Understanding Responses to an Organizational Takeover:

Introducing The Social Identity Model of Organizational Change

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Abstract

This paper presents a Social Identity Model of Organizational Change (SIMOC) and tests this in the context of employees' responses to a corporate takeover. This model suggests that employees will identify with the newly emerging organization and adjust to organizational change more successfully the more they are able to maintain their pre-existing social identity (an identity maintenance pathway) or to change understanding of their social identity in ways that are perceived as constituting identity gain (an identity gain pathway). We examine this model in the context of an acquisition in the pharmaceutical industry where 225 employees were surveyed before the implementation of the organizational change and then again 18 months later. In line with SIMOC, pre-change identification predicted post-change identification and a variety of beneficial adjustment outcomes for employees (including job satisfaction, organizational citizenship behavior, lower depression, satisfaction with life, and post-traumatic growth) to the extent that either (a) they experienced a sense of identity continuity or (b) their supervisors engaged in identity leadership that helped to build a sense that they were gaining a new positive identity. Results showed a negative impact of prechange organizational identification on post-change identification and various adjustment outcomes if both pathways were inaccessible, thereby contributing to employees' experience of social identity loss. Discussion focuses on the ways in which organizations and their leaders can better manage organizational change and associated identity transition.

Keywords: organizational change, social identity, leadership, continuity, adjustment

Organizations engage in major change activities such as restructures, mergers, and acquisitions for a variety of reasons including achieving growth, diversification, or economies of scale (Ellis et al., 2009). Yet from the perspective of employees, these major changes are often perceived as a "critical life event" (Jimmieson et al., 2004, p.11). Indeed, Marks and Mirvis (2001) suggest that mergers and acquisitions (M&As) can even be experienced as traumatic events, and that this is especially true in the case of hostile takeovers. In such cases, organizational change processes have a significant negative impact on employees' organizational behavior, cognition, and affect, and thus on organizations' functioning following the change (for reviews see Cartwright & Schoenberg, 2006; Hogan & Overmyer-Day, 1994; Ullrich & van Dick, 2007; Ullrich et al., 2005). Beyond this, several studies have indicated that organizational changes can also have a negative impact on employees' health and well-being (Amiot et al., 2006; Makri et al., 2012; Väänänen et al., 2004; van Dick et al., 2006). Such findings have led researchers and practitioners to ask what processes lead to these outcomes and what leaders can do to ameliorate them (for a review see Cartwright & Schoenberg, 2006; Graebner et al., 2017). In this paper, we aim to explain how employees adjust to organizational changes by introducing and testing the Social Identity Model of Organizational Change (SIMOC).

Theoretical Background to SIMOC

One approach that provides a useful framework for exploring these issues is the social identity approach (SIA; Giessner et al., 2012; Haslam, 2004; Ullrich & van Dick, 2007; van Knippenberg et al., 2002), which comprises social identity theory (SIT; Tajfel & Turner, 1979) and self-categorization theory (SCT; Turner, 1985; Turner et al., 1987). Social identity theorists have applied the SIA to a range of organizational contexts — including those of organizational change — and argued that individuals define themselves not only as individuals (i.e., in terms of their personal identity) but also in terms of group memberships

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bound up with organizational life (i.e., in terms of their *social identity*; Ashforth & Mael, 1989; Haslam, 2004). Social identity can be defined as "that part of an individual's self-concept which derives from his [sic] knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership" (Tajfel, 1978, p. 68). The social identity approach further suggests that once individuals categorize themselves in terms of group memberships and relevant groups are internalized through the process of identification, individuals' behavior, attitudes, and feelings will be determined by these group memberships (Haslam et al., 2000; van Knippenberg, 2000).

In work contexts, individuals often experience their organization as providing them with a valued social identity of this form. More specifically, when people identify with an organization, that organization becomes a central part of their self-concept. In line with the social identity approach, organizational identification can be defined as "the perception of oneness with or belongingness to an organization, where the individual defines him or herself in terms of the organization(s) in which he or she is a member" (Mael & Ashforth, 1992; p. 104). Such organizational identities are important because they provide employees with a sense of 'who we are' and thus with meaning, purpose, and direction (Haslam et al., 2003), as well as affiliation, respect and belonging (Greenaway et al., 2016; Haslam et al., 2000; van Dick et al., 2006). In this way, organizational identity has important implications not only for employees' work-related attitudes and behavior (Riketta, 2005), but also for their health and well-being (Steffens et al., 2017; Steffens et al., 2018).

Furthermore, social identity theorists argue that the self is not fixed but flexible and sensitive to social context (Turner, 1985). More specifically, whether (and to what extent) our sense of self is informed by a particular group membership and shapes our cognition, affect and behavior depends on the salience of a given social identity in the situation at hand (Oakes et al., 1994). In this regard, major organizational changes have the capacity not only to

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increase employees' awareness of their group membership but also, more fundamentally, to change the nature of organizational identity (i.e., what it means to be a member of the organization). Indeed, fundamental organizational changes are often seen by employees as threats to their organizational identity that have a significant bearing on their adjustment to the change (Terry et al., 2001; Ullrich et al., 2005).

Consistent with these ideas, employees often experience major organizational changes as entailing a loss of their former organizational identity, and therefore as highly stressful events. Indeed, Marks and Mirvis (2001) have drawn parallels between employees' reactions to takeovers and those that follow death and loss more generally. Supporting such claims, research in a range of social contexts has found that, even when change is ostensibly desirable and positive, associated identity change can have profound consequences for individuals' mental health and well-being — as witnessed in increased levels of depression, burnout, and lower levels of life satisfaction (Haslam et al., 2021; Iyer et al., 2009; Jetten et al., 2010; Praharso et al., 2017; Steffens et al., 2016). Previous research in the M&A context also indicates that organizational change often results in a decreasing level of identification with the pre-existing organization after the change (Gleibs et al., 2008) and in low levels of post-merger identification with the new organization (Giessner et al., 2012; van Knippenberg et al., 2002). These negative consequences are exacerbated to the extent that people identify with groups whose identity is negatively affected by change (e.g., because the group is disbanded; Sani et al., 2008). This suggests that the more emotional significance individuals attach to their pre-existing organizational identity, the more their well-being and adjustment are likely to suffer if they lose that identity.

At the same time, organizational changes — particularly M&As — also have implications for the adoption of a new, or the revision of an existing, social identity in the light of a newly emerging organization. Coming to identify with the newly emerging

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organization can promote adjustment and well-being to the extent that it restores or even improves employees' capacity to satisfy their social needs, including the need for affiliation, belongingness, and respect (Greenaway et al., 2016; van Dick et al., 2006). Indeed, in previous merger studies identification with the newly emerging organization after the change has been found to explain various consequences of organizational change including job satisfaction (Amiot et al., 2006; Jetten et al., 2002; Jimmieson et al., 2004) and organizational citizenship behavior (van Dick et al., 2006; van Dick et al., 2004). What is more, under some circumstances, people's identification with a pre-merger organization can be a catalyst for the development of identification with the newly emerging organization. For example, van Dick et al. (2004, 2006) found that employees' identification with their former organization can be positively associated with post-merger identification with the newly emerging organization, in ways that support adjustment and well-being. Similarly, an experimental study by van Leeuwen et al. (2003) revealed a positive relationship between pre-merger and post-merger identification. They also found the relationship between pre- and post-merger identification to be positive even when there was low continuation of the premerger and post-merger groups (even though it was weaker than in the condition of high continuation).

To integrate these various findings and explain different trajectories following organizational change, the present paper seeks to set out and test the Social Identity Model of Organizational Change (SIMOC) that is represented conceptually in Figure 1. This integrative framework for understanding the impact of organizational change draws on general theorizing about identity change processes and builds upon the Social Identity Model of Identity Change (SIMIC; Haslam et al., 2008, 2021; Jetten et al., 2010). According to SIMIC, people derive health and well-being benefits from belonging to social groups in general as well as in times of upheaval and change (when these are a major source of

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psychological resilience; Drury, 2012; Williams et al., 2019). More specifically, the model identifies two pathways to successful adjustment after life changes — an identity maintenance and an identity gain pathway (Haslam et al., 2008; Jetten et al., 2010).

The first of these pathways takes the form of an *identity maintenance pathway*. Here people's health and well-being are supported by their being able to maintain valued group memberships during life changes or transitions. However, if the change interrupts the connection between past and present, individuals' sense of identity continuity will tend to be compromised in ways that can jeopardize their health and well-being. In part this is because pre-existing identities are no longer an accessible source for support and meaning (Cruwys et al., 2013, 2014; Sani et al., 2008).

SIMIC's second pathways is an *identity gain pathway*. Here people's health and wellbeing are supported by their being able to acquire a new identity in the context of a life change or transition. This is because this new identity not only furnishes them with a new sense of belonging, meaning and purpose, but also provides a basis for them to receive and benefit from new sources of support (Cruwys et al., 2014; Haslam et al., 2021; Jetten et al., 2010). At the same time, pre-existing identities can serve as a platform for developing new identities after a change (Haslam et al., 2021). Therefore, both these pathways, i.e., identity gain and identity maintenance, suggest that successful adjustment to change can be facilitated by the group memberships (and associated social identities) that an individual has access to prior to the change.

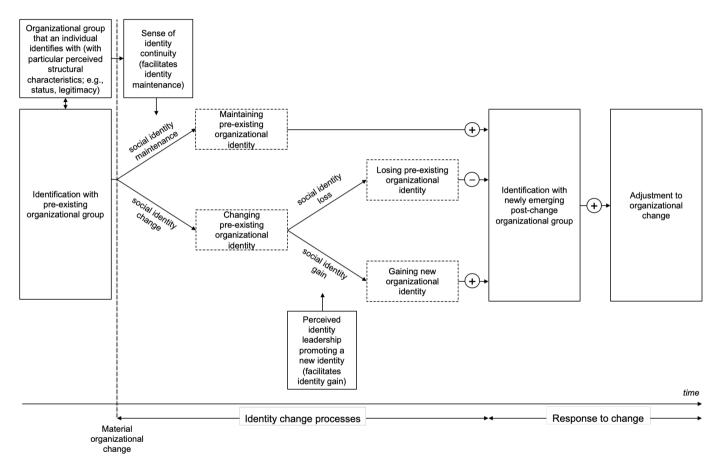
Yet while the SIMIC model has been shown to provide important insights into the identity processes and pathways that impact health in the context of general life change (e.g., those associated with illness, relocation, and retirement; see Haslam et al., 2021, 2019; Iyer et al., 2009), its usefulness as a model of adjustment to organizational change remains unexplored. In what follows, we review theory and evidence that speaks to the importance of

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these two pathways for successful adjustment after organizational change before going on to report the findings of a study that provides an initial test of SIMOC in the context of an organizational acquisition.

Figure 1

Conceptual Model of the Social Identity Model of Organizational Change (SIMOC)



Note. The plus and minus signs indicate the impact of pre-change identification on post-change identification and adjustment. Observed variables are displayed in boxes with solid lines, while latent identity change processes are displayed in boxes with dotted lines.

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The Identity Maintenance Pathway: Sense of Continuity During Organizational Change

During organizational changes and M&As in particular, some organizational groups are more likely than others to be forced to change their identity. Following the tradition of social identity theorizing, previous research has analyzed M&As from an intergroup perspective (Blake & Mouton, 1985; Gleibs et al., 2010; van Leeuwen et al., 2003) and suggested that the extent to which one organization dominates the integration process after a merger or acquisition influences employees' experience of (dis)continuity (van Knippenberg et al., 2002). Here a dominant merger partner (e.g., due to its higher pre-merger status) or an acquiring organization will typically have more influence in the integration process and is more likely to define the characteristics of the post-change identity in terms of its pre-change identity (Giessner et al., 2006; Gleibs et al., 2008; Lupina-Wegener et al., 2014; Ullrich et al., 2005). In line with these ideas (see also van Knippenberg et al., 2002; van Knippenberg & van Leeuwen, 2001), laboratory and field studies provide evidence that employees' organizational membership determines how likely they are to be able to transfer their prechange identification to the post-change identification (Bartels et al., 2006; Gleibs et al., 2008; Lupina-Wegener et al., 2014; van Dick et al., 2004; van Knippenberg et al., 2002). In this regard, a common finding in the literature is that pre-change identification relates positively to post-change identification for employees of the dominant merger partner or acquiring organization, while this is less true for employees of the subordinate merger partner or acquired organization (Lupina-Wegener et al., 2014).

In this vein, van Knippenberg and colleagues (van Knippenberg & van Leeuwen, 2001; van Leeuwen et al., 2003) argue that employees can more easily transfer their premerger identification onto the post-merger entity if they have a strong sense of identity continuity. In line with previous research, we define identity continuity as an employee's sense that their pre-existing organization is represented in the organization after the

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organizational change such that the post-change identity is perceived as a continuation of the pre-change identity (van Knippenberg & van Leeuwen, 2001). Here employees' sense of continuity reflects their sense that the organizational change has had little (or no) impact on the nature of their organizational identity (identity maintenance) or that the organizational change implies significant changes to their organizational identity — to the extent that their former organizational identity can no longer be maintained (identity change). Consistent with this argumentation, SIMOC proposes that employees' perceived identity continuity determines the accessibility of the identity maintenance pathway in ways that facilitate the transition of identification from pre- to post-change and that thereby support adjustment. However, as alluded to above, SIMOC extends previous work that has focused on maintenance of an existing identity as a way to facilitate post-change identification and adjustment by also introducing an alternative pathway that centers on the experience of identity gain.

The Identity Gain Pathway: Identity Leadership During Organizational Change

Even though going through major organizational changes often means that employees cannot maintain an existing identity, negative responses are not inevitable. Instead, the experience of identity change is influenced by myriad social factors including the ways in which leaders help employees to negotiate a change to their identity. In this regard, leading change and shaping employees' perception of the change are an essential function of leadership (Yukl, 2006). During organizational change, leaders thus serve as an important source of guidance in helping employees to make sense of the transition that they and the organization are undergoing (Giessner et al., 2016).

To understand what leaders can do to support employees in dealing with change to their organizational identity, we draw on the social identity theory of leadership (Haslam, Reicher, & Platow, 2020; Hogg, 2001; Hogg & van Knippenberg, 2003; Reicher, Haslam, &

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Hopkins, 2005). This perspective conceptualizes leadership as a group membership-based influence process and argues that leaders' effectiveness arises from their capacity to develop and manage a sense of shared social identity (i.e., a sense of 'we' and 'us'). As Steffens et al. (2014, p. 1021) put it, leaders who engage in *identity leadership* facilitate their followers' relationship with the organization by "developing an understanding and exemplifying what it means to be a member of the organization, acting as a champion for the organization and devising activities that bring members of the organization together". More specifically, identity leadership has been argued to encompass four components whereby, to be effective, leaders need (1) to be seen as 'one of us' (to be ingroup prototypical), (2) to be seen as 'doing it for us' (to advance ingroup interests), (3) to craft a sense of 'us' (to develop and shape ingroup identity), and (4) to make 'us' matter' (to create material structures that support the ingroup and translate the idea of "us" into lived experience; Haslam et al., 2020; Reicher et al., 2005; Steffens et al., 2014). Furthermore, validating this model, evidence from over 20 countries indicates that leaders' engagement in identity leadership has unique positive impact on a range of important outcomes including employees' identification, job satisfaction, innovative behavior, and citizenship (van Dick et al., 2018).

Previous research on identity leadership in the context of organizational change has shown that leaders who embody (i.e., are prototypical of) the defining characteristics of the group are more trusted and thus are especially effective in leading change (Hogg et al., 2012; Pierro et al., 2007; van Knippenberg et al., 2008). Focusing primarily on identity prototypicality, researchers have argued that those changes that are promoted by prototypical leaders are more likely to be perceived as identity-consistent than the same changes promoted by less prototypical leaders (van Knippenberg & Hogg, 2003). In this vein, previous research also shows that leaders can serve as agents of continuity by minimizing subordinates' sense that their identity has changed in fundamental ways while simultaneously helping employees

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see any change as a continuation of shared identity (van Knippenberg et al., 2008; Venus et al., 2019).

Yet while assuring employees that 'we will remain who we are' can be an effective strategy for encouraging acceptance of change (Venus et al., 2019), there are other aspects of identity leadership that are also likely to help leaders manage organizational change effectively. In particular, leaders who engage in identity leadership can also work with employees' current understanding of 'who we are' to develop an understanding of 'who we want to be'. Here the process of envisioning a clear and bright tomorrow for the organization and its associated identity can facilitate employees' identity transition from the pre-existing to the newly emerging organization after the change (Lupina-Wegener et al., 2014). Indeed, consistent with previous work on identity entrepreneurship which shows that effective leaders do not just embody who we are but also work to craft social categories (Reicher & Hopkins, 1996a, 1996b), leaders are more likely to help employees deal successfully with organizational change if they create a sense of future identity that is both positive and meaningful. Moreover, leaders who engage in identity advancement by promoting the interests of group members (Steffens et al., 2014) may be more likely to foster subordinates' sense that their group is likely to gain from the changes. By helping employees negotiate the changes to their identity and consolidate a sense of a positive future collective identity, leaders who engage in identity leadership should therefore help to ensure a successful transformation of employees' sense of 'us' over the course of any organizational change.

This is particularly important when the material changes that occur impact the organizational identity to such an extent that the sense of 'us' that existed prior to the change can no longer be maintained. Supporting this assertion, van Knippenberg et al. (2008) found that the positive effect of leaders' group representativeness on group members' willingness to support change was more pronounced under conditions of high discontinuity threat.

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Similarly, Giessner (2011) showed that communicating the necessity of change was crucial for employees who lacked a sense of continuity and contributed to their development of identification with an organization after it had undergone a major change. In this way, identity leadership that promotes a sense of new organizational identity can facilitate employees' interpretation of the identity change as an identity gain, rather than an identity threat or loss, and thereby increase the accessibility of the identity gain pathway.

The Present Study

The goal of the present study was to test SIMOC's key propositions in a naturalistic field setting. Building on and extending theorising about the process of social identity change, SIMOC argues that changes in the sense of self that employees derive from their organizational membership will shape their responses to organizational change. As set out in Figure 1, SIMOC proposes that two dynamically interrelated identity change processes determine whether identification with the pre-existing organizational group serves as a valuable resource to support employees' development of post-change identification and adjustment to organizational change: (1) social identity maintenance (vs. change), and (2) social identity gain (vs. loss). More specifically, employees should be more likely to adjust successfully to organizational change either if they can maintain their identity (via the identity maintenance pathway), or if they are able to change their identity (either by adopting a new identity or by revising their old identity) in ways that are perceived as an identity gain (via the identity gain pathway). Moreover, SIMOC proposes that identity leadership that promotes the new emerging identity may be particularly important when the identity maintenance pathway is inaccessible, as the identity gain pathway can compensate for this and protect highly identified employees from the negative consequences that result from identity loss. At the same time, a sense of identity continuity should serve to prevent the

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experience of loss in the absence of identity work performed by the leaders in the organization.

Advancing previous social identity theorising of organisational change processes, SIMOC is able to account for different trajectories following organizational change. It suggests that an experience of growth in response to challenges posed by a rupture of a valued organizational identity is most likely to arise when a new positive and meaningful identity can be formed (for related observations in the field of trauma, see Muldoon et al., 2019). At the same time, it also proposes that strong identification with the pre-existing organization can have less positive or even negative consequences for post-change identification and adjustment among employees who cannot access either of the two pathways (i.e., if employees have a sense that they can neither maintain their valued old identities nor acquire positive new ones). This is because here change is likely to be perceived as entailing identity loss.

On the basis of our model, we predict that the relationship between pre-change identification and adjustment should be positive if continuity is high (so that the maintenance pathway is accessible) and/or identity leadership is high (so that the gain pathway is accessible). However, pre-change identification should be less positively or even negatively related to post-change identification and adjustment under conditions of low continuity and low identity leadership (so that both pathways are inaccessible and employees experience identity loss). More formally, this analysis leads us to hypothesize a three-way interaction between pre-change identification, identity continuity, and identity leadership. The relationships between pre-change identification and post-change identification and adjustment should be doubly moderated by identity continuity and identity leadership.

The present research advances our understanding of the psychological processes that structure employees' responses to organizational identity change. It does this in several ways.

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First, SIMOC provides an integrative framework that builds on, and extends, previous theorizing around organizational change processes. Specifically, it advances previous theorizing that points to a positive relationship between pre- and post-merger organizational identification by outlining identity maintenance and identity gain as related but distinct pathways to post-merger identification and adjustment. Second, the present work extends on a growing body of work that is concerned with the ways in which identity transitions affect individuals' health and well-being (Haslam et al., 2021) by suggesting that organizational change involves identity change processes that have important implications for health and well-being. Third, the present research makes an important contribution to the leadership literature and the social identity theory of leadership. For while research has stressed the importance of leading change as a key function of leadership (Yukl, 2006), we know little about how leaders influence subordinates' sense of self in times of change. While there are a few studies on identity prototypicality in the change context, most of the work on identity leadership has focused on relatively static contexts. In particular, the present research advances research on identity leadership that has focused on leaders' ability to influence others (Haslam et al., 2020; Steffens et al., 2014; van Knippenberg, 2011), by exploring the role that identity leadership plays in supporting adjustment in the context of organizational change.

Method

Acquisition Context and Study Design

The study was conducted in the context of a large acquisition by a European pharmaceutical company. The acquiring organization (here called Alpha) had acquired sites from a supplier organization (Beta). According to the financial reports of the two organizations, Alpha was financially more successful than Beta in the year prior to the acquisition, while Beta had had a more difficult year (as indicated by a decline in its market

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value). However, the main motive for the acquisition by Alpha was to reach an internationally recognizable size and to strengthen its market position as an international market player and acquire complementary functions delivered by its former supplier. As a result of the acquisition, Alpha gained recognition as a group, and indeed it changed to being branded as an international (rather than a national) operating company. The acquired sites were not part of the Beta group's core business but were complementary to Alpha and likely more valued in Alpha, according to one of Beta's board of executive directors. The acquired Beta sites remained intact (e.g., keeping their functional organizational units such as compliance, IT, HR and finance), while synergies were achieved in terms of overheads. Therefore, the headquarters of Alpha were most directly affected by the acquisition, while other Alpha sites were not subjected to any changes as part of the acquisition. Hence, only employees from the Alpha headquarters site and the acquired Beta sites that experienced change participated in the present study. The vast majority of employees were white-collar workers, with only few blue-collar workers performing manual work in the production.

We collected data over two waves via an online survey completed by employees of the Alpha headquarter and the acquired Beta sites. We used a predictive design with a time lag of one and a half years between the two data collections.¹ The first measurement point (T1) was four months after the official announcement of the acquisition and three months before the implementation of organizational changes due to the acquisition started. During this initial planning and formal combination stage (Seo & Hill, 2005), we measured employees' pre-change identification. One and a half years later the operational combination stage of the integration had officially ended (Seo & Hill, 2005). At this post-integration time point (T2), we collected data on employees' post-change identification and adjustment, as well as all other variables that are described in more detail below.

Participants

Our a-priori considerations and expectations concerning response rates and final sample size were based on previous longitudinal studies on post-merger identification and M&A studies testing similarly extensive models. On the basis of research by van Dick et al. (2006), we expected that about 37% of the contacted participants would respond in the first data collection wave (T1) and that about 33% of participants from the first data collection

¹ This study was part of a larger research project which included four measurement points. An overview of all measures assessed in the four measurement points can be found in the supplemental materials (OSF;

https://osf.io/rcp8f/?view_only=f654da106f7a4b4391dbc80fb4a5df17). Since the focus of the present study was to test whether pre-change identification can predict employees' adjustment, health and well-being after the change, we excluded the second and third measurement points where data were collected during the integration phase, and only used data from the first (pre-change) and fourth (post-change) measurement point. Adjustment outcomes which are crucial to this study were only assessed post-change at the fourth measurement point. Employees, who took part in the data collection before the integration and stayed in the sample during the integration were approached to participate in the fourth measurement point. To avoid confusion, in what follows, the fourth measurement point is labelled here as T2.

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would respond to the follow-up survey (T2). The expectations for the follow-up response rate were based on a longitudinal study with a one-year time lag (total N = 157 after three waves of data collections) conducted by Gleibs et al. (2008) and a similar study with a two-year time lag (total N = 220 after two waves of data collections) conducted by Amiot et al. (2006).

These expectations were met. Out of 1668 employees who were contacted by email, 761 responded at the first measurement point (46% response rate in reference to the target sample). A total of 256 participants gave their consent to participate voluntarily and continued to participate until the data collection was finished 18 months later (34% follow-up response rate). We excluded participants who did not state their pre-acquisition organizational affiliation (n = 1) or who did not have an immediate supervisor (n = 30). The final sample consisted of 74 employees from the acquiring organization and 151 from the acquired organization. Of the final sample (N = 225), 72.9% of the participants were male, 26.2% were female, and two participants chose to not state their gender. Participants were between 18 and 68 years old (M = 43.08, SD = 9.90). On average, they had worked for 15.71 years (SD = 10.78) with their pre-acquisition organization and for 5.13 years (SD = 4.84) with their immediate supervisor.

Ethics

The content of the questionnaire as well as the procedure to ensure anonymity and confidentiality during and after the data collection were reviewed and approved (a) by a data privacy manager at the first author's university, (b) an independent external data privacy manager as well as (c) by the organization's employee representatives and their ethics review board. The Head of Communication announced to employees via e-mail that the survey was part of a scientific study conducted by the first author's university. Initial emails informed participants about the study and included a confidentiality agreement, as well as a code for matching data from the measurement points, while ensuring anonymity. A few days later

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participants received a second email including the link to the online survey from the first author. All participants were thanked and debriefed after the second data collection.

Descriptive findings were disseminated in the organization's annual report.

Measures

Since the acquired sites were located in different European countries, the questionnaire was made accessible in the three languages that were spoken in these countries (German, French and English). A professional translation agency translated all items from the original English into French using the standard procedure of translation, back-translation, and re-translation (see Brislin, 1970). A bilingual research assistant and the first author translated and back-translated the original items from English to German if there was no German version of the validated scales available. Any inconsistencies were resolved through discussion with the third author.

We conducted a confirmatory factor analysis (CFA) in R (Version 3.4.3) using the lavaan package (Rosseel, 2012) to ensure the distinctiveness of the adjustment constructs including post-change identification measured at T2. Overall, the results of the CFA (reported in the supplemental material B, p. 2-6) yielded a good fit to the data for a six-factor model representing post-change identification, job satisfaction, OCB, depression, life satisfaction, and post-traumatic growth (S-B χ^2 = 684.29, df = 484, p < .001; scaling correction factor = 1.14, CFI = .95, RMSEA = .05 [.04, .05], SRMR = .07). After confirming the validity of combining the a priori defined items to their respective scale, we assessed the reliability of the multi-item scales and report coefficient omega (Hayes & Coutts, 2020; McNeish, 2018; G.-J. Peters, 2014) using the reliability function of the MBESS package in R (Version 4.8.0; Kelley, 2020). All scales showed high reliability. Unless stated otherwise, participants indicated their agreement with relevant statements on 7-point scales ranging from 1 ("strongly disagree") to 7 ("strongly agree").

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Pre- and Post-Change Organizational Identification

We measured participants' organizational identification with their old organization (i.e., Alpha for the acquiring organization and Beta for the acquired organization) before the integration process had started. Eighteen months after the official acquisition we assessed employees' organizational identification with the newly formed organization (hereafter referred to Post-Alpha). At both time points we used three items from the Organizational Identification Scale developed by Mael and Ashforth (1992), but referred either to "[Alpha/Beta], the former organization before the acquisition" to assess pre-change identification or to "[Post-Alpha], the 'new' company created as a result of the acquisition of the Beta sites by Alpha" to assess post-change identification: "When I talk about [Alpha or Beta/Post-Alpha], I usually say 'we' rather than 'they'", "[Alpha's or Beta's/Post-Alpha's] successes are my successes", "When someone praises [Alpha or Beta/Post-Alpha], it feels like a personal compliment" (ω = .89 for pre-change identification, ω = .83 for post-change identification).

Sense of Continuity

Participants indicated on a four-item scale validated by Lupina-Wegener et al. (2014) whether they had experienced a sense of continuity of their former identity after the organizational change. Illustrative items are "After the acquisition [Post-Alpha] represents my former organization" and "After the acquisition my former organization is still clearly visible" ($\omega = .85$).

Identity Leadership

Employees' perceptions of their immediate supervisors' identity leadership in relation to their post-change organizational identity were measured using the Identity Leadership Inventory (ILI; Steffens et al., 2014). Sample items include "In the light of the organizational changes due to the acquisition, my immediate supervisor ... exemplifies what it means to be

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a member of [Post-Alpha]" and "...develops an understanding of what it means to be a member of [Post-Alpha]". A composite identity leadership score was computed by averaging responses to the 15 items. The reliability of the identity leadership inventory (ω = .96) was similar to the internal consistency of the scale found in previous studies (e.g., Steffens et al., 2014).

Adjustment Indicators

In order to measure adjustment to change, we included two criterion variables commonly used in previous M&A studies (e.g., van Dick et al., 2006) to measure work-related attitudes and behaviors: job satisfaction and organizational citizenship behavior towards the organization after the change. Two additional criterion variables were included to measure employees' adjustment in terms of their health and well-being after the change.

Drawing on studies on health and well-being during identity transitions (e.g., Cruwys et al., 2021; Praharso et al., 2017), we measured employees' level of depression and life satisfaction. To capture the extent to which individuals were able to experience growth following traumatic experiences, we also assessed employees' post-change growth (Muldoon et al., 2017).

Job Satisfaction. We measured job satisfaction with three items adapted from the Job Diagnostic Survey (Hackman & Oldham, 1975). Illustrative items are "All in all I am satisfied with my job" and "In general, I don't like my job" (reversed item; $\omega = .84$).

Organizational Citizenship Behavior (OCB). We assessed employees' organizational citizenship behavior in the new post-acquisition organization using Lee and Allen's (2002) eight-item OCB-O Scale. Sample items are "I keep up with developments in the organization" and "I offer ideas to improve the functioning of the organization" ($\omega = .88$).

Depression. We used the seven-item depression subscale of the DASS-21, a well-validated short form of the 42-item Depression Anxiety Stress Scales (Lovibond & Lovibond,

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1995), which can be used in non-clinical samples (Henry & Crawford, 2005). Sample items for the depression subscale are "Over the course of the past four weeks, please indicate whether you experienced the following: ... I found it difficult to work up the initiative to do things" and "... I felt that life was meaningless" ($\omega = .93$).

Satisfaction with Life. We measured employees' subjective well-being with the five-item Satisfaction with Life Scale (Diener et al., 1985). This measure has established reliability and validity and assesses life satisfaction as a cognitive-judgmental process. Sample items are "I am satisfied with life" and "In most ways my life is close to ideal" ($\omega = .91$).

Post-Traumatic Growth. The Post-Traumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996) assesses the experience of a positive change following trauma, major crises, or extreme stressors. We used the Posttraumatic Growth Inventory Short Form (PTGI-SF; Cann et al., 2010) which has been used in a wide variety of populations. Due to the context, we excluded two items a-priori, which measure Spiritual change, from the original 10-item PTGI-SF and adapted the remaining eight items to the work context by changing the word "life" to "work life" and asking participants to refer to the acquisition instead of "my crisis" (see full adapted version of the PTGI-SF in the online supplemental material A, p.1). Illustrative items are "As a result of the acquisition, ...I have a greater sense of closeness with others at work" and "...I discovered that I'm stronger than I thought I was". Participants responded to these items on 6-point scales ranging from 1 ("I did not experience this change as a result of the acquisition") to 6 ("I experienced this change to a very great degree as a result of the acquisition") to 6 ("I experienced this change to a very great degree as a result of the acquisition") to 6 ("I experienced this change to a very great degree as a

Control Variables

We controlled for participants' sex and age because research has shown that well-being varies with sociodemographic variables (e.g., Diener & Shu, 1997; Keyes et al., 2002).

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We also controlled for participants' tenure in their pre-acquisition organization since identification needs time to develop. Moreover, previous research has shown that the relationship between pre-change identification and post-change identification is stronger among members of the dominant organization (who experience greater continuity; e.g., Lupina-Wegener et al., 2014). Therefore, to rule out the possibility that our hypothesized moderating effects simply reflect the influence of pre-acquisition organizational membership (belonging to Alpha coded as 0 and Beta coded as 1), we included the interaction between pre-change identification and pre-existing organizational membership as a control variable in the analyses of post-change identification. As shown in Figure 1, we do not assume that pre-existing organizational membership moderates the effect of pre-change identification on adjustment.

All supplemental materials, survey measures, R scripts, as well as additional analyses and results are available on the Open Science Framework (OSF;

https://osf.io/rcp8f/?view only=f654da106f7a4b4391dbc80fb4a5df17).

Results

Subject Attrition and Sensitivity Analysis

Because the study had a predictive design with a time lag of one and a half years between the two data collection points and also had strict participant exclusion criteria, we had a considerable dropout rate. To test whether the dropout led to non-random sampling, we used a binary logistic regression analysis to assess the probability of staying in the final sample or leaving after responding to the first survey as a function of T1 measures of sex, age, tenure, pre-acquisition organizational membership, and pre-change identification. The results of the binary logistic regression analysis indicated that the probability of dropout was slightly decreased by tenure in the pre-acquisition organization (Exp(B) = -.02, p = .02), but was not affected by participants' sex (Exp(B) = .20, p = .33) or age (Exp(B) = .01, p = .33).

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Most importantly, results showed that neither pre-acquisition organizational membership (Exp(B) = .17, p = .41) nor pre-change identification (Exp(B) = .02, p = .76) predicted dropout. The results of this analysis suggest that the validity of our findings is unlikely to be affected by systematic dropout.

For the test of SIMOC, we held the sample size constant across the separate analyses by list-wise excluding missing observations in key variables of our model. This resulted in a sample size of 177 and consequently 164 degrees of freedom for the analyses testing the proposed three-way interaction. To address the statistical power underlying these analyses, we conducted a sensitivity analysis. We used this procedure because post-hoc power analysis can be misleading if performed on data that have already been collected (Zhang et al., 2019). Results of the sensitivity analysis showed that the minimum detectable effect size partial eta squared was .05, setting statistical power to 80% and assuming 164 degrees of freedom in the regression analyses for each outcome separately, which are shown in the online supplemental material C (p. 7-14). This meant that our analysis was able to detect effects equal to 5% of the variance unaccounted for by the other variables. These correspond to small-to-medium effects according to Cohen's classification of conventional effect sizes (Cohen, 1973). Regarding the capacity for multi-group CFA to validate the composition of a general adjustment factor (as presented below), our sample size can be considered as reasonable and sufficient given our rather high level of communalities (here, three out of four above .60) according to MacCallum et al. (1999). Under such conditions, even studies with sample sizes of 60 participants tend to obtain high congruence between sample factors and population factors (MacCallum et al., 1999).

For the multi-group SEM testing the key propositions of SIMOC, we used maximum likelihood estimation with robust (Huber-White) standard errors (MLR) and the Satorra-Bentler scaled test statistic (Satorra & Bentler, 1988, 1994). The latter has been found to be

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effective for the correction of models with non-normally distributed data in small to moderate samples (Chou et al., 1991; Hu & Bentler, 1999). Regarding the power for the multi-group SEM analyses, it is worth noting that the fit index RMSEA is relatively independent of the sample size (Schermelleh-Engel et al., 2003).

Preliminary Analysis of Differences between Organizations

Table 1 displays means, standard deviations (SD), and bivariate correlations of the adjustment outcomes and predictor variables in our model for the full sample (N = 225). As expected, sense of continuity and identity leadership were associated with most adjustment outcomes (except post-traumatic growth). Also in line with our expectations, post-change identification was significantly related to job satisfaction, OCB, depression, and satisfaction with life, as well as post-traumatic growth.

To explore the impact of the organizational group an employee belonged to before the change on the predictor and moderators of our model, we first compared employees from Alpha and Beta on measures of pre-change identification, sense of continuity, and perceived identity leadership. Pre-change identification was considerably lower among Beta employees $(M_{\text{OrgB}} = 3.58, SD = 1.75)$, than among Alpha employees $(M_{\text{OrgA}} = 5.34, SD = 1.22, t(197.15))$ = 8.77, p < .001, Cohen's d = 1.10, possibly reflecting the fact that the acquired Beta sites were not part of the Beta group's core business, and these employees had lower status within their former Beta group. Replicating previous findings (e.g., van Knippenberg & van Leeuwen, 2001), Beta employees reported a significantly lower sense of continuity than Alpha employees $(M_{\text{OrgA}} = 4.81, SD = 1.66; M_{\text{OrgB}} = 3.73, SD = 1.29, t(112.27) = 4.79, p$ < .001, Cohen's d = .74). Even though not explicitly stated by SIMOC, we explored whether Alpha and Beta employees differed in ratings of their immediate supervisor's identity leadership after the integration. Results indicated that employees in the acquired and acquiring organization perceived their supervisors to engage to a similar degree in identity

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leadership by promoting the new emerging organizational identity ($M_{\text{OrgA}} = 5.09$, SD = 1.23; $M_{\text{OrgB}} = 5.13$, SD = 1.22, t(138.76) = -.24, p = .81, Cohen's d = -.03). Hence, we can assume that supervisors in both organizational groups were likely perceived to provide a similar amount of support to their employees to help them gain a sense of new identity.

Additionally, we explored differences in the trajectories of organizational identification from pre- to post change in employees of Alpha and Beta. Results of a repeated-measures ANOVA revealed a significant interaction effect for organizational identification as a function of pre-acquisition organizational membership (Alpha vs. Beta) and time (pre-change T1 vs. post-change T2), F(1, 223) = 61.78, p < .001, $\eta^2_{(partial)} = .14$. This significant interaction indicated that despite experiencing lower continuity, identification increased more strongly from pre- to post-change among Beta employees than among Alpha employees, such that post-change identification was higher among Beta than among Alpha employees after the integration ($M_{OrgA} = 4.74$, SD = 1.35; $M_{OrgB} = 5.21$, SD =1.40, t(142.37) = -2.42, p = .02, Cohen's d = -.34). Similar trajectories of identification were reported by Edwards et al. (2017). If sense of continuity was the only cause of post-change identification and uniformly lower among Beta employees, the observed increase in Beta employees' identification would be surprising. However, these findings are consistent with our model in indicating that employees' perception of identity continuity is not the only contributor to post-change identification and that the development of post-change identification can also be influenced by other factors such as supervisors' identity leadership.

In summary, preliminary analysis identified differences between the organizational groups, Alpha and Beta, that are mostly in line with previous research. Consequently, this difference in the identification transfer from pre- to post-change by organizational group must be modelled in the analyses testing SIMOC in the current sample. For accurate results, we report all analyses involving post-change identification separately for Alpha and Beta. It

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is nevertheless important to point out that this research was not designed to examine group differences, but to test the key proposition of SIMOC that there are two interdependent pathways in operation for members of both organizations. Other than the differences in the relationship between pre- and post-change identification, we do not expect (and do not find) the hypothesized effect to be different for Alpha and Beta.

 Table 1

 Means, Standard Deviations, and Bivariate Correlations Between Variables (N = 225)

Variables	Alpha		Beta		1	2	3	4	5	6	7	8	9
	M	SD	M	SD	1	۷	3	4	J	U	1	0	9
1. Identity Continuity	4.81	1.66	3.73	1.29									
2. Identity Leadership	5.09	1.23	5.13	1.22	.19**								
3. Pre-change Identification	5.34	1.22	3.58	1.75	.19**	.12							
4. Post-change Identification	4.74	1.35	5.21	1.40	.16*	.37***	.03						
5. Job Satisfaction	5.50	1.32	5.72	1.12	.23***	.38***	02	.53***					
6. OCB	4.88	1.16	5.19	1.12	.19**	.40***	.03	.58***	.51***				
7. Depression	2.13	1.22	2.45	1.52	27***	14*	.01	41***	64***	30***			
8. Satisfaction with Life	5.36	1.33	4.84	1.39	.17*	.17*	.15*	.29***	.48***	.33***	54***		
9. Post-traumatic Growth	1.96	1.01	2.35	1.19	05	.11	.04	.24***	.09	.32***	04	.04	
10. Organizational group (Alpha = 0, Beta = 1)				34***	.02	46***	.16*	.09	.13	.11	18*	.16*	

Note. *p<.05, **p<.01, *** p<.001. OCB = Organizational Citizenship Behavior.

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Testing the SIMOC

The main analyses followed four steps to test SIMOC which were all carried out within a multi-group structural equation modelling (SEM) analytical framework (using the lavaan package for R, Version 0.6-7; Rosseel, 2012). This allowed us to efficiently test whether the proposed relationships can be assumed to be identical across Alpha and Beta. In the first step, we estimated a latent "adjustment" variable using the scales of the adjustmentrelated measures as indicators. In the second step we added pre-change identification, continuity, identity leadership, and all interactions including the hypothesized three-way interaction as predictors. In line with guidelines for determining model fit (Hooper et al., 2008; Hu & Bentler, 1999), we used a combination of fit indices, including the Satorra-Bentler scaled chi-square (S-B χ^2), Comparative Fit Index (CFI > .90), Root Mean Square Error of Approximation (RMSEA < .08), and Standardized Root Mean Square Residual (SRMR < .08) to evaluate overall model fit as acceptable and the Akaike Information Criterion (AIC) and the Bayesian Information Criterion (BIC) to compare the models (where lower AIC and BIC indicate better model fit). In the third step, we plotted the three-way interaction to facilitate interpretation and conducted simple-slope difference tests to determine whether the slope in the low continuity—low identity leadership condition (i.e., where no pathway is accessible) differed significantly from the other slopes. The fourth and final step explored whether post-change identification mediated the relationship between prechange identification and adjustment, as depicted in Figure 1.

Specification of a Latent Adjustment Factor

In the interest of a clear exposition of our results, we estimated a latent adjustment variable using the scale means of the adjustment-related measures as indicators. While being well aware that these measures reflect theoretically distinct constructs which can also be studied in their own right, we focus in our model on adjustment where similar relationships

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are expected across the variables (see Tables SM3-8 in the supplemental material C for separate results by outcome variable). A one-factorial model estimating a latent adjustment construct based on the observed variables of job satisfaction, organizational citizenship behavior, depression, satisfaction with life with equal loadings across groups was found to have a good fit after we excluded post-traumatic growth from the composition (S-B χ^2 = 9.57, df = 7, p =.21; scaling correction factor = 1.18, CFI = .99, RMSEA = .07 [.00, .17], SRMR = .05). Indeed, post-traumatic growth is conceptually distinct from the other adjustment outcomes (job satisfaction, OCB, depression, and satisfaction with life) in that it measures direct positive change after adversity and hence it seems likely that it would be experienced in a qualitatively different way. Accordingly, we treated post-traumatic growth as a separate outcome variable in subsequent analyses.

Analyses of Three-way Interactions: Multi Group SEM

In the second step, we tested the key hypothesis of SIMOC that continuity and identity leadership jointly moderate the effect of pre-change identification on post-change identification as well as on general adjustment to organizational change and post-traumatic growth. To test the proposed three-way interaction and examine whether the proposed relationships differ by organizational group membership, we performed multi-group structural equation modelling (SEM) using the lavaan package in R (Version 0.6-7; Rosseel, 2012). Although investigating differences between employees of Alpha and Beta was not the focus of the present study, we chose this method because it allowed us to model the potential differential in identification transfer between Alpha and Beta that has been identified theoretically and empirically in previous work (e.g., van Knippenberg & van Leeuwen, 2001) as well as to investigate whether further model parameters differ between the two organizational groups. All variables were standardized before building the interaction terms. Prior to the final step exploring the proposed mediation (Step 4 below), post-change

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identification was treated as a dependent variable. We regressed the three outcome variables adjustment, post-traumatic growth, and post-change identification on the predictors (prechange identification, continuity, and identity leadership) and the two-way (pre-change identification x continuity, pre-change identification x identity leadership, and continuity x identity leadership) and three-way interactions (pre-change identification x continuity x identity leadership). To improve model fit, we allowed for three residual correlations, namely between organizational citizenship behavior and post-traumatic growth, organizational citizenship behavior and post-traumatic growth, organizational citizenship behavior and post-change identification, and between depression and satisfaction with life, because scales contained items with similar words or phrases. This model yielded an acceptable fit (S-B χ^2 = 85.11, df = 55, p = .006; scaling correction factor = .89, CFI = .94, RMSEA = .07 [.04, .10], SRMR = .05, AIC = 2627.36, BIC = 2852.86).

We then constrained the effects of the predictor variables and their interactions to be equal across the two organizational groups except for the effect of pre-change identification on post-identification, which is known to be contingent on organizational dominance (van Knippenberg & van Leeuwen, 2001). The resulting model still had an acceptable fit (S-B χ^2 = 114.21, df = 75, p = .002; scaling correction factor = .87, CFI = .92, RMSEA = .07 [.04, .10], SRMR = .06, AIC = 2610.57, BIC = 2772.55). A comparison between the constrained and unconstrained models using a chi-squared difference test indicated that making further distinctions in parameter estimates between Alpha and Beta did not result in better model fit (Δ S-B χ^2 (20) = 28.94, p = .09). In fact, the AIC and BIC were both lower for the constrained model and thus the constrained model was favored over the unconstrained model. These findings indicate that the coefficients do not vary by organizational group (except for the theoretically expected relationship between pre-change identification and post-change identification). The results of the multi-group SEM analysis for the constrained model can be found in Table 2. Replicating the identification transfer differential between the dominant and

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the dominated organization found in previous studies (van Knippenberg & van Leeuwen, 2001), the effect of pre-change identification on post-identification was significant and positive for employees of the acquiring group Alpha and less positive and not significant for employees of the acquired group Beta. Above and beyond this effect, the multi-group SEM analysis provided consistent support for the hypothesized three-way interaction of pre-change identification x continuity x identity leadership on post-change identification (β = -.16, p =.04), as well as adjustment (β = -.14, p =.03), and post-traumatic growth (β = -.17, p =.002). Separate regression analyses for the measures combined in the latent adjustment variable (i.e., job satisfaction, OCB, satisfaction with life, and depression) yielded generally the same results, and are presented in the online supplemental material C (p. 7-14).

 Table 2

 Parameter Estimates of the Constrained Multi-group Structural Equation Model

		Response to Organizational Change												
	-	Post-change Identification					Adjustment				Post-traumatic Growth			
		β	SE	Z	p	β	SE	Z	p	β	SE	Z	p	
Pre-change Identification	Alpha Beta	.53 .04	.17 .08	3.11 0.43	.002 .67	.06	.06	1.02	.31	.17	.08	2.10	.04	
Continuity		.17	.09	1.97	.05	.23	.07	3.29	.001	.05	.07	0.74	.46	
Identity Leadership		.31	.07	4.21	< .001	.29	.06	4.97	< .001	.12	.07	1.76	.08	
Pre-change Identification X Continuity		.12	.09	1.43	.15	.09	.06	1.44	.15	.07	.07	1.10	.27	
Pre-change Identification X Identity Leadership		.05	.08	0.68	.50	.13	.06	2.20	.03	02	.08	-0.28	.78	
Continuity x Identity Leadership		04	.08	-0.48	.63	10	.06	-1.61	.11	.02	.06	0.34	.74	
Pre-change Identification X Continuity x Identity Leadership		16	.08	-2.06	.04	14	.06	-2.13	.03	17	.05	-3.07	.002	

Note. N = 177 ($n_{\text{Alpha}} = 57$, $n_{\text{Beta}} = 120$). Unconstrained parameter estimates for the effect of pre-change identification on post-change identification are shown in bold.

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Follow-up Analyses of Interactions

In the third step, we conducted follow-up analyses on the three-way interaction effect and focused specifically on the condition of low continuity—low identity leadership, where we expected the most unfavorable responses. To facilitate interpretation of the three-way interactions, we plotted the simple slopes (Figure 2) using the standardized variables at all combinations of low (one standard deviation below the mean) and high levels (one standard deviation above the mean) of the moderating variables. What stands out here is the slope of the low continuity—low identity leadership condition represented by the solid bold line, which indicates the effect of pre-change identification on outcomes among participants for whom neither of the two pathways were accessible. For post-change identification, we created separate plots for Alpha and Beta in light of the fact that the relationship between pre-change identification and post-change identification differed as a function of organizational group membership (as reported earlier).

As can be seen in Figure 2, the same pattern was found repeatedly across adjustment, post-traumatic growth, and post-change identification for both organizations. More specifically, for employees of Alpha, the relationship between pre-change identification and post-change identification was positive and significantly different from zero in all but the low–low condition (see Table 3 for numerical results regarding the simple slopes). Replicating previous findings (van Knippenberg & van Leeuwen, 2001), for employees of Beta the effects of pre-change identification on post-identification were smaller and actually negative in the low-low condition ($\beta = -.30$, p = .01). The results for adjustment and post-traumatic growth did not differ significantly between Alpha and Beta. In line with specific predictions by SIMOC, under low continuity (indicating identity change) the slope was significant and positive when identity leadership was high ($\beta = .23$, p = .009), but was significant and negative when identity leadership was low ($\beta = -.30$, p < .001). For post-

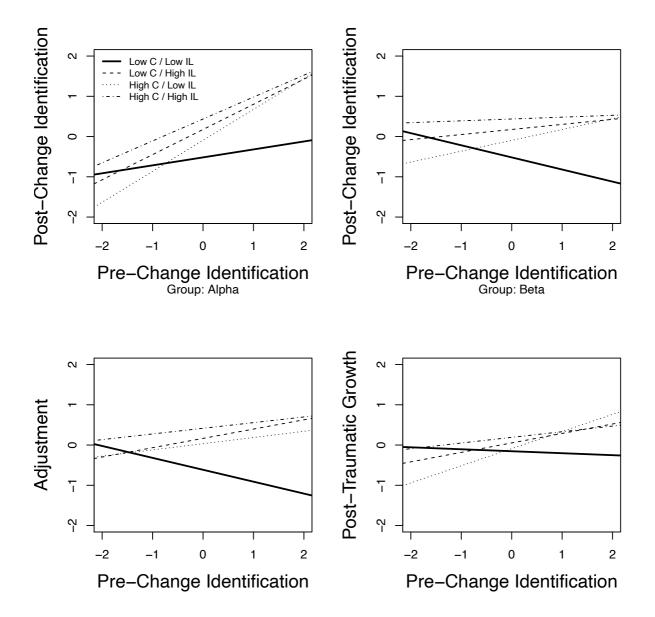
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traumatic growth, the slopes were in the same direction as found for adjustment but were not significantly different from zero.

Figure 2

Three-way Interaction Plotted at Conditional Values (+/- 1 SD) of Pre-change Identification,

Continuity, and Identity Leadership



Note. C = Continuity, IL = Identity Leadership.

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We also conducted simple-slope difference tests (Dawson & Richter, 2006) to determine whether the slope of the low continuity—low identity leadership condition (no accessible pathway) is significantly more negative than the slopes resulting from the moderating variables identity leadership or continuity (or both) being conditioned to a high value. Results of the theoretically relevant slope difference tests are reported in Table 4 (for completeness, the remaining comparisons are reported in the supplemental material D, p. 15). As can be seen, the majority of slope differences were significant (shown in bold), providing additional support for our key hypothesis. Specifically, the slopes of the relationship between pre-change identification and outcome variables were indeed more negative when no pathway was accessible (low identity leadership and low continuity) compared to the slopes where one or both pathways were accessible. The slopes for participants for whom either the maintenance or the gain pathway was accessible (Comparison 4 in Table 4), did not differ from each other for all outcomes, suggesting that neither of the two pathways is more beneficial than the other. In sum, then, the results of the multi-group SEM analyses and the simple slope tests supported SIMOC's key hypothesis that both pathways need to be taken into account to predict employees' response to change, and that pre-change identification can have a detrimental effect on adjustment if none of the identity pathways is accessible.

Table 3

Estimates for Slopes Between Pre-change Identification and Outcomes at Conditional Values of Identity Leadership and Continuity

		β	SE	Z	p	CI 95% [<i>LL</i> , <i>UL</i>]
Post-change identification						
Low C and low IL	Alpha	.20	.17	1.16	.25	[-0.14, 0.53]
Low C and low IL	Beta	30	.12	-2.46	.01	[-0.54, -0.06]
Low C and high IL	Alpha	.63	.18	3.47	.001	[0.27, 0.98]
Low C and high IL	Beta	.13	.13	0.97	.33	[-0.13, 0.38]
High C and low IL	Alpha	.77	.21	3.71	<.001	[0.36, 1.17]
High C and low IL	Beta	.27	.17	1.57	.12	[-0.07, 0.61]
High C and high IL	Alpha	.54	.17	3.25	.001	[0.22, 0.87]
High C and high IL	Beta	.05	.15	0.30	.76	[-0.25, 0.34]
Adjustment						
Low C and low IL		30	.09	-3.48	<.001	[-0.46, -0.13]
Low C and high IL		.23	.09	2.60	.009	[0.06, 0.41]
High C and low IL		.15	.12	1.34	.18	[-0.07, 0.38]
High C and high IL		.14	.10	1.45	.15	[-0.05, 0.33]
Post-traumatic Growth						
Low C and low IL		05	.12	-0.40	.69	[-0.29, 0.19]
Low C and high IL		.24	.13	1.77	.08	[-0.03, 0.50]
High C and low IL		.43	.18	2.43	.02	[0.08, 0.77]
High C and high IL		.05	.15	0.34	.73	[-0.24, 0.33]

Note. N = 177. Significant estimates are shown in bold. IL = Identity leadership, C =

Continuity. CI = confidence interval; LL = lower limit; UL = upper limit.

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Table 4Results of t-Tests of Slope Differences: Comparing the Relation Between Pre-change Identification and Outcome Variables (a) when Continuity and Identity Leadership is Low and (b) when Continuity and/or Identity leadership is High

	Post-change Identification Adjustment					ıstment	Post-traumatic Growth			
Slope pairs		Δ p 95		Δ	p	95% CI [<i>LL</i> , <i>UL</i>]	Δ	p	95% CI [<i>LL</i> , <i>UL</i>]	
Holding identity leadership (IL) constant low, does continuity (C) matter?										
1 low C and low IL minus high C and low IL	57	.004	[-0.96, -0.18]	45	.001	[-0.73, -0.17]	48	.02	[-0.88, -0.07]	
Holding continuity (C) constant low, does identity leadership (IL) matter? 2 low C and low IL minus low C and high IL	43	.009	[-0.75, -0.11]	53	<.001	[-0.76, -0.29]	28	.10	[-0.62, 0.05]	
Mixed conditions			•			•				
3 low C and low IL minus high C high IL	35	.05	[-0.70, 0.01]	44	.001	[-0.69, -0.19]	10	.60	[-0.46, 0.27]	
4 high C and low IL minus low C and high IL	.14	.50	[-0.27, 0.56]	08	.59	[-0.36, 0.20]	.19	.39	[-0.24, 0.62]	

Note. N = 177. $\Delta = \text{Standardized coefficient of Slope A minus coefficient of Slope B. Significant difference between Slope A and Slope B are shown in bold. Differences between slopes are positive (negative) when Slope A is larger (smaller) than Slope B. IL = Identity leadership, C = Continuity. CI = confidence interval; <math>LL = \text{lower limit}$; UL = upper limit.

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Analyses of Mediation

In the fourth and last step, we built on the constrained model from Step 2 to test the proposed mediating effect of post-change identification on both adjustment (as depicted in Figure 1) and post-traumatic growth (again using the lavaan package in R). As in the previous analyses, we modelled the two-way interaction between pre-change identification and organizational group membership by freeing the parameters for this relationship across groups. The overall fit of the mediation model (Figure 3) was acceptable (S-B χ^2 = 128.08, df = 77, p < .001; scaling correction factor = .87, CFI = .90, RMSEA = .08 [.06, .11], SRMR = .06). Path coefficients of the mediation model are reported in the supplemental material E (p. 16). Although the chi-square difference test indicated a better fit of the unconstrained mediation model Δ S-B χ^2 (25) = 51.66, p = .001, the information criteria, which also take into account model parsimony, favored the constrained model (constrained model: AIC = 2618.53, BIC = 2774.16, vs. unconstrained model: AIC = 2628.51, BIC = 2863.54).

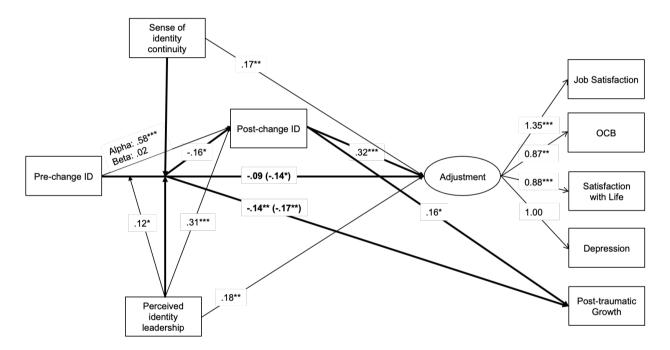
Acknowledging that the fit of the mediation model is not optimal, we nevertheless proceeded by estimating the indirect effects of pre-change identification on adjustment and post-traumatic growth via post-change identification at selected conditional values of continuity (+/- 1 SD) and identity leadership (+/- 1 SD), using bootstrap confidence intervals (1000 bootstraps). Indirect effects under the various conditions for employees of Alpha and Beta can be found in Table 5. As expected, the indirect effects of pre-change identification on adjustment and post-traumatic growth were positive and significant for employees of Alpha as long as they could perceive continuity of their pre-existing identity (so that the identity maintenance pathway was accessible) and/or perceive high identity leadership to develop a new identity (so that the identity gain pathway was accessible). However, under conditions of low continuity and low identity leadership (where no pathway was accessible), this positive indirect effect became smaller and non-significant. For Beta employees, the indirect effects

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were not significant at any combinations of low and high moderator values. However, in line with our expectations, the indirect effects for Beta employees were positive as long as at least one pathway was accessible, but became smaller and even negative in the low–low condition.

Figure 3

Multi-group SEM of the Effects of Pre-change Identification, Continuity, and Identity Leadership on Adjustment Mediated by Post-change Identification



Note. *** p < .001, ** p < .05. For presentation purposes, only significant standardized regression coefficients are shown (except the non-significant direct effect of the three-way interaction on adjustment and the effect of pre-change identification on post-change identification for Beta employees). Coefficients for the direct three-way interaction effects (in bold) on adjustment and post-traumatic growth are shown in brackets and their total effects outside the brackets. ID = Identification, OCB = Organizational Citizenship Behavior.

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Table 5

Indirect Effects of Pre-change Identification on Adjustment at Conditional Values of Moderators (Constrained Mediation Model)

			Low Continuity (-1 SD)						High Continuity (+1 SD)					
Conditions		L	Low Identity Leadership (-1 <i>SD</i>)			High Identity Leadership (+1 SD)		Low Identity Leadership (-1 <i>SD</i>)]	High Identity Leadership (+1 <i>SD</i>)		
		β_c	boot SE	95% CI [<i>LL</i> , <i>UL</i>]	β_c	boot SE	95% CI [<i>LL</i> , <i>UL</i>]	β_c	boot SE	95% CI [<i>LL</i> , <i>UL</i>]	β_c	boot SE	95% CI [<i>LL</i> , <i>UL</i>]	
Adjustment	Alpha	.08	.08	[-0.08, 0.22]	.21	.10	[0.03, 0.42]	.26	.11	[0.09, 0.53]	.18	.07	[0.04, 0.33]	
	Beta	10	.06	[-0.22, 0.003]	.03	.05	[-0.07, 0.15]	.08	.09	[-0.06, 0.28]	.003	.06	[-0.11, 0.10]	
Post-traumatic	Alpha	.04	.05	[-0.04, 0.15]	.11	.07	[0.001, 0.27]	.13	.08	[0.01, 0.32]	.09	.05	[0.003, 0.21]	
Growth	Beta	05	.04	[-0.13, 0.003]	.02	.03	[-0.04, 0.08]	.04	.05	[-0.03, 0.17]	.002	.03	[-0.06, 0.06]	

Note. Significant indirect effects are printed bold. SD = Standard deviation. β_c = Beta coefficient of indirect effect. Boot SE = bootstrapped standard error. CI = bias-corrected confidence interval based on 1000 bootstrap samples; LL = lower limit; UL = upper limit.

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Discussion

Understanding employees' adjustment to organizational changes is becoming increasingly important in today's rapidly changing business environment. Adjusting to organizational changes — especially major ones such as takeovers — can be psychologically challenging. The present research sought to address the key question of how organizations can build employees' bond with the new organization that materializes in the wake of organizational change as well as facilitate their psychological adjustment and functioning. Building on social identity theorizing, we proposed that significant organizational changes entail identity transitions and thus affect employees' sense of belonging (Haslam et al., 2021). More particularly, we introduced a Social Identity Model of Organizational Change (SIMOC) that specified two interdependent pathways to successful adjustment (identity gain and identity maintenance) and provided a prospective examination of predictions derived from the model.

Key findings showed that when employees identified strongly with their organizational group before the change this had important benefits for their adjustment when they either experienced identity continuity (thereby having access to an identity maintenance pathway) or worked with a leader who helped them adopt a new identity or revise their former identity in ways that they perceived as entailing identity gain (thereby providing access to an identity gain pathway). As proposed by the social identity theory of leadership (Haslam et al., 2011; Hogg, 2001; van Knippenberg & Hogg, 2003), the degree to which leaders promoted an understanding of the emerging organization's identity as identity gain facilitated their ability to adjust in the aftermath of the change. Importantly, when pre-existing identities could not be maintained, adjustment to organizational change was determined by the extent to which employees' supervisors helped to create and promote a new positive and meaningful organizational identity.

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It is also noteworthy that the impact of the organizational change on employees' lives varied significantly as a function of differences in their pre-existing identification and associated concerns. Employees who identified highly with their organization before the change had much to lose and were most concerned about whether their pre-existing identity would continue to exist. If a change to their pre-existing identity seemed inevitable, they showed the greatest sensitivity to their supervisors' identity leadership. These high-identifiers were also most able and willing to adjust to the change when their supervisor engaged in identity work around creating a new or reinventing the pre-existing identity. However, highly identified employees responded most negatively to the change when they were not able to maintain a sense that their valued pre-existing identity would endure and when their supervisor failed to provide them with guidance around the new emerging identity.

One might argue that the very existence of employees for whom both pathways are inaccessible presents something of a puzzle because these employees are most likely to leave the organization (Mael & Ashforth, 1995; Sani, 2005). However, it is conceivable that employees who have previously been highly identified with their organization are more loyal to the organization even in the face of adverse changes (e.g., Avanzi et al., 2014; van Knippenberg et al., 2007), and so might stay even though leaving the organization might be on their minds. More generally, we think that there are a range of reasons why people may stay in an organization after major organizational changes even if they cannot maintain their old social identity or acquire a new one (not least, the need to remain employed).

Importantly, though, regardless of whether or not people may eventually leave the organization, our findings suggest that their inability to maintain or acquire a meaningful organizational identity is likely to have significant adverse implications for their organizational behavior and well-being. In line with this argument, our results showed a consistent pattern across multiple adjustment outcomes, affecting not only employees' job

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satisfaction and organizational citizenship behavior but also their life satisfaction and levels of depression, as well as their sense of growth following the adversity of the change. These findings highlight the importance of identity leadership that helps employees who remain with the organization after disruptive changes in gaining a new positive and meaningful identity. This helps to offset the negative consequences of the identity loss that results when employees cannot maintain their valued pre-existing organizational identity in the context of organizational change.

Furthermore, additional mediation analysis supported SIMOC's proposition that postchange identification is a key identity process in this transition. Here our results indicated that, at least among employees of the dominant organization, as long as one moderator was high (a sense either of continuity facilitating identity maintenance or of supervisors' identity leadership facilitating identity gain), employees' pre-change identification was a valuable resource that contributed to their adjustment to the change by increasing their identification with the newly emerging organization.

We would also like to note that we replicated previous findings on the identification transfer differential between the dominant and subordinate organizational group in this acquisition setting (e.g., Lupina-Wegener et al., 2014). In other words, the relationship between pre-change identification and post-change identification may generally be lower for employees from the subordinate group. This speaks to the need to bear in mind the organizational group that an individual identifies with and its structural characteristics (e.g., status), especially when testing or applying SIMOC in an intergroup context. Above and beyond this variation, this initial test of SIMOC suggests that the two interdependent pathways operate for both employees of the dominant and the subordinate organizational group. This suggests that SIMOC can be treated as a generic model of organizational change.

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Implications for Theory and Practice

By introducing SIMOC, we provide an integrative framework for explaining how M&As and other major organizational changes generally impact organizational members' work-related behaviors and attitudes, as well as their health and well-being in response to the organizational change. Previous models that have been developed in the M&A context have focused primarily on continuity of the pre-existing identity and demonstrated a positive relationship between pre-merger identification and post-merger identification for employees who can maintain their identity (e.g., van Knippenberg & van Leeuwen, 2001; van Leeuwen et al., 2003). This previous work has not highlighted the possibility that employees' prechange identification can have a negative impact on their response to change. However, social identity theorizing (in particular, the work on identity continuity by Sani and colleagues, 2008) suggests that individuals who derive part of their self-concept from their pre-existing social groups will feel most affected by the change and respond most negatively to the extent that the change compromises their sense of identity continuity. SIMOC can integrate these possibilities and findings by pointing to the importance of a second, identity gain pathway, and the role of leadership in these unfolding dynamics. The present findings suggest that both identity maintenance and gain pathways need to be considered if we want to explain when negative consequences result from organizational changes and to understand why employees' pre-existing identification can still relate positively to their adjustment and well-being despite a lack of identity continuity.

By translating the Social Identity Model of Identity Change (Haslam et al., 2008, 2021; Jetten et al., 2010) into a model of organizational change, the present research highlights the importance of identity changes in the organizational context and extends previous leadership and change management literature. More specifically, our findings imply that organizations need to manage the accessibility of the identity maintenance and gain

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pathways to facilitate the identity transition and prevent employees from losing their sense of 'who we are'. As observed here, this is something leaders can do by creating, representing, advancing and embedding a new 'sense of us' for the organization after the change (Haslam et al., 2011; Reicher et al., 2005; Steffens et al., 2014).

In supporting these ideas, the present research contributes to a growing body of research pointing to the influence of identity leadership on employees' health and well-being (Steffens et al., 2018) while also extending this by providing initial evidence for the effectiveness of identity leadership in promoting employees' adjustment to organizational change. Moreover, here it appears that leaders who help employees to regain a sense of belonging can even foster a sense of growth from adversity after a stressful, potentially traumatic change (for related arguments in the clinical domain, see Muldoon et al., 2019). Indeed, even if an acquisition is positive on a material level (as it was in this acquisition setting, as described in the Method section), employees still need to figure out what the new identity is about and what it means to embrace it. In line with this point, our findings indicate that identity leadership was important for the identity transition process in both of the organizations that we studied (i.e., both Alpha and Beta). Here, then, identity leadership predicted employees' adjustment above and beyond pre-existing organizational group membership, suggesting that it always has at least some bearing on employee outcomes. In this way, the present work has important implications for our understanding of the role of leadership in managing change processes. In particular, in line with Giessner and colleagues' (2016) observation that middle- and lower-levels managers will often be more likely to be perceived as 'one of us' than members of the distant top management, the present research indicates that immediate supervisors are well placed to develop employees' understanding of what it means to be a member of the emerging organization as they go through a process of change (Yukl, 2006).

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These findings also have a range of practical implications for organizations seeking to manage organizational change and associated identity processes. In line with SIMOC, it appears that this is not necessarily a context where 'one size that fits all', but rather that organizations can make use of different strategies that focus, where relevant and applicable, on either the maintenance or the acquisition of a valued social identity. As specified by SIMOC, the effectiveness of these strategies will depend on employees' identification with their pre-existing organization as well as their perception of the nature of the change. In this regard, a starting point for practitioners might be to first evaluate the extent to which the organizational change affects (and is perceived as affecting) fundamental organizational attributes such as its mission, strategies, structures, and core values. If small changes to these aspects of identity content are observed, then strategies that highlight 'who we were and will continue to be' seem most likely to be effective for highly identified members (as also suggested by Venus et al., 2019). However, if disruptions to organizational identity are expected, then leaders need to answer questions about 'who we want to be' in the future for those highly identified members if they want to promote their engagement with, and adjustment to, the change. From a practical standpoint, organizations might here look to develop leaders' identity leadership capacity by providing them with tools to constructively engage with team members in times of change (e.g., Haslam et al., 2017; Peters et al., 2013). Indeed, efforts to foster leaders' ability to help employees to regain a sense of belonging as they negotiate the loss of a previous, valued identity would seem to be critical for any organization that is interested in facilitating employees' adjustment.

Limitations and Future Research

Despite its theoretical and empirical contribution, the present research also has important limitations which provide interesting starting points for future research.

First, over the course of the 18-month data collection period we saw a considerable drop out of participants resulting in a rather small sample size — in part a reflection of the fact that this type of research is logistically challenging to conduct. However, the sample of 177 complete responses in this test of SIMOC lies within the typical range of sample sizes for M&A studies (Gomes et al., 2020). Moreover, we addressed the issue of statistical power using a sensitivity analysis, which indicated that we are able to detect small-to-medium effects with a probability of 80%, but not effects smaller than .05. These findings suggested that in light of our study's sample size we would have sufficient power to detect average effect sizes of cultural differences on M&A integration outcomes ($\eta^2 = .16$) reported in a meta-analysis by Stahl and Voight (2004) and even smaller effects relating to organizational group membership on post-change identification ($\eta^2 = .05$) as reported by Gleibs et al. (2008). Nevertheless, we acknowledge that the size of our sample limits our ability to detect small effects and is also responsible for rather wide confidence intervals. However, as noted by Kenny and Judd (2019), effects are likely to be heterogenous across settings and participants, calling into question the value of "the definitive large N study in an effort to establish whether a given effect exists or not" (p. 587). We suggest that the value of our theoretical model, which was supported across a range of dependent variables, should now be explored further across a new range of settings and participants.

In a similar vein, the unequal sample sizes (such that the Alpha sample was only half the size of the acquired Beta sample) complicated conclusions about potential effects of status differences. While we considered the impact of pre-change organizational group on the identity transfer as discussed above, given the sample sizes, we were not in a position to test a four-way interaction involving this variable. Although it would be interesting to investigate group differences more systematically, this is a task for future research, noting that our model

should apply to everyone experiencing change, whether in a dominant group (such as Alpha here) or a subordinate one (such as Beta).

Second, we cannot draw causal inferences due to the correlational nature of our design. Future research should therefore test SIMOC using experimental and/or intervention procedures with the goal of examining issues of causality and ruling out alternative explanations. Another limitation of our design was that we did not measure and thus could not control for the levels of the adjustment outcomes before the change. To provide greater insight into the process of change (e.g., assessing how changes in predictor variables affect subsequent changes in outcomes) and to replicate the mediating effect of post-change identification, there would therefore be value in future work that collects longitudinal data on all constructs across three or more measurement points (Edwards et al., 2017).

Third, although the present research tested SIMOC using separated measurement points of independent and dependent variables, common method variance (CMV) among the self-report measures could have artificially increased the relations between variables (Podsakoff et al., 2003). However, the main purpose of this initial test of the SIMOC was to establish the hypothesized interaction effect. Common method bias cannot produce an artificial interaction effect — "on the contrary, finding significant interaction effects despite the influence of CMV in the data set should be taken as strong evidence that an interaction effect exists" (Siemsen et al., 2010, p. 470; see also Evans, 1985; McClelland & Judd, 1993). That said, there is clearly scope for future studies to collect multimodal data, such as objective data on employees' performance, health, and turnover rates (noting that, for legal and other reasons, this was not possible in the present study). In further work, there would also be value in extending the relationships investigated here — for example, by examining additional indicators of adjustment including physiological and behavioral indicators (e.g., cortisol for an index of stress; see Haslam & Reicher, 2006). In relation to the measurement

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of the variables in the present study, we would note too that our model focuses on specifying how leadership of a single identity fosters responses to M&As and thus, our measure of identity leadership captures the promotion of one common organizational identity. However, people may have varying intersectional identities and so it will be a task for future work to examine how leaders can manage multiple identities or nested identities within a superordinate identity in the context of organizational change.

Fourth, although the observed patterns support SIMOC's key proposition of two interdependent but separate pathways to successful adjustment, we did not measure identity maintenance and identity gain (or loss) directly. To provide more specific insights into these core transition processes of SIMOC, future work should include measures of identity maintenance, identity gain and loss (as in Haslam et al., 2008). In addition, qualitative data should explore employees' subjective interpretation and sense-making of the change processes and experience of identity formation dynamics under conditions of varying levels of continuity and identity leadership, including potential changes over time. While employees who managed change via the identity gain pathway would be expected to experience similar levels of adjustment as employees who took the identity maintenance pathway, they might have experienced the identity transition in qualitatively different ways. Clearly, then, further research is needed to explore the identity transition processes more closely.

Finally, because our study was tested in the context of a single acquisition the generalizability of our findings remains to be established in other contexts. Mergers and acquisitions are complex events that vary significantly in regard to a range of important structural characteristics (e.g., the status or dominance of the partners, the collective history of the organization). Accordingly, it would be valuable for future research to examine the degree to which the patterns observed in the present research are also found in other merger contexts as well as in the context of a broader range of other organizational changes (e.g.,

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relocations, restructures). While SIMOC describes the general processes that employees can experience during an identity transition, we imagine that the accessibility of the different pathways may be very different across different types of integration patterns following a merger (Giessner et al., 2006; Gleibs et al., 2013; Makri et al., 2012).

The extent to which the pre-existing organizational group membership affects the accessibility of the different pathways likely depends on the integration pattern. If mergers follow an assimilation pattern, where one organization clearly dominates the other and thus the dominating organization experiences limited impact on their identity, it is likely to be the case that employees of the dominant organization will experience identity maintenance. In contrast, in these circumstances the employees of the dominated merger partner, who have to adjust to the new organization, will be more likely to find themselves on an identity gain pathway — providing their leaders promote the new identity. However, in an integration pattern (where employees of both merger partners give up their pre-existing identity to form a new one), both may follow the identity gain pathway if their leaders promote the new identity, while in a separation pattern, both merger partners may be more likely to follow an identity maintenance pathway. As a result, investigating whether the strength of the different pathways varies as a function of merger integration patterns with varying levels of dominance during the integration process would be an interesting way to establish the generalizability of the predictions made by SIMOC and to identify potential boundary conditions.

Conclusion

No death, no doom, no anguish can arouse the surpassing despair which flows from a loss of identity. (Lovecraft, 1943)

In the present work, we introduced a new integrative framework in the form of the Social Identity Model of Organizational Change (SIMOC) to explain how major organizational changes affect employees' relationship with a new emerging organization and

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their adjustment to change. Results from a predictive study that examined employees' unfolding experiences of an organizational acquisition provided support for the key predictions of this model. Specifically, they show that employees' ability to adjust to major organizational change is enhanced if they have access to an identity maintenance pathway and/or an identity gain pathway. In this our findings indicate that if employees believe their identity is unlikely to endure after organization change, then it becomes critical for leaders to make sense of, and champion, an understanding of what the new emerging identity stands for.

However, if neither the identity maintenance or identity gain pathway is accessible, then organizational change is likely to undermine not only employees' constructive engagement with the change but also their health and well-being. Here, then, SIMOC — and the data that support it — suggest that the key task for leaders who want to support their employees through organizational change is to mitigate its potential to engender a devastating sense of identity loss.

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A. An Adapted Version of the Post-Traumatic Growth Inventory Short Form (PTGI-SF)

We adapted the PTGI-SF to the work context by changing the word "life" to "work". Due to the adaption, we excluded the two items of the factor Spiritual change from the original 10-item PTGI-SF described by Cann et al. (2010, p.130). In the current study, we referred to the acquisition respectively organizational change instead of "my crisis".

Instruction:

When answering the following questions, think about your work life after the [organizational change]. Please make your response on the following 6-point scale:

As a result of the acquisition...

- 1. ... I changed my priorities about what is important in my work.
- 2. ... I have a greater appreciation for the value of my own work.
- 3. ... I am able to do better things with my work.
- 4. ... I have a greater sense of closeness with others at work.
- 5. ... I established a new path for my work.
- 6. ... I know better that I can handle difficulties.
- 7. ... I discovered that I'm stronger than I thought I was.
- 8. ... I learned a great deal about how wonderful people at work are.

Responses were made on the following 6-point scale:

- 1 = I did not experience this change as a result of the organizational change
- 2 = I experienced this change to a very small degree as a result of the organizational change
- 3 = I experienced this change to a small degree as a result of the organizational change
- 4 = I experienced this change to a moderate degree as a result of the organizational change
- 5 = I experienced this change to a great degree as a result of the organizational change
- 6 = I experienced this change to a very great degree as a result of the organizational change

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B. Confirmatory Factor Analysis:

Confirming the Distinctiveness of Adjustment Measures

To ensure that the scales that measured adjustment outcomes including post-change identification at T2 represent distinct constructs, we conducted a confirmatory factor analysis (CFA) in R (Version 3.4.3) using the lavaan package (Rosseel, 2012). A six-factor model representing post-change identification, job satisfaction, OCB, depression, life satisfaction, and post-traumatic growth was tested, whilst allowing for residual correlations between items of the same scale suggested by modification indices. This six-factor model showed a good fit to the data (S-B χ^2 = 684.29, df = 484, p < .001; scaling correction factor = 1.14, CFI = .95, RMSEA = .05 [.04, .05], SRMR = .07), and was preferred over a one-factor model with all items loading on one factor ($\Delta \chi^2$ (15) = 698.98, p < .001), or a two-factor model with one factor representing organizational-related outcomes and one factor representing health and well-being related outcomes, $\Delta \chi^2$ (14) = 450.58, p < .001. Overall, the results of the CFA confirmed the distinctiveness of the constructs post-change identification, job satisfaction, OCB, depression, life satisfaction, and post-traumatic growth, and the validity of combining the a priori defined items into their respective scale. Table SM1 shows the reported six-factor model (Model A; reported in the manuscript) and two alternative models B and C. In Table SM2, we report the factor loadings (standard errors) for the six-factor model (Model A) and for a 34-item one-factor model (Model C). Factor correlations and residual correlations for the six-factor model are shown in Figure SM1.

Additionally, Table SM1 reports the fit indices for a one-factor adjustment model with the adjustment-related outcomes as indicators (Model D and E). Model E, which uses the scales as indicators and excludes post-traumatic growth from the composition, yielded a good fit to the data and was used for the main analyses in the manuscript. For Model E, factor loadings and standard errors can be found in Table SM2.

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 Table SM1

 Results of Confirmatory Factor Analyses for Adjustment Outcomes (CFA)

					E: One-
					factor
		B: 34-items		D: One-	adjustment
		two-factor		factor	model with
	A: 34-	model (work		adjustment	scales as
	items six-	and	C: 34-items	model with	indicators
	factor	wellbeing	one-factor	scales as	(excluding
	model*	factor)	model	indicators	PTG)*
Satorra-Bentler χ^2	684.29	1612.34	4509.66	27.72	9.57
df	484	498	561	5	7
Scaling correction	1.14	1.18	1.24	1.07	1.18
factor					
Robust CFI	.95	.73	.64	.90	.99
Robust RMSEA	.05	.11	.13	.17	.07
Robust RMSEA CI	[.04; .05]	[.10; .12]	[.12; .13]	[.11; .23]	[.00; .17]
Robust SRMR	.07	.15	.16	.07	.05

Note. *Reported in the manuscript. PTG = Post-traumatic growth; CI = Confidence interval.

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Table SM2

Unstandardized Loadings (Standard Errors) and Standardized Loadings for Six-Factor (A) and One-Factor (C) Confirmatory Model of Adjustment-Related Outcomes Including Post-change Identification, as well as One-Factor Adjustment Model (E)

	34-ite	lodel A: ms six-1 model		34-itei	Iodel (ns one model	-factor	0	E: or nodel	
Item	Unstd.	SE	Std.	Unstd.	SE	Std.	Unstd.	SE	Std.
Post-change Identification							-	-	-
When I talk about Post-Alpha, I usually say "we" rather than "they".	1	(-)	.70	1	(-)	.58			
Post-Alpha's successes are my successes.	1.09	(.15)	.80	0.72	.17	.43			
When someone praises Post-Alpha, it feels like a personal compliment.	1.21	(.13)	.88	0.9	.13	.54			
Job Satisfaction							1.20	.15	.79
All in all I am satisfied with my job.	1	(-)	.83	1.17	.15	.75			
In general, I don't like my job. (recoded)	0.73	(.10)	.69	0.79	.14	.58			
In general, I like working here.	0.90	(.08)	.86	0.99	.12	.72			
Organizational Citizenship Behavior							0.84	.13	.66
I attend functions that are not required but that help the organizational image.	1	(-)	.37	0.57	.17	.28			
I keep up with developments in the organization.	1.54	(.28)	.65	0.64	.16	.38			
I keep up with developments in the organization.	2.06	(.43)	.86	0.94	.15	.56			
I show pride when representing the organization in public.	2.09	(.44)	.86	1.02	.16	.60			
I offer ideas to improve the functioning of the organization.	1.11	(.23)	.47	0.24	.18	.15			
I express loyalty toward the organization.	1.22	(.24)	.72	0.47	.14	.39			
I take action to protect the organization from potential problems.	1.46	(.29)	.75	0.5	.14	.39			
I demonstrate concern about the image of the organization.	1.79	(.37)	.85	0.68	.16	.46			

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Table SM2 (continuing)

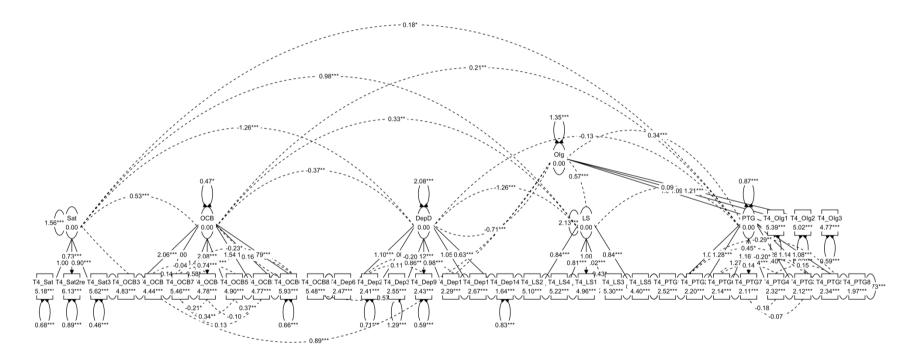
Item	Unstd.	SE	Std.	Unstd.	SE	Std.	Unstd.	SE	Std.
Depression							1	(-)	.84
I couldn't seem to experience any positive feeling at all.	1	(-)	.86	-1.39	.22	79			
I found it difficult to work up the initiative to do things.	0.86	(.07)	.74	-1.28	.22	73			
I felt that I had nothing to look forward to.	1.10	(.05)	.89	-1.5	.24	80			
I felt down-hearted and blue.	1.12	(.06)	.90	-1.54	.26	82			
I was unable to become enthusiastic about anything.	0.98	(.06)	.85	-1.40	.21	81			
I felt I wasn't worth much as a person.	1.06	(80.)	.75	-1.55	.25	73			
I felt that life was meaningless.	0.63	(.07)	.71	-0.90	.17	67			
Satisfaction with Life							0.91	.10	.79
In most ways my life is close to ideal.	1	(-)	.96	1.02	.16	.64			
The conditions of my life are excellent.	0.84	.07	.80	0.91	.16	.56			
I am satisfied with life.	1.02	.05	.98	1.06	.17	.67			
So far I have gotten the important things I want in life.	0.81	.08	.73	0.80	.16	.49			
If I could live my life over, I would change almost nothing.	0.84	.09	.67	0.95	.18	.49			
Post-traumatic Growth							-	-	-
I changed my priorities about what is important in my work.	1	(-)	.58	-0.30	.18	18			
I have a greater appreciation for the value of my own work.	1.29	.17	.83	0.37	.12	.26			
I am able to do better things with my work.	1.28	.14	.83	0.27	.12	.18			
I have a greater sense of closeness with others at work.	1.24	.15	.77	0.39	.13	.25			
I established a new path for my work.	1.14	.16	.68	0.11	.16	.07			
I know better that I can handle difficulties.	1.27	.16	.85	0.22	.12	.15			
I discovered that I'm stronger than I thought I was.	1.16	.19	.76	0.07	.14	.06			
I learned a great deal about how wonderful people at work are.	1.08	.16	.76	0.24	.10	.18			

Note. (-) indicates that the standard error was not estimated. – indicates that this scale was not included in the composition. *SE* = Standard Error; Unstd. = Unstandardized factor loadings; Std. = Standardized factor loadings.

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Figure SM1

Factor Correlations and Residual Correlations of the Six-factor Confirmatory Model of Adjustment-Related Outcomes Including Post-change Identification



Note. OIg = Post-change Identification, Sat = Job Satisfaction, OCB = Organizational Citizenship Behavior, DepD = Depression, LS = Satisfaction with Life, PTG = Post-traumatic Growth

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C. Tables for Step-by-step Regression Models for all Outcome Variables (Table SM3-8)

To examine our hypothesis, we additionally conducted multiple regression analyses using the Im-function from the car-package in R (Fox & Weisberg, 2019) to fit our model for post-change identification and each outcome variable (job satisfaction, OCB, depression, life satisfaction, and post-traumatic growth) separately. We z-standardized all continuous variables, so that resulting coefficients can be interpreted comparably (i.e., so that an increase of one standard deviation in the predictor resulted on average in one standard deviation increase in the criterion variable). Following the recommendations by Cohen et al. (2002), we calculated the interaction terms using standardized variables before entering them into the regression analyses.

To examine the key hypothesis of SIMOC that both pathways need to be taken into account to predict responses to organizational change, we tested a model including the proposed three-way interaction, while controlling for potential confounding variables (pre-existing organizational membership), the main effects of pre-change identification, continuity, identity leadership, as well as their two-way interaction effects (pre-change identification x pre-existing organizational membership, pre-change identification x continuity, and pre-change identification x identity leadership). We specifically included the interaction between pre-existing organizational membership and pre-change identification because previous findings (e.g., van Knippenberg & van Leeuwen, 2001; van Leeuwen et al., 2003) indicated that pre-merger identification had a stronger effect on post-merger identification for employees of the dominant pre-merger (or acquired) organizational group than employees of the dominated pre-merger (or acquired) organizational group, which was indeed confirmed here ($\beta = -.53$, p = .007). In Table SM3-8, we report the results of the regression analyses for Model 1 including only the main effects of continuity and identity leadership as well as the control variables, Model 2 including the two-way interaction effects, and Model 3 including

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the three-way interaction for post-change identification and each of the five adjustment outcomes. The hypothesized three-way interaction between pre-change identification, identity leadership, and identity continuity was significant for post-change identification (β = -.16, p = .03), OCB (β = -.22, p < .001), depression (β = .20, p = .009), life satisfaction (β = -.16, p = .03), post-traumatic growth (β = .17, p = .02), and marginally significant for job satisfaction (β = -.13, p = .06). In sum, we had found consistent and robust² support for the proposed three-way interaction.

² To test the robustness of our findings we also controlled for the effect of employees' perceived status of their organization before the change. The additional regression results (N = 171) indicated that the effect of the hypothesized three-way interaction remained largely unchanged after controlling for perceived pre-change organizational status (Post-change Identification: β = -.14, p = .046; job satisfaction: β = .11, p = .12; OCB: β = -.19, p = .006; depression: β = .18, p = .03; satisfaction with life: β = -.11, p = .17; PTG: β = -.14, p = .06). These results suggest that our findings are not explained by the perceived status of the organizations before the change.

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Table SM3Results of Regression Analyses for Post-change Identification

Variables				Post-chan	ge Id	lentificatio	n		
		Mod	el 1		Mode	1 2	1	Mode	13
	Beta	SE	р	Beta	SE	p	β	SE	p
(Intercept)	.13	.09	.16	.12	.09	.19	.12	.09	.17
Gender	05	.07	.52	05	.07	.46	03	.07	.67
Age	.04	.09	.65	.06	.09	.53	.08	.09	.38
Tenure	.01	.10	.92	.01	.09	.94	01	.09	.94
Organizational Membership	.76	.19	<.001	.80	.20	<.001	.84	.20	<.001
T1 Pre-change Identification	03	.09	.74	.01	.09	.94	.02	.09	.86
T2 Continuity	.10	.08	.18	.10	.08	.18	.14	.08	.07
T2 Identity Leadership	.31	.07	<.001	.31	.07	<.001	.35	.07	<.001
Organizational Membership x T1 Pre-change Identification	54	.19	.006	48	.20	.01	53	.20	.007
T1 Pre-change Identification x T2 Continuity				.10	.07	.18	.10	.07	.16
T1 Pre-change Identification x T2 Identity Leadership				.07	.07	.29	.02	.07	.77
T2 Continuity x T2 Identity Leadership							.01	.07	.86
T1 Pre-change Identification X							16	.07	.03
T2 Identity Leadership x T2 Continuity							10	.07	.03
R^2	.22, j	00. > c)1	.23	p < 0	001	.26,	p < .0	001
ΔR^2				.02,	p = .	17	.02,	p = .0	08

Note. Missings were excluded listwise to facilitate model comparison. N = 177. $\beta = \text{standardized regression coefficient}$;

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Table SM4Results of Regression Analyses for Job Satisfaction

Variables				Job	Satis	faction			
		Mode	1 1		Mode	1 2	N	Mode	13
	Beta	SE	р	Beta	SE	p	β	SE	p
(Intercept)	.10	.09	.25	.07	.09	.39	.08	.09	.35
Gender	01	.07	.88	02	.07	.74	.00	.07	.94
Age	03	.09	.74	01	.09	.95	.01	.09	.89
Tenure	.20	.09	.03	.19	.09	.04	.18	.09	.05
Organizational Membership	.41	.19	.03	.43	.19	.02	.45	.19	.02
T1 Pre-change Identification	.01	.09	.90	.04	.09	.63	.05	.09	.57
T2 Continuity	.20	.07	.01	.20	.07	.005	.25	.08	.001
T2 Identity Leadership	.38	.07	.00	.39	.07	<.001	.42	.07	<.001
Organizational Membership X T1 Pre-change Identification	14	.19	.47	07	.19	.69	11	.19	.57
T1 Pre-change Identification X T2 Continuity				.06	.07	.38	.08	.07	.26
T1 Pre-change Identification X T2 Identity Leadership				.21	.07	.002	.18	.07	.01
T2 Continuity X T2 Identity Leadership							05	.07	.48
T1 Pre-change Identification X							13	.07	.06
T2 Identity Leadership X T2 Continuity							13	.07	.00
R^2	.25, į	00. > 0	1	.30,	p < 0	001	.32,	p < .0	001
ΔR^2				.05,	p = 0	003	.02,	p = .	15

Note. Missings were excluded listwise to facilitate model comparison. N = 177. $\beta = \text{standardized regression coefficient}$;

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Table SM5Results of Regression Analyses for Organizational Citizenship Behavior (OCB)

Variables					ОСВ				
		Mode	el 1	N	/lodel	2	ľ	Mode	13
	β	SE	р	β	SE	p	β	SE	p
(Intercept)	.13	.09	.13	.12	.09	.16	.13	.08	.11
Gender	06	.07	.35	07	.07	.27	04	.07	.51
Age	.24	.09	.01	.26	.09	.005	.29	.09	.001
Tenure	04	.09	.65	05	.09	.62	06	.09	.46
Organizational Membership	.46	.19	.01	.52	.19	.006	.55	.18	.003
T1 Pre-change Identification	.0002	.08	.99	.05	.09	.59	.06	.08	.49
T2 Continuity	.19	.07	.009	.19	.07	.008	.26	.07	<.001
T2 Identity Leadership	.41	.07	<.001	.41	.07	<.001	.46	.07	<.001
Organizational Membership X T1 Pre-change Identification	07	.19	.69	.0003	.19	.99	05	.18	.77
T1 Pre-change Identification X T2 Continuity				.13	.07	.07	.16	.07	.02
T1 Pre-change Identification X T2 Identity Leadership				.10	.07	.15	.05	.07	.46
T2 Continuity X T2 Identity Leadership							09	.07	.20
T1 Pre-change Identification X							22	07	< 001
T2 Identity Leadership X T2 Continuity							22	.07	<.001
R^2	.28, p	00. > c	1	.31, p	00. > 0	1	.36,	p < .0	001
ΔR^2				.03, p	0 = .04		.05,	p = .0	003

Note. Missings were excluded listwise to facilitate model comparison. N = 177. $\beta = \text{standardized regression coefficient}$;

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Table SM6Results of Regression Analyses for Depression

				De	epres	sion			
	N	/lodel	1]	Mode	12	N	Mode	13
	Beta	SE	p	Beta	SE	p	β	SE	p
(Intercept)	.01	.10	.88	.04	.10	.65	.03	.10	.72
Gender	08	.08	.30	07	.08	.37	09	.07	.21
Age	003	.10	.98	03	.10	.78	06	.10	.57
Tenure	02	.10	.83	01	.10	.93	.01	.10	.93
Organizational Membership	.01	.21	.96	01	.21	.96	04	.21	.85
T1 Pre-change Identification	.02	.10	.80	01	.10	.95	02	.09	.86
T2 Continuity	22	.08	.009	22	.08	.007	28	.08	<.001
T2 Identity Leadership	11	.08	.15	13	.08	.09	18	.08	.02
Organizational Membership X T1 Pre-change Identification	.05	.21	.80	01	.21	.96	.04	.21	.84
T1 Pre-change Identification X T2 Continuity				05	.08	.48	08	.08	.31
T1 Pre-change Identification X T2 Identity Leadership				22	.07	.004	17	.08	.03
T2 Continuity X T2 Identity Leadership							.06	.08	.45
T1 Pre-change Identification X							.20	.07	.009
T2 Identity Leadership X T2 Continuity							.20	.07	.009
R^2	.08, p = 0.08	= .09		.13,	p = .0	009	.17,	p = .0	002
ΔR^2				.05,	p = .0	007	.04,	p = .0	03

Note. Missings were excluded listwise to facilitate model comparison. N = 177. $\beta = \text{standardized regression coefficient}$;

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Table SM7Results of Regression Analyses for Satisfaction with Life

Variables				Satisfa	ction v	with Life			
		Mode	1 1		Model	12	1	Mode	13
	Beta	SE	p	Beta	SE	p	β	SE	p
(Intercept)	08	.10	.42	08	.10	.41	07	.10	.46
Gender	.08	.08	.27	.08	.08	.30	.10	.08	.18
Age	.09	.10	.38	.10	.10	.34	.12	.10	.24
Tenure	.01	.10	.94	.01	.10	.94	01	.10	.94
Organizational Membership	17	.21	.43	14	.21	.51	12	.21	.58
T1 Pre-change Identification	.07	.09	.48	.09	.10	.38	.09	.10	.33
T2 Continuity	.07	.08	.41	.07	.08	.41	.12	.08	.16
T2 Identity Leadership	.18	.08	.02	.18	.08	.02	.22	.08	.007
Organizational Membership X T1 Pre-change Identification	12	.21	.58	09	.21	.69	13	.21	.55
T1 Pre-change Identification X T2 Continuity				.06	.08	.47	.08	.08	.32
T1 Pre-change Identification X T2 Identity Leadership				.03	.08	.71	01	.08	.93
T2 Continuity X T2 Identity Leadership							06	.08	.46
T1 Pre-change Identification X							16	.08	.03
T2 Identity Leadership X T2 Continuity							10	.08	.03
R^2	.09, į	p = .03		.10,	p = .0	6	.12,	p = .0)3
ΔR^2				.00	4, p = .	68	.03,	p = .0	19

Note. Missings were excluded listwise to facilitate model comparison. N = 177. $\beta = \text{standardized regression coefficient}$;

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Table SM8Results of Regression Analyses for Post-traumatic Growth

Variables				Post-tra	umati	ic Growth			
		Mode	1 1		Mode	1 2	N	Mode	1 3
	Beta	SE	p	Beta	SE	p	β	SE	p
(Intercept)	.19	.09	.05	.19	.09	.05	.19	.09	.04
Gender	22	.07	.004	22	.07	.003	20	.07	.008
Age	.15	.10	.12	.16	.10	.10	.19	.10	.05
Tenure	18	.10	.07	18	.10	.07	20	.10	.04
Organizational Membership	.64	.20	.002	.68	.20	.001	.73	.20	<.001
T1 Pre-change Identification	.09	.09	.33	.12	.09	.20	.13	.09	.16
T2 Continuity	003	.08	.97	.00	.08	.97	.03	.08	.70
T2 Identity Leadership	.14	.07	.06	.14	.07	.06	.19	.08	.01
Organizational Membership X T1 Pre-change Identification	07	.20	.71	03	.20	.90	09	.20	.65
T1 Pre-change Identification X T2 Continuity				.10	.08	.20	.09	.08	.23
T1 Pre-change Identification X T2 Identity Leadership				.02	.07	.80	05	.08	.51
T2 Continuity X T2 Identity Leadership							.07	.08	.39
T1 Pre-change Identification X							17	07	02
T2 Identity Leadership X T2 Continuity							17	.07	.02
R^2	.16, <i>p</i>	00. > 0	1	.17,	p < .0	001	.20,	p < .0	001
ΔR^2				.01,	p = .3	38	.03,	p = .0)4

Note. Missings were excluded listwise to facilitate model comparison. N = 177. $\beta = \text{standardized regression coefficient}$;

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D. Simple Slope Difference Tests

Table SM9

Complete Results of t-Tests of Slope Differences: Comparing the Relation Between Pre-change Identification and Outcome Variables

(a) when Continuity and Identity Leadership is Low and (b) when Continuity or Identity leadership is High

at .	Post-	-change	e Identification		Adjı	ıstment	Pos	st-trau	matic Growth
Slope pairs A minus B	Δ	p	95% CI [<i>LL</i> , <i>UL</i>]	Δ	p	95% CI [<i>LL, UL</i>]	Δ	p	95% CI [<i>LL</i> , <i>UL</i>]
Holding identity leadership (IL) constant, does continuity (C) matter?									
1 low C and low IL minus high C and low IL	57	.004	[-0.96, -0.18]	45	.001	[-0.73, -0.17]	48	.02	[-0.88, -0.07]
5 low C and high IL minus high C and high IL	.08	.65	[-0.27, 0.43]	.09	.46	[-0.15, 0.33]	.19	.31	[-0.17, 0.54]
Holding continuity (C) constant, does identity leadership (IL) matter?									
2 low C and low IL minus low C and high IL	43	.009	[-0.75, -0.11]	53	<.001	[-0.76, -0.29]	28	.10	[-0.62, 0.05]
6 high C and low IL minus high C and high IL	.22	.30	[-0.20, 0.65]	.01	.93	[-0.27, 0.30]	.38	.09	[-0.06, 0.82]
Mixed conditions									
3 low C and low IL minus high C high IL	35	.05	[-0.70, 0.01]	44	.001	[-0.69, -0.19]	10	.60	[-0.46, 0.27]
4 high C and low IL minus low C and high IL	.14	.50	[-0.27, 0.56]	08	.59	[-0.36, 0.20]	.19	.39	[-0.24, 0.62]

Note. N = 177. $\Delta = \text{Standardized coefficient of Slope A minus coefficient of Slope B. Significant difference between Slope A and Slope B are shown in bold. Differences between slopes are positive (negative) when Slope A is larger (smaller) than Slope B. IL = Identity leadership, C = Continuity. CI = confidence interval; <math>LL = \text{lower limit}$; UL = upper limit.

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E. Parameter Estimates of Multi-Group SEM Analysis

Table SM10

Path Coefficients of the Constrained Multi-Group SEM Model Testing the Mediation

		b	SE	Z	р
Adjustment					
Post-change Identification		.32	.07	4.69	<.001
Pre-change Identification		.02	.05	0.41	.68
Continuity		.17	.06	3.07	.002
Identity Leadership		.18	.05	3.45	.001
Pre-change Identification X Continuity		.04	.05	0.87	.39
Pre-change Identification X Identity Leadership		.12	.05	2.35	.02
Continuity X Identity Leadership		09	.05	-1.68	.09
Pre-change Identification X Continuity X					
Identity Leadership		09	.05	-1.79	.07
Post-traumatic Growth					
Post-change Identification		.16	.07	2.32	.02
Pre-change Identification		.15	.08	1.91	.06
Continuity		.02	.07	0.24	.81
Identity Leadership		.07	.07	0.97	.33
Pre-change Identification X Continuity		.05	.07	0.75	.45
Pre-change Identification X Identity Leadership		04	.08	-0.45	.66
Continuity X Identity Leadership		.03	.06	0.46	.64
Pre-change Identification X Continuity X					
Identity Leadership		14	.05	-2.69	.007
Post-change Identification					
Pre-change Identification	Alpha	.58	.16	3.55	<.001
The change racintification	Beta	.02	.09	0.19	.85
Continuity		.16	.09	1.76	.08
Identity Leadership		.31	.08	3.89	<.001
Pre-change Identification X Continuity		.12	.09	1.33	.19
Pre-change Identification X Identity Leadership		.04	.08	0.52	.61
Continuity X Identity Leadership		04	.09	-0.42	.67
Pre-change Identification X Continuity X					
Identity Leadership		16	.08	-1.94	.05

Note. In the constrained model, all parameter estimates are assumed to be equal except for the relationship between pre-change and post-change identification.

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