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**Cross-lagged relations between perceived leader-employee value congruence and leader identification**

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### **Abstract**

Building on similarity-attraction theory and extending research on person-organization value congruence and organizational identification, this study examines the relationship between perceived leader-employee value congruence and leader identification. Using a two-wave design, data was collected twice with a six months' time lag from a sample of 282 employees. Utilizing cross-lagged analyses, we examined bidirectional effects between perceived leader-employee value congruence and leader identification. The results provided support for the positive relationship of perceived leader-employee value congruence (Time 1) to leader identification (Time 2) but could not exclude the possibility of a bidirectional relationship. Overall, the study highlights the importance of value congruence for identification processes.

**Practitioner points:**

- HR professionals should put emphasis on values when matching leaders and employees as the employees' overall assessment of value fit between the leader's and the employees' values plays an important role in the employees' identification with the leader.
- As more support was found for perceived leader-employee value congruence affecting leader identification than *vice versa*, there should be a greater focus on the employee's overall assessment of value fit with the leader than whether the employee identifies with the leader.

Prior research has explored how employee-organization value congruence is related to employees' identification with their organization (e.g., Cable & DeRue, 2002; Saks & Ashforth, 1997). One line of research argues that value congruence may lead to identification (Pratt, 1998) whereas another line of research suggests that employees may change their values to match the target's (e.g., organization's/leader's) values due to anticipatory identification with the target (Ashforth, Harrison, & Corley, 2008) suggesting that the relationship between value congruence and identification could be bidirectional. Existing research has, however, only explored the unidirectional effect of value congruence on identification (e.g., Cable & DeRue, 2002) leaving this important question on the direction of causality unanswered.

Rooted in the Social Identity Theory (SIT, Tajfel & Turner, 1986), social identification refers to a perception of 'oneness' with another person or group and includes the extent to which an individual defines him/herself in terms of another person or a group (Ashforth & Mael, 1989). Thus, leader identification concerns a person's perception of 'oneness' with the leader. While research on social identification in the workplace has focused on organizational identification we know much less about how employees develop identification with their leader (Ashforth, Joshi, Anand, & O'Leary-Kelly, 2013).

Values are beliefs about desirable behaviours or end states (Schwartz & Bilsky, 1987) and, within the context of our research, 'value congruence' concerns the fit between values held by the leader and the employee. We examine perceived leader-employee value congruence, which is based on the employee's perceptions and concerns the employee's overall assessment of value fit between the leader's and the employee's values (Kristof-Brown & Jansen, 2007). Despite the strong ties between value congruence and identification (Pratt, 1998), to the best of our knowledge neither the unidirectional nor the bidirectional relationship between leader-employee value congruence and leader identification has hitherto

been explored. We now discuss two perspectives on how value congruence and identification are related.

Based on the similarity-attraction paradigm (Byrne, 1971), which suggests that individuals are attracted to similar others, one line of research has consistently suggested that identification is contingent on perceived similarity (e.g., Turner, 1985; Van Knippenberg, Van Dick, & Tavares, 2007). Similarity increases validation of individuals' values, which increases attraction, harmony and cooperation between individuals (Edwards & Cable, 2009). Thus, the more similar the leader and the employee are to each other, the more attracted they will be to each other. Following this, Engle and Lord (1997) argued that increased levels of perceived leader-employee similarity leads the employee to identify more with the leader. When coupled with the arguments that value congruence is positively related to identification (Mael & Ashforth, 1995), we propose that the more the employee perceives their own values to be similar to the leader's values, the more attracted to the leader the employee will be, and the more the employee will identify with the leader.

On the other hand, research has suggested that identification may lead to perceived similarity in values. According to Pratt (1998), identification can occur through affinity or emulation. Affinity identification refers to when the person identifies with the target due to being similar to the target (e.g., value congruence) suggesting perceived leader-employee value congruence leads to leader identification. In contrast, identification through emulation occurs when the person starts to change his/her values to become similar to the target (e.g., leader). Emulation could be based on anticipatory identification where the person starts to adapt his/her identity and then emulates the leader's values due to anticipations of identification (Ashforth et al., 2008). Thus, from the emulation perspective, leader identification may lead to value congruence. However, although values can change over time (Jin & Rounds, 2012), research has generally suggested that they are stable over time and

fairly resistant to change (Connor & Becker, 1994; Glew, 2009). One could thus expect that value congruence is more likely to affect leader identification than the other way around. In lieu of the above discussion and following the recommendations by Leavitt, Mitchell, and Peterson (2010) that research should test competing hypotheses against each other, we compare and test two competing perspectives on the relationship between value congruence and leader identification. Based on the affinity identification argument (Pratt, 1998) and the similarity-attraction paradigm (Byrne, 1971) we propose that perceived leader-employee value congruence affects leader identification. On the other hand, based on the identification through emulation argument (Ashforth et al., 2008) it can be argued that leader identification affects perceived leader-employee value congruence. Thus, we propose the two following contrasting hypotheses:

*Hypothesis 1:* Perceived leader-employee value congruence has a positive effect on leader identification.

*Hypothesis 2:* Leader identification has a positive effect on perceived leader-employee value congruence.

We test these hypotheses in a two-wave design study where employee data was collected twice with a six months' time lag. By using a two-time design to examine the relationship between leader-employee value congruence and leader identification, the present study aims to address the gap in the literature and make three important contributions to research. First, by using cross-lagged analyses to test bidirectional effects between leader-employee value congruence and leader identification our main contribution is that we provide a strong test of the direction of the effects. Our study adds to the literature on leader identification directly and can be transferred to research on organizational identification. Second, since identification at lower organizational levels (e.g., leader) is more important to the employee's cognition, affect, and behaviour than identification at higher organizational

levels (e.g., organization) (Ashforth et al., 2008) by shifting the focus of identification from a person-organization focus to a leader-employee focus this study provides important new insights to the determinants of identification. Third, while previous research has explored the effect of values on leadership constructs, such as leader-member exchange (Dose, 1999), we extend this analysis to the important aspect of leader identification which is known to be related to important work outcomes such as job performance and job satisfaction (Hobman, Jackson, Jimmieson, & Martin, 2011).

## **Method**

### **Participants and procedure**

The current study is based on a larger data collection exercise and we note that the sample in this article is the same as presented in Marstand, Martin, and Epitropaki (2017); however, the hypotheses, focal variables and data analytic techniques used here are distinct from this earlier article. Data were collected at two points in time six months apart from employees from a food manufacturer in Denmark using online questionnaires, which were translated into Danish and back-translated into English. The food manufacturer has its headquarters in Denmark and subsidiaries in other countries. We contacted employees in Denmark as we were not given access to collect data from employees in all the subsidiaries. At Time 1, 3,054 employees were invited to participate in the study via e-mail. In total, 468 employees completed the questionnaire, yielding a 15.32% response rate. At Time 2, we emailed the 468 respondents and received 316 complete responses from employees who had the same manager as at Time 1, yielding a 67.52% response rate at Time 2.

Following recommendations by Kark, Shamir, and Chen (2003) we only included responses from employees who had worked with their manager for at least six months to ensure that they had had sufficient time to develop identification with the leader, which reduced the sample size to 282 respondents. Of the 282 respondents, 46.1% were female. At



Time 1, the mean age was 45.37 years ( $SD = 9.17$ ), the mean tenure in the organization was 14.31 years ( $SD = 10.00$ ) and the mean tenure with the manager was 4.68 years ( $SD = 4.08$ ).

### Measures

Employees assessed value congruence and leader identification at both Time 1 and 2.

**Perceived leader-employee value congruence.** We reworded the three-item person-organization fit scale by Cable and DeRue (2002) to measure perceived congruence between the leader's and the employee's values. The reworded items are "The things that I value in a job are very similar to the things that my immediate manager values", "My work values match my immediate manager's work values", and "My immediate manager's work values provide a good fit with the things that I value in a job". Items were rated on a 7-point scale ranging from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*) (Time 1:  $\alpha = .94$  and Time 2:  $\alpha = .93$ ).

**Leader identification.** We reworded the six-item scale by Mael and Tetrick (1992) to measure leader identification. The reworded items are "When someone criticises my manager, it feels like a personal insult", "I am very interested in what others think about my manager", "When I talk about my manager, I usually say "we" rather than "he or she"", "My manager's successes are my successes", "When someone praises my manager, it feels like a personal compliment", and "If a story in the media criticised my manager, I would feel embarrassed". Items were rated on a 5-point scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*) (Time 1:  $\alpha = .77$  and Time 2:  $\alpha = .83$ ).

**Control variable.** As employees tend to remain in organizations that they feel a sense of belonging to (Ashforth et al., 2013), we included employees' tenure with their manager as a control variable.

## Results

Means, standard deviations, zero-order correlations, and Cronbach's alpha values of variables are presented in Table 1. The correlations between variables within each wave were positive and modest in magnitude.

<Insert Table 1 here>

We tested measurement and structural models using the EQS software, version 6.2 (Bentler, 2006) and maximum likelihood estimation. In the measurement models, items for each of the scales load on their respective factor and the four factors are correlated. Following Finkel (1995), we examined two forms of measurement invariance (i.e., configural invariance and metric invariance), which are preconditions for adequately testing cross-lagged effects. We tested two nested models, which allowed measurement errors for the same items to correlate over time. Model 1, which tested configural invariance, specified the same factor structure at both time points. Model 2, which tested metric invariance, specified that the factor loadings should be equal over time. Model 1 did not provide a good fit to the data (CFI = .87, NNFI = .84, RMSEA = .11) just as model 2 did not fit the data well (CFI = .87, NNFI = .84, RMSEA = .11). The nonsignificant  $\Delta\chi^2$  between the two models ( $\Delta\chi^2 = 2.92$ ,  $\Delta df = 7$ ,  $p = .892$ ) offered support for model consistency over time.

We then tested five structural models (Anderson & Gerbing, 1988). The results for these models are presented in Table 2. Model 1 is a full cross-lagged model with all bidirectional effects and synchronous correlations between factors at the same time point. Model 1 fitted the data well:  $\chi^2(134, N = 282) = 244.86$  ( $p < .001$ ),  $\chi^2/df = 1.83$ , CFI = .97, NNFI = .96, RMSEA = .05. Both autoregression effects were significant ( $p < .001$ ) just as the path from perceived leader-employee value congruence (Time 1) to leader identification (Time 2) was significant ( $p = .019$ ). On the other hand, the path from leader identification (Time 1) to perceived leader-employee value congruence (Time 2) was nonsignificant ( $p =$

.076) just as the effect of the control variable on perceived leader-employee value congruence (Time 2) and leader identification (Time 2) was nonsignificant ( $p = .514$  and  $p = .251$ , respectively). The standardized parameter estimates for the full cross-lagged model (i.e. model 1) are presented in Figure 1.

<Insert Figure 1 here>

Model 2 is more restricted as it only specifies a cross-lagged effect of perceived leader-employee value congruence on leader identification coupled with autoregression effects and correlations between factors at the same time point. Model 2 also provided a good fit to the data:  $\chi^2(135, N = 282) = 247.98$  ( $p < .001$ ),  $\chi^2/df = 1.84$ , CFI = .97, NNFI = .96, RMSEA = .06. All parameter estimates, (except for the effects of the control variable) in the model were significant ( $p < .05$ ). Specifically, both autoregression effects were significant ( $p < .001$ ) just as the path from perceived leader-employee value congruence (Time 1) to leader identification (Time 2) was significant ( $\beta = .14, p = .011$ ). The effect of the control variable on perceived leader-employee value congruence (Time 2) and leader identification (Time 2) was nonsignificant ( $p = .565$  and  $p = .256$ , respectively). The nonsignificant  $\Delta\chi^2$  between model 1 and 2, shows that model 2 provides a parsimonious fit to the data ( $\Delta\chi^2 = 3.12, \Delta df = 1, p = .077$ ). Thus, model 2 is a plausible model and therefore hypothesis 1 is confirmed. We then tested model 3, which specifies a relationship between leader identification and perceived leader-employee value congruence. Model 3 also fitted the data well:  $\chi^2(135, N = 282) = 250.02$  ( $p < .001$ ),  $\chi^2/df = 1.85$ , CFI = .96, NNFI = .96, RMSEA = .06. All parameter estimates, (except for the effects of the control variable) in the model were significant ( $p < .05$ ). Specifically, both autoregression effects were significant ( $p < .001$ ) just as the path from leader identification (Time 1) to perceived leader-employee value congruence (Time 2) was significant ( $\beta = .13, p = .045$ ). The effect of the control variable on perceived leader-employee value congruence (Time 2) and leader identification (Time 2) was nonsignificant ( $p$

= .493 and  $p = .200$ , respectively). However, the significant chi-square difference found ( $\Delta\chi^2 = 5.16$ ,  $\Delta df = 1$ ,  $p = .023$ ) indicates that Model 3 provides a less parsimonious fit to the data when compared to the full cross-lagged model (Model 1). Thus, Hypothesis 2 was not fully supported. Model 4 includes only autoregression effects. This model fitted the data well:  $\chi^2(142, N = 282) = 348.61$  ( $p < .001$ ),  $\chi^2/df = 2.46$ , CFI = .94, NNFI = .92, RMSEA = .07. Furthermore, the  $\Delta\chi^2$  between model 4 and 1 was significant,  $\Delta\chi^2 = 103.75$  with  $\Delta df = 8$  ( $p < .001$ ) indicating that Model 4 had a worse fit to the data when compared to model 1.

While the above model comparisons indicate that Model 2 is a plausible model and provide initial support for Hypothesis 1, the significant path found from leader identification Time 1 to perceived value congruence Time 2 in Model 3 requires additional investigation. It is important to establish that the two cross-lagged path estimates (i.e., perceived leader-employee value congruence Time 1 to leader identification Time 2 vs. leader identification Time 1 to perceived leader-employee value congruence Time 2) are significantly different from each other. We thus tested an additional model that constrained the two paths to be equal. This model also fitted the data well:  $\chi^2(135, N = 282) = 245.69$  ( $p < .001$ ),  $\chi^2/df = 1.82$ , CFI = .97, NNFI = .96, RMSEA = .05. Furthermore, the non-significant chi-square difference found between this constrained model and the unconstrained model 1 with freely estimated paths ( $\Delta\chi^2 = 0.83$ ,  $\Delta df = 1$ ,  $p = .362$ ) showed that the parameter estimates for the two cross-lagged paths were not significantly different from each other.

<Insert Table 2 here>

Taken together, the results provide support for a bidirectional relationship between perceived leader-employee value congruence and leader identification. Although the magnitude of the effect of perceived leader-employee value congruence (Time 1) on leader identification (Time 2) is larger than the reverse path, the statistical comparison of the two paths indicated a nonsignificant difference. Therefore, we cannot exclude the possibility of a

bidirectional relation. Thus, the results support Hypothesis 1 indicating that the more the employee perceives their own values to be similar to the leader's values, the more the employee will identify with the leader. On the other hand, Hypothesis 2 cannot be rejected suggesting that the more the employee identifies with the leader the more the employee will perceive their own values to be similar to the leader's values.

### **Discussion**

Despite the important link between value congruence and identification (Pratt, 1998) and competing perspectives suggesting a bidirectional relationship between value congruence and identification, research has only examined the unidirectional effect of person-organization value congruence on organizational identification (e.g., Cable & DeRue, 2002). Furthermore, the relationship between value congruence and identification has not been explored in a leader-employee context, despite the earlier calls for additional research on leader identification processes (Ashforth et al., 2013). We answer these calls by casting light on the direction of effects between perceived leader-employee value congruence and leader identification. Specifically, the aim of our study was to determine whether perceived leader-employee value congruence affected leader identification or *vice versa*. Results of cross-lagged analyses showed support for the positive effect of perceived leader-employee value congruence (Time 1) on leader identification (Time 2). Whereas the magnitude of the path estimate of the reverse relationship was smaller and nonsignificant, the comparison of the two paths yielded a nonsignificant difference. As a result, the possibility of a bidirectional relationship cannot be excluded. Thus, the study supported the affinity identification argument (Pratt, 1998) and the similarity-attraction paradigm (Byrne, 1971) indicating that the more the employee perceives their own values to be similar to the leader's values, the more the employee will identify with the leader. Furthermore, the identification through emulation argument (Ashforth et al., 2008), which suggests that the more the employee

identifies with the leader the more the employee will perceive their own values to be similar to the leader's values, also received some support by our data. It can thus be argued that both affinity and emulation are important explanatory mechanisms of the relationship between leader-employee value congruence and leader identification.

The study makes several important contributions to research. First, by examining the bidirectional relationship between value congruence and identification in the leader-employee context, our study addresses both affinity and emulation hypotheses of identification processes (Pratt, 1998). Our results provide support for the affinity hypothesis suggesting that employees identify with the leader due to perceived value similarity with the leader. On the other hand, our results provide some support for the emulation hypothesis that participants changed their values to become more similar to the leader in a six-month period due to high identification. Apart from contributing to leader identification research, these results can be transferred to, and are important for, advancing the broader field of identification research that has examined the unidirectional relationship between value congruence and identification. Second, as the leader is more proximal to the employee's work experiences than the organization then leader identification will be more proximal to employees than organizational identification (Ashforth et al., 2008). Thus, by shifting the focus from a person-organization perspective to a leader-employee perspective and examining perceived leader-employee value congruence and leader identification, our study provides important insights to identification processes that are more proximal to employees. Third and finally, values are found to be an important mechanism driving employees' identification with their leader and our study is the first to examine this relationship providing important insights for both identification and leadership research.

While the study has a clear strength over existing research by using a two-time design, some potential limitations must be acknowledged. First, the use of data from only one source

increases the risk of common method variance. However, using a two-wave design with a six-month interval should reduce the risk concerning common method variance as respondents are unlikely to remember their prior evaluations over such a time period. Second, as perceived measures of value congruence prime the respondents to calculate a difference, it is recommended that future research extend this approach by collecting separate evaluations of the leader's and the employee's values as it potentially reduces common method variance (Podsakoff & Organ, 1986). Finally, we suggest that future research investigates the moderating role of leadership variables, such as transformational, charismatic and authentic leadership on the relationship between perceived leader-employee value congruence and leader identification as the role of leadership behaviours for leader-employee value congruence has been highlighted by prior research (Hoffman, Bynum, Piccolo, & Sutton, 2011).

Overall, the study highlights the importance of perceived value congruence for identification processes. Organizations need to pay extra attention to the similarity of values between leaders and employees as value fit has important implications for employees' identification with their leaders and for subsequent organizational outcomes such as performance and work attitudes (Hobman et al., 2011).

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Table 1

*Means, standard deviations, correlations, and Cronbach's alpha values of variables*

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Gender	1.46	0.50	–							
2. Age	45.37	9.17	-.04	–						
3. Tenure in the organization	14.31	10.00	-.10	.56	–					
4. Tenure with the manager	4.68	4.08	.01	.22	.36	–				
5. Value congruence T1	5.25	1.17	-.06	.17	.07	.06	(.94)			
6. Leader identification T1	2.85	0.61	-.15	.08	.07	.00	.45	(.77)		
7. Value congruence T2	5.27	1.10	-.06	.17	.08	.08	.68	.40	(.93)	
8. Leader identification T2	2.92	0.65	-.21	.19	.11	.06	.47	.71	.47	(.83)

*Note.*  $N = 282$ . Cronbach's alphas are in parentheses on the diagonal.

T1 = Time 1; T2 = Time 2. Within rounding error, correlations greater than .116 in absolute magnitude are statistically significant at  $p < .05$ , correlations greater than .152 in absolute magnitude are statistically significant at  $p < .01$ , and correlations greater than .193 in absolute magnitude are statistically significant at  $p < .001$  (all two-tailed test).

Table 2

*Fit indices for structural cross-lagged models*

Model	$\chi^2$	<i>df</i>	$\chi^2/df$	$\Delta\chi^2$	$\Delta df$	CFI	NNFI	RMSEA
Model 1	244.86***	134	1.83			.97	.96	.05
Model 2	247.98***	135	1.84	3.12	1	.97	.96	.06
Model 3	250.02***	135	1.85	5.16*	1	.96	.96	.06
Model 4	348.61***	142	2.46	103.75***	8	.94	.92	.07

*Note.*  $N = 282$ . Model 1 = full cross-lagged model with all bidirectional effects and synchronous correlations between factors at the same time point; Model 2 = only cross-lagged effect of perceived leader-employee value congruence on leader identification with autoregression effects and correlations between factors at the same time point; Model 3 = only cross-lagged effect of leader identification on perceived leader-employee value congruence (the reverse to model 2) with autoregression effects and correlations between factors at the same time point; Model 4 = only autoregression effects. CFI = comparative fit index; NNFI = non-normed fit index; RMSEA = root-mean-square error of approximation. In relation to  $\Delta\chi^2$ , model 2, 3 and 4 are compared to model 1. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

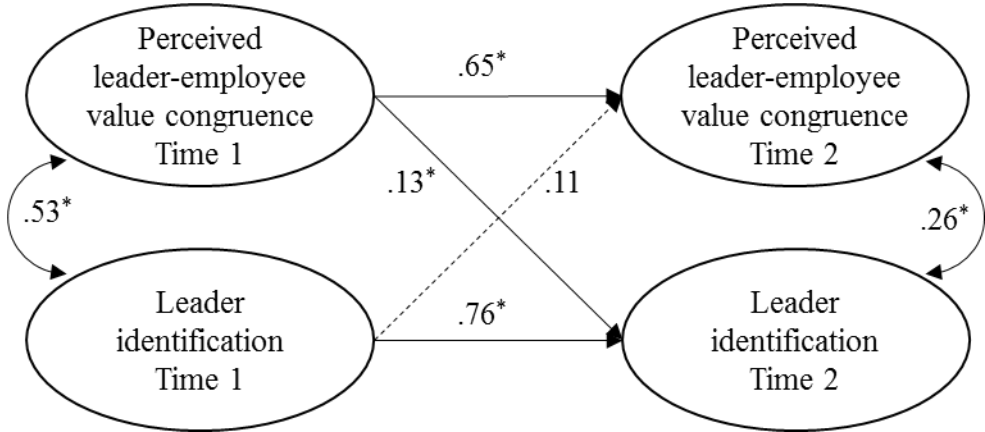


Figure 1: Full cross-lagged model results for the effect of perceived leader-employee value congruence on leader identification. For simplicity, indicators and their loadings, disturbances, correlated measurement errors and the effects of the control variable are not graphically represented. \*  $p < .05$ .