related (i.e., an event outside their organization).

Next, using mean centered scores for organizational stability, we first tested for a three-way interaction between organizational stability  $\times$  condition (Personal Control Threat vs. Personal Control Affirmation)  $\times$  source (Inside Work vs. Outside Work) on organizational identification. This analysis revealed a marginally significant 3-way interaction,  $b = 0.60$ ,  $SE = 0.33$ ,  $t(182) = -1.84$ ,  $p = .068$ .

Probing the two-way interaction within each domain of recall, we found that for those participants who recalled an event inside their organization in which they either did or did not have control, there was no two-way interaction between perceived organizational stability and condition (personal control threat vs. personal control affirmation) on organizational identification,  $b = 0.13$ ,  $SE = 0.20$ ,  $t(107) = 0.66$ ,  $p = .51$ , only a main effect of stability, with greater perceived organizational stability associated with high organizational identification,  $b = 0.44$ ,  $SE = 0.10$ ,  $t(107) = 4.37$ ,  $p < .001$ .<sup>8</sup> However, examining

<sup>8</sup> It is worth noting that, in Study 3, for participants who recalled an event inside their organization in which they either did or did not have control, we only observed an overall positive association between the perceived stability of participants' organization (measured at the beginning of the study prior to the control threat manipulation) and their level of organizational identification. Thus, in this study, recalling an event at work in which participants' lacked control did not appear to disrupt the positive association between previously measured chronic beliefs about the perceived stability of participants' organization and their identification as an organizational member.

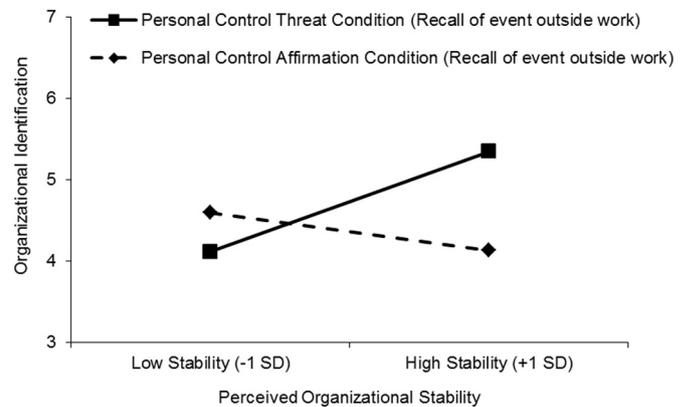


Fig. 4. Effect of condition (recall of event outside work only) and perceived organizational stability on organizational identification (Study 3).

the data for those who recalled an event where they had high or low control *outside* their organization, participants' perceptions of how stable their organization was moderated the effect of experimental condition (personal control threat vs. personal control affirmation) to predict organizational identification,  $b = 0.73$ ,  $SE = 0.27$ ,  $t(75) = 2.56$ ,  $p = .012$ .

Specifically, as Fig. 4 illustrates, analysis of simple slopes revealed that, as we expected, for participants who recalled an event outside work in which they lacked control, higher perceived organizational stability was associated with greater organizational identification,  $b = 0.53$ ,  $SE = 0.17$ ,  $t(75) = 3.14$ ,  $p = .002$ . However, for participants who recalled an event outside work wherein they possessed control, no such relationship was found between perceived organizational stability and identification,  $b = -0.20$ ,  $SE = 0.21$ ,  $t(75) = -0.99$ ,  $p = .33$ . Examining the effect of condition (personal control threat vs. personal control affirmation) for those participants one standard deviation above the mean on perceived organizational stability revealed that those who recalled a time when they lacked control outside work reported significantly higher organizational identification compared to those who recalled a time when they had control outside work,  $b = 1.28$ ,  $SE = 0.45$ ,  $t(75) = 2.88$ ,  $p = .005$ . There was no effect of condition for participants one standard deviation below the mean on stability,  $b = -0.42$ ,  $SE = 0.42$ ,  $t(75) = -1.00$ ,  $p = .32$ .<sup>9</sup> These exploratory analyses thus provide some preliminary evidence of a novel feature of control restoration processes: that they may tend to occur across rather than within domains. Table 5 shows means, standard deviations and intercorrelations of variables in Study 3 by condition and domain.

## 7. Study 4

Study 3 compared personal control threat to personal control affirmation, essentially using recall of an experience of high personal control as our baseline comparison condition. Hence, it is unclear whether personal control threat increased identification in the relevant conditions or if personal control affirmation decreased it. Thus, in Study 4, we employed a similar design to Study 3, except that we substituted the personal control affirmation condition with a neutral baseline condition, in which participants were given no instruction. Therefore, in Study 4, perceived organizational stability was first measured, along with other organizational characteristics measured in Study 3 and following this, participants were randomly assigned to either a personal control threat condition or a baseline condition. In addition, we were

<sup>9</sup> All reported effects in Study 3 remain virtually identical after controlling for the items measuring organizational size, organizational hierarchy, geographic dispersion, participants' own organizational tenure, as well as participants' income and education level. In addition, measures of organizational size, organizational hierarchy, and geographic dispersion did not themselves moderate the effects of condition on identification.

**Table 5**  
Means, standard deviations, and intercorrelations of variables (Study 3).

Var	Low personal control						High personal control					
	Non work related recall (n = 44)			Work related recall (n = 51)			Non-work related recall (n = 35)			Work related recall (n = 60)		
	M	SD	r	M	SD	r	M	SD	r	M	SD	r
ST	5.16	1.19	–	4.93	1.31	–	4.71	1.09	–	4.71	1.04	–
ID	4.69	1.47	0.43**	4.71	1.39	0.47**	4.20	1.27	–0.17	4.67	1.22	0.31*

Note. ST = perceived organizational stability; ID = organizational identification.

\*  $p < .05$ .

\*\*  $p < .01$ .

interested in examining the robustness of our post-hoc observation in Study 3 that control threats specifically originating outside work are what may trigger enhanced identification with stable organizations. If robust, this finding may shed light on when people are likely to turn to identification with their work organization to compensate for psychological threats (i.e., when the threat originates in their lives outside work).

Thus, in this study we planned a priori to code whether participants in the control threat condition recalled an event inside work or an event outside work. If our predictions are correct, we would expect that, specifically for participants who recalled a time when they lacked personal control outside work, those employed in a relatively stable organization should report higher identification with that organization than those employed in a relatively unstable organization. Thus Study 6 employed a 3 (condition: baseline vs. control threat inside work vs. control threat outside work)  $\times$  (continuous: perceived organizational stability) between-participants design.

While Study 3's measure of group identification is widely used within the social psychological literature, in Study 4 we returned to using the measure of identification used in Study 2— affective commitment. Thus, in this study, as our outcome measure, we assessed participants' level of affective commitment to their organization (Allen & Meyer, 1990). Finally, we also added a measure of behavioral intentions so as to explore whether condition and organizational stability might also interact to predict individuals' desire to leave their organization, with low control predicted to decrease intentions to leave to a greater extent for those in relatively stable organizations.

### 7.1. Participants

Four hundred and five U.S. residents employed in full-time jobs were recruited from Mechanical Turk. Four failed an attention check question and were thus excluded from analyses, leaving a sample of four hundred and one participants. Participants worked in twenty-four different industries, with the most common industries being IT/Software Development (13%), Medical/Health (10%), and Sales/Retail/Business Development (9%).

### 7.2. Materials and procedure

All measures and manipulations administered are reported below. Participants first completed identical measures to those used in Study 4, including the measure of perceived stability, the two measures of organizational size, the two measures of organizational hierarchy, and the measure of organizational geographical dispersion (see Table 4).<sup>10</sup> The four items measuring stability were combined to form a perceived organizational stability index with Cronbach's alpha of 0.75. Participants

<sup>10</sup> Due to an oversight in study design, the two items from Study 3 measuring organizational benevolence were again included in Study 4.

were then randomly assigned to one of two experimental conditions. Participants in the Personal Control Threat condition were asked to try and think of something that happened to them in the past few months that they had absolutely no control over and describe the event in no more than 100 words. Participants' responses were coded as either work related (i.e. an event inside work) or non-work related (i.e., an event outside work). Participants in the baseline condition were given no instruction.

Following this, to assess participants' tendency toward organizational identification, we returned to the six-item measure of affective commitment used in Study 2 in order to show that the effects demonstrated in Study 3 were not limited to one measure of identification. The six items measuring affective commitment were combined to form an organizational identification index with Cronbach's alpha of 0.85. Following this measure, participants completed a four-item measure of turnover intentions adapted from Kelloway, Gottlieb, and Barham (1999). Example items were "I am thinking about leaving this organization," and "I am planning to look for a new job" rated on a 5-point scale from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). These four items were combined to form a turnover intentions index with Cronbach's alpha of 0.93.

### 7.3. Results and discussion

In Study 3, domain of event recalled (inside work vs. outside work) was fully crossed with condition (control threat vs. control affirmation). However, in Study 4, domain of event recalled was not fully crossed with condition because the control affirmation condition was replaced with a baseline condition in which no event was recalled, leaving us with three conditions rather than four. Therefore, a different analytic strategy was necessary. Specifically, we assessed the effects of

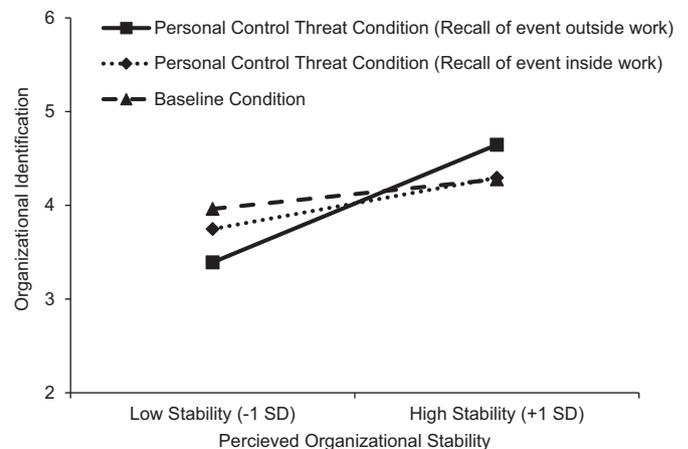


Fig. 5. Effect of condition and perceived organizational stability on affective commitment (Study 4).

**Table 6**  
Means, standard deviations, and intercorrelations of variables (Study 4).

Var	Low personal control (non-work) (n = 75)				Low personal control (work) (n = 121)				Baseline (n = 204)			
	M	SD	1	2	M	SD	1	2	M	SD	1	2
1. ST	4.86	1.01	–		4.91	1.18	–		5.02	1.07	–	
2. ID	3.96	1.23	0.48**	–	4.01	1.36	0.22*	–	4.13	1.41	0.11	–
3. TI	3.01	1.05	–0.31*	–0.58**	2.85	1.27	–0.32**	–0.54**	2.82	1.24	–0.20*	–0.68**

Note. ST = perceived organizational stability; ID = organizational identification; TI = turnover intentions.

\*  $p < .05$ .

\*\*  $p < .001$ .

organizational stability across the three conditions (baseline vs. control threat inside work vs. control threat outside work).

Thus, to analyze the interactive effects of organizational stability and condition on affective commitment, we conducted a dummy variable regression analysis. We entered two condition terms (control threat inside work vs. baseline and control threat outside work vs. baseline), participant's stability score (centered) and two interaction terms, stability  $\times$  (condition: control threat inside work vs. baseline) and stability  $\times$  (condition: control threat outside work vs. baseline).<sup>11</sup> The first interaction term was non-significant,  $b = 0.11$ ,  $SE = 0.14$ ,  $t(394) = 0.78$ ,  $p = .436$ , indicating that stability did not interact with condition when comparing participants who recalled a control threat inside work to baseline participants. However, as predicted, the second interaction term was significant,  $b = 0.43$ ,  $SE = 0.18$ ,  $t(394) = 2.46$ ,  $p = .014$ , indicating that stability and condition interacted when comparing participants who recalled a control threat outside work to baseline participants.

As Fig. 5 illustrates, probing of simple slopes revealed that, consistent with Hypothesis 2, while the effect of stability on organizational identification was non-significant in the baseline condition,  $b = 0.15$ ,  $SE = 0.09$ ,  $t(202) = 1.57$ ,  $p = .118$ , for participants who recalled an event outside work in which they lacked control, higher perceived organizational stability was associated with greater organizational identification,  $b = 0.58$ ,  $SE = 0.13$ ,  $t(73) = 4.65$ ,  $p < .001$ . There was also a simple effect of organizational stability on organizational identification for participants who recalled a control threat inside work, but to a lesser degree,  $b = 0.25$ ,  $SE = 0.10$ ,  $t(119) = 2.45$ ,  $p = .016$ . In addition, for participants who perceived their organization as relatively unstable (i.e., one standard deviation below the mean on stability), recalling a control threat outside work was associated with lower organizational identification compared to baseline,  $b = -0.55$ ,  $SE = 0.25$ ,  $t(275) = -2.20$ ,  $p = .028$ . For participants who perceived their organization as relatively stable (i.e., one standard deviation above the mean on stability), there were no significant differences between groups,  $b = 0.36$ ,  $SE = 0.27$ ,  $t(275) = 1.36$ ,  $p = .18$ .<sup>12</sup>

Perceived organizational stability and condition did not interact to predict participants' intentions to leave their organization (baseline vs. control threat outside work:  $b = -0.10$ ,  $SE = 0.16$ ,  $t(394) = -0.63$ ,  $p = .53$ , baseline vs. control threat inside work:  $b = -0.12$ ,  $SE = 0.12$ ,  $t(394) = -0.98$ ,  $p = .33$ ) though there was a main effect of stability on intentions to leave, with higher perceived organizational stability associated with lower intentions to leave,  $b = -0.23$ ,  $SE = 0.08$ ,  $t(394) = -2.93$ ,  $p = .004$ . As shown in Table 6, consistent with previous research (cf. Meyer, Stanley, Herscovitch, & Topolnytsky, 2002),

<sup>11</sup> In Study 4, participants' mean level of reported organizational stability did not differ by control threat condition ( $M_{\text{controlthreat}} = 4.89$ ,  $SD = 1.11$  vs.  $M_{\text{baseline}} = 5.02$ ,  $SD = 1.07$ ,  $t(399) = -1.15$ ,  $p = .250$ ,  $d = 0.12$ ). There was also no main effect of condition (baseline vs. control threat) on identification,  $b = -0.14$ ,  $SE = 0.14$ ,  $t(398) = -1.02$ ,  $p = .310$ .

<sup>12</sup> A follow-up floodlight analysis revealed that there was no region of significance for control threat condition within the observed range of stability scores.

participants' intentions to leave their organization were negatively associated with our measure of organizational identification.<sup>13</sup>

## 8. General discussion

Across four studies we present novel evidence that membership in stable social groups can help individuals maintain a subjective sense of control in life more broadly, especially when threats to control originate outside these groups. Specifically, we find that social identification with a stable group may enhance individuals' generalized feelings of personal efficacy (Study 1 and Study 2) and when individuals' subjective feelings of personal control outside their organization are threatened, higher perceived organizational stability predicts a greater tendency to then identify as an organizational member (Study 3 and Study 4). Taken together, our results suggest that judgments of group stability may be a crucial factor determining the perceived control afforded by group membership.

### 8.1. Limitations and future directions

In our research, we specifically focused on members' subjective impressions of how their stable or unstable their group was. Future research is needed to explore the factors underlying those perceptions, especially given that little is known about the key determinants of judgments of group stability. For instance, the consistency and coherence with which group goals and values are communicated, the rate at which members enter and exit the group, and the perceived permanency of group boundaries could all plausibly affect the degree to which individuals experience a particular group as stable. Furthermore, the studies reported here all measured individuals' judgments of their group's stability—while we attempted to experimentally manipulate group stability in Study 2, this attempt was unsuccessful. In Study 2, we found that our manipulation did not systematically vary perceptions of organizational stability specifically for those relatively high in organizational identification. The free recall paradigm we employed to manipulate perceived organizational stability asked participants in the low stability condition to generate examples of how the organization they work at has a structure and/or set of priorities and goals that are in flux and changing over time. It is possible that this paradigm gave participants higher in organizational identification leeway to engage in motivated reasoning about their organization—allowing them to generate trivial examples or avoid construing the examples they generated as evidence of instability. Future work, in uncovering the major sources of group stability judgments, could further explore the possibility of experimentally varying individuals' perceptions of how stable their group

<sup>13</sup> All effects reported in Study 4 remain virtually identical after controlling for the items measuring organizational size, organizational hierarchy, geographic dispersion, participants' own organizational tenure, as well as participants' income and education level. In addition, measures of organizational size, organizational hierarchy, and geographic dispersion did not themselves moderate the effects of condition on identification.

is, by, for instance, providing participants with false feedback about their group or organization.

In addition, a limitation inherent in the design of Study 3 and Study 4 is that the free recall paradigm used to manipulate feelings of personal control did not allow for random assignment of participants to control threat source (inside work vs. outside work) conditions. It is conceivable, for instance, that participants' reports of how stable their organization was could have negatively impacted their likelihood of then recalling a control threat inside work, though, it is worth noting that, in both Study 3 and Study 4, perceived organizational stability did not predict the source of control threat participants recalled.<sup>14</sup> However, future studies could more directly address this design limitation by experimentally manipulating source of control threat.

Furthermore, additional research is needed to directly assess the generalizability of our effects to other kind of organizations and groups. We examined our predictions in the context of individuals' membership in work organizations—potentially one of the most psychologically significant group memberships in most adults' lives. Based on our theorizing, other types of organizations and groups that may be central to individuals' daily psychology, and thus sense of self, and are also experienced as stable and enduring—such as religious organizations and cultural in-groups—are those most likely to be control-affirming. Groups that are low on goal interdependence, such as sports leagues in which individuals compete against each other, may be less likely to provide social identity-based feelings of control for their members.

## 8.2. Implications

Our research provides novel evidence in support of group-based control perspectives. Specifically, we identify perceived stability as key factor influencing whether organizations are groups that individuals may seek membership in as a way of achieving a sense of control (Fritsche et al., 2013). The evidence we present thus extends existing perspectives on the characteristics of groups that might make them more or less effective for control restoration (Fritsche et al., 2011; Stollberg et al., 2015). In addition, by experimentally threatening individuals' perceived personal control and then measuring their tendency to then construe themselves as an organizational member, our studies (specifically Study 3 and Study 4) directly test whether control motives may underlie group identification. Furthermore, we present initial evidence that social identification with a stable group may enhance general feelings of personal efficacy in life (Study 1 and Study 2), thus complementing work by Greenaway et al. (2015), in which they demonstrate that identification with social groups, by enhancing perceived personal control, may positively impact individuals' general well-being.

In addition, our research points to a novel mechanism through which perceived stability in the external social world may satisfy individuals' broad motives for control. Compensatory control perspectives (Kay et al., 2008, 2010), for instance, suggest that individuals' support and defense of stable external systems (such as their government) may, in part, be explained by stable social systems providing individuals with a sense that, even if they, as individuals, personally lack control, there remains a powerful external entity maintaining order and control in the world more generally. Our research suggests that, in addition to outsourcing control to stable external systems as a way of re-establishing a global sense of control, individuals may seek membership in stable social groups or organizations as means of affirming their own personal sense of control.

Our findings are also broadly consistent with an emerging body of research showing that diminished personal control induces a preference

for structured and orderly environments (i.e., Landau, Greenberg, Solomon, Pyszczynski, & Martens, 2006; Rutjens, van Harreveld, van der Pligt, Kreemers, & Noordewier, 2013) and that general perceptions of order, structure, and predictability in the world enhance individuals' sense that their actions produce intended consequences (Kay, Laurin, Fitzsimons, & Landau, 2014). While this work emphasizes how stable and orderly external environments may enhance individuals' perceptions of global control or reassure individuals that their actions in the world will produce intended consequences, our research suggests that specifically perceiving stability in one's organizational environment may facilitate group-based identification processes aimed at sustaining individuals' sense of personal control.

Finally, our research—in providing evidence that control threats originating outside work are what trigger increased organizational identification—offers unique insight into how people may compensate for an experienced loss of control in one domain by seeking control in another domain (Kay et al., 2010). More generally, it points to how individuals may move across contexts in an effort to (re-) affirm the self (Cohen & Sherman, 2014). The findings we present thus suggest that work organizations, to the extent that they are experienced as stable social structures, may serve as an important psychological resource in people's lives more broadly, in providing a social identity that can sustain individuals' sense of being an efficacious, agentic person in the world.

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<sup>14</sup> Effects of perceived organizational stability on odds of recalling a control threat inside work (Study 3:  $B = -0.149$ ,  $SE = 0.168$ ,  $Wald = 0.781$ ,  $p = .38$ ; Study 4:  $B = 0.039$ ,  $SE = 0.132$ ,  $Wald = 0.086$ ,  $p = .77$ ).

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