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## Abstract

We examined how change management interventions influence employees' affective and (abstract versus concrete) cognitive reactions and how these reactions are in turn associated with change readiness. In addition, we analyzed whether the association of change readiness with these reactions varies depending on the temporal distance to the implementation of a change. Findings provide evidence for the assumed mediation models but not for the moderating role of temporal distance.

## Introduction

Today, many companies face the challenge of staying competitive in highly volatile, international markets driven by digitalization. Adjusting to these rapidly changing circumstances is increasingly important for organizations (Neves, 2011). Therefore, researchers emphasize the need to analyze the psychological processes underlying employees' change readiness (CR). We focus on CR defined as the individuals' intention to support an organizational change and investigate the role of affect and cognitions on CR during the change process.

### Theoretical background

#### Theory of planned behavior (TPB, Ajzen, 1991)

- Intention towards behavior as the most proximal determinant of the resulting behavior (Ajzen, 1988) → Intentions as "readiness to perform a given behavior" (Fishbein & Ajzen, 2010, p. 39)
- Determinant of the intention to perform a behavior is the person's attitude towards this behavior

#### Construal Level Theory (CLT; Trope & Liberman, 2010)

- Focus on level of abstraction of mental representations
- Psychological distance versus proximity (on a temporal, spatial, social, or probabilistic dimension) facilitates the construction of more abstract versus concrete mental representations

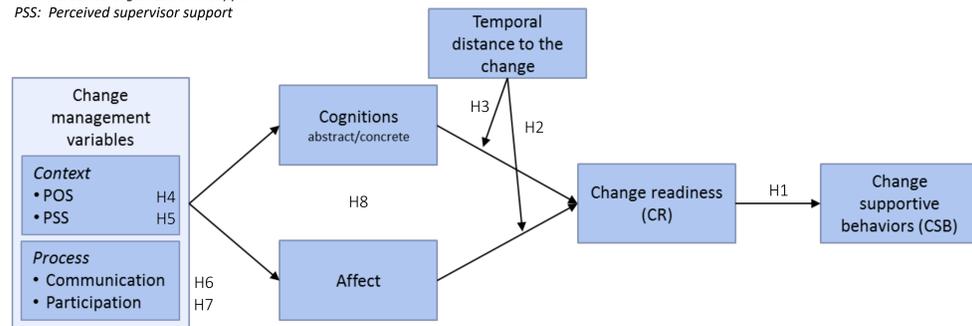
#### Feelings-as-information Theory (FIT; Schwarz, 2012)

- Feelings provide information to individuals for the process of forming judgments and decisions (Schwarz, 2012)
- Extent to which feelings influence judgements and decisions depends on the accessibility of other types of information and the perceived relevance and value of feelings

New theories to predict cognitive and affective influences on change readiness

## Research Model

POS: Perceived organizational support  
PSS: Perceived supervisor support



- According to TPB: Focus on employees' CR as precursor of change supportive behaviors (CSB)

H1: There is a positive relationship between CR before the change and CSB after the change.

- Attitudes as summary evaluations of objects that have cognitive, affective, and behavioral components (e.g., Rosenberg & Hovland, 1960) → Attitudes can vary in the extent to which they are based on these components (Pham, 1998) → Situational factors can influence the extent to which attitudes are based on affective reactions (cf. Schwarz, 2007)
- Hypotheses derived from FIT and CLT: Moderation effect of temporal distance to the implementation of an organizational change on the extent to which CR is influenced by affective reactions and different types of cognitions
- According to FIT: As individuals receive more and more factual information about an organizational change over time, the extent to which they rely on their affective reactions as a basis for their CR should diminish

H2: The association of CR with affective reactions decreases with diminishing temporal distance to the implementation of the organizational change.

- According to CLT: Changes in the abstractness of mental representations have implications for judgments, decisions, and behavior and influence the impact of certain features on perception → Evaluation of the event can change substantially
- Abstract thoughts reflect the why of a change while concrete thoughts reflect the how of a change

H3a: The association of CR with abstract thoughts about the change decreases with diminishing temporal distance to the change.

H3b: The association of CR with concrete thoughts about the change increases with diminishing temporal distance to the change.

### Change Management Variables

- High POS is associated with positive beliefs that the change is in the interest of the employees (Aselage & Eisenberger, 2003)
  - H4: There is a positive relationship between POS and (H4a) cognitive and (H4b) affective reactions towards the change.
- PSS is seen as a key success factor for organizational change (e.g., Armenakis & Bedeian, 1999)
- Positive association with employees' perception of changes being better managed and less radical, which was related to lower levels of psychological uncertainty (Rafferty and Griffin, 2006)
- Positively related to affective commitment to change (Neves, 2011)
  - H5: There is a positive relationship between PSS and (H5a) cognitive and (H5b) affective reactions towards the change.
- Communication as an important variable positively influencing employees' acceptance of the change (e.g., Oreg, Vakola, & Armenakis, 2011)
  - H6: There is a positive relationship between the quality of communication and (H6a) cognitive and (H6b) affective reactions towards the change.
- Participation refers to the perceived (direct or indirect) opportunities to partake in change-related decision making (e.g., Jimmieson et al., 2008; Straatmann et al., 2016)
  - Reduces resistance, is associated with feelings of empowerment, has the potential to evoke a stronger psychological commitment to proposed changes (e.g., Rafferty, Jimmieson, & Armenakis, 2013)
    - H7: There is a positive relationship between the level of participation and (H7a) cognitive and (H7b) affective reactions towards the change.
- Assumption: CR is influenced by employees cognitive and affective reactions towards change and both variables in turn are influenced by CM variables
  - H8: The effects of CM variables on CR will be fully mediated by cognitive and affective reactions towards the change.

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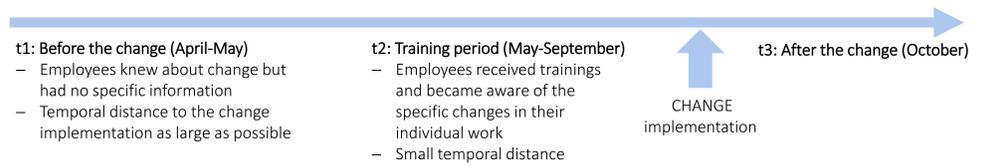
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## Method

**Context:** Change project in a large international tech company aiming at global harmonization and digitalization of sales process  
**Sample:** 1,163 employees answered at least one survey (105 matched between t1 and t2; 137 matched between t2 and t3)  
**Study design:** Three-part online survey



### Measured Variables at t1 and t2

CR	$\alpha = .94-.96$ ; t1: $SD = 1.13$ ; t2: $SD = 1.03$
Abstract cognitions (Why)	$\alpha = .95-.96$ ; t1: $SD = 1.2$ ; t2: $SD = 1.15$
Concrete cognitions (How)	$\alpha = .91-.92$ ; t1: $SD = 1.27$ ; t2: $SD = 1.25$
Affect	$\alpha = .97$ ; t1: $SD = 1.47$ ; t2: $SD = 1.49$
POS	$\alpha = .91-.92$ ; t1: $SD = 1.27$ ; t2: $SD = 1.20$
PSS	$\alpha = .95-.96$ ; t1: $SD = 1.53$ ; t2: $SD = 1.43$
Communication	$\alpha = .96-.97$ ; t1: $SD = 1.66$ ; t2: $SD = 1.42$
Participation	$\alpha = .84-.89$ ; t1: $SD = 1.72$ ; t2: $SD = 1.51$

### Measured Variables at t3

CSB ( $\alpha = .95$ ; t3:  $SD = 1.60$ )

### Analysis:

- Exploratory and confirmatory factor analysis → measurement invariance
- Structural Models (maximum likelihood method) → testing the hypotheses

## Results

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$

	$\beta$ all participants	$\beta$ participants taking part at t1 and t2	Explanation	✓/x
H1	t1: .34*** t2: .44***		CR positively predicted CSB (t1 and t2)	✓
H2	t1: .58*** t2: .54*** Model comparison n.s.	t1: .43*** t2: .55*** Model comparison n.s.	Affect was a significant predictor of CR at t1 and t2; no differences between both measurement times	x
H3	H3a: Abstract cognitions t1: .62*** t2: .63*** H3b: Concrete cognitions t1: .56*** t2: .57*** Model comparisons n.s.	H3a: Abstract cognitions t1: .64*** t2: .61*** H3b: Concrete cognitions t1: .47*** t2: .43*** Model comparisons n.s.	Cognitions were a significant predictor of CR at t1 and t2; no differences between both measurement times	x
H4	Cognitions (C): t1: .25*** t2: .18*** Affect (A): t1: .17*** t2: .14*		Effect of POS on cognitions and affect	✓
H5	C: t1: .19 n.s. t2: .16** A: t1: .19*** t2: .15**		Effect of PSS on affect and cognitions (effect on cognitions was only significant at t2)	(✓)
H6	C: t1: .53*** t2: .32*** A: t1: .32*** t2: .32**		Effect of communication on cognitions and affect	✓
H7	C: t1: .16** t2: .30*** A: t1: .18*** t2: .25***		Effect of participation on cognitions and affect	✓
H8	POS: t1: .14** t2: .13** PSS: t1: .07 n.s. t2: .10** Communication: t1: .34*** t2: .27***, and direct effect at t2 (-.23**) Participation: t1: .10** t2: .18***		Effects of POS, PSS (t2), communication (t1), and participation on CR were fully mediated by cognitions and affect  Overall, the change management variables explained 33% of the variance in CR	(✓)

## Discussion

- TPB: CR as a predictor of CSB at t1 and t2
- No support for hypothesis that influence of affect on CR would be stronger when distance to change is high → Correlations tend to point in the opposite direction (see Chang and Pham, 2013, for a possible explanation)
- No differences in prediction of abstract or concrete cognitions depending on temporal distance → In general, abstract cognitions were (descriptively) more important than concrete cognitions (c.f., Trope & Liberman, 2010) → Possible reasons: High trust in the management of the change or stronger focus on the why of the project due to remaining unsolved issues in the process
- POS, communication, and participation had positive effects on employees' cognitive and affective reactions at t1 and t2 → Descriptively, communication as the most important predictor (need for high quality information especially at the beginning) → Participation becomes (descriptively) more important with lower temporal distance
- PSS had no effect on cognitions when the implementation of the change was temporally more distant → Managers may have had small amount of detailed information and available supporting measures at the beginning of the process → Global and regional change teams conducted most of CM measures, which could have reduced the managers influence
- Still, PSS had effects on affect at t1 and t2 and on cognitions at t2 → Importance of supervisors' backing especially regarding their employees' emotions
- Full mediation of most change management variables on CR by affect and cognitions → CR can be enhanced by shaping employees' affect and cognitions towards the change

## Implications

- Importance of change management to foster CR during the whole change process
- PSS seems to be more suitable to form positive affect than to influence cognitive reactions in early stages of the change process
- Providing high quality information is especially important at the beginning of the change process
- Employees' involvement is more important as the change event approaches
- General effect of POS on CR: Companies should invest in creating a culture of organizational support
- Support of the sense-making process of employees during the change process while considering their emotions

## Limitations

- Although the longitudinal design of the study is a strength, the response rate is relatively low (10-15%)
- Many variables are highly correlated → could have prevented disclosure of FIT and CLT assumptions; relevance for change process has to be examined in future research
- Change management variables explained 33% of variance in CR in the mediation model → indicates the investigation of additional influencing factors
- Investigating a real change process in one organization increases the external validity of the study. However, the generalization of the results should be considered with caution.