## How psychological resources facilitate adaptation to organizational change

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# How Psychological Resources Facilitate Adaptation to Organizational Change

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**Abstract**

The purpose of this one-year follow-up study among 580 police officers is to investigate whether identity-related resources are positively related to adaptive behavior during times of organizational change. Combining the social identity perspective with resources theories, we hypothesized that leader-member exchange (LMX) and personal resources (meaning-making and organization-based self-esteem) are positively related. In addition, we hypothesized that these resources captured *before* change implementation, show a positive relationship with adaptivity captured *during* change. Structural equation modeling analyses showed that LMX and personal resources were positively related. Further, all T1 resources were positively related to T2 adaptivity. The study emphasizes the importance of managing identity-related resources during turbulent times, in order to foster behavioral adaptation to change.

*Keywords:* Adaptation to change, LMX, Meaning-making, Organization-based Self-esteem, Resources, Social Identity

**How Psychological Resources Facilitate Adaptation to Organizational Change**

With ongoing organizational change, including reorganizations and new ways of working, employee adaptive behavior (on the micro level) is increasingly necessary in order to maintain a competitive or efficiency advantage (on the organizational or macro level). Many change initiatives do not reach their intended outcomes, even though a lot of effort tends to go into managing the process. In order to increase the success rate of change initiatives, we argue that more attention is needed for the individual employee during change.

Organizational identification (i.e. the extent to which an individual defines him- or herself in terms of organizational membership), is important 'glue' that can bind employees to their organizations. It may facilitate successful change implementation, since the literature on organizational identification suggests that employees are more willing to act on behalf of the organization when the perceived bond between the individual employee, their leader, and the organization is strong (Ashforth & Mael, 1989). However, the identification perspective has not been used extensively to study adaptation to change (Chreim, 2002). In addition to identity theories, resources theories (e.g., Hobfoll, 1989, 2001) imply that employee personal and job resources may form important drivers for change adaptation, and deserve more attention in studies of organizational change (Shin, Taylor & Seo, 2012; Van den Heuvel, Demerouti, Schaufeli & Bakker, 2010). Resources may help individuals not only to maintain motivation and a positive self-concept during change, but also to strengthen the bond with the organization, which is likely to facilitate adjustment to change.

The Leader-Member Exchange (LMX) relationship may be particularly important in this regard. It has been suggested that the relationship with one's leader may be helpful during adaptation to change (e.g., Larkin & Larkin, 1994). Also, LMX may reduce resistance to change (Van Dam, Oreg & Schyns, 2008). However, as far as we know, no study has explicitly linked LMX to employee adaptive behavior over time. This is important since, ultimately, it is

employee change-supportive behavior that will determine the success of organizational change implementation (cf. Woodman & Dewett, 2004). Therefore, more focus is needed on factors that may facilitate employee behavioral change (Armenakis & Harris, 2009). Since leaders tend to have a change agent-role to the extent that they have responsibility for helping their employees to perform and reach their work-related goals during change, focusing on the role of LMX is particularly important. The quality of LMX may facilitate other important change-conducive factors, such as change information, encouraging employee participation in change, risk-taking and innovative behavior (Yukl, Gordon & Taber, 2002). So far, surprisingly, organizational change research has left the role of LMX relatively under-discussed (Fugate, 2012). This study aims to address this gap by including LMX as a resource and testing its relationship with employee adaptation outcomes during change.

For organizational change initiatives to reach their intended organizational objectives, it is not enough for employees to have positive attitudes about the change, rather, employees will have to adapt their behavior to the change. This behavioral support for the change may be one of the key aspects that can turn a change initiative into a success for the organization (Woodman & Dewett, 2004). What factors contribute to employee adaptive behavior during change? Although several studies have shown how context and personal factors may positively influence *attitudes* to change (e.g., Rafferty & Griffin, 2006; Van Dam, Oreg, & Schyns, 2007), what is missing in the literature is extensive work on predicting this *behavioral* adaptation to change (Shoss, Witt & Vera, 2012; Shin, Taylor & Seo, 2012). We therefore aim to address this gap by using identity-related resources that employees can benefit from, to predict employee behavioral adaptation to change.

The aim of the present one-year follow-up study is to examine the relationships between three types of identity-related resources, and their relationship with adaptivity. The resources included are (1) leader-member exchange (LMX) relationship; (2) meaning-making;

and (3) organization-based self-esteem (OBSE). These resources are relevant in this context since they relate to aspects of an employee's self-concept, and thus to employee identification. The contribution of our study is three-fold. First, we combine resources theories with literature on organizational identification to explain employee adaptive behavior during change. This is a new way of conceptualizing resources using an identity-perspective that may clarify the process of adaptation to change. Secondly, specifying our first contribution, we study the beneficial role of LMX as a resource in an organizational change setting, which has not been done sufficiently as of yet (Fugate, 2012; Shin et al., 2012). Thirdly, we include a behavioral outcome (employee adaptivity), where in previous organizational change studies attitudinal outcomes have been used primarily (making it impossible to draw conclusions on behavioral change (cf. Shoss et al., 2012).

The study focuses on a Dutch police district in transition. The Dutch police force exists of regional forces that can cover different city councils. Typically, culture in policing organizations tends to be quite hierarchical including a ranking system. The organization under study was preparing to implement a reorganization including departmental merges, technological innovations, professionalization, and relocation of employees. The changes implied that employees would not be bound to one city council, but rather work flexibly between various city councils. The aim of this large change program was to create more flexibility and efficiency. Together, the changes would help to build a more adaptive organization. However, the only way to reach this macro-level objective, is to understand how individual employees (micro-level) adapt their behavior, an issue addressed in the current study. Thus, relationships between resources and adaptive behavior are examined. This contributes to our understanding of processes that may facilitate adaptive behavior during organizational change. Adaptive capacity as of yet has been studied primarily at the organizational level (Shoss et al., 2012) while we apply it at the individual level.

## Theoretical Framework

We suggest that one of the reasons why organizational change fails is because employees' organizational identification is threatened by the change. Vice versa, when employees have resources that foster identification, this may protect the relationship between employee and organization, leading to employees who are more willing and able to adapt their behavior to the change. The benefits of a strong employee-organization relationship during change can be explained by theories addressing organizational identification, such as social identity theory (SIT; Tajfel & Turner, 1979; 1986). The relevance of this classic approach to the study of organizational behavior has become apparent during the past two decades (Ashforth & Mael, 1989; 2008; Haslam & Ellemers, 2005; Hogg & Terry, 2000; Van Knippenberg, 2000). According to SIT, perceived group membership forms the basis of an individual's attitudes and behavior towards the group. When group membership is salient to an individual, they are more likely to act in the best interest of the group. During change this would mean that when employees perceive a strong bond with their leader and with the organization, they would be more willing to change their behavior. Group membership is internalized and contributes to an individual's self-concept (or identity – note that the terms are used interchangeably), which holds the psychological basis for some types of employee motivation (Leonard, Beauvais, & Scholl, 1999). Identity can be a source of motivation since individuals have a need to maintain and enhance their perceived selves (e.g. "I as an employee of my organization"). This need can influence organizational behavior, in that it would motivate employees to choose behavior consistent with their self-perception (Leonard et al., 1999). The beneficial effects of the resources included in the present study (i.e. LMX, OBSE, and meaning-making) may positively influence this identity-related motivation. LMX is related to the part of the self-concept referring to "I as a follower of my leader", OBSE is related to the part of the self-concept that refers to (as mentioned above) "I as an employee of

organization X", and meaning-making is related to the part of the self-concept that refers to "I as an individual" i.e. an individual with an idiosyncratic, personal meaning system containing personal goals, values etc. The division of the self-concept into three aspects is described below in more detail.

Identity or the self-concept is (partly) composed of a *personal* identity (idiosyncratic characteristics) and a *social or collective* identity (group classifications). Brewer and Gardner (1996) suggested a further distinction, leading to a three-level system that was also applied to organizational contexts (Lord, Brown & Freiberg, 1999). First, a *personal* or *individual self*, based on personal attributes and goals; secondly, an *interpersonal or relational self*, based on relationships with others (e.g., leader-member relationship); and thirdly, a *collective self*, which is derived from group membership or the relationship between individual and collective. Individuals are motivated to gain acceptance / status and to avoid dissonance between their self-concept and external feedback, in order to maintain a positive self-image (Tajfel & Turner, 1986). Therefore, the three levels of identity hold different sources of employee motivation (Leonard et al., 1999) that can facilitate adaptation to change. For example, the relational self as expressed by a strong bond with one's manager (e.g. LMX), may motivate employees to adapt their behavior in line with what their manager expects of them. Social identity approaches suggest that the degree to which an employee feels part of the collective influences enactment of the collective (organizational) identity, and a willingness to contribute to the collective resulting in, e.g. citizenship behaviors (cf. Ashforth & Mael, 1989; Bergami & Bagozzi, 2000), motivation, and good task performance (Van Knippenberg, 2000). Especially in times of change it is important to maintain employee motivation and citizenship behaviors. During organizational change, organizational practice is in flux and the work situation tends to be unclear and ambiguous. Individuals are not always aware what behavior is accepted according to the new situation. In such dynamic contexts the role of the organization in an

employees' self-concept may be threatened. Employees need to be able to manage these changes in their perceived roles and identities. To avoid feeling lost when established roles change, employees need a supportive leader-member (LMX) relationship and strong self-esteem based on a supportive organization-member relationship (OBSE). In addition, employees also need to be able to fall back on their own personal meaning system when meaning from other sources is ambiguous (cf. Van den Heuvel, Demerouti, Schreurs, Bakker, & Schaufeli, 2009). Taken together, the social identity approach has clear implications for the study of adaptation to change. We relate the three levels of identity to three different identity-related resources, which may be positively related to each other and may be positively related to behavioral adaptation.

**Identity-related Resources**

Organizational change tends to be demanding and stressful for employees (Vakola & Nikolaou, 2005). Policing organizations are faced with many changes following from governmental initiatives and new legislation, which may increase cynicism and reduce commitment. According to resources theories (for an overview, see Gorgievski, Halbesleben & Bakker, 2011), individuals tend to draw on both job and personal resources to protect themselves during stressful events (Hobfoll, 1989). *Job resources*, such as leader support, are important for employees in order to obtain, retain and protect what they value during change (Hobfoll & Shirom, 2000). *Personal resources*, such as self-efficacy, meaning-making and OBSE, are internal characteristics, beliefs and energies that are malleable and related to a sense of control over the environment (Hobfoll, Johnson, Ennis, & Jackson, 2003). Employee resources are suggested to play an important but still under-examined role in the process of adaptation to change (Shin et al., 2012). Combining SIT with resources theories, we suggest that three resources will be relevant to the process of adaptation to change. These resources are

all related to how the organization is embedded in an employees' self-concept. We expect that

the presence of these identity-related resources will help employees to continue to feel a strong

bond with their organization during change. Resources will provide employees with the

necessary energy and motivation to show adaptive behaviors in response to change. This is

illustrated in *Figure 1*. The three resources that we focus on, i.e. leader-member exchange

relationship, organizational-based self-esteem, and meaning-making can be linked to the three

levels of identity mentioned earlier. LMX pertains to the interpersonal self (Lord et al., 1999)

and captures the quality of the relationship between employee and leader (Graen & Uhl-Bien,

1995). Mutual respect, liking, and trust describe high-quality LMX relationships (Dansereau,

Graen, & Haga, 1975) indicating strong leader-member bonds. When employees perceive high

LMX, they are likely to define themselves in terms of their role as a follower (interpersonal

self), which motivates employees to maintain the LMX relationship and to fulfill their role-

obligations (Sluss & Ashforth, 2007). During change this may lead to behaviors in line with

the change vision as communicated by the leader. LMX is associated with supportive leader

behaviors and therefore it represents a job resource. Empirical studies have shown the

importance of LMX relationships for organizational outcomes, e.g. turnover intentions,

commitment, job satisfaction, and job performance (Gerstner & Day, 1997; Schaufeli &

Bakker, 2004), and citizenship behaviors (Dulebohn, Bommer, Liden, Brouer & Ferris, 2012).

LMX seems to be particularly important for police officers, since poor management is often

mentioned as a job stressor, more often than job content-related stressors (Kop et al., 1999).

OBSE is a personal resource that refers to the self-esteem an employee gains from

his/her relationship with the organization. OBSE is that part of the self-concept that is based on

work/organizational experiences and expresses a positive employee-organization bond. It is

"the degree to which an individual believes him/herself to be capable, significant and worthy

as an organizational member" (Pierce & Gardner, 2004, p. 593). Therefore, OBSE can be

regarded as an expression of the quality of the employee-organization relationship (cf.
Bergami & Bagozzi, 2000), and is an aspect of employees' collective self ("I as an employee
of organization X"; Turner, Oakes, Haslam, & McGarty, 1994).

Meaning-making is a personal resource pertaining to the individual self. It is defined as
the ability to integrate challenging or ambiguous events into a personal meaning system (Van
den Heuvel et al., 2009). Meaning-making seems particularly relevant during change, when
sources of meaning and motivation are changing - for example - work roles or relationships at
work may change. Meaning-making may help employees to maintain motivation and not to
feel lost in the change process, by staying focused on how the change may be meaningful to
them personally, or how they can benefit from it. This happens when employees access sources
of meaning and motivation from the individual self (i.e. what is important to me as an
individual?), and use this to find meaning in challenging or stressful events. In this way,
meaning-making may help individuals to link personal identity to organizational identity,
which may strengthen motivation to act on behalf of the organization. Using meaning-making
may help employees to bridge the gap between their identifications in the 'old' pre-change
situation and the 'new' changing / changed situation (cf. Dutton & Dukerich 1991). Reflection
on the impact of change on personal goals, values, and beliefs, may help employees to reduce
uncertainty and may facilitate willingness to change. Together, these three resources facilitate
motivation, support, resiliency and a sense of control in the face of threat (Hobfoll et al., 2003;
Xanthopoulou, Bakker, Demerouti & Schaufeli, 2009), and may therefore contribute to
successful employee adaptation as captured by individual adaptivity.


**LMX and Personal Resources**

Access to resources may positively influence accumulation of other resources
(Gorgievski et al., 2011). Job resources have been shown to be positively related to personal

resources (Xanthopoulou et al., 2009). In the context of organizational change, this implies that LMX before change may be positively related to presence of personal resources (i.e. meaning making and OBSE) during change, while personal resources before change may be positively related to LMX during change. Researchers have indeed shown the importance of LMX as a contextual job resource that may positively influence personal resources, e.g. OBSE, self-efficacy (Pierce & Gardner, 2004; Schyns, 2004). However, since followers play an important role in defining the relationship quality (Van Gils, van Quaquebeke, & Van Knippenberg, 2010), the opposite, i.e. that employee characteristics may influence the LMX relationship, has also been suggested (Lord et al., 1999; Pierce & Gardner, 2004). LMX and personal resources may therefore show positive relationships when measured before and during change.

Since high LMX has been associated with positive leader behaviors (e.g., support / communication), it may trigger meaning-making (i.e. discussing /reflecting on the situation), which may help to reduce change-related uncertainties (Leonard et al., 1999; Sonenshein & Dholakia, 2012). The reverse effect may also exist; meaning-making may help to maintain positive leader-member interactions, for several reasons. Employees involved in meaning-making may be easier to manage, since they are better at self-managing their work motivation. Also, it may be that leaders need less time and energy to help followers to understand / accept the change and therefore, there is less chance of disagreement / misunderstanding in the LMX relationship. Also, meaning-making may help to maintain vitality (Fritz, Lam & Spreitzer, 2011), which may boost enthusiasm and positive interactions between leaders and followers.

Further, LMX may be beneficial for employees' OBSE. Managerial respect has been argued to be one of the antecedents of OBSE (Pierce & Gardner, 2004), as is supervisor support (Bowling, Eschleman, Wang, Kirkendall, & Alarcon, 2010), and transformational leadership (Kark, Shamir, & Chen, 2003). High LMX may strengthen employees' work-related identity (i.e. work-related values, beliefs, goals; Shamir et al., 1993) via recognition received

from the leader (Leonard et al., 1999). Since leaders tend to convey important messages regarding employee functioning (e.g., recognition / appreciation), LMX leader behaviors are likely to be positively related to follower OBSE (Kark & Shamir, 2002; Pierce & Gardner, 2004). The reverse may also be true; i.e. OBSE may be positively related to LMX, since high OBSE employees may attract a supportive leadership style (Pierce & Gardner, 2004). High OBSE employees may take their contribution to the organization serious, work proactively and independently, since they trust their own judgment and come up with solutions. This may trigger positive leader evaluations, which in turn may positively contribute to LMX. The above suggests a positive relationship between identity-related personal resources and LMX, and we therefore hypothesize:

> *Hypothesis 1:* LMX before change implementation has a positive relationship with (a)
> meaning-making and (b) OBSE during change.
>
> *Hypothesis 2:* (a) Meaning-making and (b) OBSE before change implementation have a
> positive relationship with LMX during change.


**LMX and adaptation to change**

Ultimately, successful organizational change depends on the degree to which individual employees are willing to adjust their behavior in line with the envisaged change (Bovey & Hede, 2001). That is why we focus on individual adaptive behavior as captured by adaptivity. 'Adaptivity' refers to the degree to which individuals cope with, respond to, and support changes that affect their individual roles (Griffin, Neal, & Parker, 2007, p.331). Leaders who build positive relationships with followers, can positively influence follower behavior via organizational identification (Van Knippenberg, Van Knippenberg, de Cremer, & Hogg, 2004; Lord et al., 1999), commitment (Joo, 2010; Yousef, 2000), and work engagement (Tims, Bakker, & Xanthopoulou, 2011). High LMX can lower resistance to change (Schyns, 2004;

Van Dam, Oreg, & Schyns, 2007) because it is characterized by leader behaviors such as provision of guidance and support, which may boost change-supportive behavior. Also, 'liking' and emotional attachment may bring positive affect to the LMX relationship (Shamir et al., 1993) strengthening commitment and reciprocity principles, which may increase employee adaptivity. Based on the above, we predict:

*Hypothesis 3:* LMX before change has a positive relationship with employee adaptivity during change.

**Personal resources and adaptation**

Meaning-making helps to self-motivate during change, since it facilitates integration of the changed situation into an employee's personal meaning system (Park, 2010; Van den Heuvel et al., 2009). This, in turn, may facilitate change adjustment (Iyer, Jetten, Tsivrikos, Postmes & Haslam, 2009). Also, making sense of the change may increase willingness to change as well as performance (Sonenshein & Dholakia, 2012; Van den Heuvel et al., 2009) and work engagement (Authors, submitted for publication). Meaning-making may help to reduce perceived threat and maintain vitality (Fritz et al., 2011). It may therefore also facilitate enduring positive beliefs / affect towards the organization and openness to try out new behaviors. This builds on suggestions by Ashforth et al. (2008) regarding the importance of employee sensemaking for organizational identification. We therefore expect that meaning-making may foster the willingness and motivation to support the change behaviorally. Hence, our next hypothesis is**:**

*Hypothesis 4:* Meaning-making before change implementation has a positive relationship with adaptivity during change.

Although general self-esteem has been shown to predict change adaptation (e.g., Judge, Thoresen, Pucik, & Welbourne ,1999), few studies focus specifically on OBSE during change.

OBSE strengthens loyalty towards the organization, and has been shown to be related to job satisfaction, commitment, performance, citizenship behaviors (Bowling et al., 2010; Pierce & Gardner; 2004) and coping with change (Staehle-Moody, 1998). In a similar manner, high OBSE may positively relate to  motivation (guided by the collective self) and willingness to try out new behaviors and thus adaptivity (Dutton & Dukerich 1991). When employees feel valued by their organization, they are more likely to exert effort on behalf of the collective, including the effort to make a change initiative a success. Hence:

> *Hypothesis 5:* OBSE before change implementation has a positive relationship with adaptivity during change.

## Method

### Design and Participants

The panel group that participated in this study was recruited as part of a research project conducted within a Dutch police district undergoing reorganization. There were no redundancies, however, all employees in the district were confronted with the implemented changes. Different planning systems were introduced, teams were split up and police officers were required to start working at different locations with different colleagues in order to increase the flexibility of the workforce. Training programs were offered to further build professional skills and abilities. The changes (departmental merges, technological innovations, professionalization and relocation of employees) were implemented after the first measurement wave and were still ongoing during the second wave. After initial communications regarding the purpose of the research via intranet / newsletters, e-mail invitations were sent out to all employees (1780). Since we repeated the survey two times, it was important to keep the survey manageable for employees by using shortened scales for some constructs. We used existing data sets to check overlap with the longer scales where possible. A total of 950 employees

completed the online survey (response: 53%). At T2, 1854 invitations were sent, and a total of

810 employees completed the survey (response: 44%). The final sample consisted of 580

employees who completed both surveys. The drop-out group was slightly younger ($\Delta$ mean:

1.84, $p < .01$), had lower tenure ($\Delta$ mean: 1.57, $p < .05$), and was slightly lower educated.

However, no differences were found on our study variables. Two-thirds of the sample were

male (66%; female: 34%), average age was 43 years (SD = 9.93), and mean tenure was 18

years (SD = 11.37). More than half (58%) held a predominantly operational position (working

in the street), while 42% of the sample held a predominantly support position (administrative

tasks).

**Measures**

   *Leader-Member Exchange* was measured using five items from the Dutch adaptation of

Graen and Uhl-Bien's (1991, 1995) Leader–Member Exchange Scale (Le Blanc, 1994). A

sample item is "My supervisor uses his/her influence to help me solve my problems at work";

(1) "never", (5) "always".

   *Meaning-making* was measured using five items from the meaning-making scale (Van

den Heuvel et al., 2009). Sample items were: "I actively take the time to reflect on events that

happen in my life", and "I have an understanding of what makes my life meaningful"; (1)

"strongly disagree", (6) "strongly agree". This 5-item scale correlated highly ($r = .95 \, p < .001$)

with the original 7-item scale in the study of (Van den Heuvel et al.,2009; $N = 238$).

   *Organization-based self-esteem* (OBSE) was measured using 4 items from Pierce et

al.'s (1989) instrument. Employees rated the extent to which they agreed or disagreed with the

statements, e.g. "I count around here", and "I am taken seriously in this organization"; (1)

"strongly disagree, (5) "strongly agree". The 4-item scale correlated highly ($r = .92 \, p < .001$)

with the original 10-item scale in the study of (Xanthopoulou, Bakker, Demerouti & Schaufeli,

2007; $N = 714$).

*Adaptivity* was measured using the three-item individual adaptivity scale developed by Griffin et al. (2007). An example item is: "During the past month I adapted well to the changes in my core tasks". Respondents could indicate how often they had showed the adaptive behavior on a scale ranging from (1) "never" to (5) "very often".

**Strategy of Analysis**

Data was analyzed using structural equation modeling (SEM, Jöreskog & Sörbom, 1996) and the maximum-likelihood method implemented in the AMOS program (Arbuckle, 2007). All variables presented in the model were measured for both study waves, except for adaptivity. Adaptivity captures change-supportive behavior and since change was not implemented yet at Time 1 (T1), adaptivity was only measured at Time 2 (T2), when change was in progress. To account for across-time stability in the scores, we included stability paths from T1 to T2 for all variables measured at both times. We controlled for gender and age as they were related to some study variables. Control variables were included in the models by paths leading to all three T1 predictor variables (i.e. meaning-making, OBSE and LMX) and the outcome variable (i.e. T2 adaptivity). Since gender was positively correlated to T2 meaning-making we included a path from gender to T2 meaning-making as well. Model fit was assessed using the standard $\chi^2$ test. We also assessed Goodness of fit Index (GFI), Comparative Fit Index (CFI) and Root Mean Square Error of Approximation (RMSEA). CFI and GFI should have values of .90 or higher to indicate a good fit, while RMSEA should have values of .08 or lower to indicate a reasonable fit (Browne & Cudeck, 1993).

A number of nested models were fit to the data to test hypotheses. First, we tested the stability model (M1), which included stability paths from each of the constructs measured at T1 to their corresponding construct measured at T2, as well as synchronous correlations. Then we constructed a second model (M2), where LMX predicted adaptivity and personal resources.

In M2, the paths from T1 LMX to T2 meaning-making, OBSE and adaptivity were included. The fit of the stability model was compared to M2. Next, a third model (M3) was tested, consisting of M2 plus the paths from T1 personal resources to T2 LMX and adaptivity. In M3, we added the paths from T1 meaning-making and OBSE (personal resources) to T2 LMX, as well as T2 adaptivity. Consequently, M3 was compared to M2.

## Results

### Descriptive Statistics

Means, standard deviations, correlations, and Cronbach's alpha's are displayed in Table 1. All scales had sufficient reliabilities at both times. Table 1 shows that gender was significantly related to meaning-making T2 ($r = .12$, $p < .05$) and adaptivity ($r = .16$, $p < .05$), such that women reported higher scores. Age had a small but significant positive relationship with T1 meaning-making ($r = .09$, $p < .05$). There were no significant relationships with age and any of the T2 variables; therefore we excluded relationships with age and T2 variables in further analyses (Becker, 2005). Prior to further analyses, we conducted confirmatory factor analyses (CFA) to test the measurement model for each time-point. For T1, the 3-factor-structure model showed an acceptable model fit, (T1: $\chi^2 = 324.25$, df = 74, $p < .001$, GFI = .93, RMSEA = .08, TLI = .94, CFI = .95), which was better than any other factor solution tested ($\Delta \chi^2$ with 2-factor solution (Personal resources and LMX) = 587.37, $p < .001$; $\Delta \chi^2$ with 1-factor solution = 1924.88, $p < .001$). For T2, the model fit of the 4-factor solution was also acceptable (T2: $\chi^2 = 431.79$, df = 113, $p < .001$, GFI = .92, RMSEA = .07, TLI = .95, CFI = .94), and better than any other factor-solution tested ($\Delta \chi^2$ with 3-factor solution (personal resources, LMX, adaptivity) = 641.45, $p < .001$; $\Delta \chi^2$ with 2-factor solution (resources and adaptivity) = 1986.05, $p < .001$).

### Hypotheses Testing

Table 2 shows the fit indices of the competing models, as well as model comparisons. The stability model (M1) showed a marginally acceptable fit to the data. Model 2 (M2) showed an improved model fit with most indices satisfying the cut-off criteria. As shown by the $\chi^2$ difference test, M2 had an acceptable and better fit than M1 ($\Delta \chi^2 = 42.31$, $p < .001$). Model 3, where LMX and resources were included as predictors, had a good model fit, which was superior compared to M2 ($\Delta \chi^2 = 34.04$, $p < .001$).

Hypothesis 1a-b stated that T1 LMX would be positively related to (a) T2 meaning-making and (b) T2 OBSE. M2 was built by adding the hypothesized paths from Hypothesis 1 to the stability model. M2 showed that T1 LMX had unique effects on both T2 meaning-making ($\gamma = .11$, $p < .001$), and T2 OBSE ($\gamma = .13$, $p < .001$). Thus, Hypothesis 1 was supported. Hypothesis 2 stated that T1 meaning-making and OBSE would be positively related to T2 LMX and was assessed with M3. Hypothesis 2a (meaning-making is positively related to LMX) was supported ($\gamma = .11$, $p < .01$). Hypothesis 2b focused on the positive relationship between T1 OBSE and T2 LMX and was assessed with M3. Results offered support for Hypothesis 2b ($\gamma = .14$, $p < .001$). M2 and M3 tested Hypothesis 3, 4, and 5, which stated that resources would be positively related to adaptivity. First, Hypothesis 3 (T1 LMX is positively related to T2 adaptivity) was tested and supported via M2. T1 LMX was positively related to T2 adaptivity ($\gamma = .20$, $p < .001$). In M3 this relationship was still significant ($\gamma = .11$, $p < .01$). Next, Hypothesis 4 (T1 meaning-making is positively related to T2 adaptivity) was tested. M3 showed that T1 meaning-making was positively related to T2 adaptivity ($\gamma = .16$, $p < .001$), confirming Hypothesis 4. According to Hypothesis 5, T1 OBSE would be positively related to T2 adaptivity. M3 showed a positive relationship between OBSE and adaptivity ($\gamma = .15$, $p < .001$), confirming this hypothesis. All significant relationships of Hypothesis 1 remained significant in M3. The significant path coefficients of Model 3 are depicted in *Figure 2*.

**Discussion**

Organizational change initiatives often fail to reach their objectives. Managing employee behavioral support for change or 'adaptivity' may form a crucial driver for the success of organizational change initiatives. Change can cause uncertainty and stress for employees (Vakola & Nikolaou, 2005), which may prevent employees from adapting their behavior to the change. The purpose of this one-year follow-up study was to better understand the facilitating role of resources for individual adaptivity. We combined insights from resources theories (Gorgievski et al., 2011) with the application of SIT to organizational behavior (Ashforth & Mael, 1989; Van Knippenberg, 2000). This perspective implies that identity is an influential determinant of employee behavior and motivation (Leonard et al., 1999; Lord et al., 1999). Avoiding the threats to self-concept during organizational change was suggested to be the key factor for adaptivity. Consequently, three identity-related resources with motivational qualities (cf. Van Knippenberg, 2000) were suggested to help the process of change adaptation; LMX (interpersonal self), meaning-making (personal self), and OBSE (collective self). We proposed a model suggesting that identity-related resources are a driving force for adaptation because they help individuals to keep a positive self-concept during change which is likely to facilitate adjustment to change. Our results showed that personal resources (meaning-making and OBSE) present before the change were positively related to LMX. Further, LMX was also positively related to personal resources and all three resources were found to be positively related to adaptivity.

The first contribution of our research is that we focused on a behavioral outcome of change adaptation whereas previous studies typically focused on attitudinal outcomes, e.g. willingness to change rather than the degree to which they changed their behavior. Secondly, we used resources specifically related to identification processes, which have been suggested to be important during change (Van Knippenberg et al, 2006), but as of yet not tested in

relation to adaptivity. We included the role of the relationship with the leader (LMX) as well as the relationship with the organization as a whole (OBSE). In addition, we included the role of meaning-making, which may help employees to link meanings of organizational change to personal values and meanings (Sonenshein & Dholakia, 2012; Van den Heuvel et al., 2009). Thirdly, we used a time-lagged design, which strengthens results in terms of reducing common method and memory biases. Even though our design does not allow us to examine causal or reciprocal relationships (Ployhart & Vandenberg, 2010), our findings regarding the positive relationships from T1 resources to T2 resources and T2 adaptivity warrant future research on reciprocal relationships with three or more measurement occasions. This would allow us to capture and examine potential changes in scores over time.

**How Resources facilitate Adaptation to Change**

Our research contributes by focusing on resources as change adaptation facilitators. In particular, we emphasize the importance of meaning-making, a personal resource that may be particularly important during change, when established relationships and organizational identification may alter. Personal resources may add to action-readiness (Bandura, 1997), which is needed during change in order to be able to change one's behavior to the changes work situation. Meaning-making had a substantial positive relationship with adaptivity. Interestingly, we showed that employees may positively contribute to the LMX relationship via meaning-making and vice versa. The positive association between meaning-making and LMX was as strong as the opposite, indicating that employees more involved in meaning-making also perceived higher LMX, possibly due to the motivating potential inherent in meaning-making (Sonenshein & Dholakia, 2012). This motivating potential may be expressed in more enthusiasm and better performance, which in turn may benefit LMX as well as willingness to change (Van den Heuvel et al., 2009). These findings emphasize the shift towards followership and the agentic perspective, i.e. employees actively craft LMX and

meanings of their work (Rosso, Dekas & Wrzesniewski, 2010). This self-motivating process may explain why meaning-making was also positively related to adaptivity.

Findings regarding the role of LMX emphasize the importance of the leader during change via the relationship he/she holds with followers. Previous work has shown that positive leader-follower relations can strengthen sense of belonging in employees (e.g., Hobman, Jackson, Jimmieson, & Martin, 2011). Trust and support inherent in high LMX are likely to form protective factors, maintaining commitment, and a willingness to change behavior. LMX was also positively related to meaning-making and OBSE, which is in line with recent findings that leader-communications can enhance follower meaning-making during change (Sonenshein & Dholakia, 2012). Our study shows that the leader is not only an important conveyor of reward / recognition on behalf of the organization-as-a-whole (OBSE), but is also positively related to employee self-management in terms of meaning-making.

Although our study showed that identity-related resources are beneficial for employee adaptivity during change, our study did not test the mechanism through which this beneficial effect occurs. A possible mediator that may be included in future work is work engagement. Work engagement is a positive, affective work-related state of mind, which has been shown to predict employee outcomes such as job performance, turnover intentions, and absenteeism (see Demerouti & Cropanzano, 2010). In this way, work engagement represents an indicator of high motivation, which is suggested to explain why resources stimulate successful performance. If employees are able to maintain work engagement, they may build up their capacity to be resilient, perhaps due to enduring positive emotions, which may influence individual adaptivity. To test this hypothesis, however, multiple measurement data is necessary with at least three occasions (see Ployhart & Vandenberg, 2010; Taris & Kompier, 2006).

**Strengths, Limitations and Future Research**

The use of time-lagged data from police officers is a strength of the study. However, given this specific context, the findings might not generalize to other environments, where culture and type of work may differ (Bryant, Dunkerley & Kelland, 1985). Therefore, our findings need to be replicated in other occupational settings. Also, we used self-report data, which may lead to common method bias (Podsakoff, Mackenzie, Lee & Podsakoff, 2003). However, time-lagged data may reduce the negative impact of memory effects. Also, with the exception of adaptivity, the constructs under study are probably best rated by employees themselves, since employees are likely to be the best judges of their own attitudes. For adaptivity, future studies could aim to include other-ratings or observations.

This study used change as the context and focused on a behavioral change outcome (adaptivity). One limitation in this regard is the fact that we were not able to use a control group. This was not possible since the entire police organization was undergoing reorganization. In order to strengthen our findings it would have been useful to include a similar sample of police officers from another police district that was not confronted with change. This way we would have been able to exclude alternative explanations for our findings e.g. resulting effects due to natural fluctuations of resources.  In addition to the control group issue; for future work it would also be interesting to include more specific change attitudes and how these may mediate / moderate relationships over time. Adaptation processes may differ at different levels in the organization; therefore differences between managerial and employee-levels could be included in future research. Although employees were faced with a large reorganization, mean scores on resources before and after the change implementation did not differ greatly (although there was a trend towards less positive scores from T1 to T2). It would be interesting to compare high vs. low resources groups in future studies, or to investigate moderation effects that may influence change adaptation outcomes. For example, change

involvement and participation may be particularly beneficial for adaptation when employees are high on meaning-making.

**Practical Implications and Conclusion**

Our findings show the importance of managing identity-related resources, and imply that organizations should focus on top-down as well as bottom-up interventions to stimulate resourcefulness and change adaptation. Developing leadership potential to ensure high quality LMX relationships, as well as stimulating employee self-management and reflection may help to create a more adaptive workforce. More specifically, our findings point to three factors that may facilitate adaptation. First, organizations may invest in developing high LMX by training leaders to use a coaching leadership-style (showing appreciation /support, sharing the change vision, and creating opportunities for learning). This may boost LMX, which may spark a positive process enhancing personal resources, and may lead to adaptivity. Secondly, when leaders become better coaches, they may facilitate meaning-making e.g. by asking (change-related) reflection questions, exploring the impact of change on the employee and explaining the need for change. Meaning making can be stimulated during communication, regular meetings and one-to-one discussions. Thirdly, organizations may invest in direct ways to boost OBSE and meaning-making, e.g. by means of communications around importance of employee activities to the organization/community. Organizations could work on innovative ways to keep in touch with employees more directly. For example, by using social media sites, intranet or more traditional by including positive communications or gift vouchers in pay slips. Social media could also be used to showcase the positive impact of employees or the work of the organization to the community or clients. Linking an organizations work to the well-being of people will help employees to feel important and to see the meaning of their work. Social outings could be organized as a way to show appreciation and to boost OBSE. Organizations can also be innovative in rewarding valued behaviors, for example by showcasing employees

who have been successful in working in the new ways required by the change. Employees

could be asked to share their stories of how they adapted to change. Vice versa, HR

departments could ask employees what would make change adaptation easier. Being heard is

an important esteem-booster, but only if the organization can act on employees' suggestions,

or at least give a meaningful response regarding why the suggestion is or is not possible.

Organizations should work on effective employee voice systems during change, not only via

direct supervisors, but perhaps also via other channels such as change-related action groups

that look after employee concerns / suggestions, or HR-led focus groups that ensure employee

voice during change.

     Using such resource-boosting interventions may help to manage the often negative

effects of change on the employee-organization relationship. Summarizing, our study sheds

light on identity-related resources that help organizations to maintain employee adaptivity in

the face of change.

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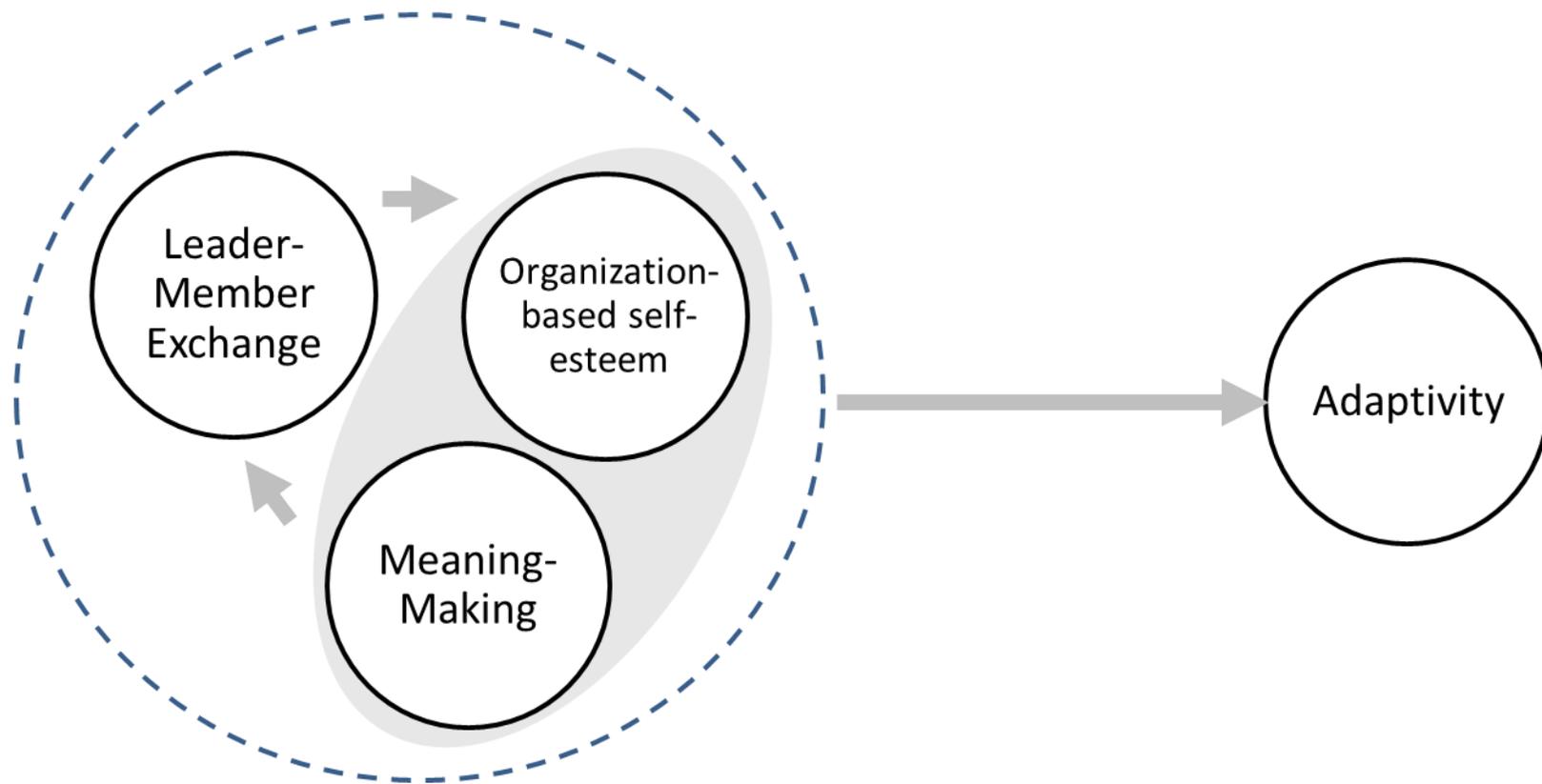
Organization Studies, 9*, 15–32.

*Figure 1*. Research model for employee adaptation to change

Table 1.

*Means, Standard deviations (SD), Cronbach's alpha (on the diagonal) and Pearson correlations among study variables.*

| Variable | Mean | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Time 1* | | | | | | | | | | | | | |
| 1 Gender (1 = male, 2 = female) | - | - | | | | | | | | | | | |
| 2 Age | 43.4 | 9.93 | -.28** | | | | | | | | | | |
| 3 LMX | 3.07 | .86 | .07 | .01 | .91 | | | | | | | | |
| 4 Meaning-making | 4.81 | .59 | .05 | .09* | .11* | .78 | | | | | | | |
| 5 Organization based Self-Esteem | 4.21 | .95 | .04 | .00 | .47** | .35* | .90 | | | | | | |
| *Time 2* | | | | | | | | | | | | | |
| 7 LMX | 2.96 | .87 | -.00 | -.01 | .56** | .21** | .41** | .28** | .79 | | | | |
| 8 Meaning-making | 4.81 | .61 | .12** | .03 | .17** | .62** | .29** | .23** | .24** | .77 | | | |
| 9 Organization based Self-esteem | 4.13 | 1.03 | .04 | -.02 | .41** | .23** | .70** | .52** | .49** | .32** | .91 | | |
| 11 Adaptivity | 3.97 | .75 | .16** | -.06 | .21** | .23** | .27** | .23** | .24** | .34** | .32** | .26** | .90 |

*Note.* ** $p < .01$, * $p < .05$, $N = 580$.

Table 2**.**

*Goodness of fit indices and chi-square difference tests of nested structural equation models, N = 580.*

| Model | $\chi^2$ | df | Comparison | $\Delta\chi^2$ | $\Delta$df | GFI | RMSEA | TLI | CFI |
|---|---|---|---|---|---|---|---|---|---|
| M$_1$: Stability model | 113.15 | 14 | - | - | - | .961 | .111 | .820 | .931 |
| M2: LMX effects = M1 + LMX➔PR, Adaptivity | 70.85 | 11 | M1 – M2 | 42.31[***] | 3 | .975 | .097 | .861 | .958 |
| M3: LMX+PR effects = M2 + PR➔ LMX, Adaptivity | 5.28 | 7 | M2 –M3 | 34.04[***] | 2 | .998 | .000 | 1.00 | 1.00 |

*Note.* Age and gender were controlled for. LMX = leader-member exchange, PR = personal resources, i.e. meaning-making & OBSE; [***]*p* < .0001, [**]*p* < .001, *\*p* < .01.
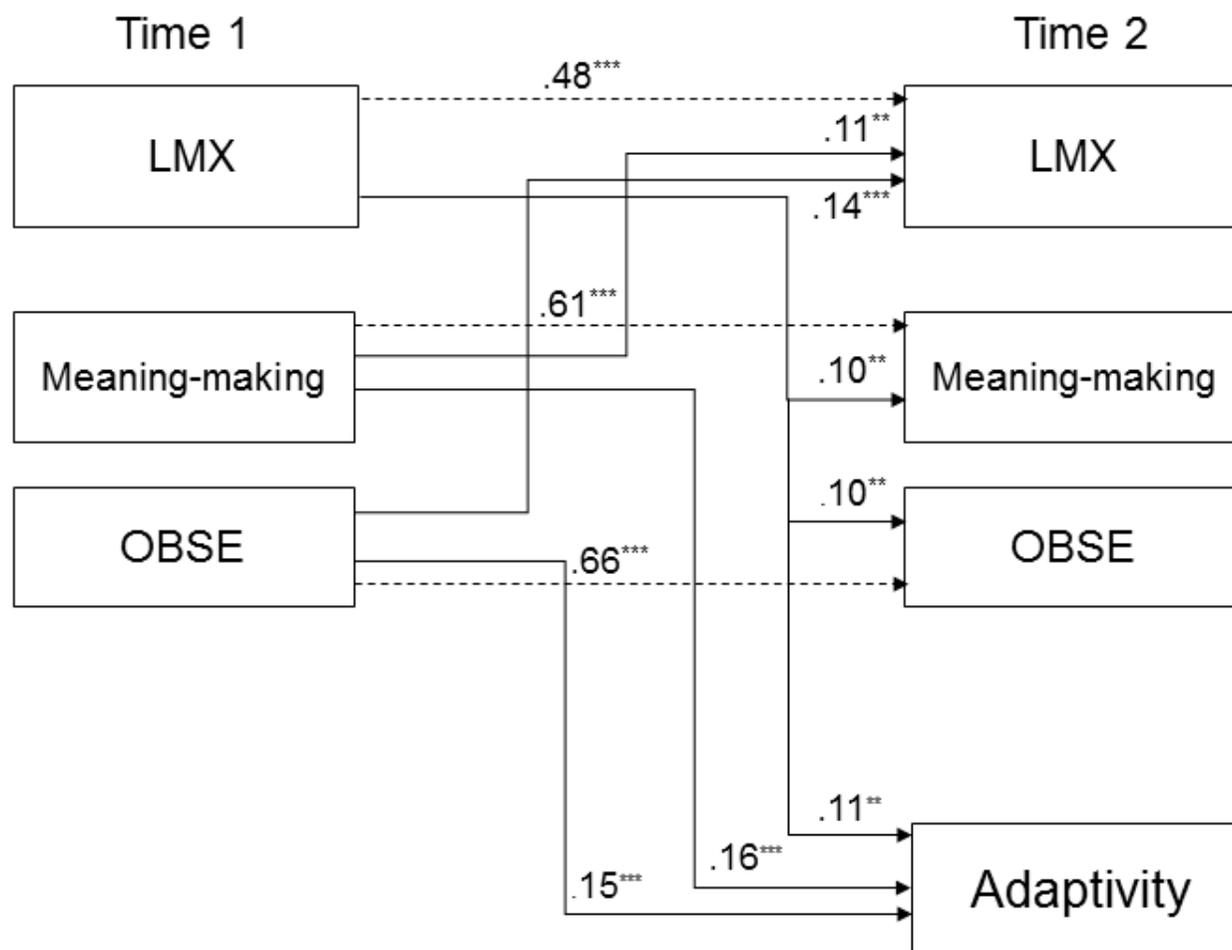
*Figure 2.* Results of structural equation modeling (maximum likelihood estimates; Model 3), $N = 580$.

*Note.* Stability paths are indicated by dashed arrows, control variables and synchronous correlations are omitted for reasons of clarity;   ** $p < .01$, * $p < .05$.