Promoting the underestimated: A vignette study on the importance of the need for affiliation to successful leadership

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Abstract

Research on the relationship of implicit motives and effective leadership emphasises the importance of a socialised need for power, whereas high levels of the need for affiliation are assumed to thwart a leader's success. In our study, we experimentally analysed the impact of leaders' socialised need for power and their need for affiliation on perceptions of transformational leadership and various success indicators. Using paper-people vignettes, we contrasted leaders characterised by either motive with those concerned with personalised power or achievement. Results based on $N = 80$ employees show that leaders high in socialised power were rated more successful and elicited more identification and organisational citizenship behaviour (OCB) in followers, and that in most cases this effect was mediated by perceptions of transformational leadership. For all outcomes but OCB, findings remained unchanged when affiliation-motivated leaders were considered. Exploratory analyses contrasting socialised power-motivated and affiliation-motivated leaders show that with regard to attitudinal outcomes affiliation-motivated leaders were, on average, as effective as socialised power-motivated ones.

Keywords Implicit motives · Socialised power motive · Need for affiliation · Transformational leadership · Vignette study

Introduction

Personality is among the longest studied antecedents of leadership emergence and effectiveness (Yukl 2012). One trait-like individual difference which faces a resurgence of scientific interest is a leader's implicit motives (Schultheiss and Pang 2007). Implicit motives are enduring dispositions to seek pleasure from certain incentives that orient, select, and energise behaviour (McClelland 1985a). Scholars have been particularly concerned with the implicit need for power (*nPow*). McClelland (1985a) reasoned that people high in *nPow* are non-consciously motivated to influence others, but remain socially distinct from subordinates which justifies

their predominance in leadership roles. Work environments have, however, notably changed since scholars first studied implicit motives and successful leadership (e.g., McClelland and Burnham 1976). Today, leaders have to collaborate with various stakeholders and high-quality leader-follower-interactions foster positive attitudes and organisational goal-attainment (Dulebohn et al. 2012). Behaviours energised by the need for affiliation (*nAff*) thus seem to have gained importance in leading.

In the present work, we investigate the implicit affiliation motive and its association with effective leadership behaviour. To embed our research, we first refer to leaders concerned with a responsible use of power whose success has widely been evidenced, and compare them with leaders characterised by less effective motive dispositions. Using this benchmark, we then contrast affiliation-motivated leaders with the latter ones. In sum, we pursue three purposes in promoting the importance of *nAff*: First, we aim to show that like leaders concerned with a socialised use of power, affiliation-motivated leaders are perceived to more engage in effective leadership behaviours than those striving for personal gains or exceptional accomplishments. Therefore, we relate implicit motives to transformational leadership, the most popular leadership paradigm (Dinh et al. 2014).

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Second, we intend to demonstrate that via these behaviours, not only those motivated by socialised power, but also affiliation-motivated leaders are perceived as more successful and increase followers' identification and extra-role behaviour more than leaders striving for personal benefits or extraordinary achievements. Third, we aim at determining causal effects of motives and conducted a vignette study with employees. Experiments have variously been called for in leadership research (e.g., Avolio et al. 2009b), but still are underrepresented (Avolio et al. 2009a). As the first vignette study on implicit motives and successful leadership, our work adds to extending the experimental approach within this field.

Implicit motives and leadership

Nearly 40 years ago, McClelland and Boyatzis (1982) published their seminal work revealing that leaders attained higher management levels if they were high in *nPow*, low in *nAff*, and high in activity inhibition, a tendency that modulates the manifestation of implicit motives (Schultheiss et al. 2009). People high in *nPow* strive for status and impact on others (Winter 1973). They are equipped with the underlying intent necessary in influencing, enabling, and motivating followers (House et al. 1999). Leaders may be inclined to act out this motive to aggrandise themselves (personalised power, *pPow*; McClelland 1975). Only if *nPow* is modulated by high activity inhibition, power is used responsibly (socialised power, *sPow*). Whereas personalised power-motivated leaders pursue egoistic purposes (McClelland and Wilsnack 1972), socialised power-motivated ones use their power to contribute to organisational goals (McClelland and Boyatzis 1982) and followers' welfare (Winter 1973). Affiliation-motivated people seek to establish and maintain relationships (Heyns et al. 1958). They seem to disregard external requirements in favour of harmonious interactions (Spangler and House 1991). *nAff* was therefore said to impede successful leadership (McClelland 1975). The achievement motive (*nAch*), a striving for excellence and unique accomplishments through individual efforts (McClelland 1985a), the third major motive, was found to not predict higher management success. The constellation of high *nPow*, low *nAff*, and high activity inhibition was called *Leadership Motive Pattern* (LMP). In analyses, the LMP is commonly considered as dichotomous index based on cut-off values for its constituents.

Several studies question the obstructive effect of *nAff*: They failed to find a negative association with effective leadership (House et al. 1991; Spangler and House 1991) or even report positive relations with performance and subordinates' attitudes (e.g., Cornelius and Lane 1984; Steinmann et al. 2015). Accordingly, Spangler et al. (2014) postulated

that nowadays medium to high *nAff* is crucial in leading. Steinmann et al. (2016) reasoned that in uncertain work environments associated with current economic, societal, and technological upheavals, keeping followers committed is a major leadership task (Lim and Ployhart 2004). Leaders further have to empower teams rather than to guide individuals (Chen et al. 2007), and to show consideration to keep diverse teams functioning (Homan and Greer 2013). As these behaviours require the initiation and maintenance of relationships, *nAff* now seems to be nearly as important as *nPow* (Spangler et al. 2014).

Implicit motives and transformational leadership

Already early work extrapolated from general conduct energised by *nPow*, *nAff*, and *nAch* to more specific behaviours in leading (see Table 1), and used these manifestations to explain the effects associated with the LMP (e.g., House et al. 1993). Only a few studies, though, related implicit motives to particular leadership styles (e.g., De Hoogh et al. 2005; Delbecq et al. 2013; House et al. 1991). They mainly focused on leaders' charisma. Charisma encompasses an extraordinary appeal that results from the leader's ability to inspire (House and Howell 1992) and followers' attribution of admirable characteristics and skills (Felfe 2006). House and colleagues reasoned that *nPow* energises charismatic leadership as it drives people to enduringly seek pleasure from leading (House 1977). Yet, power-motivated leaders are only seen as truly charismatic on the long-run, if the intolerable aspects of *nPow* are inhibited (House and Howell 1992). Leaders high in *pPow* may initially also arouse charisma perceptions and may attract followers. They pretend to use their power for organisational goals, but indeed misuse their appeal to manipulate followers in order to maximise their own gains (Bass and Steidlmeier 1999). They have therefore been referred to as pseudo-charismatic leaders (House and Howell 1992). After a while, their self-interested values and coercive behaviours become apparent, especially to immediate followers (House and Howell 1992). Charisma perceptions are then replaced by those of abusive supervision and attraction changes into fear (cf. Barling et al. 2008). As collective interests and a high sense of responsibility in using one's power is what differentiates authentic from pseudo-charismatic leaders and ensures followers' attraction over the long haul (House and Howell 1992), high levels of activity inhibition are essential for a leader's charisma.

Charisma is one facet of transformational leadership. Such leaders are further attributed an *idealised influence* on followers. They are viewed as powerful, self-confident, and oriented towards the collective (Bass 1985). Their *idealised influence* also becomes apparent in certain *behaviours*: They adapt actions to the values they advocate and their influence to morality (Kanungo and Mendonca 1996). They articulate

Table 1 Characteristics and behaviours of leaders high in *pPow*, *nAch*, *sPow*, and *nAff* according to facets of transformational leadership and other leadership attributes

Leadership behaviour	Leaders' implicit motive			
	Personalised power	Achievement	Socialised power	Affiliation
Idealised Influence Attributed	<ul style="list-style-type: none"> • Are egoistic (–) • Pursue self-serving interests (–) 		<ul style="list-style-type: none"> • Use their influence for the benefit of others • Seek pleasure from leading • Are determined 	<ul style="list-style-type: none"> • Are oriented towards the welfare of the collective
Idealised Influence Behavioural	<ul style="list-style-type: none"> • Maximise their gains at the organisation's expense (–) 		<ul style="list-style-type: none"> • Orderly stick to procedures • Use legitimate ways of authority • Are just and value equality • Are concerned with task structures and discipline 	<ul style="list-style-type: none"> • Align their actions with job demands • Make exceptions to please followers (–) • Initiate and foster interactions
Inspirational Motivation	<ul style="list-style-type: none"> • Manipulate followers (–) • Coerce followers (–) 	<ul style="list-style-type: none"> • Strive for exceptional outcomes and extraordinary achievements 	<ul style="list-style-type: none"> • Strive for organisational goal attainment • Empower followers 	<ul style="list-style-type: none"> • Are aware of followers' abilities • Are task-oriented
Intellectual Stimulation	<ul style="list-style-type: none"> • Do not tolerate objections (–) • Control followers (–) • Keep followers dependent (–) 	<ul style="list-style-type: none"> • Do not delegate authority or responsibility (–) • Keep control of their position (–) 	<ul style="list-style-type: none"> • Encourage followers to suggest new procedures or criticise decisions • Help followers to achieve and develop competencies 	<ul style="list-style-type: none"> • Involve followers when taking decisions
Individualised Consideration	<ul style="list-style-type: none"> • Increase their personal gains at the detriment of others (–) • Want to dominate others (–) 	<ul style="list-style-type: none"> • Ignore interpersonal aspects for the sake of completing tasks (–) • Face difficulties working in teams (–) 	<ul style="list-style-type: none"> • Care for followers' good • Are concerned with followers' vocational and personal development 	<ul style="list-style-type: none"> • Are sensitive to followers' feelings and needs • Care for followers good and regard them individually • Are accommodating and sympathetic • Provide followers with assistance • Care about followers' development • Stress warm and supportive relations with followers
Charisma			<ul style="list-style-type: none"> • Have an extraordinary appeal with followers 	<ul style="list-style-type: none"> • Have high interpersonal competencies
Others	<ul style="list-style-type: none"> • Are impetuous and aggressive 	<ul style="list-style-type: none"> • Strive to attain goals through their own efforts • Are not interested in taking decisions or enforcing authority 		<ul style="list-style-type: none"> • Avoid conflicts • Easily learn social networks • Worry about being liked

Description of motive-related leadership behaviour and characteristics are drawn from Howell and Avolio (1992), House et al. (1991), Kanungo and Mendonca (1996), McClelland (1985a), McClelland and Burnham (1976), McClelland et al. (1972), Schultheiss et al. (1999), Spangler et al. (2014), and Weinberger et al. (2010)

an appealing future vision, which provides the work with meaning and challenge and builds communal spirit (Bass and Steidlmeier, 1999). By this *inspirational motivation*, they empower followers (Kanungo and Mendonca 1996).

Transformational leaders *intellectually stimulate* followers to apply new procedures and question assumptions and show confidence in their abilities (Bass 1985). Finally, they are *individually considerate* about followers and encourage their

self-actualisation (Bass and Steidlmeier 1999). In the following, we relate manifestations of *pPow*, *nAch*, *sPow*, and *nAff* to this leadership style (Table 1).

***pPow*, *nAch*, and transformational leadership**

Personalised power-motivated leaders use their influence to enforce their own goals and maximise personal benefits, and are described as irresponsible, impulsive, and punitive (McClelland 1975). Although, to our knowledge, no study exists that empirically relates this motive to these leadership styles, *pPow* is highlighted as antecedent of destructive and unethical leadership (Howell and Avolio 1992) or an abuse of power (Spangler et al. 2014). Actions energised by *pPow* (Table 1) contradict the transformational leaders' consideration, encouragement of critical thinking, or focus on morality and collective interests (cf. Zhang and Bednall 2016).

Transformational leaders eagerly strive to attain the vision they communicate and set high performance standards (Bass 1985). These behaviours are associated with *nAch*. Achievement-motivated persons, however, do not care about leading or enabling others (McClelland and Boyatzis 1982). Whereas transformational leaders support and align team efforts to jointly work towards their shared vision (Bass 1985), achievement-motivated leaders strive to attain exceptional outcomes independently and at times without regard to external requirements (Spangler et al. 2014). In studies, *nAch* shows no (De Hoogh et al. 2005) or a negative association (House et al. 1991) with charisma, but tends to positively relate to leaders' passivity (Steinmann et al. 2016).

***sPow* and transformational leadership**

sPow is the motivational correlate of charisma (e.g., House and Howell 1992). Activity inhibition channels *nPow* so that influence is exerted to benefit the collective and leaders have the extraordinary appeal with followers. Accordingly, studies show that *nPow* and the extent to which power is used for institutional goals both explain variance in presidents' charisma (House et al. 1991) and that *sPow*, operationalised as interaction of *nPow* and a tendency to use power responsibly, particularly adds to charisma perceptions in non-profit organisations (De Hoogh et al. 2005).

Broadening this evidence, we suggest *sPow* becomes visible in various transformational leadership behaviours (Table 1). As *pPow* and *nAch* energise behaviours that contradict this leadership style or show only marginal overlap, we assume a closer relation with *sPow*.

Hypothesis 1 Socialised power-motivated leaders are perceived to lead more transformational than personalised power-motivated and achievement-motivated leaders.

***nAff* and transformational leadership**

Long-time, scholars reasoned that people high in need for affiliation are ineffective in leadership positions as they overly worry about being liked (McClelland and Boyatzis 1982) and make exceptions to please followers (McClelland and Burnham 1976). Contrary to this, Kanungo (2001) emphasised that leaders are only truly effective, if they are motivated by a concern for others. Affiliation-motivated leaders indeed show consideration (Table 1; Steinmann et al. 2016) and have exceptional interpersonal competencies. These competencies aid in communicating an inspiring vision: As affiliation-motivated leaders are aware of followers' values, they may depict an appealing future state (Conger and Kanungo 1998). They foster cooperation among team members so that they jointly work towards their vision. In line with the transformational leaders' high performance expectations (Bass 1985), affiliative leaders have been reasoned to be task-oriented (Kanungo and Mendonca 1996). The supportive relationships they establish with followers comply with job demands (Kanungo and Mendonca 1996). That way, they may help followers to develop personally and vocationally and to achieve more than expected.

Studies reveal a marginal negative (De Hoogh et al. 2005; Delbecq et al. 2013) or no association (House et al. 1991) between *nAff* and charisma. It, however, energises various behaviours transformational leaders exert (Table 1). Therefore, we assume higher ratings of this leadership style for affiliation-motivated leaders than for those striving for self-aggrandisement or unique accomplishments.

Hypothesis 2 Affiliation-motivated leaders are perceived to lead more transformational than personalised power-motivated and achievement-motivated leaders.

Implicit motives, transformational leadership, and leadership outcomes

Research substantiates an association between leaders' motives and their career advancement and followers' performance, team spirit, and satisfaction (e.g., Cornelius and Lane 1984; McClelland and Burnham 1976; Steinmann et al. 2015). Whereas these are often single findings, meta-analyses assert a link between transformational leadership and leaders' performance and success, as well as followers' attitudes, performance, and Organisational Citizenship Behaviour (OCB; e.g., Dumdum et al. 2013; Lowe et al. 1996; Wang et al. 2011). In the present study, we relate implicit motives to leaders' success, followers' identification with leaders, and their OCB. Like former work (Lowe et al. 1996), we assessed ratings of leaders' effectiveness, and followers' satisfaction with the leader as well as their extra effort as success indicators. Since evidence from field

studies supports a strong relation with transformational leadership (Lowe et al. 1996), we incorporated these success indicators into our experimental study. These leaders exert influence as role models (Shamir et al. 1993), which is why followers' personal identification and internalisation of the leaders' values are central for the transformational leaders' accomplishments (Conger and Kanungo 1998). Moreover, this leadership style is innately associated with performance beyond expectations (Bass 1985): Besides effort on the job, such leaders elicit performance beyond job demands (Wang et al. 2011).

Leadership success

Leaders high in *sPow* and *nAff* are determined to achieve organisational welfare and exhaust available resources (Kanungo and Mendonca 1996). Socialised power-motivated leaders emphasise discipline but also encourage followers to think critically, whereas affiliation-motivated leaders align their actions with job demands and involve followers in decisions as they are aware of their abilities. Both stimulate followers intellectually, raising their performance that way (Bass 1985). They show confidence in followers' goal achievement which strengthens their self-efficacy (Shamir et al. 1993). As a result, followers achieve more than expected and leaders are perceived as exceptionally effective (Bass 1985).

With their devotion to organisational goal attainment, socialised power-motivated and affiliation-motivated leaders set followers an example and motivate them to do more. As they create a purpose in work beyond extrinsic rewards, they raise its symbolic value (Shamir et al. 1993) and concentrate followers' efforts (Bass 1985). Effort constitutes a means of approaching the shared vision and expressing affinity to one's leader, and becomes an important value itself (Shamir et al. 1993). Further enhanced by the altruistic concern associated with *sPow* and *nAff*, followers exert themselves (Bass 1985).

sPow and *nAff* drive leaders to care for followers' good and promote their vocational and personal development (Kanungo and Mendonca 1996). Socialised power-motivated leaders help followers to achieve and strengthen their competencies, affiliation-motivated leaders cherish supportive relations with them, and both enrich the work with meaning (Kanungo and Mendonca 1996). The combination of consideration, inspirational motivation, and charisma apparent in these behaviours, particularly satisfies followers (Dumdum et al. 2013).

Identification with the leader

Their appeal and individual care for team members prompt followers to identify with leaders high in *sPow* and *nAff* (cf.

Shamir et al. 1993). Whereas socialised power-motivated leaders are just and act as moral role models, affiliation-motivated leaders implement their high communication skills and awareness of followers' needs to address and transform followers' beliefs (Conger and Kanungo 1998). Both instils within followers a desire to resemble the leader (Bass and Avolio 2000). They include leaders into their representations of the self. Followers personally identify with leaders (Aron 2003) and internalise their values (Shamir et al. 1993).

OCB

Followers of socialised power-motivated and affiliation-motivated leaders have a strong desire to pay back the appreciation these leaders grant (cf. Gouldner 1960). A way of returning that leaders notice is performance beyond job prescriptions that benefits the social context (Borman and Motowidlo 1993). By aligning work to self-transcendent goals, leaders high in *sPow* and *nAff* enhance followers' team identification and motivate them to work for its good (Bass 1985). As these leaders propagate collective efforts, work becomes even more meaningful (Shamir et al. 1993) and complies with followers' self-concepts (Wang et al., 2011). Followers want to contribute to achieving the team's vision regardless of external costs (Shamir et al. 1993). They engage in OCB.

Taken together, we suggest that through their manifestation in more transformational leadership behaviour, *sPow* and *nAff* more closely relate to these outcomes than *pPow* and *nAch*.

Hypothesis 3 Mediated through transformational leadership perceptions, socialised power-motivated leaders (a) are perceived as more successful, (b) elicit more identification with leaders, and (c) more strongly increase followers' OCB than personalised power-motivated and achievement-motivated leaders.

Hypothesis 4 Mediated through transformational leadership perceptions, affiliation-motivated leaders (a) are perceived as more successful, (b) elicit more identification with leaders, and (c) more strongly increase followers' OCB than personalised power-motivated and achievement-motivated leaders.

Materials and method

Design

We used a questionnaire-based 2 (female vs. male leader) × 4 (*sPow* vs. *nAff* vs. *pPow* vs. *nAch*) experimental between-subject design to test our hypotheses. Although we did

not assume differences between male and female leaders, we varied the gender to be able to generalise our findings. Participants were randomly assigned to the experimental conditions.

Like previous studies on transformational leadership (e.g., Felfe and Schyns 2006; Hopton et al. 2013; Nübold et al. 2013), we were interested in explicit responses to and evaluations of leaders and applied written paper-people vignettes (Aguinis and Bradley 2014). In each vignette, we illustrated one motive based on prior work on their behavioural manifestation (McClelland 1985a; Winter 1994) and both forms of power (Schultheiss et al. 1999). By using vignettes, we could isolate and examine the unique contribution of each motive which would not be possible in surveys (Brown and Lord 1999).

Procedure and participants

To strengthen external validity, we conducted the study with employees. We approached the training department of a globally operating electronics company. Its members were invited to fill in the paper-and-pencil questionnaire during working hours. That way, we intended to increase congruence of the experimental and natural setting, and thus realism and plausibility of the study (Aguinis and Bradley 2014). Besides, we asked trainers of a training company for assistance in collecting data by distributing questionnaires at the end of their trainings.

The study was conducted in full compliance with data protection regulations and ethical guidelines of the German Society of Psychology. It was labelled as research on the perception of leaders and their behaviour, and consisted of five parts: First, participants were asked to mention a private activity they might do at weekends and to which they feel equally obliged as to their leader's request to work overtime for an important project, and to indicate the meaningfulness of this activity. Then, one of the vignettes was presented. Participants were instructed to visualise the leader in order to evaluate her from a direct follower's perspective in the third part. Questions concerned her transformational leadership behaviour, success indicators, and followers' identification with the leader. In the fourth part, participants faced a decision-making scenario indicating their OCB. Finally, we assessed the imaginability of the leader and her closeness to reality along with demographic details. We refrained from obtaining written informed consent to protect participants' anonymity.

In total, 82 employees with diverse jobs from different companies of varying sectors participated. Due to incomplete data, two participants had to be excluded. Of the remaining $N = 80$ employees, 38.8% were females and 61.2% were males. Their age ranged between 19 and 60 years ($M = 35.56$; $SD = 10.55$). With regard to their educational

achievements, 12.5% indicated to have passed the General Certificate of Secondary Education, 13.8% owned the Advanced Vocational Certificate of Education, 26.2% passed the A-levels, and 47.5% held a university degree. About one-third (30%) were in leading positions, with 41.18% of them leading followers with managerial responsibility themselves.

Materials

Leadership vignettes

As implicit motives are “general dispositions to act in specific ways” (Hofer and Busch 2011; p. 219), we illustrated certain behaviours and characteristics associated with either *sPow*, *nAff*, *pPow*, or *nAch* to implement our manipulation. In each vignette, we related to the way the leader does her work, takes decisions, or interacts with followers (see Supplemental Material A). Motive-specific descriptions of these behavioural instances were developed based on Winter's (1994) scoring manual for implicit motives, McClelland's (1985a) remarks on their behavioural expression, and Schultheiss et al.'s (1999) differentiation of *sPow* and *pPow*. Scorings of two trained scorers show that each vignette was associated with the motive we aimed to manipulate (average sum scores: *sPow* = 8, *nAff* = 8.5, *pPow* = 8.5, *nAch* = 11; scorings for the other motives: 0 to 0.5). Across vignettes and motives agreement was $r = 0.94$.

Decision-making scenario

To determine participants' OCB, we deployed a decision-making scenario: Participants were asked to imagine their team was working on an important project which had to be finished by the following Monday. The team would not be able to complete the project within regular working hours. To yet still meet the deadline, Mrs./Mr. Hoffmann asked the participant to work overtime together with her colleagues on Saturday, and emphasised that her effort was vital in finishing the project. Participants were requested to imagine they had already planned the private activity they mentioned, and that it was impossible to fulfil both obligations. Participants had to indicate whether they decided for the work-related or the private activity. Their willingness to decide for the occupational activity indicated their OCB.

Measures

Meaningfulness of the private activity

To assess the meaningfulness of the private activity we used two self-developed questions. On a five-point scale

(1 = *completely unimportant* to 5 = *very important*) participants stated how important the activity was. On another five-point scale (1 = *very easy* to 5 = *very difficult*) they rated how difficult it would be to be unable to pursue it. The two-item scale had an internal consistency of $\alpha = 0.81$.

Transformational leadership

Transformational leadership was measured using the German version (Felfe 2006) of the Multifactor Leadership Questionnaire (MLQ; Bass and Avolio 1995). With items on the leaders' attributed and behavioural idealised influence, their inspirational motivation, intellectual stimulation, and individualised consideration, the MLQ assesses the core characteristics of transformational leadership. In addition, the German version includes items on the leaders' charisma. They refer to the transformational leaders' outstanding abilities and characteristics and their extraordinary appeal (example 'Mrs./Mr. Hoffmann is able to impress and fascinate me with her/his personality.') as these defining characteristics were considered underrepresented in the original instrument (Felfe 2006). On a five-point response scale (1 = *never* to 5 = *almost always*), followers indicated how often leaders show the behaviours or exert the impact illustrated in the 23 items. In line with previous research (e.g., Hildenbrand et al. 2018; Zacher et al. 2011), we averaged items across sub-facets to compose an overall score of transformational leadership that we included into our main analyses. The internal consistency of the overall scale was $\alpha = 0.95$. In supplemental analyses, we also considered the sub-facets of transformational leadership (see Supplemental Material C and Supplemental Material E).

Success criteria

Leaders' effectiveness, followers' extra effort, and their satisfaction with the leader were assessed with the respective scales of the MLQ (Bass and Avolio 1995; Felfe 2006). Effectiveness and extra effort were measured with four items each (examples 'Mrs./Mr. Hoffmann is effective in meeting organisational requirements.' and 'Mrs./Mr. Hoffmann gets me to do more than I expected to do.'), satisfaction with two items (example 'Mrs./Mr. Hoffmann uses methods of leadership that are satisfying.') rated on the same response scale as transformational leadership. Reliability of the scales was $\alpha = 0.81$, $\alpha = 0.89$, and $\alpha = 0.89$.

Identification with the leader

As indicators of followers' identification, we assessed participants' personal identification with the leader and their internalisation of values. For personal identification, we used Mael and Ashforth's (1992) six-item scale on organisational

identification adapted to leaders (Böttcher 2001; example 'When someone criticises Mrs./Mr. Hoffmann, it feels like a personal insult.'). Internalisation of values was assessed using a four-item scale (Becker et al. 1996; Böttcher 2001; example 'My attachment to Mrs./Mr. Hoffmann is primarily based on the similarity of my values and those represented by Mrs./Mr. Hoffmann.'). Participants stated their approval on a five-point scale (1 = *not at all* to 5 = *entirely*). Reliability of the scales was $\alpha = 0.75$ and $\alpha = 0.85$.

Imaginability of the leader and closeness to reality

Participants were asked how well they could visualise Mrs./Mr. Hoffmann (1 = *not at all* to 5 = *entirely*) to capture the imaginability of the leader. To assess the closeness to reality, they were encouraged to think of a person in their work environment who resembles Mrs./Mr. Hoffmann and to evaluate the degree of similarity (1 = *very low* to 5 = *very high*).

Results

Preliminary analyses

Initially, we analysed whether participants' demographics, the context of data collection, or the group assignment may impact the results. Analyses reveal that age, gender, position or educational achievements did not significantly affect perceptions of leadership behaviour or outcomes (see Supplemental Material B). Neither did these ratings vary dependent on the context of data collection (all $ps \geq 0.36$). Experimental groups showed no significant difference in demographics, the imaginability of the leader, her closeness to reality, or the meaningfulness of the private activity (all $ps \geq 0.27$).

Then, we assessed whether ratings varied between male and female leaders. Neither evaluations of leadership behaviour or success and identification indicators (all $ts(78) \leq 0.52$, $ps > 0.60$, $ds \leq 0.12$), nor participants' OCB ($\chi^2(1) = 0.91$, $p = 0.24$; $d = 0.21$), or judgements of the leader's closeness to reality and imaginability ($ts(78) \leq 0.55$, $ps > 0.58$, $ds \leq 0.12$) depended on the leaders' gender. As it did not neither interact with motives, we combined experimental groups according to the motive illustrated. Table 2 presents the means, standard deviations, and correlations of the study-relevant variables of the overall sample, Table 3 means and standard deviations of various variables per group.¹

¹ In Supplemental Material C, for each experimental group, means and standard deviations are also presented for the sub-facets of transformational leadership.

Table 2 Means, standard deviations, and correlations of study variables included in the hypotheses

Study variables	<i>M</i>	<i>SD</i>	Range	Pearson correlations								
				1	2	3	4	5	6	7	8	9
1. Contrast code c_1 (<i>sPow</i> vs. <i>pPow</i> / <i>nAch</i>)	—	—	—									
2. Contrast code c_4 (<i>nAff</i> vs. <i>pPow</i> / <i>nAch</i>)	—	—	—	.33**								
3. Contrast code c_6 (<i>sPow</i> vs. <i>nAff</i>)	—	—	—	-.58***	.58***							
4. Leadership effectiveness	2.81	1.01	1.50–4.75	.76***	.44***	.28*						
5. Extra effort	2.97	0.91	1.25–4.75	.58***	.32**	.23*	.80***					
6. Satisfaction with the leader	2.81	1.22	1.00–5.00	.72***	.68***	.03	.86***	.77***				
7. Personal identification	2.21	0.65	1.33–3.83	.49***	.49***	-.01	.62***	.61***	.67***			
8. Internalisation of values	2.47	0.97	1.00–4.50	.63***	.50***	.12	.77***	.78***	.81***	.72***		
9. OCB ^a	—	—	—	.31**	.13	.15	.29**	.27*	.29*	.17	.24*	
10. Perceived transformational leadership	3.03	0.84	1.48–4.57	.76***	.54***	.19†	.87***	.78***	.90***	.64***	.83***	.37**

Leadership effectiveness, extra effort, and satisfaction with the leaders are assessed as indicators of leadership success; personal identification and internalisation of values serve as indicators of followers' identification with the leader. ^a0 = decision for the private activity, 1 = decision for the occupational activity

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Hypothesis tests

We applied multiple regression analyses using contrast coding as described by Cohen et al. (2003). They recommend the procedure if focused hypotheses that centre on mean differences between combinations of groups are to be tested. Multiple regressions rely on the same general linear model as ANOVAs, with contrast codes equalling a priori comparisons. They, however, provide information that typically is not obtained from ANOVAs (e.g., [semi]partial correlations), but based on which important parameters like the amount of variance accounted for by a specific contrast are calculated. Besides, this approach allows the testing of mediations.

To represent the k levels of a predictor, a set of $k-1$ contrasts is needed. A contrast is created by assigning the groups of interest a certain weight. The value of the weight depends on the number of groups compared. Groups for which a higher effect on average is assumed are assigned a positive, those with lower effects a negative value. For each contrast the sum of weights should be zero just as the sum of products for each pair of the $k-1$ contrasts. The difference between the value of the positive and the negative weight should yield one. If these conditions are met, orthogonal contrasts may be obtained which are easy to interpret (Cohen et al. 2003). A variety of contrasts may be established when comparing the means of groups and combinations of groups. Contrasts therefore have to be constructed so that they neatly map onto one's hypotheses.

According to our hypotheses, we first created two contrasts that opposed leaders high in *sPow* (c_1) or in *nAff* (c_4) to leaders high in *pPow* and *nAch*. As the sum of the products of this pair of contrasts does not equal zero, these contrasts could not be combined into a single set of three contrasts that were needed to represent our four experimental groups. To test our hypotheses, two sets of contrasts had to be established. Pairs of contrasts, whose sum of products equals zero, are easily obtained if groups are opposed in one contrast, which, in another contrast, together form one of the groups that are being compared. Accordingly, c_1 and c_4 , which neatly map onto our hypotheses, suggested further contrasts that appropriately complement the necessary set of three contrasts. In both sets, we therefore included a contrast that opposed leaders high in *pPow* to leaders high in *nAch* (c_2), which were combined into one group in c_1 and c_4 . For different reasons, we assumed leaders high in *pPow* and those high in *nAch* to be less effective than leaders high in *sPow* or *nAff*. Yet, we did not assume any particular difference between these leaders. To complement the set of three contrasts, we finally compared leaders high in *nAff* (c_3 ; hypothesis 1) or in *sPow* (c_5 ; hypothesis 2) to all others, given that all other leaders have been contrasted in c_1 or c_4 , respectively.

Table 3 Means and standard deviations of all metric variables considered in the study as well as participants' decision behaviour as OCB indicator in the four experimental groups

Study variables	Socialised power-motivated leader		Affiliation-motivated leader		Achievement-motivated leader		Personalised power-motivated leader	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Meaningfulness of the private activity	4.25	0.75	4.48	0.66	4.53	0.57	4.28	0.95
Perceived transformational leadership	3.93	0.47	3.48	0.62	2.42	0.45	2.31	0.38
Leadership effectiveness	3.95	0.52	3.15	0.90	2.09	0.60	2.06	0.46
Extra effort	3.76	0.65	3.18	0.85	2.61	0.78	2.34	0.67
Satisfaction with the leader	3.90	0.58	3.80	0.92	1.78	0.47	1.75	0.47
Personal identification with leader	2.59	0.67	2.60	0.61	1.85	0.49	1.78	0.27
Internalisation of values	3.29	0.74	2.98	0.79	2.04	0.69	1.58	0.48
Imaginability of the leader	3.75	0.55	3.90	0.72	3.80	0.77	4.00	0.56
Closeness to reality	3.15	0.99	3.30	1.17	2.95	0.94	3.35	0.93
	Private	Work	Private	Work	Private	Work	Private	Work
OCB (activity decided for in %)	10	90	30	70	55	45	35	65

Table 4 Hierarchical regression analyses predicting transformational leadership from contrast codes

Contrast code	Perceived transformational leadership					
	<i>B</i>	<i>SE B</i>	<i>t</i>	BCaCI 95% [LLCI, ULCI]	<i>pr</i>	<i>sr</i>
<i>C</i> ₁ (<i>s</i> Pow vs. <i>p</i> Pow/ <i>n</i> Ach)	1.58	.14	11.67***	[1.332, 1.808]	.80	.76
<i>C</i> ₂ (<i>p</i> Pow vs. <i>n</i> Ach)	0.11	.16	0.72	[− 0.139, 0.378]	.08	.05
<i>C</i> ₃ (<i>n</i> Aff vs. <i>s</i> Pow/ <i>p</i> Pow/ <i>n</i> Ach)	− 0.59	.13	− 4.67***	[− 0.873, − 0.278]	− .47	− .31
<i>R</i> ²			.68***			
<i>C</i> ₄ (<i>n</i> Aff vs. <i>p</i> Pow/ <i>n</i> Ach)	1.12	.14	8.29***	[0.816, 1.394]	.69	.54
<i>C</i> ₂ (<i>p</i> Pow vs. <i>n</i> Ach)	0.11	.16	0.72	[− 0.145, 0.354]	.08	.05
<i>C</i> ₅ (<i>s</i> Pow vs. <i>n</i> Aff/ <i>p</i> Pow/ <i>n</i> Ach)	− 1.19	.13	− 9.44***	[− 1.445, − 0.956]	− .74	− .62
<i>R</i> ²			.68***			

BCaCI Bias-corrected and accelerated confidence interval, LLCI lower level of the confidence interval, ULCI upper level of the confidence interval, *pr* partial correlation, *sr* semipartial correlations

*** $p < .001$

In *c*₁ and *c*₄, *s*Pow or *n*Aff were positively weighted, *p*Pow and *n*Ach negatively. Positive regression weights indicate that socialised power-motivated or affiliation-motivated leaders are on average rated higher in the dependent variable than personalised power-motivated and achievement-motivated leaders.

Direct effects of motives on transformational leadership perceptions

To test hypotheses 1 and 2, we entered *c*₁, *c*₂, and *c*₃, respectively *c*₄, *c*₂, and *c*₅ into regression analyses. In either case, contrasts significantly accounted for variance in transformational leadership ratings (Table 4). Regression weights of *c*₁ and *c*₄ were positive and significant; *s*Pow and *n*Aff on average led to higher ratings in transformational leadership.

According to the average overall effect size Bosco et al. (2015) published in their effect size benchmark, when accounting for *c*₂ and *c*₃ or *c*₂ and *c*₅, effects of *c*₁ ($d = 2.68$) and *c*₄ ($d = 1.90$) can be considered high. They range above the 80th percentile of the distribution. Squared partial correlations reveal that 64.16% respectively 47.47% of the variance in transformational leadership perceptions not accounted for by other contrasts is explained by *c*₁ or *c*₄. Of the total variance explained by motives, *c*₁ accounts for 85.89%, *c*₄ for 43.30% (sr^2 / R^2). Supplemental Material D provides information on the probability of finding a difference in transformational leadership (and outcomes) between the experimental groups.

Table 5 Indirect effects of contrast code c_1 (*sPow* vs. *pPow/nAch*) on outcome variables through transformational leadership controlling for c_2 and c_3

	Success criteria								
	Leadership effectiveness			Extra effort			Satisfaction with the leader		
	<i>B/b</i>	BCaCI 95% [LLCI, ULCI]	Effect size	<i>B/b</i>	BCaCI 95% [LLCI, ULCI]	Effect size	<i>B/b</i>	BCaCI 95% [LLCI, ULCI]	Effect size
Total effect	1.894	[1.540, 2.248]	$d=2.44$	1.301	[0.892, 1.709]	$d=1.45$	2.159	[1.807, 2.511]	$d=2.80$
Direct effect	0.556	[0.101, 1.011]	$d=0.56$	− 0.263	[− 0.783, 0.258]	$d=0.23$	0.651	[0.248, 1.054]	$d=0.74$
Indirect effect	1.338	[0.973, 1.791]		1.563	[1.066, 2.131]		1.508	[1.163, 1.921]	
	Identification with the leader								
	Personal identification			Internalisation of values			OCB		
	<i>B/b</i>	BCaCI 95% [LLCI, ULCI]	Effect size	<i>B/b</i>	BCaCI 95% [LLCI, ULCI]	Effect size	<i>B/b</i>	BCaCI 95% [LLCI, ULCI]	Effect size
Total effect	0.783	[0.490, 1.075]	$d=1.22$	1.496	[1.119, 1.874]	$d=1.81$	2.008	[0.399, 3.618]	Nagelkerkes $R^2=0.16$
Direct effect	0.185	[− 0.276, 0.646]	$d=0.18$	0.117	[− 0.379, 0.614]	$d=0.11$	0.169	[− 2.085, 2.422]	Nagelkerkes $R^2=0.24$
Indirect effect	0.598	[0.198, 0.969]		1.379	[1.005, 1.862]		1.971	[− 0.010; 4.178]	

B=regression weight of contrast c_1 ; *b*=indirect effect of contrast code c_1 on outcome variables exerted through transformational leadership; *BCaCI* Bias-corrected and accelerated confidence interval, *LLCI* lower level of the confidence interval, *ULCI* upper level of the confidence interval

Indirect effects of motives on outcomes

We drew on Hayes' (2013) PROCESS macro for SPSS to test indirect effects. Indirect effects of c_1 and c_4 on success and identification indicators were quantified with linear, those on OCB with logistic regressions. c_2 and c_3 , respectively c_2 and c_5 were entered as covariates into all analyses.

Compared to those with leaders high in *pPow* and *nAch*, participants confronted with a socialised power-motivated leader on average perceived her as more effective and indicated higher values in extra effort, satisfaction, and both identification indicators (Table 5). Moreover, they on average showed a higher relative possibility of deciding for the work-related instead of the private activity. Bias-corrected confidence intervals (BCaCIs) for these effects were entirely above zero (Table 5). Total effects on success criteria and identification indicators were all within the upper two percentiles of Bosco et al.'s (2015) distribution. In followers' OCB, 16.4% of the variance can be attributed to c_1 , c_2 , and c_3 according to Nagelkerke's R^2 . When considering c_2 and c_3 as covariates, the odds of deciding for the work-related activity were 7.449 (95% CI [1.490; 37.252]) times higher when asked by a socialised power-motivated leader than when asked by personalised power- and achievement-motivated ones. On each outcome but OCB, results reveal a significant indirect effect of c_1 via transformational leadership perceptions (Table 5). BCaCIs for the direct effects suggest that perceived transformational leadership fully mediates the effect of c_1 on extra effort and identification indicators. Whereas these BCaCIs included zero, those of the direct effect of c_1 on leadership effectiveness and satisfaction were

entirely above zero. Transformational leadership perceptions seem to only partially mediate these effects.

The contrast of affiliation-motivated leaders with those high in *pPow* and *nAch* (c_4) also showed significant total effects on success criteria and identification indicators (Table 6). Effect sizes lay below those of c_1 , but still exceeded the 80th percentile of the benchmark. BCaCIs for the indirect effects did not include zero, suggesting that transformational leadership perceptions may mediate the impact of c_4 on these outcomes (Table 6). Direct effects of c_4 on ratings of the leaders' effectiveness as well as participants' extra effort and both identification indicators did not reach significance, so that full mediation may be assumed. A partial indirect effect seems to operate on satisfaction; the direct effect of c_4 was significant. With regard to OCB, there was no significant total effect of c_4 . Our analysis yet revealed a significant indirect effect as the BCaCI did not include zero.²

In supplemental analyses, we also examined the indirect effects drawing on the sub-facets of transformational leadership. Results are summarised in Supplemental Material E.

Exploratory analyses—contrasting socialised power- and affiliation-motivated leaders

To test whether *sPow* is indeed more important in leading than *nAff* as postulated long-time, we contrasted socialised

² We reanalysed the effects on OCB controlling for the meaningfulness of the private activity. The total effect of c_1 was, again, significant, but there also appeared a significant indirect effect now ($B=2.086$, BCaCI [0.063, 4.431]). With regard to c_4 , the total effect did still not reach significance, whereas the indirect effect again did.

Table 6 Indirect effects of contrast code c_4 ($nAff$ vs. $pPow/nAch$) on outcome variables through transformational leadership controlling for c_2 and c_5

	Success criteria								
	Leadership effectiveness			Extra effort			Satisfaction with the leader		
	<i>B/b</i>	BCaCI 95% [LLCI, ULCI]	Effect size	<i>B/b</i>	BCaCI 95% [LLCI, ULCI]	Effect size	<i>B/b</i>	BCaCI 95% [LLCI, ULCI]	Effect size
Total effect	1.086	[0.732, 1.440]	$d=1.40$	0.707	[0.299, 1.116]	$d=0.79$	2.058	[1.706, 2.410]	$d=2.67$
Direct effect	0.135	[- 0.241, 0.511]	$d=0.16$	- 0.404	[- 0.833, 0.026]	$d=0.43$	0.987	[0.654, 1.320]	$d=1.35$
Indirect effect	0.951	[0.594, 1.377]		1.111	[0.638, 1.656]		1.072	[0.729, 1.439]	
	Identification with the leader								
	Personal identification			Internalisation of values			OCB		
	<i>B/b</i>	BCaCI 95% [LLCI, ULCI]	Effect size	<i>B/b</i>	BCaCI 95% [LLCI, ULCI]	Effect size	<i>B/b</i>	BCaCI 95% [LLCI, ULCI]	Effect size
Total effect	0.791	[0.499, 1.084]	$d=1.24$	1.181	[0.803, 1.558]	$d=1.43$	0.645	[- 0.516, 1.805]	Nagelkerkes $R^2=0.16$
Direct effect	0.366	[- 0.015, 0.747]	$d=0.44$	0.201	[- 0.209, 0.611]	$d=0.22$	- 0.668	[- 2.335, 0.999]	Nagelkerkes $R^2=0.24$
Indirect effect	0.425	[0.171, 0.745]		0.980	[0.637, 1.433]		1.400	[0.090, 3.124]	

B =regression weight of contrast c_4 ; b =indirect effect of contrast code c_4 on outcome variables exerted through transformational leadership; $BCaCI$ Bias-corrected and accelerated confidence interval, $LLCI$ lower level of the confidence interval, $ULCI$ =upper level of the confidence interval

power-motivated and affiliation-motivated leaders. We established two more contrasts: one opposing $sPow$ (positively weighted) to $nAff$ (c_6), and one that opposed $sPow$ and $nAff$ to $pPow$ and $nAch$ (c_7), that is effective versus less effective motive dispositions. For a complete set of contrasts, we again used c_2 . Analyses revealed that c_6 had a significant positive effect on ratings of leaders' effectiveness ($B=0.800$, $BCaCI$ [0.395, 1.205]) and followers' extra effort ($B=0.588$, $BCaCI$ [0.121, 1.055]). The effect on effectiveness ($d=0.90$) exceeded Bosco et al.'s (2015) 80th percentile, whereas that on extra effort ($d=0.57$) ranged between the 67th and 75th percentile. Indirect effects via perceived transformational leadership could be established (effectiveness: $b=0.384$, $BCaCI$ [0.107, 0.686]; extra effort $b=0.448$, $BCaCI$ [0.136, 0.803]). Positive regression weights indicate that socialised power-motivated leaders were rated higher on these outcomes. In judgements of participants' satisfaction, identification, and OCB, c_6 did not significantly explain variance, though.

Discussion

The aim of this study was to promote the implicit need for affiliation in leadership. We aimed at demonstrating that like $sPow$, $nAff$ results in higher transformational leadership perceptions, and by these behaviours more strongly relates to desirable outcomes than $pPow$ and $nAch$, which are said to undermine effective leadership on the long-run (e.g., Bass and Steidlmeier 1999; Spangler et al. 2014).

Relation of implicit motives, transformational leadership, and outcomes

As expected, $sPow$ showed higher relations with ascribed transformational leadership than $pPow$ and $nAch$ jointly. Even though this comparison mainly served as a benchmark for $nAff$, findings extend theorising and evidence on the role of $sPow$ as motivational foundation of charisma to transformational leadership. Whereas a link between $nAff$ and charisma has not been evidenced yet, we found this motive to yield higher transformational leadership ratings than $pPow$ and $nAch$. $nAff$ is hence associated with perceptions of highly effective leadership behaviours, which objects the assumption that it impedes leaders' success (e.g., McClelland 1975). We, however, may not draw conclusions about the value of $nAff$ per se, but have to consider the comparative design of our analyses. And $pPow$ and $nAch$ are linked to despotic leadership (Howell and Avolio 1992) or a disinterest in leading (McClelland and Boyatzis 1982).

On all outcomes but OCB, $sPow$ had higher indirect effects than $pPow$ and $nAch$. As we did not establish causal effects of perceived transformational leadership on outcomes, we cannot be sure that effects unfold through these behaviours. With regard to success and identification indicators, results were similar for affiliation-motivated leaders promoting the importance of $nAff$ to successful leadership. Findings on OCB were ambiguous across analyses: For c_1 , there appeared a significant total but neither a significant direct nor indirect effect, even though the indirect effect nearly reached the size of the total effect. For c_4 , results revealed a significant indirect effect whereas a significant total effect was lacking. The higher

perceptions of transformational leadership that result from the behaviours and characteristics of affiliation-motivated leaders compared to those of personalised power- and achievement-motivated leaders seem to have had an impact on participants' decision for the occupational activity. The decision to work overtime is multicausal, though, and is not solely influenced by the leaders' characteristics and behaviour. Controlling for the meaningfulness of the private activity, for example, slightly changed the results for c_1 . As further aspects might have undermined the leader's impact on the decision-making process, the scenario may have been inadequate in determining participants' OCB. With regard to the other outcomes, insignificant direct effects of c_4 suggest that effectiveness perceptions as well as participants' self-rated extra effort and identification might be attributable to the more transformational leadership behaviours energised by $nAff$. When keeping transformational leadership constant, $nAff$ was, however, also directly associated with higher satisfaction ratings than $pPow$ and $nAch$. This finding is in line with current meta-analytic evidence, which shows that attributes and behaviours of affiliation-motivated leaders that supplement those of transformational ones, like their exceptional interpersonal warmth, their compassion and empathetic listening as well as their ability to build community (Weinberger et al. 2010), incrementally contribute to followers' satisfaction (e.g., Hoch et al. 2016).

In exploratory analyses, we compared leaders high in $nAff$ with those high in $sPow$. $sPow$ was superior with regard to effectiveness perceptions and extra effort, whereas ratings of satisfaction and identification did not differ on average. Results emphasise the value of $nAff$ for attitudinal outcomes and support Spangler et al. (2014) in assuming that $nAff$ is nearly as crucial as $nPow$ nowadays.

Theoretical and practical implications

Initial deliberations on the LMP date back more than 40 years (McClelland 1975). While leadership demands changed during this time, theorising has not been refined. Together with conceptual reasoning (Spangler et al. 2014) and accumulating evidence (e.g., Cornelius and Lane 1984; Spangler and House 1991; Steinmann et al. 2015) our work implies that theorising has to be updated to account for current motivational determinants of effective leadership behaviour.

Integrating our findings into practice, HR departments should extend selection processes by implicit motive measures. If consistent with legislation, motives may be coded from application documents. As applicants might seek help in drafting them, it may be questioned if they accurately mirror applicants' motives. For leaders, no difference in private and professionally aided material could be found so far (Suedfeld 2010). With regard to presidential speeches Winter (1987, 2011) states that besides choosing someone able to express their thoughts, material is shuttled until presidents feel comfortable.

This is also likely for applications. As implicit motives may also be coded from spoken material (Winter 1994), they may be derived from answers to biographical and situational questions in job interviews. Practitioners rather use self-reports (e.g., Hogan and Hogan 1996), which do not converge with projective motive measures (Köllner and Schultheiss 2014). To actually assess implicit motives, we recommend using projective methods. Evidence-based decisions may justify the time-consuming procedure.

Although implicit motives are relatively stable (McClelland 1985a), McClelland and Burnham (1976) found that motive trainings are effective. These trainings aimed at raising leaders' awareness of implicit motives and their manifestation. They led to motive changes and increased, for example, the team spirit. Achievement trainings also found empirical support (Rheinberg and Engeser 2010) and should be broadened to $sPow$ or $nAff$. Given that university graduates are often employed in or make their way to leadership positions, motive trainings may supplement the training portfolio of university or college career services. A more comprehensive preparation of leaders to come may facilitate socialisation processes with regard to the leadership role (cf. Von Rosenstiel et al. 2000). Motive trainings may strengthen a motive, but they do not change the motive hierarchy (Rheinberg and Engeser 2010). As findings suggest indirect effects via transformational leadership, trainings (e.g. Bass 1999) should also involve these behaviours. Their trainability is empirically supported (e.g., Dvir et al. 2002). As motivationally driven behaviours are more readily performed (McClelland 1985b), trainings of current and future leaders should address both, implicit motives and transformational leadership.

Limitations and future research

Experiments have been charged with maximising internal validity at the cost of generalisability (Aguinis and Bradley 2014). Generalisability increases if employees in work environments are considered (Aguinis and Lawal 2012). Our study indeed relied on employees and some participated at work. For those who took part during a training, the context was at least occupational. Ratings did not differ between these groups. Results may yet have been biased as participants answered the survey after a potentially intensive training or workday, and exhaustion may have led them to prefer considerate to more demanding leaders. As employees are familiar with work procedures and leader-follower interactions, we assumed they could easily capture the context depicted. Unfortunately, we did not assess how well scenarios reflected participants' actual work situations and may not rule out that for some vignettes might have lacked representativeness.

We were able to isolate the causal effect of $nAff$. Human behaviour is, however, driven by more than one motive

(McClelland 1985b). Yet, we studied motives independently to learn more about them (McClelland 1992). How motive combinations affect behaviour has early been of interest. Scholars relied on configurations like the LMP that integrate scorings into dichotomous indices (McClelland 1992), but ignore the moderating effect of activity inhibition. Our operationalisation of *sPow* reflects such a configuration: As it involves high *nPow*, high activity inhibition, but no *nAff*, it equals the LMP. Findings on *sPow* thus line up with previous evidence. Spangler et al. (2014) recently posited activity inhibition to modulate the expression of all motives. Like in *nPow*, it likely constrains undesirable facets of *nAff*, e.g. the drive to place harmony above necessary decisions. As motives also modulate each other (Steinmann et al. 2016), future studies should analyse the interplay of motives and activity inhibition, and its effect on leaders' behaviours and success.

Our manipulation relied on the illustration of attributes associated with each motive. Evidence supports this approach as traits are indeed predictive of the actual behavioural manifestation of these traits (Fleeson and Gallagher 2009), and people automatically infer traits from behaviours (e.g., Uleman 1987). However, other dispositions like the Big Five equally find expression in the behaviours we illustrated. Agreeable persons, for example, are sympathetic and show consideration, extraverts seek conversations and are sociable (Costa and McCrae 1985). Results do thus not unequivocally substantiate that implicit motives rather than other factors that induce these manifestations determine effective leadership. They have to be carefully interpreted. Further, the expression of motives is not straightforward, and their effect depends on other traits (Winter et al. 1998): Affiliation-motivated women, for example, better combine work and family roles and engage in more voluntary work contingent on high extraversion (Winter et al. 1998). Accordingly, affiliation-motivated leaders might only be successful, if they are also extraverted. As Hofer et al. (2015) rather found neuroticism to constrain and agreeableness to support the expression of *nAff*, research needs to disentangle how the Big Five act on the expression of motives and modulate their association with effective leadership.

Next, the vignette-approach yields attributed leadership behaviour only. Results show that participants perceive leaders described as high in *sPow* or *nAff* as more transformational. Leadership perceptions are shaped by followers' characteristics (e.g. Felfe and Schyns 2006) and ascriptions may not necessarily match actual leadership behaviour. Accordingly, our study does not give evidence on the relation of implicit motives and leadership behaviour or outcomes as such. Ratings may be biased by the leadership style participants are accustomed to or by their own implicit motives. Strivings of affiliation-motivated persons are satisfied when interacting with a leader who is concerned with harmonious

relations. Power-oriented persons may rather feel restricted in their autonomy, yielding less favourable ratings. Future studies should consider these impacts. Similarly, one may assume that followers value certain leadership attributes if they are experienced in this role. Evaluations depend on leader prototypes and one's self-perceptions against this ideal (Van Quaquebeke et al. 2011). In our study, we did not find such differences as our preliminary analyses show. The problem of ascribed leadership is also present, when followers rate their actual leaders. As their performance and attitudes are substantially determined by how they perceive their leaders (Lord and Maher 2002), ascriptions are valuable in leadership research.

Problematically, we did not neither assess behaviour with regard to outcomes, but relied on cognitive judgements. Therefore, we do not know if socialised power-motivated and affiliation-motivated leaders just positively impact followers' appraisal or indeed increase outcomes more than leaders high in *pPow* or *nAch*. Whereas no other assessment is feasible for attitudes, the impact on behavioural outcomes could have been assessed directly, e.g., by assigning participants tasks. Such objective outcomes would have strengthened our understanding much more. They, however, are difficult to obtain in the field. In the decision-making scenario we at least captured participants' intention to perform, which accounts for variance in actual behaviour (Armitage and Conner 2001). Yet, the decision participants indicate may rather reflect their image of who they want to be, which does not necessarily comply with how they behave (cf. Boyatzis and Akrivou 2006). It may further be reasoned, that our effects may be attributed to valence differences across vignettes. As descriptions of *pPow* are more negatively connoted, more negative judgments result. Leaders interested in their own gains may indeed inspire followers with a vision (Barling et al. 2008; also see Supplemental Material C) and attract them with their pseudo-transformational leadership (for an overview see Steinmann 2017). This attraction turns into fear and suspicion, though, as soon as followers become aware of leaders' antisocial motives (House and Howell 1992). Personalised power-motivated leaders use assertive, aggressive, and exploitative behaviours (House and Howell 1992), people high in *sPow* exert prosocial influence (Schultheiss et al. 1999). Valence differences in the wording are thus rooted in the motives we aimed to express. We assume that differences in attitudes do not solely result from more positive descriptions, but are also found in surveys. Examples in leading corporations, however, suggest that with regard to other indicators, like career advancement, *pPow* and *nAch* may indeed be important. It is reasonable that making up one's way to the top of an organisation where strategic decisions are to be made requires different motives than to keep a team committed. Our interpretation of the value of motives thus derives from the particular outcomes

we chose and the cognitive judgements we obtained and may not generalise to other indicators and real life behaviour. In future studies, different management positions, different organisation types, and different indicators should be considered.

To further substantiate the importance of *nAff*, studies are needed that longitudinally investigate leader-follower-dyads in various work situations. These studies should directly assess leaders' implicit motives, their expression in leadership behaviour, and their impact on objective indicators of effective leadership in addition to followers' attitudes. For nuanced insights, analyses should integrate the Big Five, and consider the interplay of implicit motives, activity inhibition, and traits in predicting a leader's success.

Conclusion

From the beginning of research on leaders' implicit motives, the need for affiliation has been said to impede effective leadership. In line with recent studies and conceptual papers, our work contributes to confirming the importance of the long-neglected *nAff* for leadership success.

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Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent Potential participants were informed about the study's aims and assured that participation would be voluntary and anonymous. In order to protect participants' anonymity, we refrained from obtaining informed consent in written form. As our research was based on anonymous questionnaires and as participating in our study did not cause harm or discomfort that went beyond everyday experiences, this procedure was in line with the guidelines of the national Society of Psychology and our university's ethics committee.

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