Engaging leadership: Enhancing work engagement through intrinsic values and need satisfaction

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Abstract
Should leaders pay more attention to values? The present study aims to examine and explain the associations of engaging leadership (EL) with employees' perceptions of the organization's values, need fulfillment, and employee engagement. EL is a recent leadership concept drawing on self-determination theory, specifically on the fulfillment of the basic psychological needs of autonomy, competence, and relatedness. We expected EL to associate with employees perceiving the values of their organization as more intrinsic (e.g., care for others, contributing to making the world a better place, stimulating personal growth), which would satisfy employees' basic psychological needs and fuel work engagement, rather than as extrinsic (financial success, power, status). Study 1 detailed the model using a cross-sectional study design (N = 436), and, as expected, structural equation modeling identified a positive path from leadership to work engagement via perceived intrinsic organizational values and subsequent satisfaction of the need for autonomy. EL associated negatively with extrinsic organizational values. Study 2 corroborated outcomes of study 1 through a longitudinal study across three time-points (N = 69) in a cross-lagged panel model and found specific directionality from leadership to perceived intrinsic values. Implications for leadership and motivation are discussed.
1 | INTRODUCTION

Employee well-being and work engagement are essential for employees and employers alike and go hand in hand (Osam et al., 2020; Sutton, 2020). Employees displaying high levels of work engagement show high levels of energy, feel enthusiasm, and efficacy (Bakker & Demerouti, 2008). As a result, employees feel well (Schaufeli, 2012), and display high levels of learning (Bakker et al., 2012), extra-role behavior (Schaufeli & Salanova, 2010), and enhanced performance (Mueller, 2019), which in turn contributes to financial performance (Schneider et al., 2018) and growth (Sorensen, 2013) at the organizational level.

Research examining the impact of leaders, however, mostly focuses on employee- and economic performance leaving the leaders' role in fostering employee well-being underexplored (e.g., Inceoglu et al., 2018). In Human Resource Management (HRM) research, the economic perspective focusing on employee performance also outweighs well-being (Beer et al., 2015) or meaningfulness (Bailey et al., 2017)—which only recently gained research interest (van de Voorde et al., 2012). In Human Resource Development (HRD) studies, performance improvement is approached through training, learning, and (leadership) development (Shirmohammadi et al., 2020; Werner, 2014; Yoo et al., 2018).

The current study expands on the studies on leadership and work engagement to explore its underlying process (Fischer et al., 2016; Inceoglu et al., 2018). This is in line with earlier studies inviting researchers to relax the preoccupation with leadership and economic performance (cf. Beer et al., 2015; Kempster et al., 2011; Podolny et al., 2004) and to come up with more rigorous research designs exploring the underlying process linking leadership and outcomes (e.g, Judge et al., 2006).

A growing body of studies explains the relationship between leadership and work outcomes through the mediating role of human motivation as described by self-determination theory (SDT) (e.g., Kovjanic et al., 2012; Meyer & Gagne, 2008; Solansky, 2014; van den Broeck et al., 2008; Vansteenkiste & Ryan, 2013). This theory posits that human motivation is nourished through the satisfaction of three basic psychological needs whose fulfillment leads to a range of positive outcomes in human growth, optimal functioning, well-being, and flourishing (Ryan & Deci, 2017). Needs satisfaction tends to explain a considerable part of the variance in work engagement (Rahmadani et al., 2019; van Tuin, Schaufeli, & Van Rhenen, 2020). This perspective on motivation is attractive for HRD professionals because it supports the shift in focus from extrinsic incentivizing to boost employee performance to supporting high-quality motivation coming from within (Fowler, 2018; Rigby & Ryan, 2018).

An additional tenet of SDT is that people and social contexts may stress different values. While some value aspirations contribute positively to a person's need satisfaction and well-being, others are detrimental (Ryan et al., 1996). Intrinsic values, such as contributing to the community and self-development, generally serve a person's motivation, perseverance, and psychological well-being (Deci & Ryan, 2000). Extrinsic values representing a materialistic orientation and including values such as striving for financial success, power, and status, mostly impact motivation and well-being negatively (Dittmar et al., 2014). The perception of intrinsic, as opposed to extrinsic values within the organizational context have been shown to associate positively with work engagement at the team level (Schreurs et al., 2014). However, the antecedents of these intrinsic value perceptions remain largely unknown.

In the present study, we measure leadership through the concept of engaging leadership (EL) (Schaufeli, 2015. We argue that EL has a positive impact on work engagement through how employees perceive the values promoted...
in the organization and the subsequent satisfaction of the basic psychological needs for autonomy, competence, and relatedness, as depicted in Figure 1. Building on previous studies (e.g., Schreurs et al., 2014; van den Broeck et al., 2014), we thus also expect that supporting intrinsic employee perceptions of organizational value orientations will lead to higher work engagement via basic psychological needs and that EL will be identified as an antecedent of how employees perceive the organizations values.

Theoretically, studying leadership as an antecedent of the perception of organizational values adds to the literature on leadership and values, which is still scarce (Yukl, 2012). Specifically, our study adds to the leadership literature and the emerging literature on EL in particular: While some studies provided preliminary evidence for the potential of (engaging) leaders to increase employee work engagement (Schaufeli, 2015), studies explaining the pathway through which this occurs yet remain limited (Rahmadani et al., 2019). The current study aims to show how this underlying effect might occur. Moreover, we add to the literature on SDT, and goal content theory in particular, by unraveling how perceptions of intrinsic and extrinsic contextual values may develop, which then impact employee well-being positively (van den Broeck et al., 2014). The role of value perceptions and subsequent need satisfaction as a mechanism adds to the literature of human resource development, by shedding light on the process of leadership practices that may foster autonomous regulation through psychological needs satisfaction (Manganelli et al., 2018).

From a methodological point of view, the adoption of a two-study approach allows us to replicate our results across samples in different business domains and the use of a longitudinal design in the second study allows to test...
for the directionality between EL and value perceptions. On a practical note, our study provides useful guidance for
day-to-day leadership, such as the importance of regularly entering into dialogue with employees on their value per-
ceptions and aspirations to facilitate the integration of individual value preferences with organizational values
Below, we will introduce the main building blocks of the current study. First, we will introduce SDT because it
forms the theoretical backbone of the study. Then we will explain EL and value perceptions.

2 | SELF-DETERMINATION THEORY

SDT is a macro-theory on the psychology of human motivation that seeks to understand the dynamics in social con-
texts and conditions that facilitate or hinder human well-being, personal growth, and flourishing (Deci & Ryan, 2000).
Numerous researchers from across the globe have contributed to the development and increasing popularity of SDT
over various disciplines, ranging from healthcare, education, sports coaching, parenting, developmental psychology,
and work organizations (Ryan & Deci, 2017).

SDT presupposes that human beings are active organisms that are naturally equipped for personal growth and
development in relation to their environment and integrate life experiences into a coherent sense of self (Deci &
Ryan, 2000). The work context, including the organization, people's colleagues, and leaders may foster this natural
tendency. When the work context is positive, nourishing, and supportive of the individual, it stimulates personal
growth and development, promotes well-being, and supports performance (Gagné & Deci, 2005). Conversely, a work
context that is overly dismissive, controlling, and commanding will impair human thriving (Gagné et al., 2014).
Various studies have explored the beneficial effects of an autonomy supportive work environment (Reeve, 1998) or
leadership style (Su & Reeve, 2010) and charted the different consequences in terms of work outcomes, employee
well-being, motivation levels, and engagement (van den Broeck et al., 2016).

The mechanism through which these positive outcomes come about has been identified as the satisfaction of
three basic psychological needs, autonomy, competence, and relatedness, which are as crucial for individual's psy-
chological functioning as water, food, and shelter are to function physically well (Deci & Ryan, 2000). Autonomy
refers to the experience of volition and the sense that one's actions are determined by his or her choices
(de Charms, 1968). Competence refers to the experience of a sense of effectiveness or competence in interacting
with one's environment and is mostly explained in reference to White (1959). Relatedness refers to the experience of
being loved and cared for by others (Baumeister & Leary, 1995). Employees who find their basic needs satisfied
entertain more meaningful relationships (Deci & Ryan, 2008), have a higher organizational commitment (Niemiec
& Spence, 2016), and show higher resilience (Vansteenkiste & Ryan, 2013). They also demonstrate creativity (Grant
& Berry, 2011) and enhanced work engagement (Meyer & Gagné, 2008). Additionally, they display a higher capacity to
self-motivate and self-organize (Spence & Deci, 2013), and tend to exhibit enhanced performance (van den Broeck
et al., 2016).

3 | ENGAGING LEADERSHIP

The construct of EL (Schaufeli, 2015) focuses on how leaders may support the satisfaction of basic needs. EL is
explicitly based on the SDT of human motivation and tags along on the yet emerging trend toward human-centered
(Global Commission on the Purpose of Work [ILO], 2019; Hamel & Zanini, 2020) or person-centered leadership
approaches (van der Mark, 2019).

The construct of EL distinguishes three clusters of leadership behaviors: empowering, strengthening, and con-
necting (Schaufeli, 2015). Empowering associates with autonomy satisfaction and emphasizes the need to create
space for employees to experience freedom and choice in how to engage in their work and with the organization.
Through empowering and autonomy support, leaders recognize the individual contributions of team members which induce positive work behaviors (Slemp et al., 2018). Engaging leaders actively involve employees in strategic decision-making and promote self-regulation and autonomy, without losing sight of the relevance of a context and structure that allows employees to feel safe and free (Edmondson & Lei, 2014).

**Strengthening** associates with the need for competence. Through strengthening, leaders support employees to self-develop and grow and optimally deploy their talents within the work environment (Deci et al. 2017). Building on strengths is preferred to correcting weaknesses (Rath & Conchie, 2008). Strengthening also recognizes the importance of making a difference and the wish to contribute to something beyond one’s immediate self-interest (Martela & Pessi, 2018). Through strengthening engaging leaders support employees to develop their skill-levels, to grow professionally and facilitate the joy of being good at something (Gagné & Deci, 2005; Pink, 2009). Engaging leaders acknowledge the importance of giving frequent feedback, particularly positive feedback, through which the need for competence is satisfied (Deci & Ryan, 2000).

**Connecting** aims to satisfy employees’ basic need for relatedness and promotes interpersonal relations, teamwork, team spirit, and facilitates collaboration between team members and across functions. By connecting their team members engaging leaders acknowledge the importance of meaningful, interpersonal, intimate relationships (Huyghebaert et al., 2018). Connecting supervisor behavior typically promotes the psychological safety employees need to speak up, voice concerns, and show themselves without any fear of negative consequences (May et al., 2004). Engaging leaders create an atmosphere of belongingness which supports employees in their development on both emotional and cognitive levels (Baumeister & Leary, 1995).

Together, these three aspects of EL are expected to relate to high-quality employee motivation and work engagement. A previous study on EL indicated an indirect effect on burnout and engagement via job demands and resources, as well as a direct impact on employability, performance, and commitment (Schaufeli, 2015). Later studies showed a positive association of EL with work engagement through the satisfaction of the basic psychological needs (Rahmadani et al., 2019) and their frustration (van Tuin, Schaufeli, & Van Rhenen, 2020), as well as positive effects on employee learning and innovative job behavior (Rahmadani et al., 2020), team job crafting (Mäkikangas et al., 2017), autonomy satisfaction, and social support (Nikolova et al., 2019). Additionally, a recent leadership intervention study showed that training managers in EL behaviors led to improved business results, lower absenteeism, and well-being (van Tuin, Schaufeli, Van Rhenen, & Kuiper, 2020).

Earlier studies within the domain of SDT identified certain leadership behaviors that satisfy basic psychological needs. In a meta study on SDT-based interventions, Su and Reeve (2010) identified five behaviors to promote employee autonomy: Provide meaningful rationales, acknowledge perspective and feelings, offer choice, nurture inner motivational resources, and use non-controlling language. Studies into the relationship between transformational leadership and work engagement showed that need satisfaction explains a large part of their relationship (e.g., Hetland et al., 2015). Transformational leadership behaviors, such as providing an inspiring mission and vision, or showing genuine concern for the personal needs of employees were found to satisfy basic needs (e.g., Kovjanic et al., 2012). Also, other leadership styles such as authentic leadership (Manganelli et al., 2018), leader-member exchange (Graves & Luciano, 2013), and charismatic leadership (Gilbert & Kelloway, 2014) were found to facilitate self-determination through need satisfaction.

Still there remains a concern about item overlap and redundancy between leadership concepts (Shaffer et al., 2016). Many leadership theories tend to distinguish the same or comparable leadership behaviors but put different labels on them (Yukl et al., 2002) and fail to add additional variance in outcomes (Hoch et al., 2016). Others explain overlap through the limited application of social psychological theories to substantiate leadership concepts (Derue et al., 2011; Shaffer et al., 2016). Van Knippenberg and Sitkin (2013) raised this concern about transformational leadership, but it also extends to other constructs such as authentic—(Avolio & Gardner, 2005) or ethical leadership (Brown & Treviño, 2006). Bormann and Rowold (2018) suggest that leadership constructs, such as transformational, authentic, or ethical leadership, can be described more parsimoniously with SDT as the underlying mechanism. The above consideration—despite the probable item overlap with other measures such as empowering
leadership (Amundsen & Martinsen, 2015) or the aforementioned constructs— influenced our decision to apply EL in the present study because it is based directly on SDT.

4 | VALUE PERCEPTIONS: INTRINSIC OVER EXTRINSIC

Values are guiding principles in our lives (Sagiv & Schwartz, 2000). The values of an organization and how these are perceived by employees have vast implications. For instance, research on value systems found support for the claim that values representing human growth needs such as self-direction, are positively associated with well-being (Sagiv & Schwartz, 2000). In SDT, such values are described as intrinsic and cluster around the importance of self-acceptance, affiliation, and community-feeling (Kasser & Ryan, 1993). Self-acceptance refers to aspirations on personal development, growth, and self-direction; affiliation means to capture the importance of meaningful and intimate personal relationships with family, friends, and colleagues; and community-feeling summarizes the desire to contribute to make the world a better place (Kasser & Ryan, 1993). SDT proposes that such intrinsic values are inherently valuable as they are closely associated with the individual's basic need satisfaction (Deci & Ryan, 2000).

In line with SDT, at the individual level, the benefits of intrinsic values comprise greater life-satisfaction (Sheldon & Krieger, 2014) and less depressive symptoms (Ling et al., 2016). Similar beneficial effects prevail when people see intrinsic rather than extrinsic values being promoted in their environment (Rigby & Ryan, 2018). Intrinsic values at the team level were found to positively associate with the level of work engagement of the individual team members via the satisfaction of basic psychological needs (Schreurs et al., 2014). Also, perceived organizational support of intrinsic values facilitated employees to experience the organization as supportive and committed to their further development, and induced lateral and upward employability, stimulating retention and commitment (van den Broeck et al., 2014). Even at the country level, the perceived importance attached to intrinsic and extrinsic values seems to have an impact: in countries where intrinsic values abound, youngsters are happier, healthier, and more satisfied with life (van den Broeck et al., 2019). Beyond the direct impact of value orientations, Vansteenkiste et al. (2007) found that basic need satisfaction mediated the relation between value orientations and these job outcomes. Hence, it is to be expected that the perception of value orientations of the organization will also impact employees’ well-being through the satisfaction of basic psychological needs.

In contrast, extrinsic values focus on the achievement of financial success, power, and status (Deci & Ryan, 2000). Financial success refers to the aspiration to achieve wealth and material success, (Kasser & Ryan, 1993); power refers to attaining a higher hierarchical position and an appealing image (Vansteenkiste et al., 2007); and status refers to obtaining social recognition (Kasser & Ryan, 1996). Extrinsic values are contingent upon the approval of others and lead people away from those activities that are inherently need-satisfying. When extrinsic aspirations outweigh intrinsic orientations, individuals report lower levels of personal and physical well-being, such as higher emotional exhaustion, short-lived satisfaction after goal-attainment, increased turn-over intentions (Vansteenkiste et al., 2007), and adverse work motivation (Kasser, 2016).

In line with the propositions of SDT and the empirical literature reviewed above, we propose the following hypothesis:

**Hypothesis 1.** (a) Perceived intrinsic value orientations are positively associated with needs satisfaction and work engagement, whereas (b) perceived extrinsic value orientations are negatively related with needs satisfaction and work engagement.

We argue that employees’ perception of the values of the organization is likely to be affected by how leadership is being perceived (Van Knippenberg, 2018). Burns (1978) maintains that good leaders forge relationships based on mutual needs, aspirations, and values; good leaders help employees find meaning and meaningfulness in their work (Martela & Pessi, 2018) and, through work itself, employees may contribute to a broader purpose (Iliess et al., 2005; Martela, 2017; Ryan et al., 2008). Furthermore, good leaders support employees’ desires for self-development and growth (Amabile & Kramer, 2012) and those leaders create the necessary psychological safety to speak out freely.
without repercussions (May et al., 2004). Good leadership also acknowledges that people are more generous and ethically inclined than economic theory has taught for decades (Bowles, 2016).

Studies into value perceptions in other life domains confirmed that environmental factors, such as support through parent’s goal orientations (Duriez et al., 2007), or goal framing in educational settings (Vansteenkiste et al., 2008) influence value perceptions (van den Broeck et al., 2019). Furthermore, in value orientations research, psychological needs are found to explain the effects of values on outcomes (e.g., Niemiec & Spence, 2016; Schreurs et al., 2014; Vansteenkiste et al., 2007).

In the current study, we expect that EL relates positively with work engagement through influencing employee perceptions of the organizational values and the subsequent fulfillment of basic needs (e.g., Schreurs et al., 2014; van den Broeck et al., 2014; Vansteenkiste et al., 2007). Managers who are aware of their employees’ value preferences, who acknowledge these values, and engage in an open dialogue on value preferences are found more successful in implementing a value-based change strategy (Mankoff, 1974). When the goals and values of the organization and the employee converge high-quality motivation is served (Rigby & Ryan, 2018). And employees in departments with clearly defined and communicated organizational values feel more involved in the organization and decision-making and display more participatory behaviors (Fitzgerald & Desjardins, 2004). Hence, in the present study it is presumed that.

**Hypothesis 2.** Engaging leadership is (a) positively related with perceived intrinsic value orientations of the organization, and (b) negatively associated with perceived extrinsic orientations.

Given the aforementioned hypotheses, we expect also the following:

**Hypothesis 3.** The relationship between engaging leadership and work engagement is mediated by the employee perception of intrinsic organizational value orientations and need satisfaction.

These three hypotheses are tested in two studies. Study 1 ($N = 436$) was designed as a cross-sectional self-report study. Beyond testing the hypotheses, the aim of this first study also was to specify a robust, parsimonious structural model identifying a path from leadership via perceptions of organizational value orientations and needs satisfaction to work engagement (see Figure 1). For the second study ($N = 69$), we adopted a longitudinal design using measurements over three time-points (see Figure 4) testing the crossed-lagged relations of EL with perceptions of value organizational value orientations, need satisfaction, and engagement and examining directionality (see Figure 5).

5 | STUDY 1

5.1 | Method

5.1.1 | Participants and procedure

Data were gathered from employees of two separate back-office departments (i.e., supply chain management and enterprise information management) of an international manufacturing organization in health systems in Europe. Participants were notified through their direct supervisors; they would receive an invitation from their department heads to fill out an online questionnaire on how they experienced leadership and its effect on motivation. Invitations were sent to 159 and 277 employees of the two departments, respectively, (436 in total) of which 123 and 127 surveys were completed, respectively, resulting in an overall response rate of 57%. A complete measurement invariance test was conducted to examine if the data of the two back-office departments could be pooled following the procedure by van de Schoot et al. (2012). The $p$-values for the compared models (configural, metric, scalar) were all $>0.05$, indicating that the two populations did not significantly differ on the survey items and confirming that the data could
be pooled. In total, 60% of the respondents were male and 40% were female. The average age was 41.93 years (SD = 10.46); 61% of all respondents worked four years or less in their current jobs and 17% worked over 10 years in their current jobs. Most employees (81%) were employed full-time, of which 4% had a temporary contract, and 19% worked part-time (<32 h per week) of which employees 7% had a temporary contract.

5.1.2 | Instruments

Work engagement was assessed using the nine-item version of the Utrecht Work Engagement Scale (UWES, Schaufeli et al., 2006). It measures vigor, dedication, and absorption. Examples of items are “At my work, I feel bursting with energy” (vigor), “I am enthusiastic about my job” (dedication), “I feel happy when I am working intensely” (absorption). Following Schaufeli et al.’s (2006) recommendations one common factor for engagement was used ($\rho_C = 0.89$, average variance extracted—AVE $= 0.74$).

EL was measured with the nine-item EL scale as developed by Schaufeli (2015). It includes the aspects of strengthening (e.g., “At work, my supervisor encourages team members to develop their talents as much as possible.”), connecting (e.g., “At work, my supervisor promotes team spirit.”), and empowering (e.g., “At work, my supervisor gives team members enough freedom and responsibility to complete their tasks.”), which were measured as one common factor. Responses were measured on a five-point Likert scale, ranging from 1 (completely disagree) to 5 (completely agree). Reliability for the applied measures was estimated with composite reliability or congeneric reliability ($\rho_C$; Cho, 2016), which typically is computed in combination with structural equation modeling (Peterson & Kim, 2013). Additionally, AVE was reported indicating the amount of variance explained by the latent variable relative to measurement error. The reliabilities for EL were $\rho_C = 0.93$, AVE $= 0.64$.

Basic psychological needs satisfaction was measured with the scale as developed and validated by Sheldon and Hilpert (2012). The scale comprises nine needs satisfaction items and measures the needs of autonomy, competence, and relatedness with three items each. An example of an item for autonomy satisfaction ($\rho_C = 0.82$, AVE $= 0.61$) is: “My choices express my true self.”. For competence satisfaction ($\rho_C = 0.84$, AVE $= 0.63$) this was: “I do well, even at the hard things.”; And example for relatedness satisfaction ($\rho_C = 0.82$, AVE $= 0.61$) is: “I feel close and connected with other people who are important to me.”

The employee perception of the organization’s value orientation was measured in terms of intrinsic values and extrinsic values and consisted of four items each, following the structure and wording of value orientations as described by van den Broeck et al. (2014). Specifically, the introduction to the items was: “Organizations signal various values. To what extent do you agree with the following statements? In the organization where I work it is important ...” The items for intrinsic orientations ($\rho_C = 0.87$, AVE $= 0.63$) covered the themes of care, contribution, challenge, and growth (e.g., “that colleagues care about each other and support each other?”), and for extrinsic orientations ($\rho_C = 0.89$, AVE $= 0.74$) the themes were image, power, financial success, and influence (e.g., “to have a prestigious position.”).

5.2 | Results study 1

5.2.1 | Preliminary analysis

Missing data and outliers
In preparing the dataset for analysis, the data were first checked for missing values and outliers following the recommendations by Aguinis et al. (2019). Little’s MCAR test (Missing Completely at Random, Little & Rubin, 2002) indicated that MCAR was not violated ($\chi^2[353] = 347.85$, $p = 0.57$). Some outliers were identified, three of which had potential leverage, and were removed from subsequent analyses.
Then, the means, standard deviations, and intercorrelations between the variables were examined (see Table 1). The correlations of EL with employee perception of intrinsic organizational value orientations were positive, as were the bivariate correlations with the separate needs, and work engagement. Interestingly, the correlations with extrinsic orientations were mostly weak, although extrinsic orientation correlated significantly with relatedness satisfaction.

**Structural model evaluation**

The model (Figure 1) comprised EL, the perceived intrinsic and extrinsic measures, the separate constructs for autonomy, competence, and relatedness, and work engagement and its parameters were estimated through structural equation modelling. The latent variables in the structural model were simultaneously tested with their respective items in a parallel multiple mediation design. The estimator for the mean- and variance adjusted likelihood ratio was set to the MLMV test statistic following Maydeu-Olivares (2017). To evaluate the model parameters and fit with the data, we used a range of fit indices (Kline, 2016). The test of the hypothesized model, considering its complexity, had an acceptable fit: \( \chi^2 (333) = 407.16, p < 0.001, \chi^2/df = 1.22, \) RMSEA = 0.03, 90% confidence interval—CI [0.018, 0.040], CFI = 0.94, SRMR = 0.07 and explained 57.4% of the variance in work engagement.

5.2.2 | **Hypothesis testing**

Hypothesis 1 stated that (a) perceived intrinsic value orientations of the organization are positively associated with needs satisfaction and work engagement, whereas (b) perceived extrinsic value orientations are negatively related with needs satisfaction and work engagement. As shown in Figure 2, intrinsic value orientations indeed related positively with each of the separate need satisfaction constructs and work engagement, although not all path coefficients were significant. The standardized regression coefficients to autonomy (\( \beta = 0.39, p < 0.001 \)) and relatedness (\( \beta = 0.33, p < 0.001 \)) were both positive and significant, whereas the path coefficients to competence and work engagement were nonsignificant. The path coefficients from extrinsic orientations to the separate need satisfaction constructs were all nonsignificant. Hence, Hypothesis 1a was partly supported by the data but 1b was not supported.

Hypothesis 2 predicted that (a) EL is positively related with intrinsic value orientations and (b) negatively associated with extrinsic orientations. The standardized regression coefficient from EL to intrinsic value orientations (Figure 2) was positive and significant (\( \beta = 0.47, p < 0.001 \)), while the path to extrinsic values was nonsignificant (\( \beta = −0.11 \)). Hypothesis 2a was supported and Hypothesis 2b was only partly supported.

### Table 1  Means, SDs, and intercorrelations

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>EL</th>
<th>INO</th>
<th>EXO</th>
<th>AS</th>
<th>RS</th>
<th>CS</th>
<th>WE</th>
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<td>EL</td>
<td>3.89</td>
<td>0.74</td>
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<tr>
<td>INO</td>
<td>3.77</td>
<td>0.74</td>
<td>0.41***</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>EXO</td>
<td>2.97</td>
<td>0.81</td>
<td>−0.10</td>
<td>−0.28***</td>
<td>1</td>
<td></td>
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<tr>
<td>AS</td>
<td>3.66</td>
<td>0.67</td>
<td>0.41***</td>
<td>0.39***</td>
<td>−0.05</td>
<td>1</td>
<td></td>
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<tr>
<td>RS</td>
<td>3.62</td>
<td>0.57</td>
<td>0.20**</td>
<td>0.24***</td>
<td>−0.14**</td>
<td>0.29***</td>
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<tr>
<td>CS</td>
<td>3.93</td>
<td>0.54</td>
<td>0.19**</td>
<td>0.10</td>
<td>0.02</td>
<td>0.35***</td>
<td>0.23***</td>
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<td>WE</td>
<td>4.82</td>
<td>0.97</td>
<td>0.38***</td>
<td>0.38***</td>
<td>−0.04</td>
<td>0.56***</td>
<td>0.20**</td>
<td>0.32***</td>
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Note: \( n = 247 \). p-values (two-tailed): *<0.05, **<0.01, ***<0.001.

Abbreviations: AS, autonomy satisfaction; CS, competence satisfaction; EL, engaging leadership; EXO, perceived extrinsic value orientations; INO, perceived intrinsic value orientations; RS, relatedness satisfaction; WE, work engagement.
FIGURE 2 Measurement model with standardized path coefficients and significance. Estimation of the data resulted in the depicted standardized path coefficients. The direct relationship between work engagement and engaging leadership was not significant ($\beta = 0.06$) and is not portrayed. Significances are indicated with $^*<0.05$, $^{**}<0.01$, $^{***}<0.001$.

FIGURE 3 Trimmed and resulting model. The trimmed model portrays a multiple mediation from engaging leadership to work engagement via perceived intrinsic values and autonomy satisfaction. Both the perceived intrinsic values of the organization and experienced autonomy satisfaction contribute to the variance in work engagement.
Hypothesis 3 predicted that the relationship between EL and work engagement is mediated by intrinsic value perception and need satisfaction. To test this hypothesis, we started from the parallel multiple mediation analysis, which included the two value perceptions and the separate basic psychological needs (Figure 2), which specification had reasonable model fit. Then, a few consecutive steps were followed to trim the model to establish a parsimonious, research model replicating the outcomes of study 1. Replicating the resulting model from study 1 three models were compared. The straight arrows in the picture represent model 1. For model 2, the dotted arrow to autonomy satisfaction was added. For model 3, this was the dotted line to work engagement. These three models represent the paths as depicted in Figure 3.

Figure 4. Key to the arrows indicating the models tested for comparison of fit with the data.

Model 1  
→
Model 2  
--→
Model 3  
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Figure 5. The crossed and lagged panel model to test directionality from engaging leadership (EL) to intrinsic value orientations. Cross-lagged panel model testing directionality from EL to perceived intrinsic value orientations over three timepoints.

Hypothesis 3 predicted that the relationship between EL and work engagement is mediated by intrinsic value perception and need satisfaction. To test this hypothesis, we started from the parallel multiple mediation analysis, which included the two value perceptions and the separate basic psychological needs (Figure 2), which specification had reasonable model fit. Then, a few consecutive steps were followed to trim the model to establish a parsimonious,
indirect and direct, path from EL to work engagement. It was decided to eliminate free parameters on the basis of theory (Kline, 2016) which resulted in firstly eliminating extrinsic orientations, because value orientations theory predicted that employees prefer intrinsic orientations over extrinsic values (Kasser, 2002). The next, more rigorous, step was to eliminate the paths to and from the constructs of relatedness and competence. The rationale for this step was provided by the theoretical consideration that autonomy satisfaction may precede experienced competence and relatedness (Ryan & Deci, 2017). This resulted in the following fit information:

\[ \chi^2(129) = 150.42, \quad p = 0.10, \quad \chi^2/df = 1.17, \quad \text{RMSEA} = 0.026, \quad 90\% \text{ CI}[0.000, 0.042], \quad \text{CFI} = 0.98, \quad \text{SRMR} = 0.04. \]

The lower bound at zero of the RMSEA CI indicates a close fit (Kline, 2016). To illustrate the outcome, Figure 3 was drawn, depicting the resulting multiple mediation model (see also Table 2), the standardized path coefficients, and the total variance explained \( R^2 = 55.4\% \).

The relationship between EL and work engagement is mediated by intrinsic value orientations in support of Hypothesis 3, but from the three basic needs, only autonomy satisfaction mediated the relationship between leadership and engagement.

### 6 | STUDY 2

The aims of study 2 were twofold: to corroborate the model that resulted from the cross-sectional analysis in study 1 (Figure 3) and to test potential directionality from EL to intrinsic value orientations. It would strengthen the association between leadership and values if the resulting model from study 1 would hold over three time-points, with an independent group of respondents from another organization. The research model, as depicted in Figure 4, was designed to replicate the resulting model of study 1. Testing the directionality from EL to intrinsic value orientations aimed to rule out the alternative hypothesis that value perceptions would influence how EL is perceived, and was tested in a crossed- and lagged panel model (CLPM) design as depicted in Figure 5.

### 6.1 | Method

#### 6.1.1 | Participants and procedure

The participants in study 2 were engineers from the technical function of a European manufacturer in automotive industry. The education level of the engineers was high; 77.8% had a bachelors-, Masters-degree, or PhD. A total of
69 respondents, of which 89% were male, completed the survey at all three waves. Participants were invited to participate by the department head through email and a short personal introduction by group leads. The average age of respondents was 44 at Wave 1, SD = 10.61. At wave 1, 72 invitations were distributed and at wave 3 in total 75 employees were invited, because the department employed three more engineers. The response rate at wave 1 was 96%, and 92% at wave 3, which high completion rates were due to the dedication and engagement of the department head and his associates, who had the outspoken ambition to increase work engagement over time. The department initiated periodic surveys to track progress over time. As a result, three 1-year-interval surveys were administered which were accessed and completed online. The survey comprised all measures at each wave.

6.1.2 | Instruments

EL, perceived intrinsic value orientations, and work engagement were measured with the same scales as in study 1. Autonomy satisfaction was measured with four items from the basic need satisfaction scale by Chen et al. (2014). An example of two of the items is “I feel a sense of choice and freedom in the things I undertake,” and “I feel my choices express who I really am.” Reliability for the applied measures was estimated with congeneric reliability (Cho, 2016); additionally AVE was reported. For all the applied measures over each of the three waves, congeneric reliability was $\rho_c \geq 0.79$ and AVE was $\geq 0.51$.

6.2 | Results

6.2.1 | Preliminary analysis

The model had 19 variables across three waves, 57 in total and overall 2.57% of the data were incomplete. Little's MCAR test indicated that the data were missing completely at random: $\chi^2(279) = 256.58, p = 0.83$. Two outliers were detected with scores above the norm value of 4/n, but it was decided to keep them because leverage was limited. The data were estimated with longitudinal structural equation modelling. The model was specified as a CLPM. To support model selection, we used the Akaike Information Criterion (AIC) and the Bayesian Information Criterion (BIC) (Vrieze, 2012). Additionally, the chi-square with the degrees of freedom and significance are reported, together with the normed chi-square, the RMSEA and its 90% CIs, CFI and SRMR (Kline, 2016).

6.2.2 | Analysis

A known issue with crossed and lagged panel modeling is it does not distinguish between- and within-person variances, which may lead to spurious results if it turns out there were enduring trait-like individual differences over the subsequent waves (McArdle & Nesselroade, 2014). The random intercept CLPM (RI-CLPM, Hamaker et al., 2015) mitigates this issue by separating the within-person differences from the between-person variances through testing the model with random intercepts. Hence, the first step in the analysis of the three waves was to test whether the within-person variances were significant. The analysis indicated, however, that the within-person variances were nonsignificant ($p > 0.05$), implying the model could be estimated with the standard CLPM procedure.

Then the three models as depicted in Figure 4 were estimated separately. First, the crossed and lagged effects were specified, wave 1 was made endogenous, and the residuals at the subsequent waves were allowed to covary. The outcomes indicated that model 1 in Figure 4 fitted the data best: The delta in AIC and BIC between model 1–2 was $\Delta$AIC = 5.30, $\Delta$BIC = 12; model 1–3 was $\Delta$AIC = 6.75, $\Delta$BIC = 17.92; model 2–3 $\Delta$AIC = −1.45, $\Delta$BIC = −5.92; De fit indices for model 1 indicated: $\chi^2 (33) = 26.24, p = 0.64$, $\chi^2/df = 0.80$, RMSEA = 0.00, 90% CI [0.00, 0.06],
CFI = 1.00, SRMR = 0.06. To illustrate the outcomes of the model comparison Figure 6 was drawn, plotting the outcomes of the present test of the model that resulted from study 1, where the bolded connectors represent the outcomes of study 1 and suggest a preferred direction of the leadership model. However, to evaluate the directionality between EL and intrinsic value orientations a crossed and lagged analysis should be conducted, testing both \((X_1 \rightarrow Y_2)\) and \((Y_1 \rightarrow X_2)\) over the three waves.

### 6.2.3 Testing directionality

To estimate directionality, the cross-lagged paths from EL and employee perceptions of intrinsic perceptions were added to the model as depicted in Figure 5. It was decided to test the stability of the means across time through constraining the means for intrinsic orientations at wave 1. A regular cross-lagged model gives the means at wave 1 and the intercepts for the subsequent waves, assuming the means to be constant over time by ignoring them and fitting the model to covariances only (McArdle & Nesselroade, 2014). The analysis revealed, however, that the means for intrinsic value perceptions were lower at the first wave than at the subsequent waves, which was expected and in

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**Figure 6** Plotting study 2 on the outcomes of study 1. The bolded connectors between the constructs depict model 1 (Figure 4). When plotted on the outcomes of the first study, a specific directionality in the model is suggested. The standardized path coefficients depicted and variance explained are those found in study 1.

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**Figure 7** Cross-lagged panel model for engaging leadership (EL) and intrinsic value perceptions. The cross-lagged effects between the grand mean centered variables indicate a directionality from EL to employee perceptions of the organizational value orientation \((\rho = 0.20^*, 0.22^*)\) and not vice versa.
line with the outspoken ambition of the department. Next, in order to include the constraints on the means in the CLPM (again following Hamaker et al., 2015), grand mean centered variables were created to estimate the means of the observed variables instead of just the means at wave 1 and intercepts at waves 2 and 3. The grand mean centered variables were allowed to be correlated at the first wave and the residuals were allowed to be correlated at the subsequent waves. The outcomes are shown in Figure 7. Evaluating the significant path coefficients from EL to intrinsic value perceptions ($\beta = 0.20, p < 0.05$ and $\beta = 0.22, p < 0.05$) and the nonsignificant paths from intrinsic value perceptions to EL ($\beta = -0.09$ and $\beta = -0.06$) confirmed the directionality from EL to intrinsic value perceptions.

7 | DISCUSSION

The present study examined the associations of EL with employees’ perceptions of the organization as promoting intrinsic or extrinsic values and the subsequent associations with work engagement via need satisfaction. Across two studies using a cross-sectional and a longitudinal design, our results show that EL associates with work engagement via perceived intrinsic organizational values and satisfaction of the need for autonomy (Hypotheses 2a, 3), while EL associated negatively with extrinsic value perceptions (Hypothesis 2b). Furthermore, the CLPM analysis indicated specific directionality from leadership to perceived intrinsic values identifying EL as an antecedent to employees’ intrinsic value perceptions, rather than the other way around. Furthermore, employee perception of intrinsic organizational value orientations associated positively with needs satisfaction and engagement (Hypothesis 1a). Contrary to what we expected, extrinsic value orientations did not associate negatively with the separate need satisfaction measures (Hypothesis 1b).

The contribution to knowledge development on positive leadership and the relatively new concept of EL is threefold. First, we found that EL can be considered as an antecedent to intrinsic value perceptions, which is relevant because it adds the dynamic of values to this leadership concept and adds to the positive effects that paying attention to values may generate through autonomy satisfaction.

Second, and answering to Inceoglu et al.’s (2018) call, the present study sheds some light on the underlying process that may explain the relationship between EL and resulting work engagement. We found that need satisfaction, as described in SDT, offers relevant explanatory power in explaining the effects of EL. The structural model that we tested (from EL to work engagement via intrinsic value perceptions and autonomy satisfaction) explained 55.4% of the variance in engagement—when all three basic needs were modeled, even 57.4%. Nevertheless, the only identified mediational effect was for satisfaction of the need for autonomy. Although this does not deny the relevance of competence and relatedness, it highlights the specific role satisfaction of the need for autonomy may play in the system of needs (Ryan & Deci, 2017; van den Broeck & Ferris, 2016). These results expand previous studies finding that basic psychological needs mediate the relations between transformational leadership (Bass, 1985) and work engagement (e.g., Kovjanic et al., 2012; Hetland et al., 2015) and between EL (Schaufeli, 2015) and work engagement (Rahmadani et al., 2019). Moreover, the central role of the need for autonomy, linking leadership, and work engagement in the current study, adds to the discussion on the modernization of requisite leadership competencies in traditional HRD approaches that tend to be more leader-centric rather than focused on employee needs (Fowler, 2018). Our findings support that modernization discussion, in which leaders are challenged to acquire new competencies in motivating employees based on the SDT of motivation.

The third contribution of this study is the relationship between leadership and intrinsic values, of which Yukl (2012) reported that it had been scarcely studied. Considering the directionality of the association between leadership and values, and the subsequent effects on need satisfaction and engagement, we argue that values and value perceptions are essential ingredients for exemplary leadership and are worthy of more attention in leadership studies and human resource development. Specifically relevant for the HRD domain, the current study underscores the importance of addressing value perceptions in supervisor-employee interactions because the quality of that interaction impacts how values are perceived (cf. Manganelli et al., 2018; Van Knippenberg, 2018).
In general, the results of this study suggest that engaging leaders contribute to employees’ need satisfaction and work engagement through paying active and caring attention to intrinsic values. Good leadership and the intrinsic values of care, contribution, challenge, and growth go hand in hand, which implicitly hints to moral aspects of good leadership. Leadership concepts, such as transformational leadership (Bass, 1985), authentic leadership (Avolio & Gardner, 2005), and ethical leadership (Kalshoven et al., 2011) all stress the need for high moral and ethical behavior of leaders in organizations (cf. Gardner et al., 2005). Various researchers have identified specific leadership characteristics contributing to positive outcomes, e.g., authenticity and self-awareness in authentic leadership (Walumbwa et al., 2008), or integrity and genuine care in ethical leadership (Brown & Treviño, 2006). However, despite the positive impact of such attributes on the motivation and performance of employees (Gardner & Schermerhorn, 2004), and despite all the good great leaders accomplish, leadership theory remains leader-centric and performance oriented; it is about the attributes and nobility of the leader and the positive outcomes leadership may produce.

The current study reveals how employees perceive the organization’s values and, without aiming to be complete, which value orientations (intrinsic rather than extrinsic) leaders should heed to foster work engagement. In the present study, EL was found to positively associate with the perceived intrinsic value orientations of the organization. Our results suggest that leaders should be concerned with how their leadership is perceived, which points to a potential values gap between a leader-centered- versus a more employee-centered approach, such as EL.

The potential values gap can be elucidated as follows. Employees bring their values to the workplace and through interacting with colleagues, peers, and managers in the organization, they will both express their values, and take in and adjust to the social norms and practices of the organization (cf. Burns, 1978, p. 428; Fukuyama, 2018, p. 56; Taylor, 1991, p. 29). We speculate that organizational culture is too much the playground of boards of management (leader-centered) and too little the birthplace of generative dialogue between employees and leaders in the organization (employee-centered); dialogues on what values they share, what futures they envision, how they may organize best, and what aspirations they hold (Denning & Dunham, 2010; Vogt, 2009). Instead, boards generally emphasize and communicate the values of the organization to demarcate and justify boundaries, to direct employees to comply with these boundaries, to attract new hires who fit the profile, and to sustain a certain public image (Mackey & Sisodia, 2014; Sagiv & Schwartz, 2007). Employees will inadvertently reproduce the culture of the organization in their behavior through systemic pressure (Kofman, 2006), despite the different value preferences they may privately hold. Previous studies (Meglino et al., 1989; Sagiv & Schwartz, 2000) showed that individuals experience an increased well-being when they can bring their own value orientations in line with how they perceive their environment. Meglino et al. and Sagiv and Schwartz both describe this phenomenon as value congruence and also found positive effects on job satisfaction and organizational commitment. When leaders in the organization are capable of positively influencing and aligning organizational values with how these values are perceived by employees, positive effects on work engagement can be expected.

### 7.1 Limitations

The present study has some limitations. The first limitation is the cross-sectional design of study 1. However, in developing this study, we followed the suggestions and instructions laid out by Spector (2019) about optimizing the use of cross-sectional designs (e.g., first exploring this relation) and further examined the directionality of the relations in the second longitudinal study.

A second limitation was that participants in the first study were selected from one organization specializing in research, design, production, delivery, and maintenance of health systems. The organization has its specific organizational culture, as all organizations do, and we could not control for corporate culture. Other types of organizations have different value systems which may impact the outcomes. To counterbalance this, we conducted the second longitudinal study among respondents from another organization, in another business with another organizational culture. The respondents of study 2 were engineers overseeing complex mass-production processes, whereas the
respondents in study 1 were business information analysts and order-managers. Despite its firm roots in a well-established theory of human motivation, the measure of EL is relatively new and cannot draw on a wealth of studies. Nevertheless, a growing body of research has been conducted, under which: a diary study investigating the impact of EL on daily team job-crafting (Mäkikangas et al., 2017); a crossed and lagged panel study into the relationships with autonomy, social support, learning opportunities, and engagement (Nikolova et al., 2019); mediational analyses on the role of basic psychological needs satisfaction (Rahmadani et al., 2019) and needs frustration (van Tuin, Schaufeli, & Van Rhenen, 2020); an intervention study on the impact on business results and well-being (van Tuin, Schaufeli, Van Rhenen, & Kuiper, 2020). Another aspect is the more general issue of construct proliferation in leadership research (Shaffer et al., 2016). Several authors point to item overlap and redundancy issues (e.g., Hoch et al., 2016). For this paper, we followed the suggestions of Bormann and Rowold (2018). The authors suggest that leadership constructs can be described more parsimoniously with SDT as the underlying mechanism. We selected EL because it draws on this theory and, hence, is based on social psychological theory.

Given that the second study only included a limited number of respondents, it would be interesting to expand our results to other organizations and to test their generalizability to organizations holding values diverging from mainstream corporate culture. Recent studies have documented organizations where intrinsic values, such as making a contribution to make the world a better place, are an integral part of the culture. For an overview of such companies see, for example, Laloux (2014) and Sisodia and Gelb (2019).

7.2 | Implications for practitioners

Despite the limitations mentioned above, the current study holds valuable suggestions for practice. In the day-to-day leadership practice, we suggest regularly enter into dialogue on values with employees, collectively and individually. Leadership development programs in the HRD practice should teach skills and competencies how to lead and facilitate these conversations in a dialogical way. It is important to know how employees perceive the organization’s values. Before handing over the firm’s values statement, one should ask employees about their personal values, how they see themselves, what they aspire, and what they wish to contribute to the company’s goal. The dialogue about the employees’ value preferences, the organization’s values, and the broader organizational goal can help employees identify with the firm’s aspirations. Through meaningful and fulfilling dialogue, they may find ways to contribute to its realization. Fowler (2018) presents some practical questions (pp. 192, 193) to support the general satisfaction of the needs for autonomy, competence, and relatedness, but they also apply when exploring value orientations in leadership development.

The dialogue on values may increase need satisfaction and work engagement. Well-known results from higher work engagement are increased well-being, motivation, performance, and even better business performance (Schaufeli, 2012; Schneider et al., 2018). For the dialogue to be productive, a process of deep listening, curiosity, and open questions in an atmosphere of psychological safety is a necessary precondition (Edmondson & Lei, 2014). Support from the top of the organization adds credibility to the generative exchange of thoughts and values. Nevertheless, midlevel managers represent the organization, and it is on that hierarchical level most employees interact with the organization’s leadership (Gartenberg et al., 2016). It is a good habit in building strong teams to check-in with each other regularly on subjects beyond the scope of operational tasks and requirements. Meaningful exchanges between colleagues known to build the strongest bonds are about matters of the heart (Fredrickson, 2013). Leaders who dare to open and facilitate such conversations are generally found to lead high-performance teams (Duhigg, 2016). Topics in needs and values employees care about deeply and which were examined in the current study concern: (a) their level of autonomy, self-direction, and involvement; (b) the quality, depth, and care in interpersonal relationships; (c) making a meaningful contribution to something of value; (d) to be challenged in interesting ways; (e) to be offered opportunities for growth; and self-development.
The present study tested the association of EL with employees' perceptions of the organization's values, subsequent need satisfaction, and work engagement. EL related positively with the intrinsic values orientations of care, contribution, challenge, and growth over extrinsic orientations of status, power, and financial success. Leaders that pay close attention to their employees' intrinsic value preferences are likely to satisfy basic psychological needs and foster higher work engagement.

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