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Does thinking of myself as leader make me want to lead? The role of congruence in self-theories and implicit leadership theories in motivation to lead

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ABSTRACT

The paper focuses on antecedents of leadership self-efficacy and motivation to lead. We propose that the congruence between how individuals see leaders in general (implicit leadership theories) and how they see themselves (implicit self-theories) on different characteristics, is related to leadership self-efficacy and indirectly to motivation to lead. We surveyed 497 individuals at two time points. For two dimensions of implicit theories, (dynamism and integrity), we found that congruence at a high level is important for leadership self-efficacy. For the dimensions of clever, dynamism, and integrity, we found that leadership self-efficacy was higher when individuals thought that they were higher on these characteristics than leaders in general. For manipulation, neither congruence nor incongruence was related to leadership self-efficacy. Our results further suggest that leadership self-efficacy mediates the significant direct effects of congruence in implicit leadership theories / implicit self-theories and motivation to lead. Our results demonstrate the importance of understanding the congruence or incongruence of views about leaders in general and the self, and highlight the importance of taking into account the different dimensions of implicit leadership theories / implicit self-theories to be better able to predict motivation to lead.

Keywords: Motivation to lead, leadership, self-efficacy, implicit leadership theories

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1. Introduction

Leadership emergence and the assessment of the attributes and behaviors that predict wanting to take up a leadership position is an important, longstanding but relatively neglected area of leadership research (Foti & Hauenstein, 2007). However, in terms of organizational practice, there is a need to tap into the pool of potential leaders to ensure that the best people are selected for future leadership positions. In order to do so, talented employees need to put themselves forward for leadership positions, feeling able to lead and willing to lead.

DeRue and Ashford (2010) postulated that individuals feel more able and willing to lead when they see themselves as similar to their images of effective leaders (implicit leadership theories, ILT, e.g., Eden & Leviatan, 1975). Yet, previous research into motivation to lead has mainly focused on the importance of individual differences, such as personality, values, and leadership experience (e.g., Badura, Grijalva, Galvin, Owens, & Joseph, 2020; Chan & Drasgow, 2001). In doing so, research has assumed that motivation to lead is inherently driven by our individual characteristics, irrespective of what we believe leaders to be or how we perceive ourselves in relation to leaders. In this study, we go beyond individual differences and explore how cognitive representations of leaders, and more specifically, the relationship between how we perceive leaders and how we perceive ourselves affect whether we feel able and willing to lead.

Cognitive representations of leaders are lay people's stereotypes of leaders, labelled implicit leadership theories (ILT, e.g., Schyns & Schilling, 2011). ILT consist of several characteristics describing leaders in general on a number of dimensions such as intelligence, dedication, or tyranny (Offermann, Kennedy, & Wirtz, 1994). While very little is known about the implications of ILT and its dimensions on feeling able or motivated to lead, there is

a growing understanding that cognitive representations of leaders and of the self (e.g., seeing oneself or seeing leaders as intelligent, dedicated, or tyrannical) are an important part of individuals' development as a leader (Lord & Hall, 2005; Van Knippenberg & Hogg, 2003; Van Knippenberg, Van Knippenberg, De Cremer, & Hogg, 2004). For example, scholars have emphasized the role of self-views in the process of leader development (Day & Dragoni, 2015) and leadership training (Leung & Sy, 2018), as well as the role of implicit leadership theories for leader and leadership development (Schyns, Kiefer, Kerschreiter, & Tymon, 2011). Hence, both cognitive representations of leaders and of the self have been related to leader development. We go a step further and propose, in line with DeRue and Ashford's (2010) untested assumption, that the congruence between how individuals see leaders in general (implicit leadership theories, ILT; e.g., dynamic) and how they see themselves (self-views or implicit self-theories, IST; e.g. not dynamic) is likely to relate to leadership self-efficacy and subsequently motivation to lead.

We extend the notion of congruence resulting in four theoretically relevant types of in/congruence[i] between ILT/IST dimensions. In doing so, we draw on theory and research on ILT (Eden & Leviatan, 1975; Lord, Foti, & de Vader, 1984) as well as on self-schema approaches (e.g., Cross & Markus, 1994). We suggest that individuals hold similar representations about their own dispositional characteristics and that the alignment of leader (ILT) and self- representations (IST) is relevant for the degree to which individuals are able and willing to lead. We argue that individuals who experience congruence between their ILT and IST on a high but not a low level are more motivated to lead, because the congruence of ILT and IST suggests to them that they are able to lead. In addition, individuals whose IST are higher than their ILT rather than the other way round, are more motivated to lead as they feel better suited to lead than the average leader.

Recent research has started to pave the way for understanding the notion of IST in relation to ILT and its relevance for motivation to lead (e.g., Guillen, Mayo, & Korotov, 2015). We build on and extend this research by integrating the theoretical arguments relating to congruence/incongruence effects of ILT and IST and investigating how the congruence/incongruence between ILT and IST affects an individual's motivation to take up a leadership position by enhancing leadership self-efficacy.

Previous research established a clear link between leadership self-efficacy and motivation to lead (e.g., Badura et al., 2020; Chan & Drasgow, 2001), suggesting that in order to want to lead, an individual also needs to feel able to lead. In general, research into self-efficacy suggests that self-efficacy is related to the degree of task-related effort and persistence on a task (e.g., Bandura 1977). For leadership this means that when someone feels able to lead, they are likely to exert more effort and persist longer in trying to achieve this goal, thus showing stronger motivation to lead. We build on this research to suggest that leadership self-efficacy serves as an important mechanism in the relationship between cognitive representations of leaders and the self (ILT and IST) and motivation to lead. This is in line with Badura et al.'s (2020) conceptualization of leadership self-efficacy as a proximal antecedent of motivation to lead, situated between personality and motivation to lead in their distal-proximal framework of leadership.

Finally, we extend previous research on conceptualizing the congruence of ILT and IST by acknowledging the multi-dimensionality of these cognitive representations. That is, we include several dimensions of ILT/IST to explore the extent to which congruence on separate dimensions is differentially related to leadership self-efficacy and motivation to lead.

More generally, by focusing on antecedents of motivation to lead, we aim to contribute to the wider understanding of who assumes leadership positions and help foster a better understanding of the role of cognitive schemas in leadership development. This knowledge

can help organizations increase their pool of leadership candidates by focusing on individuals' ILT. For example, highlighting the strength and weaknesses that actual leaders have, rather than comparing oneself to an idealized image of leaders (i.e., Romance of Leadership, Meindl, Ehrlich, & Dukerich, 1985) will likely lead to employees being more confident about their own leadership abilities. At the same time, employees need to be more explicitly aware of how they perceive their own characteristics to relate to those of leaders. As such, our research offers a different approach to encouraging employees to consider leadership positions.

Figure 1 depicts our research model.

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1.1. Implicit leadership theories, implicit self-theories, and their congruence

While research into ILT has a long standing tradition, both IST in relation to leadership and the notion of congruence between ILT and IST have thus far not received much conceptual attention and has, to our best knowledge, only been empirically tested once (see Guillen et al., 2015).

The relevance of a congruence between ILT and IST, however, conceptually has been argued previously by DeRue and Ashford (2010). The authors outline that leadership is a process of claiming and granting the leader role: Followers grant leadership based on the fit the other has with their ILT. Leaders claim leadership based on the fit they perceive between themselves and their own ILT. DeRue and Ashford (2010) argue that the claiming and granting process is relevant for (potential) leaders to internalize a leader identity. This suggests that potential future leaders are more likely to feel able and willing to lead when their ILT closely relate to their IST, because this allows them to build a leader identity. According to DeRue, Ashford, and Cotton (2009) "personal identity is a set of labels that individuals come to internalize as descriptive of the self" (p. 218). How we see ourselves is

relevant, for example, for motivation and behavior (Markus & Wurf, 1987). In the context of leadership, Day and Dragoni (2015) point out that a personal leader identity is related to the extent to which someone views themselves as a leader based on their own characteristics.

To our knowledge, Guillen et al. (2015) were the first to operationalize and empirically study the congruence between ILT and IST. They focused on one ILT dimension, affiliation, and conducted four studies investigating the role of ILT and IST congruence on feeling willing and able to lead and found initial evidence to support this argument. That is, the self-perception of affiliation was positively associated with affective motivation to lead only when individuals perceived typical leaders as high in affiliation.

We conceptualize ILT/IST congruence along three core components. First, we build on the multidimensional nature of ILT. Previous research into ILT suggested that individuals draw on a range of different dimensions to characterize and describe leaders. For example, Offermann et al. (1994) differentiated eight dimensions of ILT, namely, sensitivity, dedication, tyranny, charisma, attractiveness, masculinity, intelligence, and strength. Epitropaki and Martin (2004) established six dimensions (i.e., sensitivity, intelligence, dedication, dynamism, tyranny, and masculinity). Schyns and Schilling (2011) could not replicate the masculinity dimension (see also Junker & van Dick, 2014) but found eight additional dimensions in their study (i.e., pleasant, being a team player, communicative, extraverted, organized, conscientious, honest, and being open for new experiences). These differing results suggest that images of leaders in general typically comprise a range of different dimensions and that the nature and degree of the dimensions tends to vary among individuals (Foti, Bray, Thompson, & Allgood, 2012) as well as social or professional contexts (Junker & van Dick, 2014; Lord, Foti, & De Vader, 1984; Shondrick, Dinh, & Lord, 2010). While there are a varying number of dimensions, the studies have also have strong communalities. First, all findings include positive and negative dimensions (Offermann et al.,

1994; Schyns & Schilling, 2011). Second, there are recurring themes in the dimensions across the studies, describing cognitive capacity (e.g. intelligence), drive (charisma, dynamism, extraverted), tenacity (dedication, strength), benevolence (tyranny, pleasant), and affiliation (sensitivity, honesty, communicative).

While Guillen et al. (2015) restricted their research on ILT/IST congruence to one ILT dimension (affiliative leadership), we build on ILT/IST as a multidimensional construct, including both positive and negative characteristics. Scholars have argued that research needs to test the importance of *each* dimension of implicit theories to understand how specific leader characteristics influence leadership perceptions (Tavares, Sobral, Goldszmidt, & Araujo, 2018). By only measuring a single leadership dimension or combining all dimensions into a composite, we cannot know the extent to which each ILT/IST dimension separately (e.g., sensitivity or intelligence) contributes to leadership outcomes or how some dimensions might be better predictors of leadership outcomes.

Second, we conceptually base IST dimensions directly on the dimensions of ILT. Guillen et al (2015) used different affiliation constructs and measures to establish correspondence between ILT and IST. For a better conceptual integration of ILT and IST, we suggest that ILT and IST dimensions mirror each other. This allows us to theorize and measure different congruence and incongruence patterns affecting outcomes. Figure 2 visualizes the four prototypical congruence types resulting for the dimension dynamic, with two prototypes for congruence (low ILT/low IST and high ILT/high IST) and two for incongruence (low ILT/high IST and high IST/low ILT).

--- insert figure 2 about here --

Third, we focus on ILT about *typical* leaders (Schyns & Schilling, 2011), as opposed to ILT about ideal (Schyns & Schilling, 2011; Tavares et al., 2018),exemplary leaders (focusing on an ideal example of an existing leader; e.g. Guillen et al., 2015) or effective leaders

(DeRue & Ashford, 2010). Ideal and exemplary leaders evoke positive and often overly idealistic stereotypes about leaders. However, previous research into ILT has demonstrated that leaders are not necessarily always considered as effective (Schyns & Schilling, 2011) and that, hence, being a leader does not necessarily imply being an ideal leader. Typical leader ILT tend to focus on a less romanticized and over-elevated view of leaders. Focusing on ILT related to typical leaders is important because, theoretically, it also allows for the possibility that individuals put themselves forward for leadership positions, believing that they might be doing an equally good or even better job than the average, typical leader in their organization.

1.2. ILT/IST congruence and Leadership Self-Efficacy

Leadership self-efficacy captures the degree to which individuals perceive themselves able to lead (Murphy & Ensher, 1999). Specifically, Hannah, Avolio, Luthans, and Harms (2008) define leadership self-efficacy as "[…] beliefs in their perceived capabilities to organize the positive psychological capabilities, motivation, means, collective resources, and courses of action required to attain effective, sustainable performance across their various leadership roles, demands, and contexts." (p. 670). Leader identity approaches point to the relevance of self-schemas and self-identity for such beliefs in one's own capabilities as a leader (Emery, Daniloski, & Hamby, 2011; Hall & Lord, 1995; Lord & Brown, 2004; Lord, Brown, & Freiberg, 1999). For ILT specifically, Leung and Sy (2018) argue that they are self-schemas are, "dynamic and active working structures (situated identities) that shape current perceptions, emotions, and behaviors, often automatically (Markus & Wurf, 1987)." (p. 243) and that ILT are used to interpret others' behavior as well as generating one's own behavior. They also posit that the activation of such schemas leads to the behavior represented in this schema.

Thus, self-schemas are domain-specific and leadership is a domain where self-schemas are relevant. According to these theoretical approaches, whether and how individuals proceed

to act as leaders within a collective is largely a function of how they view themselves as a leader within this particular domain (Hannah, Woolfolk, & Lord, 2009). That means, people are likely to hold self-theories related to their implicit leader theories and the congruence of those implicit theories will guide their motivations and behaviors within a leadership context. This point is critical as research shows that the relative strength of IST related to ILT meaningfully impacts on whether people feel able to adopt leadership roles (DeRue & Ashford, 2010). In other words, in line with DeRue and Ashford (2010), we argue that an individual will feel more able to lead when they see themselves as having similar characteristics to their ILT. However, DeRue and Ashford (2010) did not further specify "similarity", likely because they define ILT as "individuals' beliefs about what makes someone an effective leader," (p. 637), while we use a more broad definition of ILT referring to leaders in general. According to our conceptualization of congruence (see Figure 2, quadrants 1 and 3), similarity includes both high/high and low/low for each dimension. High ILT/high IST means that the respective dimension is highly characteristics of leaders in general and a person experiences the self (IST) as being in line with the ILT (i.e., congruence), which is likely to be relevant to feeling able to lead. A low ILT/low IST scenario signifies congruence with an understanding that the dimension is not perceived to be characteristic for leaders in general, hence is unlikely to negatively affect individuals' leadership self-efficacy, as this dimension is not considered particularly characteristic by the individual.

It is important to note that we assume the pattern of congruence to apply to all dimensions in the same way, given that theoretically, images of leaders depend on the situation, including the environment, affect, or motivation (Shondrick, Dinh, & Lord, 2010). This means that the relevance of different dimensions may be more or less important for how different people think about leadership. As such, it is the pattern of congruence (as displayed

in Figure 2) rather than the content of the dimension, which affects leader self-efficacy. Our first hypothesis is therefore as follows:

Hypothesis 1a: As the level of congruence between a dimension of implicit leadership theories and the corresponding dimension of implicit self-theories increases from low-low to high-high, leadership self-efficacy will positively increase.

To our best knowledge, theory and research thus far has exclusively focused on similarity (i.e., congruence) as relevant for leadership self-efficacy. As argued above, a focus on typical leaders, as opposed to ideal leaders, allows for the possibility to perceive oneself not only as matching the person's characteristics (congruence), but possibly also as exceeding the typical leader. This shifts the focus from similarity or congruence to incongruence. Specifically, the scenario low ILT/high IST (quadrant 4 in Figure 2) is relevant for predicting the perceived ability to lead. In this scenario, an individual perceives a typical leader as being low on a certain dimension and the self as higher on this dimension, that is, his or her own characteristics are stronger than those of typical leaders. Hence, we argue that individuals who perceive themselves as higher on a particular leadership dimension compared to typical leaders (quadrant 4, Figure 2) will feel a stronger sense of leadership self-efficacy than those who perceive themselves lower on a leadership dimension than typical leaders (quadrant 2, Figure 2).

Hypothesis 1b: As the degree of incongruence between a dimension of implicit leadership theories and the corresponding dimension of implicit self-theories increases, leadership self-efficacy will decrease. Specifically, when a dimension of implicit leadership theories is high and the corresponding dimension of implicit self- theories is low, leadership self-efficacy will be lower than when a dimension of implicit leadership theories is low and the corresponding dimension of implicit self-theories is high.

In the above sections, we argued for the relationship between congruence and leadership self-efficacy. We now turn to understanding the role of leadership self-efficacy in the relationship between ILT/IST congruence and motivation to lead. Chan and Drasgow (2001) argue that motivation to lead is a direct "outcome of one's leadership self-efficacy" (p. 482), stating that when individuals feel able to lead, they are also more willing to lead. This argument is in line with more general motivation theories, which stress the importance of feeling competent for pursuing motives. Self-determination theory and research, for example, suggests that individuals engage in specific goal-directed behavior because they feel sufficiently competent to be able to succeed (e.g. Deci & Ryan, 2012). The same principle has been applied to leadership research. Consistent with Chan and Drasgow (2001), we position leadership self-efficacy as an intermediary variable between the individual attributes and cognitions and motivation to lead. This decision is in line with a distal-proximal model of motivation and leadership (Badura et al., 2020). Specifically, self-efficacy falls toward the middle of the distal proximal continuum (Yeo & Neal, 2008), which has led past researchers to treat leadership self-efficacy as a consequence of implicit leadership theories (Khorakian & Sharifirad, 2019) and as an antecedent of motivation to lead (Chan & Drasgow, 2001).

Recent empirical results support this assumption (e.g., Badura et al., 2020; Cziraki, Read, Spence Laschinger, & Wong, 2018; Joo, Yu, & Atwater, 2018). McCormick, Tanguma, and Lopex-Forment (2002) also found that leadership self-efficacy is related to attempts to take on leadership roles. Thus, based on the theoretical argument we made above that ILT/IST congruence is positively related to leadership self-efficacy, we expect that ILT/IST congruence has a positive effect on motivation to lead, because it enhances individuals' leadership self-efficacy.

Hypothesis 2: The congruence and incongruence between a dimension of implicit leadership theories and the corresponding dimension of implicit self-theories have an indirect effect on affective motivation to lead through leadership self-efficacy.

2. Method

2.1. Participants and Procedure

We collected data using a panel provider (respondi). Data were collected at two points in time, with an average of three weeks apart to separate measurements. At Time 1, we captured IST, ILT, and leadership self-efficacy, as well demographic characteristics (e.g., age, gender, type of job (managerial or not), and hours per week, leadership experience (yes/no) and length of leadership experience) as well as their leadership self-efficacy. At Time 2, we measured motivation to lead and values. The sample was matched using anonymous person ID numbers generated by the panel provider.

At T1, 2398 participants responded to the call sent out by the panel provider, of which N = 985 (41.1%) reached the end of the survey[ii]. Of the N = 985 that completed the survey, we eliminated N = 135 (13.7%) respondents that were straight-lining (i.e., produced zero variance across all questions or question blocks). This left us with a sample of N = 822, who were invited for T2. We aimed for a sample size of N = 500, therefore the survey was closed when we reached that number.

670 participants responded at T2 (81.5%), of whom 133 (19.9%) were screened out due to failing the quality checks or for producing no variance, and a further 40 (6%) had to be removed due to dropping out before the end. We proceeded with a final N = 497 for the matched sample.

Of the final sample size, 216 participants (43.5%) were female and 280 (56.3%) were male (one participant preferred not to say), and 92.2% worked full-time and 63% had worked in their organization less than 10 years. The age distribution was as follows. 18-25 years old:

6.8% (N= 34), 26-35 years old: 20.1 % (N = 110), 36 – 45 years old: 33 % (N = 164), 46-55 years old: 26.2% (N = 130), 56-65 years old: 12.1% (N = 60), Older than 65 years old: 1.8% (N = 9). The participants worked in different industries, such as manufacturing (11.3%), education (10.7%), and healthcare (10.5%). In terms of education, 34.2% held an undergraduate or bachelor's degree, 20.1% held A-level degrees (exam taken at the end of high school degree) and 18.5% GCSEs (exams taken at the end of middle school), and 10.1% stated to have a work-related qualification. N = 115 (23%) described their job as managerial. N = 318 (64%) indicated that they have leadership experience as a line manager. Of the latter, 46.8 indicated to have worked as line managers less than 3 years.

We followed Goodman and Blum's (1996) recommendations to examine whether our final sample of 497 participants differed from the T1 sample by computing a dichotomous variable reflecting those who responded at T2. Multiple logistic regression indicated that for the demographic variables of gender, age, tenure, hours worked per week, and leadership and management-level position, only age predicted the dichotomous variable, and the samples were otherwise comparable. A follow up t-test did, however, not reveal a significant difference in age between T1 and T2 sample and when age was included in the analysis, it did not affect study variables or results and was therefore excluded from further analysis.

2.2. Measures

Implicit leadership theories (ILT) and *Implicit self-theories* (IST). We conducted a qualitative and a quantitative pilot study to establish the items and item structure of these scales. Both sets of variables were assessed with an identical list of 45 items. Of those items, 19 represented the shorter version of the Offermann et al. (1994) ILT instrument validated by Epitropaki and Martin (2004)[iii]. The remaining 26 items were added using items from a qualitative pilot study, where UK participants were asked to report up to six characteristics that they felt were typical of leaders in general (see Schyns & Schilling, 2011, for a similar

procedure). While Epitropaki and Martin's (2004) study validated the instrument proposed by Offermann et al. (1994) in a UK context, they did not conduct a qualitative study to examine if other relevant factors might emerge. However, a study by Schyns and Schilling (2011) in the Netherlands, which showed that dimension can differ from country context to country context, however, confirmed that it makes sense to qualitatively examine prevalent ILT in a given context.

In the quantitative pilot study (see details of sample and analysis in Appendix 1), participants were asked to rate each item according to how characteristic it was of leaders in general (ILT) and in a separate block, how characteristic it was of themselves (IST). Given our theoretical argument and hypotheses, the dimensions of ILT and IST needed to be comparable and therefore consist of the same items. We proceeded in three steps. First, we performed an exploratory factor analysis (EFA) for ILT and IST measures separately. Both ILT and IST yielded four dimensions each, with overall 70% overlapping items with adequate factor loading (.55 or larger; eleven items were eliminated for showing very low factor loadings and high cross-loading factors). In a second step, we performed a series of confirmatory factor analysis (CFAs). The final 8-factor model, consisting of four ILT and four IST factors (20 items each), yielded an acceptable fit and good internal consistency. Table A1.1 in Appendix A1 displays the results of the CFAs in detail and Table A1.2 shows the means, standard deviations, correlations, and Cronbach Alphas.

In the main study, we used these 20 items each to assess ILT and IST. The stem question was "How typical do you believe the following characteristics to be of leaders in general?" and "How typical do you believe the following characteristics to be of yourself?" respectively. The response scale ranged from 1 (not at all characteristic) to 9 (extremely characteristic). Manipulative consisted of 6 items (manipulative, loud, domineering, pushy, conceited, and selfish), clever of 3 items (clever, educated, and intelligent), integrity of 7

items (possessing integrity, trusting, honest, trustworthy, fair, flexible, and ethical), and dynamism of 4 items (dynamic, strong, charismatic, and inspirational). The scales yielded good internal consistency (manipulative α = .90/.85; clever α = .84/.84; integrity α = .94/.83; dynamism and α = .84/.83, respectively for ILT and IST dimensions).[iv]

Leadership self-efficacy was assessed using Murphy and Ensher's (1999) 8-item scale. The reliability was α = .92.

Affective motivation to lead was again assessed using the 9-item scale of the Hamburger Führungsmotivationsinventar (FÜMO; Felfe et al., 2012). The reliability was α = .94.

Control variables. We included demographic control variables, including gender, age, as well as work related variables, namely, tenure, hours of work per week, managerial type of job (dummy variable), and having held a leadership position (dummy variable) and length of leadership position held. However, following Spector and Brannick's (2011) recommendation, we only included managerial type of job and having held a leadership position in the final analysis, as these were the only variables that related to study variables and impacted on the results. Further, we included values, as those have been associated with leadership[v]. Values are described as individual goals that motivate action (Schwartz, Melech, Lehmann, Burgess, & Harris, 2001). Research suggests that leaders have been motivated by self-enhancement values (representing achievement, a striving for personal success, and power, a striving for personal status and control) and self-transcendence values (representing benevolence, a striving to enhance others wellbeing and universalism, as striving to ensure the welfare of all people and nature). For example, Clemmons and Fields (2001) found a significant positive relationship between motivation to lead and both self-enhancement and self-transcendence. We thus included both those types of values in our study control variables. We used Schwartz et al.'s (2001) measure of self-enhancement (power, 3 items,

and achievement, 4 items) and self-transcendence (universalism, 6 items, and benevolence, 4 items). The reliabilities were α = .89 and α = .88, for self-enhancement and self-transcendence, respectively.

3. Results

Prior to the analyses, we tested the measurement model using confirmatory factor analysis (see Table in Appendix 2, Table A2.1, 1st set of analysis), using Mplus (v.8.2; Muthén, & Muthén, 1998-2011). The 12-factor model included four ILT and four IST dimensions, leadership self-efficacy, motivation to lead, and the two value dimensions (control variables). The model showed an acceptable fit ($\chi2$ = 4554.20, df = 2561, p<.01; CFI =.90, RMSEA = .04) and a better fit than a one-factor model ($\chi2$ = 21956.99; df=2695, p<.01; CFI = .36, RMSEA = .12; $\Delta\chi2$ =17402.80, Δdf = 134, p < .01) or any other combination of six to nine-factor models (see Appendix 2, Table A2.1). We included an unmeasured method factor in the 12-factor model to test whether common method variance affected our data (see Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The results indicated that the model, which included an unmeasured method factor did not increase the model fit ($\chi2$ = 4551.55, df = 2560, p<.01; CFI = .90, RMSEA = .04; $\Delta\chi2$ = 2.65, df = 1, p = .10). We therefore conclude that common method variance had no significant impact on our results.

Means, standard deviations, correlations and Cronbach Alphas are presented in Table 1.

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In order to examine the congruence effects posited in Hypothesis 1a and b, we used polynomial regression with response surface methodology. This procedure avoids the conceptual and methodological problems associated with the use of difference scores as an index of congruence (Edwards & Parry, 1993). Polynomial regression also provides more information than moderated regression because it tests nonlinear effects and for both

congruence and incongruence effects (Shanock, Baran, Gentry, Pattison, & Heggestad, 2010). We tested four parallel regression equations (one for each implicit theory dimension) for leadership self-efficacy T1. Specifically, the outcome variable was regressed on the control variables of type of job, leadership position, self-transcendent values, and self enhancement values as well as five polynomial terms, that is, ILT, IST, ILT squared (ILT2), ILT times IST (ILT x IST), and IST squared (IST2). To reduce multicollinearity and facilitate interpretation of the results, we centered the predictors of ILT and IST around the midpoint of their respective scales (Edwards, 1994) before calculating the second-order terms.

Rather than examining the regression coefficients as would be done in a common regression analysis, if the R2 (variance in the outcome variable explained by the regression equation) is significantly different from zero, the results of the polynomial regression are evaluated with regard to four surface test values: a1, a2, a3, and a4.

a1 = slope of the line of perfect congruence (ILT = IST) as related to leadership self-efficacy

a2 = curvature along the line of perfect agreement as related to leadership self-efficacy

a3 = slope of the line of incongruence as related to leadership self-efficacy, indicating the direction of the discrepancy (ILT higher than IST or vice versa)

a4 = curvature of the line of incongruence as related to leadership self-efficacy, indicating the degree of discrepancy.

These response surface tests assess the extent to which the surface varies along two dimensions, the line of congruence and the line of incongruence. The line of congruence is the line along which ILT and IST match. In the figures, this is the solid line running from front to back, where the front of the surface plot shows low-low congruence and the back shows high-high congruence. The line of incongruence is the line along which the values of

ILT are the opposite of the values of IST. In the figures, this is the broken line running from left to right, where the left side shows high ILT and low IST and the right side shows low ILT and high IST).

We hypothesized a congruence effect for each dimension of ILT and IST on leadership self-efficacy. Table 2 presents the estimated coefficients as well as the slopes and curvatures along congruence and incongruence lines for the polynomial regressions in predicting leadership self-efficacy. Figures 3 to 5 illustrate the response surface based on these coefficients. First, for the dimension clever, as shown in Table 2, one second-order polynomial term was significant. Neither the slope nor the curvature for the congruence line were significant, indicating no support for our Hypothesis 1a. However, there was a positive slope for the line of incongruence (a3 = .43). The response surface in Figure 3 indicates that leadership self-efficacy was higher when IST on the clever dimension were higher than the corresponding ILT dimension (right back corner) rather than when ILT for clever were higher than IST (left front corner). Thus, clever incongruence was a significant predictor of leadership self-efficacy in the assumed direction, supporting our Hypothesis 1b.

--- insert table 2 here --

--- insert figure 3 here --

Second, for the dimension dynamism, two second-order polynomial terms were significant. As shown in Table 2, the slope along the congruence line was significant and positive (a1 = .26), indicating that high ILT-high IST congruence for dynamism was associated with higher leadership self-efficacy than low-low congruence. The response surface in Figure 4 indicates that leadership self-efficacy was higher at the left back corner (high/high congruence) than at the front right corner (low/low congruence), thus supporting Hypothesis 1a. Furthermore, there was a positive slope for the line of incongruence (a3 = .40). The response surface in Figure 4 indicates that leadership self-efficacy was higher when

IST on the dynamism dimension were higher than the corresponding ILT dimension (right corner) rather than when ILT of dynamism were higher than IST (left corner). Thus, dynamism incongruence was a significant predictor of leadership self-efficacy in the assumed direction, supporting our Hypothesis 1b.

--- insert figure 4 here --

Third for the dimension integrity, two second-order polynomial terms were significant. As shown in Table 2, similar to the dynamism dimension, the slope along the congruence line was significant and positive (a1 = .22), indicating that the high ILT-high IST congruence condition had higher leadership self-efficacy than the low-low congruence condition. This effect is shown in Figure 5, where leadership self-efficacy is higher in the back right corner (high ILT and high IST) compared to the front right corner (both ILT and IST are low). Thus, for the integrity dimension, congruence as hypothesized in Hypothesis 1a predicted leadership self-efficacy. Again, there was a positive slope for the line of incongruence (a3 = .47). The response surface in Figure 5 indicates that leadership self-efficacy was higher when IST on the integrity dimension were higher than the corresponding ILT dimension (right corner) rather than when ILT on integrity were higher than IST (left corner). Thus, integrity incongruence was a significant predictor of leadership self-efficacy in the assumed direction, supporting our Hypothesis 1b.

--- insert figure 5 here --

Finally, for the dimension manipulative, no second-order polynomial term was significant, demonstrating no support for our hypotheses. Specifically, neither congruence nor incongruence between ILT and IST on the dimension of manipulative predicted leadership self-efficacy beyond our set of control variables.

In order to test Hypothesis 2, we used the Process macro for SPSS (Hayes, 2017). To test the effects of implicit theory congruence on motivation to lead via leadership self-

efficacy, we used the block variable approach recommended by Edwards and Cable (2009). Specifically, after controlling for type of job, leadership position, self-transcendent values, and self enhancement values, to obtain a single coefficient representing the joint effect (i.e., congruence and incongruence effect) of the five polynomial terms (ILT, IST, IST^2, ILT^2, and IST X ILT), we combined the five terms into a block variable, which is a weighted linear composite. The respective weights are the estimated regression coefficients in the polynomial regression. The five quadratic terms are then replaced with the block variable, the regression equation is re-estimated, and the coefficient on the block variable serves as the coefficient. The indirect effect of implicit theory congruence/incongruence on motivation to lead via leadership self-efficacy can be calculated as a product of the coefficient of the block variable on leadership self-efficacy and the coefficient of leadership self-efficacy predicting the outcome variable when the direct effect of implicit theory congruence is included in the regression. The coefficients obtained from these procedures were used to assess the direct and indirect effects associated with our model, allowing us to determine the extent to which leadership self-efficacy carried the effects of congruence in ILT and IST on motivation to lead. The indirect effects were tested using bias-corrected confidence intervals constructed from estimates based on 10,000 bootstrap samples. To test the mediating effect of leadership self-efficacy on the relationship between ILT/IST congruence and motivation to lead, we conducted three analyses, one for each implicit theory dimension that was significant in our previous analyses. The results appear in Table 3. We report the unstandardized regression coefficients of the block variables as well as the coefficients of leadership self-efficacy when used to predict motivation to lead.

--- insert table 3 here --

As shown in Table 3, the direct effects of congruence between ILT and IST were significant for leadership self-efficacy for clever (1.30, $p < .001$), dynamism (01.28, $p < .001$),

and integrity (1.03, p < .001). Furthermore, the direct effects of congruence of implicit theories on motivation to lead were significant for all three dimensions. Leadership self-efficacy had a significant direct effect in all three models. The indirect effects of congruence, via leadership self-efficacy, also were significant for motivation to lead for each implicit theory dimension, supporting Hypothesis 2. Specifically, the unstandardized coefficients were as follows: clever (1.02, $p < .01$, 95% CI = [0.76 1.31]), dynamism (.0.81, $p < .001$, 95% CI = [.63 .1.01]), and integrity (0.84, $p < .01$, 95% CI = [.58 1.15]). These results confirm the indirect effect from ILT and IST via leadership self-efficacy on motivation to lead, providing support for Hypothesis 2.

4. Discussion

In this study, we investigated the role of congruence and incongruence in implicit leadership theories (ILT) and implicit self-theories (IST) in understanding individuals' sense of leadership ability (leadership self-efficacy) and motivation to lead. In doing so, we contribute to the call to increase the pool of talented employees interested in leading (e.g., Porter, Riesenmy, & Fields, 2016). Specifically, highlighting the role of self-theories in leadership self-efficacy and motivation to lead provides a further possibility for organizations to increase their employees' interest in taking over leadership positions. For example, organizations could highlight which leader characteristics are relevant in their organization to become a successful leader and try to increase their employees' confidence that they possess those characteristics. In addition, they could use those characteristics to screen their employees for leadership relevant characteristics and highlight this relevance to the employees. Arguably, without being made aware of the match between their own characteristics and leadership relevant characteristics, employees might not come forward to apply for leadership positions or leadership training. This corresponds to the idea that leader

identity is relevant for individuals to be showing interest in developing as leaders (Day & Dragoni, 2015; Yip, Trainor, Black, Soto-Torres, & Reichard, 2019). As Leung and Sy (2018) argue, training leaders without changing their mindset (i.e., leader identity and implicit theories regarding leadership) can hinder an effective behavioral change, making it important to analyze the ILT/IST relevant to an organization and incorporate those into training initiatives.

From previous research (e.g., Chan & Drasgow, 2001), we know that leadership self-efficacy, that is, how confident a person is regarding his/her ability to show (successful) leadership is an important predictor of motivation to lead. Here we were interested in the antecedents of motivation to lead and focused on the role of implicit theories as a lens to explain leadership self-efficacy as a more proximal antecedent of motivation to lead (e.g., Badura et al., 2020). Specifically, we examined whether the congruence between how individuals see leaders in general (ILT) and how they see themselves (IST) is related to their leadership self-efficacy and indirectly to their motivation to lead. We argued that if individuals feel similar to or better than their image of a leader in general, they would be more likely to be confident in their leadership ability (leadership self-efficacy) and, subsequently, be more motivated to lead. Going beyond previous research, we differentiated between similarities on a high versus low level and argued that only similarity on a high level would be related to leadership self-efficacy and, subsequently, motivation to lead (Hypothesis 1a). For two dimensions of implicit theories, namely, dynamism and integrity, we found that congruence on a high level of both ILT and IST is important for leadership self-efficacy.

We also asserted that IST, when they are higher than ILT, contribute to leadership self-efficacy. That is, individuals who feel that their leadership relevant characteristics are more pronounced than those of leaders in general should also feel more able to lead. We found support for this assumption for three of our four IST dimensions, namely, clever,

dynamism, and integrity. That is, when individuals thought that they are higher on these characteristics than leaders in general, they felt more confident in their ability to lead. Hence, results for Hypothesis 1b suggest a more nuanced picture than previously discussed in the literature, where the focus was mainly on congruence.

Interestingly, for the only negative dimensions of ILT/IST, manipulation, we found neither an effect of congruence nor of incongruence on leadership self-efficacy. This result could be explained by a previous study. In a qualitative study, Schyns and Schilling (2011) asked participants to name characteristics of leaders. Subsequently, participants rated those characteristics as effective versus ineffective. Here, the category tyrannical (which is similar to our dimension manipulative) was evaluated by almost 50% of those who named characteristics of this category as effective and 50% as ineffective (N = 15 effective, N = 12 ineffective). In contrast, Schyns and Schilling (2011) found categories such as intelligent, strong, and devoted (positive dimensions similar to our dimensions clever and dynamism) to be considers as mainly effective. This implies that the dimension manipulation might be evaluated differently by our participants, with some participants regarding them as effective and “good to have”, while others maintain the opposite. Thus, the emerging results may even each other out. We will discuss this possibility further under future research.

Hypothesis 2 was concerned with the mechanism by which the congruence of IST/ILT affects motivation to lead. Our results suggested mediation for the three positive ILT/IST dimensions clever, dynamism, and integrity, with significant direct effects of congruence in IST/ILT on leadership self-efficacy and motivation to lead, a direct effect of leadership self-efficacy on motivation to lead, and significant indirect effects of congruence in IST/ILT on motivation to lead via leadership self-efficacy. This is in line with previous research (Chan & Drasgow, 2001) and confirms the importance of leadership self-efficacy as

a relevant precondition for motivation to lead. Taken together, the results from Hypothesis 1 and 2 have four theoretically relevant implications.

First, we found different effects on leadership self-efficacy depending on the dimension of implicit theories, which highlights the importance of investigating different dimensions of implicit theories rather than just focusing on one dimension (Guillen et al., 2015). While DeRue and Ashford (2010) assume that a congruence in ILT and IST leads to higher motivation to lead via leadership self-efficacy, based on their definition of ILT as only referring to effective leaders, our results show that this statement needs to be refined. Our results suggest that, when taking into account ILT about leaders in general, this is the case only for some of the positive dimensions (here dynamism and integrity) and only if the similarity is on a high-high level (as opposed to low-low). Hence, our study adds to the knowledge on the relationship between ILT/IST and leadership self-efficacy as well as motivation to lead, suggesting that specifying the level (high versus low) in terms of congruence as well as differentiating several dimensions of implicit theories allows for a more nuanced prediction of leadership self-efficacy and motivation to lead.

Second, we found that the negative dimension of manipulation adds to the importance of our theoretical understanding, as this dimension proved to be an exception to the overall finding that a congruence of high ILT and high IST is a driver for leadership self-efficacy. For manipulation, we found no effect of congruence. This makes intuitive sense for negative characteristics such as manipulation. If individuals think that a low value is more relevant to leadership, they will see themselves as more able to demonstrate leadership when they themselves are low on this characteristics (or vice versa). This highlights the importance of the differentiation introduced by Schyns and Schilling (2011) that individuals do not necessarily consider negatively valued ILT as ineffective.

Third, previous research and theory focused on congruence, while our results also point to the role of incongruence. Previous research suggested that individuals are motivated to lead because they see themselves as being similar to their ILT (e.g., DeRue & Ashford, 2010). In addition to a congruence on a high-high level, our results also suggest that individuals are motivated to lead when they see themselves as better than leaders in general (i.e. high IST-low ILT for clever, dynamism, and integrity), suggesting that incongruence can be equally relevant for leadership self-efficacy. Our results indicate that in the case of all three positive dimensions, IST was the driver for self-efficacy. Those participants might not have an overly positive view of leaders in general and may hence consider themselves as better suited for leadership positions compared to the average leader. While this is different from DeRue and Ashford's (2010) assumptions that a match between IST and ILT is relevant for motivation to lead, our results align with Lord's assumption regarding self-identities (e.g., Lord, Brown, & Freiberg, 1999; Lord, Gatti, & Chui, 2016). Lord and colleagues put the identity of a person in the center of leadership processes. In line with our results, we argue that our participants did not only need to experience a match between a given characteristic of typical leaders, but needed to surpass that level to be motivated to lead. The fact that we found incongruence effects also shows that it is important to differentiate between implicit assumptions related to ideal versus typical leaders (e.g., Schyns & Schilling, 2011) as results differ for different approaches (e.g. Guillen et al., 2015). Further, we found no effect of incongruence in the ILT/IST manipulation dimension on leadership self-efficacy. This again highlights the importance of understanding whether participants rate this dimensions as effective or not.

Finally, our mediation effects imply that the leadership self-efficacy plays a central role in the relationship between ILT/IST congruence and motivation to lead. Participants who think they share characteristics with leaders in general feel more able to lead and seem more

motivated to take over leadership positions as a result, confirming the role of leadership self-efficacy as a proximal antecedent of motivation to lead (Badura et al., 2020).

4.1. Practical implications

Our results also have a number of practical implications, in particular for leadership development. Drawing on the result that dimensionality of ILT/IST matters, we suggest that to foster leadership emergence, it is important to understand an individual's ILT/IST congruence related to different core dimensions. We would speculate that the relevant dimensions might differ depending on the context in which leadership self-efficacy or motivation to lead is assessed (Shondrick, Dinh, & Lord, 2010). In different contexts, different dimensions of implicit theories might be present and/or might be relevant for motivation to lead in different ways. For example, in organizations where ethics are particularly important, integrity might be more relevant for leadership self-efficacy than other dimensions. In contrast, in more entrepreneurial contexts, dynamism might be more relevant. Again, here, being higher in those IST than in ILT is likely to particularly stimulate leadership self-efficacy and consequently motivation to lead.

Consequently, organizations will need to determine, which dimensions are relevant for their leaders. For this, we suggest two types of analyses. First, organizations need to analyze the ILT and IST dimensions prevalent in the organization to better develop their future leaders. Second, they could foster new ILT dimensions, based on goals and values relevant to the organization's future directions (Leung & Sy, 2018).

Given our results concerning negatively valenced dimensions, in leadership development it may be advisable to not only focus on the congruence of positively valenced dimensions such as being high clever, dynamism, or integrity, but also discover assumptions about potentially negative characteristics, such as manipulation.

4.2. Limitations

Using an approach that links self- and leader theories using pre-determined characteristics can be criticized as we do not know how central those characteristics are for the individual rating the characteristic (cf. Markus & Wurf, 1987, regarding centrality of self-representations). Others have suggested that we do not know before asking whether leader identity is part of a person's self-concept (cf. Lord, 2017). Arguably, asking individuals to indicate how characteristic attributes are for themselves can be classified as asking about the actual self (see Higgins, 1987). We linked those IST to ILT, claiming that where ILT and IST are congruent, greater motivation to lead would result. Using this difference measure is, therefore, interpreted in a way as a reflection of an ideal self (Higgins, 1987), in so far that we assume that congruence on those measures expresses that the individual would like to lead. However, since we did not ask for a direct assessment of how desirable those characteristics were, this result remains open to interpretation.

In addition, since our focus was on trait for a typical leader, we do not know if our participants considered those characteristics as effective. Indeed, the results for manipulation point in the direction that participants might differ in how far they regard this characteristic as necessary for effective leaders. This has two implications, namely, that participants might have found our ILT to be irrelevant for effective leaders and thus, their own rating on those ILT as irrelevant for their leadership self-efficacy and their motivation to lead. The results for the positive dimensions at least seem to contradict this idea, however. Second, participants might consider that an ILT is ideal but not typical and when their IST is high, they regard themselves as uniquely suited for leadership positions. Thus, since we did not ask how effective the ILT were considered by the participants, two contradictory hypotheses could emerge. However, all our ILT are pre-tested and have been used also to describe ideal leaders (apart from integrity), meaning that participants will likely also regard those traits as positive (for an exception see the discussion around manipulation in the discussion section). Future

research should include ratings of effectiveness of ILT in addition to ratings of typicality for leaders in general to address this point.

Although we had two measurement points in our design, we cannot rule out that common method variance played a role in our results. That is, due to same-source data, the strength of some results might be over-estimated. However, we followed Podsakoff's advice on how to minimize common method bias, and randomized items within question blocks, separated predictor and outcome variables, and separated the dependent variable (motivation to lead) from the independent variables (Podsakoff et al., 2003, 2012). We also empirically tested for common method variance and found no significant impact on results.

In addition, our research question focused on personal views of the self and of others, one's sense of self-efficacy, and motivation. Thus, asking the individual to report is the most appropriate design to test our model.

4.3. Future research directions

Some directions for future research follow directly from our limitation section. First, following research question and our conceptualization of ILT/IST congruence alongside the four prototypes (see Figure 2), we focused on developing hypothesis for the congruence/incongruence types regardless of the dimensions. In other words, we did not develop differential hypothesis for different ILT/IST dimensions. For our research question, this was sufficient, given that, in line with authors such as Offermann et al. (1994), we assumed that all dimensions were considered important to describe leaders. However, as highlighted in our discussion regarding the results of ILT/IST dimension manipulation, the perceived importance or effectiveness of one dimension over another may be crucial to understanding the role of congruence. Hence, future research should assess the effectiveness and centrality of the rated characteristics and dimensions and explore its effects on motivation to lead.

Further, we suggest that future research investigates the step resulting from motivation to lead to actually applying for leadership positions or succeeding when in a leadership position. At the same time, not everyone who feels able or is motivated to lead is necessarily the best choice for a leadership position. For example, individuals whose leadership self-efficacy is higher due to higher IST than ILT in manipulation, might not turn out to be good leaders. Future research should also look at suitability for leadership positions in addition to motivation to lead.

Following from the argument of the relevance of congruence and incongruence as well as investigating different dimension of implicit theories, it would also be interesting for future research to look at possible congruence or incongruence effects between leaders and followers. For example, it might also affect leaders' motivation to lead if leaders and followers disagree about which dimensions are relevant for leadership, as they might consider themselves a misfit to their followers' expectations.

5. Conclusion

Our study contributes to the literatures on motivation to lead and the role of implicit leadership theories and implicit self-theories. While the congruence between implicit leadership theories and implicit self-theories is relevant for motivation to lead, we could show that it is important to look at differentiated dimensions of implicit leadership theories and implicit self-theories to be better able to predict motivation to lead. At the same time, implicit self-theories can be the drivers of motivation to lead, which is in line with identity approaches to leadership.

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Table 1: Intercorrelations, Means, Standard Deviations and Cronbach Alphas (in the diagonal) (N=497)

		Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Type of job	.23	.42														
2	Leadership position	.64	.48	.37**													
3	Values_ST	3.67	.71	.01	-.02	(.88)											
4	Values _SE	2.62	.93	.18**	.12**	.21**	(.89)										
5	ILT_dynamism	6.39	1.47	.10*	.14**	.26**	.19**	(.84)									
6	ILT_manipulative	4.61	1.87	-.06	-.05	-.01	.12**	-.24**	(.90)								
7	ILT_integrity	6.28	1.70	.11*	.11*	.21**	.12**	.71**	-.59**	(.94)							
8	ILT_clever	6.40	1.42	.08	.04	.18**	.18**	.65**	-.18**	.60**	(.84)						
9	IST_dynamism	5.72	1.50	.10*	.16**	.26**	.38**	.44**	-.09*	.42**	.33**	(.83)					
10	IST_manipulative	3.26	1.49	.04	. 11*	-.07	.35**	.07	.41**	-.03	.11*	.28**	(.85)				
11	IST_integrity	7.36	1.04	.03	.02	.41**	-.04	.42**	-.14**	.42**	.33**	.37**	-.31**	(.83)			
12	IST_clever	6.64	1.28	-.01	.08	.18**	.22**	.35**	.01	.25**	.40**	.48**	.14**	.30**	(.84)		
13	LSE	5.19	1.00	.24**	.37**	.21**	.38**	.23**	-.01	.18**	.12**	.57**	.15**	.26**	.35**	(.92)	
14	MTL	4.23	1.28	.27**	.29**	.23**	.60**	.22**	.07	.18**	.13**	.50**	.33**	.07	.27**	.61**	(.94)

Note: **p<.01, *p<.05. Type is coded 1=managerial function/0=other.

Note: ST = self-transcendence, SE = self-enhancement, ILT = implicit leadership theories, IST = implicit self-theories, LSE = leadership self-efficacy, MTL = motivation to lead.

Table 2: Polynomial Regressions of Leadership Self-Efficacy on Implicit Theory Congruence

	Clever - LSE	Dynamism - LSE	Integrity - LSE	Manipulative - LSE
Constant	3.21***	3.83***	2.96***	3.15***
Leadership position	0.62***	0.54***	0.64***	0.64***
Type of job	0.22**	0.17*	0.15	0.17
Values SE	0.26*	0.16***	0.07	.31***
Values ST	0.17	0.11*	0.36***	.22***
IST	0.22***	0.33***	0.34*	0.04
ILT	-0.21***	-0.07*	-0.13	-0.02
IST^2	-0.03	-0.01	0.03	-0.01
IST X ILT	0.05**	-0.01	0.04	-0.01
ILT^2	0.30*	0.01	0.00	0.17
R^2	0.36^{***}	0.41^{***}	0.57^{***}	0.28
Congruence (IST = ILT) line				
Slope (a1)	0.02	0.26***	0.22*	0.01
Curvature (a2)	0.05	0.01	0.01	0.01

Incongruence (IST = -ILT) line				
Slope (a3)	0.43***	0.40***	0.47**	0.06
Curvature (a4)	-0.05	0.01	-0.07	0.02

Notes: a1 = (b1 + b2), where b1 is the unstandardized regression coefficient for implicit self-theories and b2 is the unstandardized regression coefficient for implicit leadership theories. a2 = (b3 + b4 + b5), where b3 is the unstandardized regression coefficient for implicit self-theories squared, b4 is the unstandardized regression coefficient for the cross-product of implicit self-theories and implicit leadership theories, and b5 is the unstandardized regression coefficient for implicit leadership theories squared. a3 = (b1 - b2). a4 = (b3 - b4 + b5).

N = 497. * $p < .05$; ** $p < .01$; *** $p < .001$ (Two-tailed tests).

ST = self-transcendence, SE = self-enhancement, ILT = implicit leadership theories, IST = implicit self-theories, LSE = leadership self-efficacy, MTL = motivation to lead.

Table 3: Results from Tests of Direct and Indirect Effects of Congruence in Implicit Theories on Motivation to Lead[a]

Variables	LSE	MtL	CI_{95}	
Clever	B	B	Lower	Upper
Clever congruence[b]	1.30***	.78**		
LSE		0.80***		
Indirect Effect of Congruence via LSE		1.02**	0.76	1.31
Dynamism	B	B	Lower	Upper
Dynamism congruence[b]	1.28***	1.16***		
LSE		0.64***		
Indirect Effect of Congruence via LSE		0.81***	0.63	1.01
Integrity	B	B	Lower	Upper
Integrity congruence[b]	1.03***	1.30***		
LSE		.84***		
Indirect Effect of Congruence via LSE		0.86**	0.58	1.15

[a] Unstandardized coefficients are reported.
[b] Coefficient for block variable (direct effect of congruence)
Notes: * $p < .05$; ** $p < .01$; *** $p < .001$
LSE = leadership self-efficacy

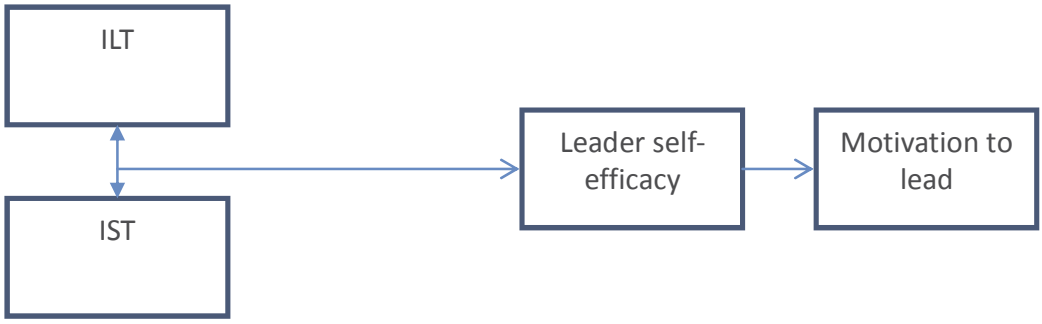

Figure 1: Research Model

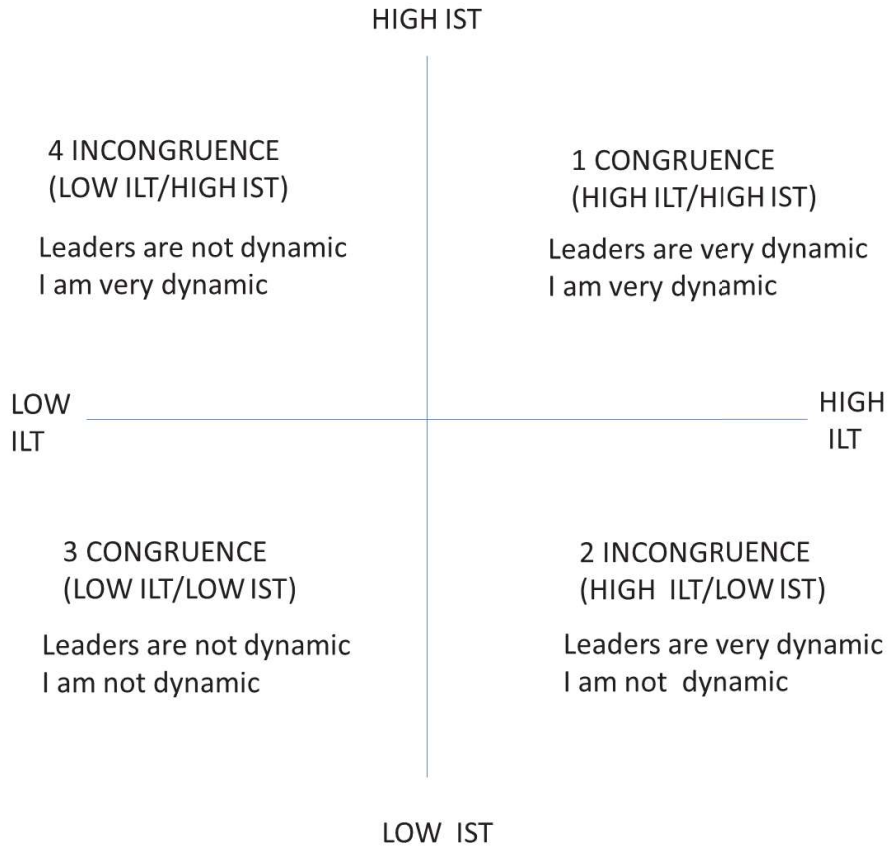

Figure 2: Conceptualization of Congruence

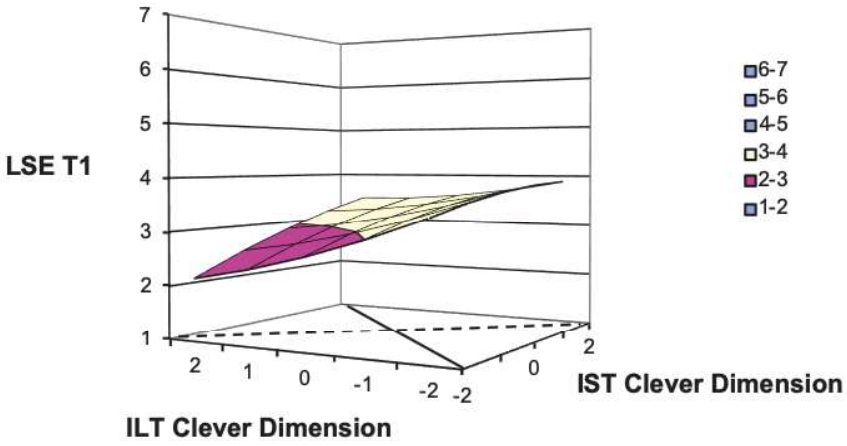

Figure 3: Congruence/Incongruence Effect of Implicit Self-Theories and Implicit Leadership Theories for Clever Dimension on Leadership Self-Efficacy

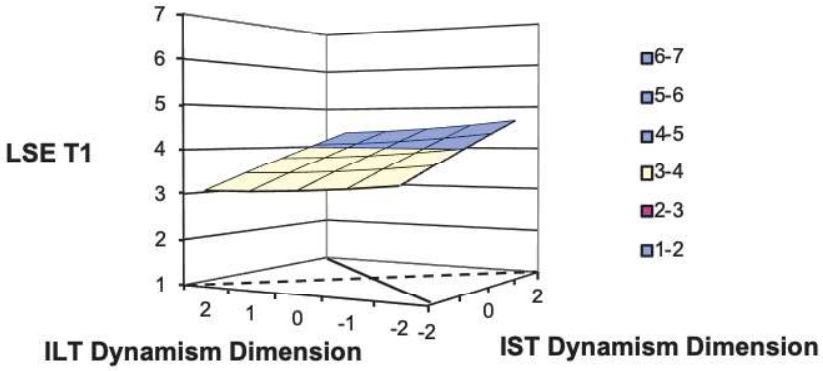

Figure 4: Congruence/Incongruence Effect of Implicit Self-Theories and Implicit Leadership Theories for Dynamism Dimension on Leadership Self-Efficacy

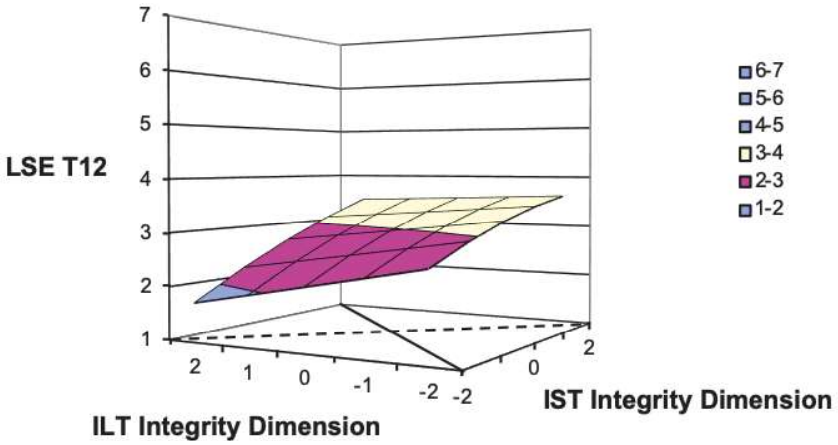

Figure 5: Congruence/Incongruence Effect of Implicit Self-Theories and Implicit Leadership Theories for Integrity Dimension on Leadership Self-Efficacy

Appendix 1: Quantitative Pilot Study to Develop ILT and IST Measures

Sample and Procedure for Quantitative Pilot Study: We recruited a sample of working adults from a panel provider (Qualtrics) and collected 680 usable responses. The sample consisted of 82 women and 76 men, with 33 in a managerial position. The majority of the sample was between 40 and 59 years old (65.8%). A large percentage worked between 36-45 hours a week (47.8%), followed by 26-35 hours a week (24.8%[vi]). In terms of job type, the largest part of our sample worked in clerical or secretarial jobs (29.8%).

Table A1.1: Quantitative Pilot Study Fit Indices for the Full Measurement Model and the Comparative Models for the Confirmatory Factor Analysis

Factor Model	# of factors	Chi^2 (all p<.001)	df	Δ Chi^2 for nested model (all p<.001)	Δ df for nested model	CFI	RMSEA	RMSEA CI low	RMSEA CI up
Full measurement model ILT and IST	**8**	**1622.400**	**712**			**.943**	**.043**	0.036	0.051
ILT_dynamism and ILT_clever collapsed	7	1825.728	719	203.328	7	.931	.048	0.04	0.055
ILT_dynamism and ILT_integrity collapsed	7	2395.481	719	773.081	7	.896	.059	0.051	0.066
ILT_clever and ILT_integrity collapsed	7	2270.115	719	647.715	7	.904	.056	0.049	0.064
All ILT collapsed & all IST collapsed	2	7583.645	739	5,961.245	27	.575	.117	0.106	0.128
ILT only (all 4 dimensions)	**4**	**409.355**	**164**			**.969**	**.047**	0.039	0.054
ILT_dynamism and ILT_clever collapsed	3	582.617	167	173.262	3	.948	.060	0.053	0.068
ILT_dynamism and ILT_integrity collapsed	3	1113.125	167	703.77	3	.881	.091	0.082	0.1
ILT_clever and ILT_integrity collapsed	3	968.941	167	559.586	3	.899	.084	0.075	0.093
IST only (all 4 dimensions)	**4**	**502.961**	**164**			**.945**	**.055**	0.47	0.062
IST_dynamism and IST_clever collapsed	3	927.842	167	424.881	3	.877	.082	0.073	0.09
IST dynamism and IST_integrity collapsed	3	1349.176	167	846.215	3	.809	.102	0.092	0.112
IST clever and IST_integrity collapsed	3	1212.159	167	709.198	3	.831	.096	0.086	0.105

Note. N= 680; * Dimensions were chosen due to their relatively high correlations.
ILT = implicit leadership theories, IST = implicit self-theories.

Table A1.2: Quantitative Pilot Study: Intercorrelations, Means, Standard Deviations and Cronbach Alphas (in the diagonal)

		Mean	SD	1	2	3	4	5	6	7	8
1	ILT_dynamism	6.64	1.52	(.88)							
2	ILT_manipulative	4.75	1.95	-.15**	(.91)						
3	ILT_integrity	6.53	1.77	.63**	-.46**	(.97)					
4	ILT_clever	6.67	1.48	.71**	-.13**	.61**	(.87)				
5	IST_dynamism	6.09	1.53	.43**	-.07	.43**	.37**	(.85)			
6	IST_manipulative	3.38	1.75	.09*	.40**	.02	.07	.31**	(.89)		
7	IST_integrity	7.56	1.17	.37**	-.13**	.38**	.38**	.49**	-.21**	(.91)	
8	IST_clever	6.87	1.33	.34**	-.01	.26**	.40**	.57**	.11**	.51**	(.88)

Note. N= 680.
ILT = implicit leadership theories, IST = implicit self-theories.

Appendix 2:

Table A2.1: Main Study Fit Indices for the Full Measurement Model and the Comparative Models for the Confirmatory Factor Analysis for ILT and IST

#	Factor Model	# of factors	Chi sq (all p<.01)	df	RMSEA	RMSEA CI low	RMSEA CI up	CFI	Δ Chi sq for nested models (all p<.01)	Δ df for nested models
1	**Full measurement model**	12	4554.195	2561	0.040	0.038	0.041	0.904		
2	Same dimensions collapsed (e.g. ILT_dynamism + IST_ dynamism)	8	7439.623	2599	0.061	0.060	0.063	0.766	2885.428	38
3	ILT_ dynamism and ILT_clever collapsed*	11	4719.505	2572	0.041	0.039	0.043	0.896	165.310	11
4	ILT_ dynamism and ILT_integrity collapsed*	11	4871.956	2572	0.042	0.041	0.044	0.899	317.761	11
5	ILT_clever and ILT_integrity collapsed*	11	4952.341	2572	0.043	0.041	0.045	0.885	398.146	11
6	ILT_integrity and ILT_manipulative collapsed*	11	5643.275	2572	0.049	0.047	0.051	0.852	1089.080	11
7	LSE and MTL collapsed*	11	5900.825	2572	0.051	0.049	0.053	0.839	1346.630	11
8	Values_SE and MTL collapsed*	11	5263.860	2572	0.046	0.044	0.048	0.870	709.665	11
9	All ILT collapsed & all IST collapsed	11	9434.782	2612	0.072	0.071	0.074	0.670	4880.587	51
10	All collapsed to one factor	1	21956.990	2695	0.120	0.118	0.121	0.069	17402.795	134
11	Including an unmeasured factor	13	4551.546	2560	0.040	0.038	0.041	0.904	2.649	1

12	**ILT and IST only (all 8 dimensions)**	**8**	1525.546	712	0.048	0.045	0.051	0.916		
13	ILT_ dynamism and ILT_clever collapsed*	7	1674.632	719	0.052	0.048	0.055	0.901	149.086	7
14	ILT_ dynamism and ILT_integrity collapsed*	7	1819.965	719	0.056	0.052	0.059	0.886	294.419	7
15	ILT_clever and ILT_integrity collapsed*	7	1887.588	719	0.057	0.054	0.060	0.879	362.042	7
16	All ILT collapsed & all IST collapsed	2	5184.649	739	0.110	0.107	0.113	0.541	3659.103	27
17	**ILT only (all 4 dimensions)**	4	309.518	164	0.042	0.035	0.049	0.972		
18	ILT_ dynamism and ILT_clever collapsed	3	439.030	167	0.057	0.051	0.064	0.947	129.512	3
19	ILT_ dynamism and ILT_integrity collapsed	3	579.877	167	0.071	0.064	0.077	0.920	270.359	3
20	ILT_clever and ILT_integrity collapsed	3	627.253	167	0.074	0.068	0.081	0.911	317.735	3
21	**IST only (all 4 dimensions)**	4	430.264	164	0.057	0.051	0.064	0.918		
22	IST_ dynamism and IST_clever collapsed	3	732.106	167	0.083	0.076	0.089	0.825	422.588	3
23	IST_ dynamism and IST_integrity collapsed	3	1013.457	167	0.101	0.095	0.107	0.738	703.939	3
24	IST_ dynamism and IST_integrity collapsed	3	944.075	167	0.097	0.091	0.103	0.759	634.557	3
25	**LSE and MTL only**	2	189.135	118	0.035	0.025	0.044	0.983		

26	LSE and MTL collapsed*	1	1193.056	119	0.135	0.128	0.142	0.749	1003.921	1

N= 680; *Dimensions were chosen due to their relatively high correlations. [1] Delta Chi sq is non-significant (p=.10).
ILT = implicit leadership theories, IST = implicit self-theories, LSE = leadership self-efficacy, MTL = motivation to lead.

Endnotes

[i] We use the term congruence to refer to degrees of congruence as well as incongruence to ease reading.

[ii] Of the N=1413 participants that did not reach the end of the survey, N=251 (10.5%) were screened out because they did not meet the requirements for the sample (i.e., if they were under 18 or had less than 3 months of work experiences), N=784 (32.7%) were rejected because the gender or age quotas were full (N=784, 32.7%), and N=239 (10%) because they failed the quality check (attention filter) questions or because they dropped out prematurely (N=139, 5.8%).

[iii] As in previous research (Schyns & Schilling, 2011) we did not include the two items "male" and "masculine". In this study, no dimension emerged for masculinity. Leaving out those items is also in line with Junker and van Dick's (2014) considerations.

[iv] Our dimensions relate to previous results as follows: The dimensions manipulative consists of the same items Epitropaki and Martin' (2004) tyranny dimension. The dimension clever consists of 3 out of four items of the Epitropaki and Martin's (2004) intelligence dimension. The dimension dynamism consists of 2 items of Epitropaki and Martin's (2004) dynamism dimension (strong and dynamic) plus two items out of our qualitative pre-work that are also reflected in Offermann et al.'s (1994) charisma dimension (charismatic and inspirational). The dimension integrity emerged in our pre-study. Those items are not reflected in Offermann et al.'s (1994) ILT instrument.

[v] We would like to thank an anonymous reviewer for this suggestion.