

ATTRIBUTIONS OF COMPETENCE AND WARMTH TO THE LEADER AND EMPLOYEES' ORGANIZATIONAL COMMITMENT: THE MEDIATION ROLE OF THE SATISFACTION OF BASIC NEEDS

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In the present study, competence and warmth, the two fundamental dimensions of social judgment, postulated by the stereotype content model (SCM), are considered as leaders' traits. In particular, we investigated whether the attribution of competence and warmth to one's own supervisor is related to employees' organizational commitment. Furthermore, we hypothesized that the mechanism underpinning this relation was the satisfaction of the basic psychological needs — competence, autonomy, and relatedness — conceptualized by self-determination theory. To test our hypotheses a cross-sectional study was conducted, examining metalworkers ($N = 120$) of an engineering industry. Participants filled out a questionnaire, including measures of evaluations regarding one's supervisor, satisfaction of basic needs at work, and organizational commitment. Indirect effects of leader's perceived competence and perceived warmth on organizational commitment were tested using PROCESS. Results showed that warmth ascribed to the leader, but not competence, was positively related to organizational commitment, this relationship being mediated by the satisfaction of the need for autonomy. Our findings establish a link between warmth ascribed to one's supervisor and employees' organizational commitment, suggesting the usefulness of considering warmth and competence as leader traits in organizational contexts.

Key words: Leader perceived competence; Leader perceived warmth; Organizational commitment; Stereotype Content Model; Self-Determination Theory.

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Competence and warmth are the two fundamental dimensions of social judgment proposed by the stereotype content model (SCM; Fiske, Cuddy, Glick, & Xu, 2002; see also Cuddy, Fiske, & Glick, 2007, 2008). These two dimensions, although labeled in different ways, have a rich history in theory and research on person and group perception (e.g., Asch, 1946). In the field of organizational leadership, for instance, Bales (1950) distinguished socio-emotional from task-oriented leadership, and Stogdill (1974) differentiated “consideration” behaviors, oriented to improve group members' well-being, and “initiating structure behaviors,” oriented to give rules and define standards of performance. Of the two dimensions, competence is conceptualized as intelligence, efficacy, self-confidence, capacity to achieve one's goals; warmth is conceptualized as friendliness, trustworthiness, kindness, desire to be in communion with other people. The two

dimensions have a functional role in social interactions. The perception of warmth versus coldness signals that others have good versus bad intentions toward us; this perception promotes trust versus doubt about others' motives. The perception of competence versus incompetence signals that others are able or unable to achieve their goals. In the current work, competence and warmth are conceptualized as traits that employees use to evaluate their immediate supervisor. We employed these two dimensions because they represent a parsimonious definition of how employees perceive their leader. Theories of leadership based on traits (see the meta-analysis by DeRue, Nahrgang, Wellman, & Humphrey, 2011) have actually mostly referred to the Big Five (Costa & McCrae, 1992), that imply two higher-order factors (Digman, 1997) corresponding to agency (competence) and communion (warmth).

The aim of the present study is to analyze the relationship between perceived leaders' competence and warmth and employees' organizational commitment, with the hypothesis that this relationship is mediated by the satisfaction of the basic psychological needs. In previous investigations (see Capozza, Bobbio, Di Bernardo, Falvo, & Pagani, 2015), the two leadership traits were studied in relation with major organizational outcomes; it was found, for instance, that leader's perceived competence was associated with affective organizational commitment (see the three-component model of commitment; Meyer & Allen, 1997; Meyer & Herscovitch, 2001), reduced feelings of burnout (Maslach, Schaufeli, & Leiter, 2001), and self-reported citizenship behaviors (Organ, 1988). Leader's warmth, in contrast, did not show significant relationships with these outcomes, probably because of the type of companies analyzed (e.g., in Study 2, the organization was a major Italian bank). In the present work, we suggest that the mechanism through which the two leadership dimensions are associated with employees' organizational commitment involves the satisfaction of the three basic needs proposed by Self-Determination Theory (SDT; Deci & Ryan, 1985; Ryan & Deci, 2000, 2008): need for autonomy, competence, and relatedness.

SDT (see Ryan & Deci, 2008) posits that the satisfaction of the needs for autonomy, competence, and relatedness is crucial for individual optimal functioning and well-being; need satisfaction is, in fact, "a nutriment essential for psychological growth, integrity, and wellness" (p. 657). Need for autonomy refers to the experience of volition and self-endorsement of one's behavior; this need is fulfilled when individuals perceive they have chosen freely and consistently with their own values and activities. Competence refers to feeling effective in one's action; competence perceptions increase when individuals engage in relevant challenges and receive positive feedbacks. Relatedness concerns the need for feeling connected to others, both individuals and groups (see Baumeister & Leary, 1995); when this need is met, people think others are willing to support them and to accept their support. According to SDT, humans innately seek out the nutriment of the three needs, which are not hierarchically ordered, all being fundamental to the same extent. Furthermore, in contrast with the deficit approach (Maslow, 1943; McClelland, 1965), in which a need becomes prominent in directing behavior when it is unfulfilled, SDT assumes that the three needs remain constantly salient, leading individuals to search for conditions that allow their fulfillment.

Research regarding SDT in the work domain has shown that need fulfillment is associated with positive outcomes for employees and the whole organization, being related to job satisfaction, work engagement, good performance, affective organizational commitment, reduced burnout, and reduced turnover (see, e.g., Fernet, Austin, Trépanier, & Dussault, 2013; Gagné & Deci, 2005; Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008; Van den Broeck, Van-

steenkiste, De Witte, Soenens, & Lens, 2010). Interesting findings regard the relationship between leadership styles and employees' basic needs. Baard, Deci, and Ryan (2004; see also Deci et al., 2001) found that a leadership style, characterized by understanding followers' perspective, providing information and opportunities for choice, and fostering personal initiative, is an organizational factor which favors the achievement of basic needs.

In our model, favorable organizational factors are represented by perceived competence and perceived warmth of one's direct supervisor, which should be associated with employees' feelings of autonomy, competence, and relatedness. These feelings should, in turn, be associated with organizational commitment (see Figure 1). For organizational commitment, we adopted the conceptualization recently proposed by Klein, Molloy, and Brinsfield (2012; see also Klein, Cooper, Molloy, & Swanson, 2014). According to these authors, commitment is "a volitional psychological bond reflecting dedication to and responsibility for a particular target" (Klein et al., 2012, p. 137). This definition, which is operationalized with only four items (the measure KUT = Klein et al., Unidimensional, Target-free; Klein et al., 2014), exhibits several advantages over other definitions, for instance: (a) it is more concise, and (b) applicable across the full array of workplace targets, making possible comparisons between them. Furthermore, compared with the scale of affective organizational commitment by Meyer, Allen, and Smith (1993), the KUT items show less overlap with items measuring core constructs, such as, job satisfaction and turnover intentions (Klein et al., 2014). This lower overlap reduces the inflation of the true relationship between variables due to common method factors (see Conway & Lance, 2010).

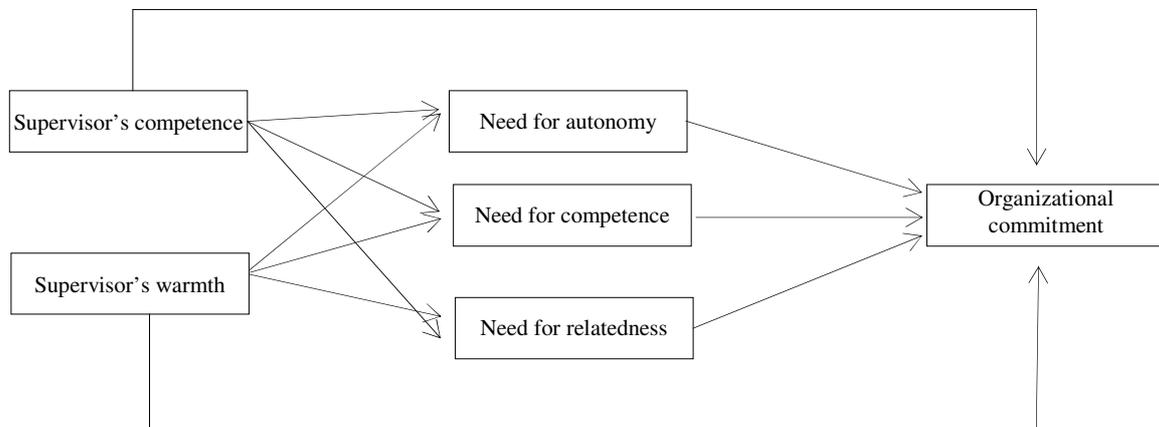


FIGURE 1

The relationship between competence and warmth attributed to one's supervisor and employees' organizational commitment: Mediation of basic psychological needs at work.

According to our model, when employees feel that their basic needs are gratified by their direct supervisor, they reciprocate this benefit by creating a positive psychological bond with the organization, perceived as favoring competent and warm leaders (social exchange theory; Blau, 1964). The perception that one's immediate supervisor conveys competence should be related to employees' experience of autonomy and self-efficacy in their actions. A competent supervisor provides knowledge and skills, which allow employees to feel volitional and responsible for their work (autonomous), and capable to effectively interact with the work environment (competent)

(for the concepts of autonomy and competence, see, respectively, deCharms, 1968, and White, 1959). In terms of Yoon and Lawler's (2006) relational cohesion theory of commitment, competent supervisors provide employees with "human capital" (see also Allen & Rhoades Shanock, 2013). Regarding warmth, the perception that leaders are supportive and well-disposed should gratify followers' need for feeling connected and accepted by others (for this need, see Baumeister & Leary, 1995). In terms of Yoon and Lawler's theory, warm leaders provide followers with "social capital."

However, both leader's competence and leader's warmth may gratify more than one need: a warm leader, for instance, could gratify also the need for autonomy, being supportive of followers' ideas and choices. To test the model of Figure 1, we carried out a cross-sectional study, examining workers of an engineering industry.

METHOD

Participants and Procedure

Participants were 120 metalworkers, all men, employed in a Northern Italian engineering industry; all respondents recognized an immediate supervisor. Most of respondents were aged between 31 and 40 years (31.7%) or between 41 and 50 years (26.7%); 18.3% were aged up to 30 years and 17.5% were over 50 (5.8% did not indicate their age). Concerning length of service, the most endorsed categories were "6 to 10 years" (40%) and "11 to 15 years" (22.5%). Participants were collectively examined, in small groups, during working hours. They were informed that their responses would remain strictly anonymous.

Measures

The questionnaire included the following measures.

Leader's competence and warmth. To measure the attribution of competence and warmth to one's own supervisor, 12 traits were used (see Durante, 2008; Fiske et al., 2002): six captured competence, for instance, efficient, capable, and self-confident ($\alpha = .94$), and six captured warmth, for instance, friendly, trustworthy, and well-disposed ($\alpha = .93$). Participants were asked to indicate how well each trait described their immediate supervisor; responses were provided on a scale ranging from 1 = *not at all* to 5 *very much*.

Satisfaction of basic needs. For the assessment of the three basic needs, we applied the Work-related Basic Need Satisfaction (W-BNS) scale, developed by Van den Broeck et al. (2010), that measures the extent to which each need is gratified in the work context. The scale is composed by 18 items: six for each need. For autonomy ($\alpha = .74$), sample items are: "I feel like I can be myself at my job," and "I feel free to do my job the way I think it could best be done." For competence ($\alpha = .72$), sample items are: "I feel competent at my job," "I really master my tasks at my job." Need for relatedness was assessed with items like the following: "At work, I feel part of a group," and "Some people I work with are close friends of mine" ($\alpha = .73$). A 5-point Likert scale, anchored by *totally disagree* and *totally agree*, was used: the higher the score the more the

need was perceived as satisfied. The introductory sentence specified that items made reference to one's personal experiences at work.

Organizational commitment. To assess organizational commitment, the KUT scale was used (Klein et al., 2014). It consists of four items ($\alpha = .80$), which express the key elements of Klein et al.'s (2012) definition of commitment: volitional commitment, dedication, and responsibility. Sample items are: "I am dedicated to this organization," "I have chosen to be committed to this organization." Responses were given on a 5-point scale anchored by *false* and *true*; higher scores indicate higher organizational commitment.

RESULTS

Construct Validity of Measures: Leadership Attributes and Basic Needs

To test the conceptual distinction between traits measuring competence and traits measuring warmth, and to replicate the three-factor structure of the basic need scale (Van den Broeck et al., 2010), confirmatory factor analysis (CFA; LISREL 8; Jöreskog & Sörbom, 2007) was performed. In both CFAs, three parcels were formed for each latent variable, following the item-to-construct balance method proposed by Little, Cunningham, Shahar, and Widaman (2002; see also Little, 2013).

To test the goodness of fit of the CFA models, we used the χ^2 statistic, the χ^2/df ratio, and two sample-size independent indices: the comparative fit index (CFI) and the standardized root mean square residual (SRMR) (see Hu & Bentler, 1999; Marsh, Hau, & Wen, 2004). Regarding CFI, values greater than .90 and .95 reflect an acceptable and excellent fit, respectively; for SRMR, the adaptation is regarded as acceptable if values are smaller than .08 (see Morin, Marsh, & Nagengast, 2013). For the relative chi-square, finally, it should be smaller than 3 (see Kline, 1998).

The two-factor model of competence and warmth showed an excellent fit to data: $\chi^2(8) = 15.52$, $p = .05$; $\chi^2/df = 1.94$; CFI = .99; SRMR = .024. Loadings ranged between .89 and .96 ($ps < .001$), and the correlation between the two dimensions was high ($\phi = .82$, $p < .001$), but significantly lower than 1 (95% confidence interval), thus confirming that the traits of competence and warmth measured distinct leadership attributes. The alternative one-factor model did not fit the data well: $\chi^2(9) = 152.27$, $p \cong .00$; $\chi^2/df = 16.92$; CFI = .80; SRMR = .073. This conclusion was also supported by the AIC and CAIC information criteria, that were lower in the two-factor than one-factor model: AIC was, in fact, 42.26 in the two-factor, and 235.98 in the one-factor model; CAIC was 91.50 in the two-factor and 281.43 in the one-factor model.

Also the three-factor model of the measure of basic needs showed an excellent fit to data: $\chi^2(24) = 23.60$, $p = .48$; $\chi^2/df = 0.98$; CFI = 1.00; SRMR = .053. Loadings were all significant ($ps < .001$) and higher than .52. Correlations were $\phi = .80$ ($p < .001$) for the needs for autonomy and relatedness, $\phi = .25$ ($p < .01$) for the needs for autonomy and competence, and $\phi = .33$ ($p < .001$) for the needs for competence and relatedness. The three correlations were significantly lower than 1 (95% confidence interval), thus confirming the hypothesized three-factor structure of the scale. As alternative models, we tested a bidimensional structure, in which autonomy and relatedness were joined in a same factor, and the unidimensional structure. The latter model did not fit the data well; in fact, fit indices were: $\chi^2(27) = 119.77$, $p \cong .00$; $\chi^2/df = 4.43$; CFI = .79; SRMR = .09. The

two-factor model, in contrast, showed a good adaptation to data: $\chi^2(26) = 39.32, p = .045; \chi^2/df = 1.51; CFI = .96; SRMR = .06$. However, the AIC and CAIC indices showed the lowest value for the three-factor model (AIC = 64.54, CAIC = 144.08), demonstrating that this model represented the best explanation of data. The AIC and CAIC indices, for the two-factor model, were 80.23 and 152.19, respectively; for the one-factor model, AIC was 160.21 and CAIC was 228.38.

Descriptive Statistics and Test of the Mediation Model

For competence and warmth perceptions, the three basic needs, and organizational commitment, items measuring the respective construct were averaged to form reliable composite scores. Mean scores and correlations between constructs are displayed in Table 1. From the means it appears that: one's direct supervisor was perceived as competent and warm; organizational commitment was rather high, and the most gratified need was that for competence.

TABLE 1
Mean scores (*M*), standard deviations (*SD*), and correlations
between the constructs included in the mediation model

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Supervisor's competence	3.63	1.07	1					
2. Supervisor's warmth	3.43	1.17	.76***	1				
3. Organizational commitment	3.72	1.02	.35***	.36***	1			
4. Need for autonomy	3.20	0.80	.45***	.55***	.44***	1		
5. Need for competence	4.12	0.68	.08	.08	.18*	.20*	1	
6. Need for relatedness	3.29	0.83	.42***	.46***	.26**	.54***	.22*	1

Note. In the 5-point scale, the higher the score, the more the supervisor is perceived as competent and warm, and the greater are organizational commitment and the satisfaction of basic needs.

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

In order to test the theoretical model (parallel multiple mediator model; Figure 1), the PROCESS macro (Hayes, 2013) was applied, and significance of indirect effects was evaluated using the bootstrapping procedure with 95% bias-corrected confidence interval (CI) and 10,000 resamples. Results (Figure 2) show that leader's perceived warmth, but not leader's perceived competence, was related to the satisfaction of basic needs (autonomy and relatedness). The satisfaction of the need for autonomy was, in turn, associated with employees' commitment to the organization. For the indirect effect of warmth, it was significant, as indicated by the bootstrap confidence interval which did not include zero: the point estimate for the indirect effect was 0.14, and CI was [0.06, 0.28]. All other indirect effects of warmth and all the indirect effects of competence were nonsignificant.

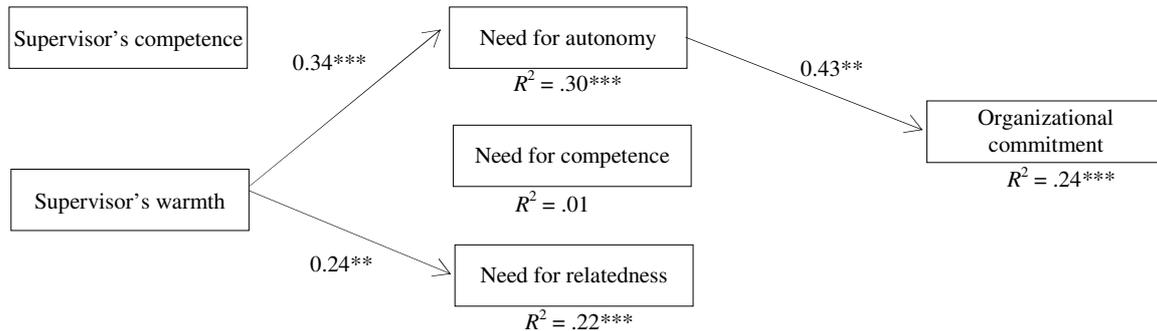


FIGURE 2

Test of mediation of basic needs: Unstandardized regression coefficients.

Only significant coefficients are reported. ** $p < .01$. *** $p < .001$.

The indirect effect of warmth is significant, 95% bias-corrected bootstrap CI = [0.06, 0.28].

Regarding the effect size of the pathway: supervisor's warmth \rightarrow need for autonomy \rightarrow organizational commitment, it was significant considering the most relevant measures of effect size for indirect effects provided by PROCESS (models with multiple mediators), that is: partially standardized indirect effect, point estimate = 0.15, 95% CI = [0.06, 0.29]; completely standardized indirect effect, point estimate = 0.11, 95% CI = [0.05, 0.21]; ratio of indirect to total effect, point estimate = 0.72, 95% CI = [0.14, 8.72] (for a discussion regarding the measures of effect size for mediation models, see Hayes, 2013; Preacher & Kelley, 2011).

We, finally, repeated the evaluation of the mediation model using employees' age and length of service as covariates; in the four-category scale of these variables, 1 was assigned to the lowest level of age and service length and 4 to the highest level. Findings of the mediation analysis were fully replicated; for the indirect effect of leader's warmth on commitment via need for autonomy, the point estimate was 0.12, and the 95% bootstrap CI was [0.03, 0.27].

The causal path we tested is both theoretically and empirically grounded (see Meyer & Maltin, 2010; see also Baard et al., 2004; Gillet, Fouquereau, Forest, Brunault, & Colombat, 2012). Nevertheless, we investigated an alternative model in which leader's perceived competence and warmth mediated the relationship between basic needs and organizational commitment. None of the six indirect effects turned out to be significant; this finding excludes the perspective that need satisfaction is the initial variable predicting positive evaluations of leaders, which, in turn, predict organizational commitment.

DISCUSSION

The aim of the present study was to investigate whether the perception employees have of their immediate supervisor, based on the two fundamental dimensions of social judgment (SCM; Fiske et al., 2002), are associated with organizational commitment. The potential mechanism underpinning these relations was also explored: we hypothesized that the satisfaction of basic needs at work (SDT; Ryan & Deci, 2008) mediates the association between leader's perceived competence and warmth and organizational commitment. Our hypotheses were tested in a cross-

sectional study; participants were metalworkers of an engineering industry who filled out a questionnaire.

Preliminary CFAs showed that the measures used to assess leadership perceptions and the satisfaction of basic needs exhibited the expected two-factor and three-factor structure, respectively. For organizational commitment, we adopted the unidimensional conceptualization of the construct proposed by Klein and colleagues (2012, 2014), who define commitment as a volitional bond toward the target (in this case, the organization), characterized by dedication and feelings of responsibility.

Concerning our mediation model, we found that warmth, but not competence, assigned to one's own supervisor, has a unique association with organizational commitment, which is mediated by need for autonomy. Thus, the perception of one's supervisor as friendly, supportive, and trustworthy is an important organizational resource (see the job demands-resources model; Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) able to nourish the fundamental needs, in particular the need for autonomy. Employees reciprocate the satisfaction of needs through volitional commitment, dedication, and sense of responsibility (social exchange theory; Blau, 1964). Our results are in line with Meyer and Maltin's (2010) theoretical framework, according to which favorable work conditions (in our model, leader's perceived competence and perceived warmth) are related to organizational commitment because they favor the satisfaction of basic needs (SDT; Ryan & Deci, 2008).

In the examined organizational context, warmth turned out to be the influential leadership dimension, being associated with basic needs and organizational commitment. This result is consistent with the idea that, although competence may take the primacy, warmth is nowadays becoming more important in conceptualizations and practices of a good leadership (see Cuddy, Glick, & Beninger, 2011). However, the relative weight of the two dimensions in determining employees' attitudes and behaviors may vary across types of jobs and organizational contexts (see Capozza et al., 2015). In the current study, leader's warmth may take the primacy probably because, in the organizational context investigated, workers (metalworkers) have no need to constantly learn new techniques and mechanical skills. Thus, their need to feel volitional and responsible for their work (i.e., autonomous) may be satisfied not by competent, but warm supervisors offering trust and support.

Future studies should investigate whether, according to the context, competence and warmth yield different relations with the three needs, and whether they are uniquely associated with major organizational outcomes, such as reduced turnover and well-being (see Capozza et al., 2015). Among the basic needs, only that for autonomy was influential and mediated the relationship between perceived leader's warmth and organizational commitment. It can be observed that, in the context investigated, need for autonomy was less gratified than the other needs (Table 1); it is, therefore, possible that employees were sensitive to this motive, and reacted to its gratification developing organizational commitment. Future research will show what happens with other types of organization and other types of jobs.

One limitation of the present study is that only one organization has been evaluated. In future research, our model should be tested sampling participants from a broad range of organizations and jobs. This kind of sampling should ensure a high degree of generalizability of findings and increase the power of statistical analyses. Another limitation of this study is its cross-sectional paradigm. Future research should use longitudinal or experimental designs to establish the causal

direction between leadership perceptions, need satisfaction, and organizational commitment. From a practical point of view, in the organization investigated, supervisors should be encouraged to be reliable and supportive toward employees; furthermore, strategies should be used aimed at constantly nourishing employees' need for autonomy.

In conclusion, our study shows that the fundamental dimensions of social judgment, considered as leadership attributes, are associated with crucial work-related variables. The use of competence and warmth is useful both for theory and research, allowing a parsimonious and universal definition of how employees perceive their leaders.

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