A SOCIO-COGNITIVE APPROACH TO PUBLIC LEADERSHIP: CONTENT, OPERATION, AND EFFECTS OF IMPLICIT PUBLIC LEADERSHIP THEORIES

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LIST OF ABBREVIATIONS

AIC	Akaike information criterion
ANOVA	Analysis of variance
b	Unstandardized beta-coefficient
BIC	Bayesian information criterion
CFI	Comparative fit index
CI	Confidence interval
CFA	Confirmatory factor analysis
df	Degrees of freedom
DV	Dependent variable
EFA	Explanatory factor analysis
IF	Impact factor
ILTs	Implicit leadership theories
IPLTs	Implicit public leadership theories
KMO	Kaiser-Meyer-Olkin test for sampling adequacy
LCT	Leadership categorization theory
LMMs	Linear mixed model
LMX	Leader-member exchange
M	Mean
MI	Measurement invariance
ms	Milliseconds
N	Number of observations
p	P-value
R^2	Coefficient of determination
Rel	Reliability
RMSEA	Root mean square error of approximation
SD	Standard deviation
SE	Standard error
SEM	Structural equation modeling
SMP	Semantic misattribution procedure
SRMR	Standardized root mean square residual
WE	Work engagement
Z	Normal distribution value
β	Standardized beta-coefficient
Δ	Delta (change in value)
χ^2	Chi-square distribution value
τ_{00}	Tau, level-2 variance coefficient

Table 0.1. Overview of studies and declaration of contributions

#	Article	Status	Ranking		Contribution	Conference presentations
			IF[1]	VHB[2]		
1	Vogel, R., & Werkmeister, L. (2021). What is public about public leadership? Exploring implicit public leadership theories. *Journal of Public Administration Research and Theory*, *31*(1), 166–183.	Published	7.000	A	50 %	• Presented at the annual European Group of Public Administration (EGPA) Conference & PhD Symposium, May 2019 • Nominated for the Carolyn B. Dexter Award at the 79th Annual Meeting of the Academy of Management (AoM), August 2020
2	Hesmert, L., Hattke, F., & Vogel, R. (2021). The a priori of public leadership: Social attributions to public and private leaders in different performance contexts. *Public Administration.*	Published	3.720	B	33.3 %	• Presented at the annual Conference of the International Research Society for Public Management (IRSPM), April 2021
3	Hesmert, L. (2021). The benefits of following one's ideals: How followers' implicit public leadership theories determine their LMX and work engagement. *Public Management Review.*	Revise & Resubmit	4.222	B	100 %	• Presented at the annual Conference of the International Research Society for Public Management (IRSPM), April 2021 • Nominated for the William H. Newman Award at the 80th Annual Meeting of the Academy of Management (AoM), August 2021
	Not part of this dissertation:					
4	Vogel, R., & Hesmert, L. (2021). Espoused implicit leadership and followership theories and emergent workplace relations: A factorial survey. *Journal of Leadership and Organizational Studies.*	Revise & Resubmit	3.000	N/A	50 %	N/A

[1] Impact factor 2020 according to Journal Citation Reports, Clarivate Analytics
[2] Ranking according to the German Academic Association of Business Research [Verband der Hochschullehrer für Betriebswirtschaft e.V.]

CHAPTER I: SYNOPSIS

Introduction

In addition to its severe impact on the lives of millions of people around the globe, the covid-19 pandemic can be considered a catalyst of global political, economic, and social change (Brammer, Branicki, & Linnenluecke, 2020). The crisis caused significant economic disruption, broadened social and political disparities, and accelerated the transformation of societal structures on a micro and macro level (Grossmann, Twardus, Varnum, Jayawickreme, & McLevey, 2021; Kashima, Dennis, Perfors, & Laham, 2021). As the main providers of public services and goods, public organizations face the challenge of navigating through such change processes while securing public security and wealth and safeguarding ethical and social principles in democratic societies (Leisink et al., 2021). At the same time, an increasingly global and fast-paced economy, demographic change as well as transforming stakeholder expectations put additional internal and external pressure on the public sector and actors therein (S. C. Andersen & Jakobsen, 2018; Denhardt & Denhardt, 2000).

Public leadership, defined here as organizational leadership in public administration (Leisink et al., 2021; Van Wart, 2003, 2004, 2013a), plays a key role in mastering all these challenges. By making strategic decisions, mobilizing collective and individual efforts toward organizational goals, as well as providing ideational and structural guidance to employees, public leadership is a key determinant of organizational success (Crosby & Bryson, 2018; Leisink et al., 2021; Raffel, Leisink, & Middlebrooks, 2009). From their flagship position in public institutions, public leaders play a key role in shaping public organizations' accountability and reputation (Men & Stacks, 2013; t'Hart & Tummers, 2019) and are a decisive attraction and retention factor in the 'war for talents' (Chambers, Foulon, Handfield-Jones, Hankin, & Michaels, 1998) on the job market (Sahu, Pathardikar, & Kumar, 2018). It is therefore more critical than ever to understand the nature, antecedents, and implications of good, effective public leadership (Crosby & Bryson, 2018; Ospina & Sorenson, 2006; t'Hart & Tummers, 2019).

Unsurprisingly, public management has paid growing attention to public leadership, and in recent years research on the topic has increased considerably (Chapman et al., 2016; t'Hart & Tummers, 2019; Van Wart, 2004, 2013a; R. Vogel & Masal, 2015). However, scholars have repeatedly pointed out that the current research field of public leadership suffers from theoretical disarray, conceptual ambiguity, methodological unidimensionality as well as a lack of comprehensive leadership theories (Chapman et al., 2016; Ospina, 2017; Van Wart, 2003, 2013a). In other words, the field still 'has a long way to go' (Crosby & Bryson, 2018, p. 1267) to do justice to the practical and theoretical significance of public leadership. In an attempt to

improve public leadership research and practice, this thesis advances the novel theoretical perspective of a socio-cognitive approach to public leadership.

A socio-cognitive approach to leadership explores how the principles of social cognition, i.e., the cognitive structures and processes that drive humans' automatic, implicit information processing in social situations (Fiske & Taylor, 1991; Higgins & Bargh, 1987), determine the emergence and outcomes of leadership (Lord, Foti, & Phillips, 1982; Lord, Foti, & Vader, 1984; Shondrick & Lord, 2010). Individuals' mental models of leadership, their implicit leadership theories (ILTs; Eden & Leviatan, 1975), are a central element of a socio-cognitive approach. ILTs are cognitive categories which comprise the trait taxonomies people automatically associate with typical or ideal leaders (Foti & Lord, 1987; Lord et al., 1982; Lord et al., 1984). ILTs thus resemble 'naïve theories' (Anderson & Lindsay, 1998) about the social world and structure subjective, implicit knowledge about leadership. Individuals bring their ILTs to the leadership situation, where they are automatically activated by perceived contextual cues and serve as a cognitive filter for individuals' sensemaking about leadership (Epitropaki & Martin, 2004; Foti, Hansbrough, Epitropaki, & Coyle, 2017; Junker & Van Dick, 2014; Lord, Epitropaki, Foti, & Hansbrough, 2020). More precisely, ILTs operate as a cognitive benchmark for the implicit classification of a perceived person as a leader or non-leader, referred to as leadership categorization (Lord, Foti, & Phillips, 1982; Lord et al., 1984). Since the result of the leadership categorization process determines followers' social attributions and attitudinal responses to that leader, it considerably shapes leadership outcomes, sometimes beyond the leader's actual traits and behavior (for a review, see Junker & Van Dick, 2014).

A socio-cognitive approach to leadership provides a theoretical lens on leadership which actively acknowledges that leadership is a context-contingent and socially crafted phenomenon (Day, 2014; Van Wart, 2003), as well as a 'deeply human enterprise' (Kellerman & Webster, 2001, p. 491). Capitalizing on this perspective, this thesis applies the assumptions of a socio-cognitive approach to the context of public leadership. More precisely, it explores the content and structure of individuals' implicit images of public leaders, their 'implicit *public* leadership theories' (IPLTs), their role in followers' implicit leadership categorization processes, and their effects on follower-related leadership outcomes. A systematic research agenda consisting of three studies seeks to answer the following questions:

- Do the assumptions of a socio-cognitive approach to leadership apply in the context of public leadership?

- What can be learned about the conceptual core of public leadership if followers' information processing is considered a central determinant, rather than only a moderator, of public leadership?
- What are the practical implications of a socio-cognitive approach to public leadership?

Several contributions for public leadership research arise from the answers to these research questions. First, this thesis responds to current calls for novel theory building and testing in public leadership research (Chapman et al., 2016; Crosby & Bryson, 2018; Ospina, 2017; Van Wart, 2013a). Scholars have repeatedly noted that public leadership research could do better in advancing novel, comprehensive theoretical frameworks and have suggested integrating conceptual, methodological, and theoretical knowledge from other disciplines to catalyze this potential (Crosby & Bryson, 2018; Ospina, 2017; Vogel & Masal, 2015). In this project, I build on the well-validated, universal mechanisms of human social cognition to develop and test a socio-cognitive account of how public leadership emerges and takes effect. Combining theoretical and methodological novelty, I apply implicit experimental methodology to test the cognitive mechanisms that underlie the manifestation and outcomes of public leadership and thereby demonstrate how research can benefit from applying a broader methodological toolkit in the investigation of public leadership (Crosby & Bryson, 2018).

Second, the conceptual framework of a socio-cognitive approach provides a novel lens on the meaning and constitutive function of the public context ('publicness') for public leadership. The question of whether public leadership is an application of generic leadership or whether it 'is a craft so different from generic leadership that it deserves a distinct conceptual and empirical space' (Jensen, 2020, p. 519) has been discussed at length in public leadership research and has to a certain extent impeded the theoretical advancement of the field (Van Wart, 2003). This thesis explores how followers' sensemaking of leadership varies with contextual cues on publicness and other contexts, particularly the private sector. While bidimensional, questionnaire-based comparative approaches have produced limited insights into the role of publicness, the psychological process perspective underlying a socio-cognitive approach to public leadership allows for a more prescriptive and empirically based model of the cognitive mechanisms by which publicness affects public leadership (D. I. Jacobsen, 2017).

Third, by providing a framework that grounds its assertions in social constructionism and a relational view of leadership (Gerstner & Day, 1997; Graen & Uhl-Bien, 1995), this project acknowledges that followers are active constituents rather than passive addressees of the leadership process (Lord et al., 1982; Ospina, 2017; Ospina & Sorenson, 2006). Even though a

growing number of frameworks have begun to consider followers as important moderators or 'objects' of the leadership process (Ospina, 2017), most continue to advance 'heroic' conceptualizations, making leaders' traits or behavior the 'source' of public leadership (Ospina, 2017). By defining followers' implicit information processing and subjective constructions of leadership as the 'source' of public leadership, this thesis takes a critical step toward a more follower-centric approach. Building on this novel theoretical ground, I provide a socio-cognitive definition of public leadership that may add a valuable perspective to the plethora of leader-centric frameworks in the literature.

The remainder of this synopsis is structured as follows. After drafting a working definition of public leadership, the next section provides a brief overview of the history and current state of public leadership research. In the following chapter, I lay out the theoretical fundamentals of this thesis and introduce a model of a socio-cognitive process of public leadership. The third section derives the central theoretical framework of this thesis. The latter is built on a research agenda that consists of three studies, each of which explores the content, operation, and effects of IPLTs. Jointly, the three studies provide a systematic empirical test of the hypothesized socio-cognitive process of public leadership. After synthesizing and discussing the core findings of the empirical elements, I conclude this synopsis with an outlook on future research.

Theoretical background

A working definition of public leadership

Permeating nearly every domain of our daily lives, the nature, antecedents, and implications of leadership continue to fascinate the public, politicians, artists, and scholars alike (Day, 2014), giving the concept a 'shiny status' (Vandenabeele, Andersen, & Leisink, 2014). The scientific research of leadership spans across almost all disciplines of the humanities and social sciences (Antonakis & Day, 2013; Day, 2014) and anyone who has attempted to acquire a systematic understanding of the field will quickly feel overwhelmed by the sheer volume and complexity of conceptualizations and theories it has produced.

While the vast amount of work on the topic has yielded valuable insights, scholars also repeatedly note that leadership research suffers from inconsistent and inconclusive results as well as theoretical incoherence (Dickson, Den Hartog, & Mitchelson, 2003; Gardner, Cogliser, Davis, & Dickens, 2011; Rumsey, 2013). This theoretical disarray already begins with the terminological foundations of leadership research, where precise, universal, and agreed-upon definitions and clear construct boundaries are lacking (Dickson et al., 2003; Rudolph, Rauvola, & Zacher, 2018). Most scholars therefore simply begin their work by noting that leadership is a complex, multifaceted phenomenon (Day, 2014; Rumsey, 2013). Following this disclaimer, definitions of leadership quickly diverge, placing a different focus on its dimensions (e.g., personal, organizational, or relational), constituting variables (e.g., leader, follower, or context), nature (e.g., social phenomenon or executive function), implications (e.g., practical or theoretical), or boundaries (e.g., distinctive from or overlapping with management). A common understanding of the concept has not been reached and, given the complexity of leadership and the constant influx of new theories, seems to remain out of sight (Bass & Bass, 2009; Lane & Wallis, 2009; Rumsey, 2013; Van Wart, 2003).

When studying public leadership, referring to leadership in the context of public administration, the definition-related confusion does not cease. Instead, with the additional conceptual layers and terminologies injected by the legal, managerial, and sociological research traditions that dominate public management, finding a definition of public leadership that a critical majority of public management scholars would agree on is an even more challenging endeavor (Chapman et al., 2016; Denis, Langley, & Rouleau, 2005; Terry, 1998; Van Wart, 2013b). It is beyond the scope of this thesis to provide a systematic review of all existing public leadership definitions. Nevertheless, it seems reasonable to begin with a preliminary working definition that roughly demarcates the terminological boundaries of the research object:

> *Public leadership is a relational phenomenon in public organizations that develops in leader-follower relationships, provides locomotion and cohesion to organizational members through a process of mutual influence, and thereby facilitates the attainment of organizational outcomes.*

I arrive at this definition by integrating and extending existing conceptualizations and definitions of general and public leadership, all of which lie at the intersection of management studies and psychology (Antonakis & Day, 2013; Brookes & Grint, 2010; Kerschreiter, 2017; Van Wart, 2013a). In the following paragraphs, I briefly explain how each element of the definition links to the conceptualization of public leadership that is adopted in this project.

Public leadership is a relational phenomenon in public organizations …

I use the term public leadership to refer to administrative leadership, i.e., organizational leadership in the context of public administration, which involves 'leading and managing employees, programs and organizations for the public good' (Van Wart, 2011, p. 91). However, the focus of this thesis does not include narrower, such as political, community, network, non-profit or military leadership (Raffel et al., 2009; Van Wart, 2004) or broader forms of public leadership, such as public service leadership (Chapman et al., 2016) or leadership for the public value (Crosby & Bryson, 2018). In addition, I do not consider leadership a property or characteristic of a person or system but a dynamic construct that manifests within social relationships in organizations (Antonakis & Day, 2013; Day, 2014; Gerstner & Day, 1997).

… that develops in leader-follower relationships, …

In organizations, leadership may be exerted by structures and processes, such as organizational hierarchies, formal chains of command (Kotter, 2008; Yukl, 1989), or other substitutes of leadership (Kerr & Jermier, 1978). This thesis conforms to the notion that public leadership is 'a deeply human enterprise' (Kellerman & Webster, 2001, p. 491) and therefore focuses on leadership as a relational phenomenon, exerted by people on people (t'Hart & Tummers, 2019; Yukl, 1989). I therefore only consider leadership at the lower levels of the organizational hierarchy, emerging in the relationship between employees (followers) and their immediate supervisors (leaders). This specification excludes strategic leadership as part of organizational strategy, usually defined at the executive levels of an organization as well as informal or pluralized forms of leadership, for example in organizational networks or partnerships (Morse, 2010; Silvia, 2011; White, Currie, & Lockett, 2016).

… provides locomotion and cohesion to organizational members through a process of mutual influence …

While leadership frameworks vary regarding the proposed process through which leadership takes effect (Bass & Bass, 2009), a common denominator is the claim that the essence of leadership is the exertion of intentional influence over people (Yukl, 1989). This thesis picks up this proposition and elaborates on it by proposing that the social influence process extends to more than leaders' intentionally exerted influence on followers. Instead, I argue that leadership alters leaders' as well as followers' attitudes and motivation. Leadership provides *locomotion* by setting and realizing strategic tasks and mobilizing individual and collective efforts toward organizational goals. It also provides *cohesion* by establishing and stabilizing social relationships and groups (Kerschreiter, 2017).

… and thereby facilitates the attainment of organizational outcomes.

Theoretical approaches to leadership are always determined by the underlying higher-level research purpose (t'Hart & Tummers, 2019). Regarding the ultimate purpose of leadership scholarship, there is an ongoing debate 'between those who insist on the real-world applicability of leadership scholarship and those who retort that, in the finest academic tradition, pure research should drive leadership studies' (Kellerman & Webster, 2001, p. 492). As a result, endeavors that aim to understand public leadership as a cause seek to unravel how leaders can produce favorable outcomes for organizations and society, while endeavors that try to investigate public leadership as a consequence focus on the specific characteristics and contingencies of the concept itself (Chapman et al., 2016; t'Hart & Tummers, 2019). While most public leadership studies lie at the former end of the spectrum (Chapman et al., 2016), the conceptual focus of this thesis is on leadership as a dependent variable. By introducing a novel, more prescriptive model of public leadership, the aim is to advance the conceptual understanding of public leadership (Chapman et al., 2016). I do not consider the investigation an end in itself, but hope that this research may offer guidance for public leadership scholars and practitioners on how to leverage the potential of public leadership as a cause of desirable public organizational outcomes and the common good (Van Wart, 2013b).

This section aimed to provide a conceptual foundation of this project by extracting a definition of public leadership from existing literature on the topic. With this working definition in mind, the next section provides a brief overview of the academic field of public leadership.

A brief review of public leadership research

Public leadership and the roots of related scholarly thinking go back to the cradle of modern western civilization (Wilson, 2016). In the Greek and Roman schools of thought, leadership was tied to a political or religious office or function and personified by a totalitarian ruler who,

by birthright or divine will, was responsible for ensuring the order of society and maintaining legal, religious, and moral standards (Bass & Avolio, 1997; Bass & Bass, 2009). Great thinkers like Plato, Aristotle, or Plutarch were the first to formalize public leadership in democratic societies and they devoted much of their intellectual output to searching for the qualities and virtues that distinguished exceptional from ineffective public leaders. As their ideas spread and evolved, they inspired generations of scholars and shaped societal norms of 'heroic' images of leadership (Choi, 2007; Wilson, 2016).

Drawing on the Hellenic intellectual heritage and applying it to more secular contexts two millennia later, Max Weber (1864 – 1920), one of the founding fathers of public administration, made leadership a central part of his tripartite classification of legitimate authority. In his seminal work, Weber conceptualized charismatic authority as a personal, irrational type of authority linked to a person's exceptional qualities and capacity to guide and inspire others (Mayntz, 1965; Weber, 1968, 2002). He proposed that charismatic authority brings about change and instability, and considered it a disruptive counterforce to predictability, stability, and order (Weber, 1968, 2002).

Highlighting the significance of a leader's personal dispositions and abilities, Weber's work is considered one of the most critical sources for research on charismatic leadership (Banks et al., 2017; Rumsey, 2013). However, it is worth noting that Weber's leadership conceptualization strikes a modern, less leader-centric chord in several ways. First, by stating that followers' perceptions of charisma are a necessary condition for charismatic authority to take effect, Weber acknowledged the role of followers' social attributions as a constituent of leadership (Conger, Kanungo, & Menon, 2000; Crossman & Crossman, 2011). Second, Weber underlined the leader-follower relationship as an important boundary condition of charismatic authority — a perspective that resonates with the notion that leadership is a predominantly relational phenomenon (Graen & Uhl-Bien, 1995). Third, by proposing that charismatic authority is always limited by the boundaries of legally and relationally established authorities, such as rules, norms, and structures, Weber's leadership conceptualization anticipates the structural and regulative restrictions that arise for leadership in public organizations (Calàs, 2019; Javidan & Waldman, 2003).

Despite the rich groundwork, the scientific work on public administration in the second half of the 19th century and most parts of the 20th century remained rather quiet about public leadership (Katsamunska, 2012). Public leadership only regained the wider attention of public management scholars in the wake of public administration reform movements that began in the 1970s. Global endeavors to modernize, deregulate, and decentralize the public sector were

accompanied by a paradigm shift from traditional bureaucratic to neo-liberal managerial steering models and practices, as originally applied in the private sector (Naschold & Bogumil, 2013; Pollitt & Bouckaert, 2004). New strategic management approaches that began to dominate practice and research and a new focus on public organizations' efficiency, effectiveness as well as customer and market orientation challenged the Weberian organizational principle of impersonalization and dehumanization. This led to a general resurgence of interest in human resource management and leadership in public organizations (Brookes & Grint, 2010).

Still, in contrast to the concurrently flourishing research field on general leadership, public leadership research did not gain the status of an autonomous domain in public administration research. In one of the first systematic reviews of the state of public leadership research in this millennium, Kellerman and Webster (2001) described the field as meagre, disparate, atomized as well as lacking clear models and meta-conceptions of leadership. In his comparative review of the mainstream and public leadership literature, Van Wart (2003) noticed a severe deficit and underdevelopment of theory and empirical research on leadership in the public context. The few studies on public leadership had merely discussed it anecdotally or made it a side stage to reform-related normative debates (Kalu, 2003), while the limited number of attempts to study public leadership as a distinctive organizational phenomenon were either too simplistic or universal, providing little insight into the nature, dynamics, and constraints of administrative leadership (Van Wart, 2003).

A decade later, Van Wart and other scholars attenuated this initial evaluation and diagnosed a quantitative increase as well as qualitative progress of research on public leadership (Van Wart, 2013a). In the last two decades, empirical public leadership studies have become more rigorous and formerly narrow and largely normative takes on the topic are gradually being replaced by a larger variety of theoretical approaches and methods (Crosby & Bryson, 2018; Hartley, 2018; R. Vogel & Masal, 2015). Over time, public leadership researchers have studied the effects of various leadership styles, stemming from different schools of leadership and offering different views on the 'source,' 'object' and 'result' of public leadership (Backhaus & Vogel, 2021; Ospina, 2017).

Despite these advancements, the field still has several limitations and areas for improvement. Despite (or perhaps because of) the growing number of perspectives and approaches that accumulated over time, the research field continues to be fragmented, balkanized, and lacking comprehensive theoretical frameworks (Chapman et al., 2016; R. Vogel & Masal, 2015). Both symptom and reason for the lack of a theoretical common ground

is the field's ongoing preoccupation with the search for its own identity as a research domain. This internal struggle is fueled by unresolved controversies, most fundamentally the perennial debate on the appropriate conceptualization of public leadership in the context of publicness (Hartley, 2018; Ospina, 2017; Perry, 2016).

The meaning of publicness for public leadership

The question of whether leadership should be conceived as a result of leaders' autonomous acts and decisions, or whether it is primarily a product of the patterned arrangements that surround it, remains one of the most puzzling issues in leadership research and goes back to the duality of agency and structure, which lies at the heart of social science (Giddens, 1979; t'Hart & Tummers, 2019). In public leadership research, the puzzle manifests in a discussion about the defining function of the public context (publicness) for public leadership and has been intertwined with a debate on the distinctions between public and private organizations (Antonsen & Jørgensen, 1997; Osborn, Uhl-Bien, & Milosevic, 2014; Pesch, 2008). Amid the large body of assertions and research findings on public-private differences, most scholars now generally agree that public and private organizations vary along the dimensions of ownership (public vs. private), funding (taxation vs. customers), and control (political forces vs. market forces; Boyne, 2002; Bozeman & Bretschneider, 1994; Perry & Rainey, 1988). The question of how these distinctions translate into fundamental differences between public and private leadership and whether, as a consequence, public leadership should be defined and studied as a generic or genuine phenomenon, has however sparked a normative controversy (Boyne, 2002; Parker & Subramaniam, 1964; Perry & Rainey, 1988; Rainey, 2009).

Ambassadors of a *genuine* perspective suggest that sectoral differences amount to distinctive demands and tasks for public leaders, who are confronted with greater role and goal ambiguity, more diverse and diffuse performance criteria, and are subjected to more political control and stakeholder interest than their private counterparts (J. A. Andersen, 2010; Rainey & Chun, 2005). A more normative stream in the generic camp considers public leaders the embodiment of 'administrative conservatorship' (Terry, 2015), granting them the unique responsibility of maintaining institutional integrity, preserving public service values and safeguarding the common good, making accountability and strict abidance to rules and regulations imperative for their practice (Crosby & Bryson, 2018; Selznick, 2011; Terry, 1990, 2015). Advocates of this perspective consider the distinctive normative and institutional characteristics of the public context a defining feature of public leadership and argue that the common approach of applying theory and methods developed outside the public sphere fails to

grasp the essence of publicness (Getha-Taylor, Holmes, Jacobson, Morse, & Sowa, 2011; Van Slyke & Alexander, 2006). As a consequence, public leadership should not be conceptualized as a derivative or application of general leadership but as a distinctive phenomenon, and best be studied through inductive, public-specific measures, with a distinctive focus on specific features of the public sector (Getha-Taylor et al., 2011).

Empirically, a genuine perspective is supported by evidence on sector-contingent differences in leaders' personality, style, and behavior (Hooijberg & Choi, 2001; Judge, Bono, Ilies, & Gerhardt, 2002) as well as a number of public-specific leadership frameworks that have been advanced. Fernandez and co-authors (2010) propose an integrative framework of public sector leadership that comprises the leadership skills, traits, behaviors, and situational contingencies that explain leadership effectiveness in the public context (Fernandez, Cho, & Perry, 2010). As one of the first distinctive public leadership measurement instruments, Tummers and Knies' (2016) scale measures four ways in which public leaders encourage, enable, and motivate their employees to deal with public specific demands (Tummers & Knies, 2016; D. Vogel, Reuber, & Vogel, 2020).

Opposing the claims of a genuine approach, a *generic approach* suggests that public and private leadership are more alike than different (Fottler, 1981; Rainey & Chun, 2005; Van Wart, 2013a). Ambassadors of this approach argue that the distinction between public and other forms of leadership is normatively overstressed because all leaders face the same 'great challenges' of motivating people, providing idealistic guidance, and making effective decisions (Perry & Rainey, 1988). This notion is backed by the convergence-of-sector hypothesis, which proposes that increasingly globalized and connected markets as well as ongoing privatization and reform movements are causing the sectors to converge and are blurring the boundaries between public and private management (Kettl, 2006; Nieto Morales, Wittek, & Heyse, 2013). Drawing on studies that demonstrate that the effects of certain leadership styles, e.g., transformational leadership, are relatively invariant to sector contexts (D. I. Jacobsen, 2017; Lowe, Kroeck, & Sivasubramaniam, 1996), proponents of a generic perspective suggest that a preoccupation with public-specific contingencies may become 'an obstacle to fully engage the leadership studies conversation' (Ospina, 2017, p. 278). Therefore, rather than getting 'bogged down in parochialism or exceptionalism' (Vandenabeele et al., 2014, p. 80), scholars should break down silos and adopt a more integrated approach to public leadership, deductively deriving insights and knowledge from other disciplines and practicing interdisciplinary cross-talk to enable mutual fertilization (Chapman et al., 2016; Crosby & Bryson, 2018; Ospina, 2017; Perry, 2016).

The controversy about the right definition of public leadership in the context of publicness arguably amounts to an ideational discourse where both camps at times seem too preoccupied with their own normative position to notice the points of convergence that emerged over time (Ospina, 2017; Vandenabeele et al., 2014). There are, however, compelling examples for productive combinations of the generic, deductive and genuine, inductive approach. A relatively small body of research has combined generic, well-validated leadership measures with specific public administration constructs to explore how publicness explains systematic variance in public leadership beyond the scope of the generic instrument. For example, such work has explored how public service motivation mediates the positive effects of transformational leadership (Wright, Moynihan, & Pandey, 2012) or how effective integrative public leadership in multisector collaborations unfolds its effects as a product of transformational leadership and civic capacity (Sun & Anderson, 2012).

Given the status quo in the debate on the one hand and the increasing practical need for rigorous public leadership research on the other hand, it is time to shed new light on public leadership as a context-contingent phenomenon. In the following section, I develop three propositions on how to contribute more clarity to the publicness debate and move public leadership forward, which I derive from compelling arguments in the literature. First, I believe that there is little use in evaluating contingencies of public leadership if a conceptual understanding of the construct itself is lacking (Boyne, 2002). In other words, to determine whether and how public leadership differs from other forms of leadership, it is essential to develop a solid, shared understanding of how public leadership manifests and takes effect in the actual relational and social context of the leadership situation. Scholars will only reach this understanding 'if much more attention is paid to developing and testing leadership theory' (Crosby & Bryson, 2018). Second, studies should avoid simplified, comparative approaches to publicness and instead aim to adopt a broader, more nuanced perspective on 'the basic meanings of publicness' (Pesch, 2008, p. 5). A focus on the mechanisms by which publicness shapes public leadership as a relational phenomenon (D. I. Jacobsen, 2017) will also help to arrive at more differentiated and adequate models of public leadership (R. Vogel & Masal, 2015). Third, the academic discussion should abandon normative convictions and theoretical extreme positions because these assumptions 'may well involve oversimplifications and stereotypes' (Rainey & Bozeman, 2000). Instead, investigations of the meaning of publicness for public leadership could benefit from a more balanced, integrative approach that bridges the genuine and generic perspectives and builds on empirical evidence rather than theoretical elaborations (Boyne, 2002).

This thesis uses these propositions as guardrails and introduces a theoretical perspective to public leadership that provides insights into the fundamental basics of public leadership as a relational phenomenon and human enterprise. Employing empirical evidence from the application of this well-validated theoretical perspective in the context of public leadership, I arrive at a definition of public leadership that accounts for its public-specific elements and sheds lights on the mechanisms by which publicness shapes public leadership. The next section outlines the theoretical underpinnings of this perspective.

A socio-cognitive approach to leadership

A socio-cognitive approach[3] to leadership bases its assertions on the notion that leadership is primarily a social phenomenon, and as such the result of social cognition, i.e., the most basic cognitive processes and structures that determine how humans perceive, process, and interpret information of the social world (Fiske & Macrae, 2012; Fiske & Taylor, 1991). Constituting the backbone of human behavior and decision-making in social situations (Higgins & Bargh, 1987; Nosek, Hawkins, & Frazier, 2011), social cognition accounts for the fact that humans are not blank slates that passively respond to external stimuli with generalized stimulus-reaction connections. Instead, the human mind automatically analyzes incoming information in terms of its organismic and self-relevance and stores it as a framework for future behavior. This information processing mostly happens automatically and beyond individuals' conscious awareness to enable fast, intuitive decision-making and behavior in social situations (Greenwald & Banaji, 1995; Nosek et al., 2011).

Implicit leadership theories

ILTs[4] are a constitutive element of a socio-cognitive perspective to leadership. ILTs were originally defined by Eden & Leviatan (1975), who noted that respondents' ratings of fictitious leaders resembled the factor structure that emerged in rating patters of actual leaders. The authors concluded that individuals' ratings were guided by their own cognitive frameworks of leadership rather than the actual leader's behavior. They used the term 'theories' to stress that

[3] In academic literature, the term 'socio-cognitive approach' is not exclusive to the theoretical stream discussed here, but is applied across several disciplines, for example communication, management or social studies, to describe approaches based on social psychology and/or social constructionism (Kecskes & Zhang, 2009). In addition, for the field of leadership, synonyms and slightly different wordings are used (e.g., a social cognitive or a social cognition approach) to denote the social constructionist perspective with an information-processing focus on leadership that is discussed in this thesis.

[4] A socio-cognitive approach to leadership has also explored the existence and implications of implicit followership theories (Sy, 2010) as an equivalent to ILTs. In this thesis, I focus exclusively on ILTs.

ILTs resemble naïve theories, which are mental models rooted in individuals' subjective, implicit knowledge. As people use these mental models to ascertain the causes of phenomena in the real world, naïve theories contrast explicit, empirically based scientific theories of leadership (Cummins, 1995; Eden & Leviatan, 1975; Heider, 2013 [1958]).

Lord et al. (1982; 1984) employed Rosch's (Rosch, 1975, 1978, 1983) prototype approach to propose a model of ILTs' structure (Lord et al., 1982; Lord et al., 1984). Two main principles account for the organization of implicit leadership knowledge in ILTs. First, the 'principle of cognitive economy' (Rosch, 1978) describes the human aim to keep information processing effort to a minimal level, while preserving a maximum amount of information (Rosch, 1983). As a result, one of the most fundamental tasks of social cognition is to provide structure to novel information by grouping it into meaningful cognitive categories (Cantor & Mischel, 1979; Fiske & Taylor, 1991). Stored in memory, these categories form symbolic representations of the social world and provide mental heuristics for the perception of novel stimuli, ensuring effortless and quick information processing in rapidly changing or unknown environments (Greenwald, McGhee, & Schwartz, 1998; Higgins & Bargh, 1987). ILTs are therefore cognitive categories that structure individuals' implicit knowledge on leadership to facilitate a fast, effortless response to information in a leadership situation (Epitropaki, Sy, Martin, Tram-Quon, & Topakas, 2013; Lord et al., 1982).

Second, given that the outside world is not arbitrary but follows inherent systematics and natural laws ('principle of perceived world structure'; Rosch, 1978), certain pieces of information may be connected by shared conditions that are necessary for their occurrence and therefore have certain commonalities. Rosch (1975, 1978, 1983) concludes that the degree of equivalence or similarity between elements is the main organization principle of cognitive categories. Accordingly, individuals perceptually segment the social world into categories in a way that ensures that elements are most similar to other elements in the same category and most different to elements in other categories ('family resemblance'; Rosch, 1983). Elements further differ in the degree to which they are representative of and singular for a category ('cue validity'; Rosch, 1975). Rosch (1975, 1983) further suggests that cognitive categories are accentuated by prototypes that resemble abstract composites of the attributes with the highest family resemblance and cue validity for the specific category, making them the best representatives of the total set of elements in their category and the best discriminators between other categories. A prototype can represent a central tendency, e.g., the category's average element, or a more extreme end of a distribution, e.g., an ideal value.

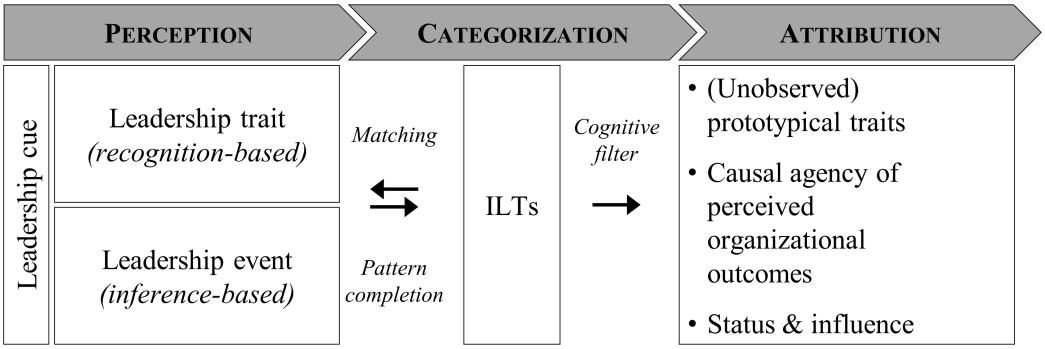
Analogously, ILTs evolve around leadership prototypes, which encompass abstract sets of the most defining features that represent leaders as a general category and best distinguish leaders from non-leaders (Hogg, 2001; Lord et al., 1982). ILTs can unfold around typical prototypes, representing a descriptive norm of leadership (how leaders normally are), or ideal prototypes, referring to an injunctive norm of leadership (how leaders should or should not be). While typical prototypes include traits attributed to the average leader, ideal prototypes encompass traits that are most or least instrumental for a specific leadership goal, such as organizational performance (Van Quaquebeke, Graf, & Eckloff, 2014). ILTs have also been found to vary in their valence, with prototypes encompassing desired attributes of leaders and antiprototypes comprising undesired attributes (Junker, Stegmann, Braun, & Van Dick, 2016; Junker & Van Dick, 2014).

Even though ILTs are highly ideosyncratic, their content varies systematically between individuals. Offermann and colleagues (1994) were the first to provide a multidimensional, surprisingly stable (Epitropaki & Martin, 2004; Offermann & Coats, 2018) trait taxonomy that accounts for the systematic, interindividual variation in ILT content. In addition, culturally shared norms and common leadership practices systematically reflect in the content of ILTs (Den Hartog, House, Hanges, Ruiz-Quintanilla, & Dorfman, 1999; Offermann & Hellmann, 1997).

Leadership categorization theory (LCT; Lord et al., 1982; Lord et al., 1984) describes the mechanisms by which ILTs determine individuals' perceptions and automatic information processing in the leadership arena. Over time, LCT's propositions merged with theoretical premises from the broader stream of research on the socio-cognitive foundations of leadership (Cronshaw & Lord, 1987; Lord & Maher, 2002). Among such amendments is the social constructionist notion that leadership is the product of a social attribution process (Lord & Smith, 1983; Meindl, 1995; Meindl, Ehrlich, & Dukerich, 1985; Schyns & Bligh, 2007) in which followers employ their leadership perceptions and their own implicit mental models to arrive at causal explanations of a situation (Cronshaw & Lord, 1987; Lord & Maher, 2002). The integration of these perspectives results in a model of a socio-cognitive leadership process as applied in this thesis, ranging from followers' perceptions of leadership to their subsequent interpretations and ultimate responses. Figure 1 illustrates the main components and two critical paths of this process, which I will briefly describe in the following section.

A socio-cognitive process of leadership

Figure 1.1. Schematic illustration of a socio-cognitive process of leadership



In recognition-based processing (Lord & Maher, 2002), the perception of a category-relevant target stimulus, e.g., a leadership attribute, activates individuals' ILTs. As a consequence, a highly automatic matching process compares the incoming information with existing prototypes, with a sufficient match between the target stimulus and the prototype resulting in the target's classification as a leader (Lord et al., 1984). Two simultaneous processes result from a match. First, the input stimulus that activated the prototype is fed into individuals' ILTs according to the principles of family resemblance and cue validity (Lord & Hall, 2003; Lord & Maher, 2002). ILTs are therefore modified by the sum of individuals' experiences with leadership over time (Epitropaki & Martin, 2005a). Second, the information pertaining to the activated prototype triggers a pattern-completion process in which further unobserved characteristics that pertain to the activated prototype are attributed to the perceived target, e.g., the leader (Foti & Lord, 1987; Shondrick, Dinh, & Lord, 2010; Shondrick & Lord, 2010). In inference-based processing, the perception of salient leadership events, e.g., organizational performance, activates individuals' ILTs and results in the implicit attribution of leadership qualities to the next likely causal agent in the situation. Inference-based processing therefore accounts for the performance cue effect, where individuals infer leadership qualities from the mere perception of organizational performance (Martinko et al., 2018; Shondrick & Lord, 2010). It follows that the result of the leadership categorization process triggers distinctive implicit social attributions to leaders, which are determined by followers' ILTs and may entail the ascription of leadership qualities, power, status, or causal agency for organizational outcomes (Cronshaw & Lord, 1987; Junker & Van Dick, 2014; Lord & Maher, 2002).

The emergence of a socio-cognitive model of the leadership process thus also shed new light on ILTs as an explanatory framework for organizational leadership (Epitropaki et al., 2013; Foti, Knee., & Backert, 2008) and has considerably advanced scholarly understanding of leadership as a dynamic, socially constructed phenomenon (Foti et al., 2017). Accordingly,

'leadership is an ongoing, dynamic, two-way exchange between leaders and followers that is structured by both parties' implicit theories' (Shondrick & Lord, 2010, p. 1). The proposition that followers' perceptions and interpretation of leadership traits and behavior shape this social exchange, instead of leaders' behavior and traits per se (Engle & Lord, 1997), stresses followers' role as active contributors, rather than passive recipients of leadership (Lord & Hall, 2003).

This novel perspective also motivated the study of the broader implications of leadership categorization and ILTs in applied settings. The most prominent insight from such work concerns the effects of ILT congruence. Since ILTs are abstract composites of people's experience with actual leaders, they shape individuals' implicit, ex ante expectations of leaders and the leadership relationship. Because humans strive for consistency and self-confirmation, a fulfilment of these implicit expectations results in positive attitudinal reactions and facilitates interpersonal relationships and coordination (Baumeister, 2010; Biddle, 2013; Riggs & Porter, 2017). Research has demonstrated the positive effects of congruence between employees' ILTs and their real supervisors' traits on leadership effectiveness and performance ratings, follower-reported quality of the leader-follower exchange relationship (LMX) and job attitudes (Epitropaki & Martin, 2005a). Similarly positive effects occur for interindividual and intraindividual forms of congruence, such as a match between leaders' and followers' ILTs (Coyle & Foti, 2015; Riggs & Porter, 2017; Veestraeten, Johnson, Leroy, Sy, & Sels, 2020), between individuals' leadership self-schemas and their ILTs (Foti, Bray, Thompson, & Allgood, 2012; Schyns, Kiefer, & Foti, 2020; Van Quaquebeke, Van Knippenberg, & Brodbeck, 2011), or between potential coworkers' 'espoused' ILTs in emergent workplace relationships (R. Vogel & Hesmert, 2021). Today, there is a wealth of research on ILTs in applied settings, which has demonstrated the significance of ILTs and leadership categorization for leadership outcomes on a social, relational, and organizational level (Foti et al., 2017; Junker & Van Dick, 2014; Lord et al., 2020).

The sectoral context of leadership as a boundary condition of a socio-cognitive approach to leadership

The value of a theory is limited by its accuracy in predicting the 'what, how, and why' of a phenomenon as well as the generalizability, yet parsimony of the answers to these questions (Busse, Kach, & Wagner, 2017; Whetten, 1989). Boundary conditions play a crucial role here, because they demonstrate the limitations to the range of a theory and provide a basis for scientific falsification. Yet, even though leadership categorization is highly context-dependent,

there is a lack of research on context-related boundary conditions of a socio-cognitive approach to leadership. As a result, researchers have long demanded a more thorough integration of contextual factors into the study of ILTs (Junker & Van Dick, 2014; Lord et al., 2020).

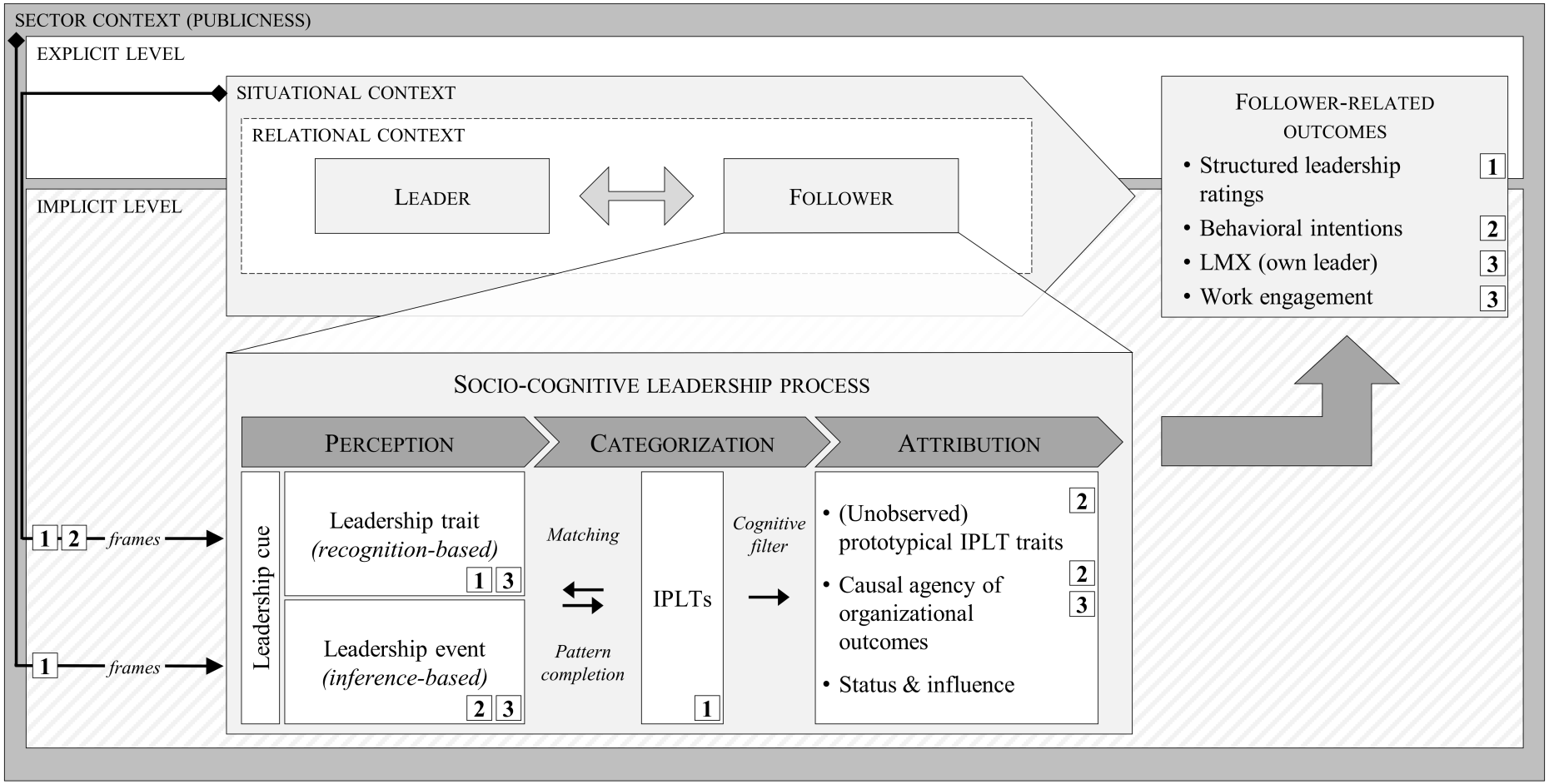
There is reason to believe that the sectoral context might operate as a boundary condition or moderator of socio-cognitive leadership processes. Inspired by Rosch (1975, 1983), in their early conceptualization of ILT architecture Lord and colleagues (1982) proposed a vertical three-level hierarchical structure where the most inclusive and abstract categories reside on the superordinate level, differentiating between 'leaders' and 'non-leaders'. Below, on the basic level of categorization, contextual information is taken into account to classify elements into more inclusive, domain-specific ILTs, for example 'business leader' or 'military leader' (Lord et al., 1982). The last, subordinate level differentiates between the least inclusive and abstract categories, for example 'sales leader' or 'marine leader'. The authors also pointed to the possibility that domain-specific ILTs might have a different explanatory value for leadership categorization than ILTs on a more abstract level (Lord et al., 1982; Lord et al., 1984; Lord & Smith, 1983).

However, the vast majority of ILT research has focused on the superordinate level of categories, exploring how ILTs differentiate between leaders and non-leaders but neglecting more specific, basic level categories. In addition, even though cultural, organizational, and leader and follower characteristics — dimensions in which public and private organizations arguably differ to at least some extent — have been found to affect the categorization process (Junker & Van Dick, 2014), most research has been carried out in the private sector context, leaving the implications of sector differences for ILTs and leadership categorization unexplored. Drawing on this gap on the one hand, and the potential of a socio-cognitive approach to public leadership on the other hand, this thesis develops and tests a model of a socio-cognitive public leadership process.

Theoretical framework

The theoretical framework of this thesis, illustrated in Figure 1.2, is built around three empirical studies that jointly provide a test of the socio-cognitive public leadership process. Since implicit leadership images constitute a core element of this process, three studies examine the content, operation, and implications of public-specific implicit leadership images, IPLTs. The following section outlines how the framework and the insights it provides may add value to public leadership research more generally and can contribute novel insights into the relationship between publicness and public leadership in particular.

Figure 1.2. Theoretical framework of the dissertation project



Providing a follower-centric, social-constructionist conceptualization of public leadership

Despite the recent growth of more system-based concepts of public leadership, such as collective and shared leadership (Pearce, Wood, & Wassenaar, 2018), most research on public leadership continues to be 'too hierarchical, heroic, and power-centric' (Van Wart, 2013a, p. 535). A plethora of taxonomies and frameworks have been developed to describe which competencies, behavior, and abilities are descriptive or prescriptive for public leaders and their impact on organizational outcomes (Backhaus & Vogel, 2021; Ospina, 2017; Van Wart, 2004, 2013b). Similarly, research on publicness in public leadership has been largely informed by the deductive approach of retrieving ratings of public leaders' behavior, traits, or styles on leadership scales and concluding public-specific aspects from the emerging differences (Hansen & Villadsen, 2010; Hooijberg & Choi, 2001).

Such designs are limited in three ways. First, with their exclusive focus on leaders' styles or behavior such frameworks have neglected that leadership is a relational phenomenon that per definition requires followers to exist (Graen & Uhl-Bien, 1995). Recent public leadership concepts have begun to incorporate a follower-centric perspective in their measures, for example by centering their leadership definition around leaders' promotion of followers' interest (i.e., servant leadership; Miao, Newman, Schwarz, & Xu, 2014) or leaders' follower-oriented relational behavior (Tummers & Knies, 2016). Still, despite making followers a central 'object' of leadership work, these conceptualizations and designs also focus on leaders' competencies and abilities as the central 'source' of systematic variance in leadership (Ospina, 2017), leaving followers' constitutive role in public leadership largely unexplored (Ospina, 2017; Ospina & Sorenson, 2006; Van Slyke & Alexander, 2006; R. Vogel & Masal, 2015). Second, validity restrictions emanate from selectivity and social desirability biases that surface in particular in explicit ratings of leadership traits or behavior, and culminate in the considerably large leader-follower disagreement in leadership assessments (Paulhus & Vazire, 2007; Thomas, 2007; D. Vogel & Kroll, 2019). Third, top-down approaches are limited by the academic assumptions they are based on. Among such debated assumptions is the considerably narrow, dichotomist distinction between public and private organizations and the resulting operationalization of publicness as the relative complement to the set of distinctive characteristics of the private context. This simplified logical assumption is likely to miss distinctive aspects of publicness that reside outside these two sets (Bozeman & Bretschneider, 1994; D. I. Jacobsen, 2017).

A socio-cognitive approach to public leadership provides a novel perspective that broadens the research scope to include actors other than the leader. The social constructionist

premise that leadership lies 'in the eyes of the beholder: followers, not the leader — and not researchers — define it' (Meindl, 1995, p. 331) and has to be understood 'by way of understanding how people make sense of it' (Ospina & Sorenson, 2006, pp. 195–196) grants followers and their naïve, rather than academic theories of leadership epistemological sovereignty. In exploring how followers' abstract, generalized implicit leadership images — rather than their perceptions of actual leaders — determine the leadership process, the source of leadership does not lie with actual leaders' behavior (Ospina & Sorenson, 2006). The systematic variance of interest for a socio-cognitive approach is rather rooted in followers' subjective constructions, generalized expectations and social attribution processes, and is largely independent of leaders' influence. A systematic analysis of the content and context-contingent activation patterns of followers' sensemaking on leadership in the public context might therefore help to prioritize and redefine the significance of the multitude of leadership competencies, abilities, and styles discussed in the literature (Van Wart, 2004, 2013b; R. Vogel & Masal, 2015).

Providing a socio-cognitive model of public leadership, Study 1 explores whether publicness figures in distinctive implicit images of public leaders. To obtain a broader conceptualization of publicness, I contrast followers' sensemaking of public leadership with generic as well as private leadership. Building on the generic-public contrast established in Study 1, Study 2 explores the traits that followers subconsciously use as a basis to distinguish public and private leaders in contexts of organizational success and failure in order to obtain more nuanced insights into the distinctive aspects of public leadership.

Adopting an implicit psychological process perspective

The last few years have seen remarkable growth in a body of research following the dictum that for every researcher 'who wishes to explore the pure science of administration, it will dictate at least a thorough grounding in social psychology' (Simon, 1947, p. 202). Research in this stream draws on psychological theory and methodology to study the behavioral and attitudinal foundations of public administration. This psychologically informed micro-level perspective allows for an empirical, systematic test of the assumptions that most theorizing in public administration implicitly rests on (Battaglio, Belardinelli, Bellé, & Cantarelli, 2019; Bhanot & Linos, 2020; Grimmelikhuijsen, Jilke, Olsen, & Tummers, 2017).

However, as recent reviews note, most early studies following this perspective focused on detecting biases in individuals' perceptions and decision-making in the context of behavioral (economic) experiments (Battaglio et al., 2019; Oliver Kasdan, 2020) and have been 'somewhat

ad hoc in nature' (Bhanot & Linos, 2020, p. 169). Due to their limited focus on individuals' decision-making in restricted, artificial situations, they generated only a few novel causal explanations of public administration phenomena. Scholars demand that, for the micro-level approach to keep its promise, it should aim to develop and test hypotheses of the psychological processes that underlie individuals' behavior in public administration (Battaglio et al., 2019; Bhanot & Linos, 2020).

In a similar vein, Pandey (2021) argues how a psychologically informed micro-perspective can assist in theory building by providing a post-positivist account of public administration concepts, which constitutes a valuable alternative to traditional views on organizational phenomena, rooted in functional, political economy theories (Denhardt & Catlaw, 2014; Thoenig, 2003). At the same time, based on the realist ontological stance that organizational phenomena exist independent of subjectively constructed realities, a psychological process perspective avoids 'the slippery slope of extreme relativism' (Pandey, 2021, p. 12) and offers a clear causal account of the relationship between objectively measurable and individuals' constructed organizational reality. Such a perspective proposes that organizational phenomena do not self-enact, but emerge through an interaction of structural reality with individuals' perceptions and meaning making (Pandey, 2021; Pandey & Welch, 2005).

A micro-level, psychological process perspective should be especially valuable to provide a deeper understanding of the human, yet contextually embedded enterprise of public leadership and the mechanisms by which publicness shapes it (D. I. Jacobsen, 2017; Kellerman & Webster, 2001). Scholars have indeed begun to acknowledge the role of psychological principles for public leadership, for example by examining followers' subjective meaning making as a moderator of public leadership outcomes or halo effects in public managers' performance appraisals (Bellé, Cantarelli, & Belardinelli, 2017; C. B. Jacobsen & Bøgh Andersen, 2015). Still, to my knowledge, no conceptualizations have applied a psychological process perspective as a theoretical, defining framework of public leadership or a means of inquiry on the significance of publicness for public leadership.

In examining individuals' implicit, context-contingent categorization processes in the context of public leadership, a socio-cognitive approach to public leadership combines the empirical focus of a micro-level approach with the epistemological advantages of a psychological process perspective. It thereby connects to a stream of research that has studied phenomena in public administration on the level of implicit and automatic information processing. Such studies have demonstrated how a focus on individuals' subconscious meaning

making in organizational contexts can provide valuable explanations beyond insights retrieved from explicit measurement methods, for example for applicants' attraction to public sector employers (Asseburg, Hattke, Hensel, Homberg, & Vogel, 2020) or biased, subconscious perceptions of public sector professions (Willems, 2020) and public organizations' performance delivery (Marvel, 2015, 2016).

To account for the psychological, socio-cognitive processes that shape public leadership and to retrieve a better evaluation of the role of publicness for the conceptualization of public leadership, Studies 1 to 3 explore how contextual cues of the public context shape followers' implicit, leadership-related, cognitive information processing. Study 2 investigates how individuals employ their implicit leadership stereotypes to make sense of an otherwise unknown leader and how cues on contrasting sector and performance contexts influence these attributions. In addition, Studies 2 and 3 both capitalize on the benefits of a psychological process perspective and explore how the interaction between objectively measurable and individuals' subjective constructed realities affects leadership outcomes on a more tangible, explicit level. While Study 2 tests how the result of followers' leadership categorization process affects behavioral intentions toward unknown leaders in different sector and performance contexts, Study 3 explores how a match between public employees' expectations of their leader and the leader's actual traits relates to followers' LMX and work engagement.

Employing an experimental, implicit methodology

Methodologically, the implicit psychological process perspective also reflects in the application of experimental methodology in this thesis. Scholars agree that it should be a central objective of public leadership research to establish a causal understanding of the processes underlying public leadership and its outcomes (Crosby & Bryson, 2018). In order to make such claims about causal inference, empirical designs must meet three necessary conditions: '(a) covariation between the independent and dependent variables; (b) temporal precedence, such that variation in the independent variable precedes variation in the dependent variable; and (c) alternative explanations for the observed relationship have been ruled out' (Podsakoff & Podsakoff, 2019, p. 2). Due to the validity restrictions arising from common-method and response biases, questionnaire designs violate both conditions b) and c) and therefore fail to establish cause-effect relationships (Podsakoff & Podsakoff, 2019; Spector, 1994).

Experimental designs allow for a more confident exploration of cause and effect because they fulfil all three of the above criteria for making causal inferences. Randomized assignment to treatment conditions ensures high levels of control over participants' exposure to

independent, dependent and confounding variables as well as a precise analysis of the covariation and temporal precedence of predictor and outcome (Aronson & Lindzey, 1985; Podsakoff & Podsakoff, 2019). The general consensus among researchers is therefore that 'for subjecting theory-inspired hypotheses about causal relationships to potential confirmation or disconfirmation, the experiment is unexcelled' (Aronson & Lindzey, 1985, p. 443).

Public leadership scholars have repeatedly outlined the benefits of applying a wider variety of research methods in general, and experimental research in particular, to study public leadership (Chapman et al., 2016; Crosby & Bryson, 2018). Still, the lack of attention to psychological processes in public leadership might be one of the reasons why experiments remain an underutilized research method in public leadership research (Bouwman & Grimmelikhuijsen, 2016; Margetts, 2011; Perry, 2012). Similarly, despite researchers' growing interest in individuals' implicit information processing in public organizations, the application of methods specifically designed to capture the unconscious mode of psychological processes is sparse (Ngoye, Sierra, Ysa, & Awan, 2020).

To allow testing the psychological processes underlying the socio-cognitive approach to public leadership, Studies 1, 2, and 3 derive their insights from experimental designs. Furthermore, to account for the implicit nature of leadership categorization and align ILT conceptualization with ILT measurement (Lord et al., 2020), Studies 2 and 3 apply implicit priming paradigms.

Table 1.2. Overview of studies, methods, and findings

Research question(s)	Design and data	Analysis	Central results
Study 1: Vogel, R., & Werkmeister, L. What is public about public leadership? Exploring implicit public leadership theories			
• Do people hold distinctive public leadership images (IPLTs)? • How do IPLTs and generic leadership images differ in content and structure? • Does sector affiliation influence the structure and content of IPLTs?	• Online survey experiment • N = 1,072 German employees • Ratings of 100 adjectives in terms of their typicality for a public vs. a generic leader	• Model extraction with exploratory factor analysis • Model validation with confirmatory factor analysis • Group comparison with measurement invariance analysis	• Publicness manifests in distinctive IPLT • Structurally, IPLTs overlap with generic ILTs in the factors *achievement orientation*, *righteousness*, *kindheartedness*, and *tyranny*, but differ in *progressiveness* and *rule abidance*, with *progressiveness* representing a lack of innovation orientation • IPLTs are structurally invariant across subsamples of public and private employees, but public employees ascribe higher levels of *rule abidance* and lower levels of *tyranny* to public leaders than private employees
Study 2: Hesmert, L., Hattke, F., & Vogel, R. The a priori of public leadership: Social attributions to public and private leaders in different performance contexts			
• Which IPLT traits do followers implicitly attribute to public and private leaders in contexts of team success or failure? • How do followers' trait attributions to leaders translate into behavioral intentions toward a leader?	• Online experiment, combining scenario design, the SMP, and questionnaires • N = 734 German employees • Context manipulation along two dimensions: high vs. low team performance and public vs. private leaders • Attitudinal measure: Monetary contribution to a present for a leader	• Average 'fit'-rating across all items and trials in each dimension (SMP score), as a measure for trait attributions in experimental condition • Linear mixed modeling to quantify the effect of context factors on SMP score and the relationship between trait attributions and followers' behavioral intentions	• Performance and sector context information interactively affect IPLT activation and respondents' trait attributions to a fictitious leader. • General IPLT and dimensional (*achievement orientation, tyranny*) attribution patterns indicate a 'romance of private leadership', but lower ascribed agency for organizational outcomes to public leaders • The interaction effect between sector affiliation and sector context on attributions on *rule abidance* imply that private employees are biased in their attributions of *rule abidance* to public leaders.
Study 3: Hesmert, L. The benefits of following one's ideals: How followers' implicit public leadership theories determine their LMX and work engagement			
• How does the match between followers' IPLTs and their actual leaders affect followers' LMX and work engagement?	• Online experiment, combining scenario design, the SMP and questionnaires • N = 102 German public sector employees • Implicit measures: followers' ideal IPLTs • Explicit measures: respondents' ratings of own supervisors, work engagement, LMX	• Calculation of congruence between followers' (anti)prototypes, derived from SMP score, and actual leaders' traits • Structural equation modeling with bootstrapped confidence intervals to determine main and mediation effects between congruence, LMX and WE	• Leaders' embodiment of their followers' IPLTs (prototype and antiprototype match) has a positive, significant effect on followers' LMX • No direct effect of (anti)prototype match on work engagement • Indirect effect of prototype match on work engagement, however fully mediated by higher LMX resulting from prototype match

Summary of contributions

Study 1: 'What is public about public leadership? Exploring implicit public leadership theories' (Vogel & Werkmeister, 2021)

To provide an empirical foundation for the socio-cognitive research agenda, Study 1 explores the structure and content of IPLTs, denoting individuals' ILTs on leaders in the public sector. In order to synthesize collectively shared elements of individuals' spontaneous associations with typical public leaders to a meaningful trait taxonomy, we conducted a large survey experiment with N = 1,072 German employees from the public and private sectors. Participants were assigned to one out of two experimental conditions, each of which asked them to rate 100 items from a pool of adjectives in terms of their typicality for a public or generic leader. The item pool was composed to equal parts of traits stemming from existing taxonomies of typical ILTs as well as from public management and general personality literature. Similar to Offermann and co-authors' (1994) designs, participants were given no further background information on the leader.

We factor-analytically reduced the systematic variance in the answer pattern to a five-factor model representing IPLTs and a six-factor model representing generic ILTs. The final IPLT model comprises the five factors *achievement orientation*, *rule abidance*, *righteousness*, *kind-heartedness*, *progressiveness*, and *tyranny*. Analyses reveal that the systematic variance captured by the *progressiveness* factor is driven by systematically lower ascriptions of *progressiveness* to public than generic leaders, making a *lack of* progressiveness a genuine feature of followers' implicit images of public leaders. Confirmatory factor analyses and content validations with independent subsamples confirm that the content and structure of both models are meaningful, valid, and reliable. Measurement invariance analyses reveal that public and private sector employees' IPLTs follow the same factor structure. However, public employees associate higher levels of *rule abidance* and lower levels of *tyranny* with public leaders than private sector employees.

The results provide evidence for the existence of public-specific leader stereotypes, which are relatively stable across groups of employees from the private and public sectors. A comparative content analysis of IPLTs and general ILTs indicates which distinctive features of publicness figure in a socio-cognitive conceptualization of public leadership, and which do not.

Study 2: 'The a priori of public leadership: Social attributions to public and private leaders in different performance contexts' (Hesmert, Hattke, & Vogel, 2021)

Study 2 delves deeper into the role of IPLTs for individuals' sensemaking in the leadership arena. In an online priming experiment, we examine how contextual cues on sector and performance contexts activate followers' IPLTs in an inference-based manner and consequently drive individuals' leadership categorization and automatic trait attribution processes as well as behavioral intentions toward unknown leaders. N = 734 German employees first read one of four fictitious leadership scenarios, each describing salient organizational outcomes in a context varying along a 2 (public vs. private) x 2 (team success vs. team failure) design. Subsequently, participants' IPLTs were measured with the SMP (Imhoff, Schmidt, Bernhardt, Dierksmeier, & Banse, 2011). The SMP is a speeded-decision task that builds on individuals' tendency to misattribute an internally caused phenomenon to an external source. The SMP first primed participants with IPLT items and then asked them to rate whether an ambiguous symbol (a Chinese character) fit the leader described in the respective scenario. Respondents misattributed their implicit associations to the Chinese character so that systematic character ratings reveal participants' trait attributions to the leaders in the different contexts. As a measure of the consequences of IPLT activation for behavioral intentions, we assessed participants' willingness to contribute money for a present intended for the fictitious leader.

Results of linear mixed modeling indicate interactive effects of the performance and sector contexts on followers' leadership trait attributions. While respondents attribute more leadership traits to private leaders in successful than unsuccessful performance contexts, no significant differences between performance contexts appear for public leaders. This pattern replicates on a dimensional IPLT level for *achievement orientation* and *rule abidance* and even reverses for *tyranny* and *rule abidance*. In addition, a significant interaction effect between sector affiliation and the sector context on ascriptions of *rule abidance* indicates private employees' perceptual bias toward public leaders. Finally, respondents' intended acts of support for a leader are a function of the sector and situational context as well as followers' a priori leadership trait attributions.

The results demonstrate that followers' a priori social attributions as well as their responses to leaders in different contexts are a function of context-contingent IPLT activation patterns. The findings provide a validation for the significance of followers' ex ante conceptions of leadership and inference-based leadership categorization for followers' responses to (public) leadership.

Study 3: 'The benefits of following one's ideals: How followers' implicit public leadership theories determine their LMX and work engagement' (Hesmert, 2021)

Study 3 explores the implications of IPLTs for public employees' perceptions of their own leaders and subsequent follower-related leadership outcomes. Building on former evidence on the effect of ILT congruence, the study tests the effects of a match between individuals' IPLTs and their supervisor's traits on the quality of follower-rated LMX and their work engagement. A total N = 102 of public employees participated in an online experiment that resembled the design of Study 2, but utilized a different, independently gathered sample and restricted the context manipulation to the public x team success context. Participants first read a scenario description about a leader of a successful team, which intended to activate their ideal IPLTs. Subsequently, participants' IPLTs were measured with the SMP. In a set of explicit rating scales, participants rated their own supervisor's traits on the IPLT scale and reported their LMX and work engagement.

Structural equation modeling reveals that a match between participants' (anti)prototypes and their supervisors' traits has no direct effect on employees' work engagement. However, public leaders' embodiment of their employees' prototypes and deviation from their antiprototypes is related to higher employee-reported LMX. This relationship mediates the indirect positive effect of prototype match on work engagement. In contrast to evidence on ILT congruence in the private context (Epitropaki & Martin, 2005b; Riggs & Porter, 2017), antiprototype match has no significant effect on work engagement. This finding could speak to sector differences in the effect of IPLTs and their link to employee outcomes, or be a result of the successful elimination of response biases in the implicit assessment method.

The findings provide empirical support for the role of followers' IPLTs as a cognitive filter through which they perceive and respond to leadership. The results also expand the nomological network on socio-cognitive and relational antecedents of work engagement, which is one of the most promising micro-level determinants of employees' performance. The elevated role of LMX as a mediator points to an important boundary condition of IPLTs' effect and taps into relational approaches to public leadership which highlight the beneficial outcomes of a good leader-follower exchange relationship for the outcomes of public leadership (De Vries, Tummers, & Bekkers, 2019; Hassan & Hatmaker, 2015; Tummers & Knies, 2013).

Synthesis of findings

This thesis set out to introduce and empirically test a socio-cognitive approach to public leadership. Each chapter of the following section summarizes the answers to the three overarching research questions that drove the endeavour.

A validation of the socio-cognitive approach to leadership in the public context

Study 1 reveals that people possess distinctive, interindividual stable, yet idiosyncratic cognitive leadership images that structure their implicit knowledge and ex ante expectations of public leaders. Study 2 demonstrates that these IPLTs are automatically and subconsciously activated by contextual cues and drive participants' trait attributions as well as attitudinal responses to leaders in different contexts. In addition, public employees use their IPLTs as a subconscious benchmark for their own supervisor, with a match between their a priori expectations of leadership and perceived reality translating into a better leader-follower relationship and ultimately into tangible attitudinal leadership and employee outcomes, such as work engagement (Study 3). These findings provide compelling evidence for the significance of followers' implicit perception, categorization, and social attribution processes in the leadership situation and offer empirical support for a socio-cognitive model of the public leadership process. While the sector context does not seem to be a very critical boundary conditions of the validity of a socio-cognitive approach to leadership in the public context, a good leader-follower relationship emerges as a necessary condition for the congruence effects of IPLTs (Study 3).

Insights on the conceptual core of public leadership provided by a socio-cognitive approach to leadership

Findings from Study 1 suggest that public leadership unfolds around a general core, consisting of leadership styles and abilities that range high in the academic literature, such as transformational and transactional leadership (*achievement orientation* and *progressiveness*; Wright et al., 2012), emotional intelligence (*kindheartedness*; George, 2000; Hopkins, O'Neil, & Williams, 2007; Kotze & Venter, 2011), and fairness (*righteousness*; Morse, 2010; Pillai, Schriesheim, & Williams, 1999). The competencies that allow leaders to master the general 'grand challenges' of leadership are therefore also a central defining feature of a socio-cognitive conceptualization of public leadership. In addition, the *tyranny* factor suggests that abusive and destructive nuances of leadership might also be part of public employees' organizational leadership reality (Peus, Braun, & Frey, 2012). Beyond these overlaps with general

conceptualizations of leadership, the factors in which IPLTs stand out from followers' constructions of generic leadership (Study 1) and the differential social attribution patterns to public and private leaders (Study 2) reveal what makes public leadership distinctive in followers' minds.

Particularly insightful, and different from earlier evidence on elected officials' romantic views of public leaders (Nielsen & Moynihan, 2017), is the finding that in their automatic, inference-based processing, individuals ascribe public leaders less causal agency and accountability for the achievement of organizational outcomes than leaders in private organizations, whom they romanticize to a much larger extent (Study 2). Instead, the lack of charismatic aspects and the prominence of leaders' rule abidance in followers' public leadership conceptions (Study 1) seem to support the traditional Weberian, technocratic view, according to which organizational effectiveness is ensured by structure, order, and regulation. According to this perspective, structure and regulation substitute for leadership in the public sector, so that charismatic and agentic dimensions of leadership have little influence on public organizational performance (Javidan & Waldman, 2003). In order to persist, charismatic authority must thus eventually be routinized and institutionalized (Terry, 1990, 2015; Weber, 1968).

Adding more nuance to these findings, the IPLT-inscribed ambiguity between *progressiveness* and *rule abidance* represents public leaders' constant efforts to balance tensions emanating from the opposing poles of neoliberal, entrepreneurial goal structures on the one hand, and public value-oriented leadership models on the other hand (Bozeman, 2007; Denhardt & Denhardt, 2000; Kellis & Ran, 2013). For example, ensuring accountability or compliance with political agendas and administrative regulations (*rule abidance*) might come at the cost of opportunity-based, entrepreneurial decision-making and striving for efficiency, innovation, and change (*progressiveness* and *achievement orientation*; Borins, 2000; Boyett, 1996; Roberts & King, 1991). In other words, even though a socio-cognitive lens on public leadership reveals a lower significance of agentic, entrepreneurial aspects of leadership (Study 1) and a weaker ascribed link between public leaders' task orientation and organizational outcomes (Study 2) individuals' sensemaking on public leadership do not necessarily represent a lack of leadership effectiveness. Instead, they encode that goal hierarchies underlying leadership in the public context are inherently complex, ambiguous, and even paradox (Backhaus, Reuber, Vogel, & Vogel, 2021).

Regarding followers' responses to leadership however, leaders' embodiment of all these seemingly conflicting dimensions matter (Study 3). Even more, in the ambiguous context of publicness, leadership qualities related to the more normative, distinctive dimensions of public

leadership, which provide stability and predictability, seem to be more strongly associated with positive follower-related effects of public leadership (Study 2). In the same way, the finding that employees' fulfilled leadership expectations only affect follower outcomes if they evolve in the context of high LMX (Study 3) suggests that leadership in public organizations does not unfold effects by its mere existence, and again points to the importance of relational dimensions of public leadership.

On a more conceptual level, the examination of the cognitive mechanisms by which followers construct public leadership provides more insights into how publicness features in public leadership. Results from the implicit priming experiments suggest that the public context serves as a contextual cue that activates individuals' context-specific subjective mental models of leadership (Studies 1 and 2; Figure 2). Publicness in public leadership is therefore not merely a static characteristic of the sector context but a dynamic, subjective cognitive frame (Weißmüller, 2021). Said frame triggers specific and distinctive (Studies 1 and 2) psychological processes that ultimately shape the outcomes of public leadership (Study 3).

This process is highly complex, as demonstrated by the various contingencies that emerged in this thesis. While the perception of a minimal contextual cue of publicness leads to participants' retrieval of their IPLTs as a contrast to generic leadership images (Study 1), if contrasted with private leadership, publicness alone does not trigger different social attribution processes in the leadership situation (Study 2). Instead, cues emanating from the situational context leadership emerges in, for example performance information (Study 2), interact with cues on publicness and privateness to significantly affect implicit attribution processes. Similarly, even though public and private employees do not differ in the structure and content of their IPLTs as retrieved from explicit ratings (Study 1), private employees demonstrate different implicit perceptions of public leaders' *rule abidance* (Study 2). Especially the normative and distinctive dimensions that characterize publicness might therefore also be malleable by socialization and actual experiences and unfold effects in followers' implicit, rather than explicit information processing. Besides being highly subjective, publicness as a cognitive frame therefore also seems to be a relative concept that becomes more or less salient as a contrast to other cognitive, contextual frames and interacts with the situational determinants of the leadership situation. These conclusions suggests that a significant amount of publicness, as it appears in simplified comparative approaches to public leadership, may be biased by ratees' pre-existing social constructions and points to the importance of more social constructionist, differentiated views on publicness in public leadership (D. I. Jacobsen, 2017).

The socio-cognitive conceptualization of public leadership, which I derive from the above insights, might provide a valuable basis for such views:

> *Public leadership is a social construction that results from individuals' subjective, ex-ante expectations of leadership, the subjective cognitive frame of publicness, and their situation-contingent perception of leadership-relevant cues in the public context.*

Practical implications of a socio-cognitive approach to public leadership

A socio-cognitive approach to public leadership and the findings it provides has important practical implications for leadership training and development. While most training concepts have largely targeted public leaders' goal-oriented leadership skills, i.e., their transformational and transactional leadership (An, Meier, Bøllingtoft, & Andersen, 2019; C. B. Jacobsen, Andersen, Bøllingtoft, & Eriksen, 2021; Seidle, Fernandez, & Perry, 2016), this study's findings suggest that leadership development formats should begin to address the significance of IPLTs and leadership categorization for the outcomes of leadership. Increasing leaders' awareness that followers' implicit expectations are an important contingency of their own effectiveness might help leaders to adopt a more relational understanding of leadership and acknowledge organizational members as active, equal contributors to the leadership process.

Conceptual research has suggested that projective methods, such as drawing exercises, might convey to leaders which implicit standards they have to live up to, raise their social and self-awareness and strengthen their leadership status in the social group (Schyns, Kiefer, Kerschreiter, & Tymon, 2011). Enabling leaders to manage the fit between their actual traits and their followers' implicit expectations might help effective leaders to also be recognized as such by their followers and strengthen the congruence between leader-intended and employee-perceived leadership behavior (An et al., 2019). Interventions that increase leaders' self-awareness (Schyns et al., 2011), empathy (Quirk, 2019), authenticity (Hattke & Hattke, 2019) and impression management (Peck & Hogue, 2018) could be highly valuable. Given the paramount role of the leader-member relationship that emerged in this project (Study 3), leadership training should also focus on enhancing communication, trust and mutual understanding between leaders and followers to facilitate a high-quality social exchange relationship (Graen & Uhl-Bien, 1995).

Apart from these recommendations, this project questions the traditional focus of most leadership development endeavors altogether. Most of the formats that aim to increase leaders' skills and abilities implicitly conceive leadership as an individual-level skill that, if subjected to intrapersonal development, may produce better outcomes (Day, 2000; C. B. Jacobsen et al.,

2021). This conception is in stark contrast to the evidence presented in this thesis, which demonstrates that followers' context-contingent information processing and a priori constructions explain a critical amount of systematic variance in follower-related outcomes (Study 3), even without considering leaders' actual behavior or traits (Study 2). My findings suggest that leadership development strategies might benefit from shifting their focus from 'leader development' to 'leadership development' by becoming more inclusive and targeting a larger group of organizational members (Dalakoura, 2010; Day, 2000).

Such a shift is also more in line with the transformative trends in public organizations toward more collaborative, collective organizational environments under new steering models (Bouckaert, Peters, & Verhoest, 2010; Van de Walle & Groeneveld, 2011). Even though occurring at a slower pace than in the private sector, the ongoing structural and cultural transformation of public organizations gradually replaces the traditional hierarchical with increasingly horizontal and interdependent structures, where leadership functions become more distributed among organizational members (Legreid, 2017; Ospina, 2017; Plesner, Justesen, & Glerup, 2018). As a result, the relative importance of leaders as heads of formal chains of command and within dyadic relationships decreases (Denis, Lamothe, & Langley, 2001; Denis et al., 2005). Instead, leadership and followership are increasingly exerted more informally in dispersed, often virtually connected teams, in which leader-follower roles dynamically re-emerge and are co-constructed by different parties (Green & Roberts, 2010; Plesner et al., 2018; R. Vogel & Hesmert, 2021). Such change processes gradually transform formal leaders' tasks and roles from managing and guiding followers toward facilitating collaboration and coordination in horizontal workplace relationships (Hooijberg & Choi, 2001; Morse, 2010; Ospina, 2017).

A socio-cognitive approach suggests that leadership development might unfold even more beneficial effects if it targets a broader social group and applies more inclusive methods, such as 360-degree feedback (Atwater & Waldman, 1998; Thach, 2002), (peer) mentoring (Solansky, 2010), or individual coaching (Ladegard & Gjerde, 2014). Given the relevance of organizational members' socio-cognitive processes for interpersonal coordination, attitudes, and relational outcomes (Riggs & Porter, 2017; R. Vogel & Hesmert, 2021) training components that base their content on scientific knowledge about a socio-cognitive approach to public leadership may enrich such formats.

Research outlook

Further development of a socio-cognitive approach to (public) leadership

The results presented in this thesis set the stage for the development of further public leadership frameworks and models that succumb to a socio-cognitive perspective on leadership. Still, more research is needed to fully leverage the advantages of this approach in the context of public leadership.

Study 1 developed a taxonomy of traits that constitute individuals' cognitive prototypes of an average public leader, representing typical IPLTs. Studies 2 and 3 demonstrated the predictive validity of IPLTs as a cognitive framework for public employees' leadership categorization. However, the content of IPLTs requires further exploration. While the prototype approach suggests that typical prototypes describe a descriptive norm, whereas ideal prototypes refer to an injunctive norm of leaders' traits, the exact boundaries of typical and ideal prototypes' content have not been clearly established (Junker et al., 2016; Junker & Van Dick, 2014; Schyns & Schilling, 2011). Proposing that the distinction is rather conceptual than empirical, a stream of research suggests that typical IPLTs are laden with normative, ideal aspects and concludes a 'think leader think effective' effect (Bligh, Kohles, & Pillai, 2011; Schyns & Bligh, 2007; Schyns & Schilling, 2011). However, scattered evidence confirms the proposition that ideal ILTs have a higher explanatory value for the effects of prototype congruence on organizational outcomes (Junker & Van Dick, 2014; Van Quaquebeke et al., 2014). This study's findings are similarly inconclusive, not less because I exclusively developed and applied a taxonomy of typical IPLTs (Study 1). Also, while my operationalization of ideal IPLTs as a particular activation state of typical IPLTs in contexts of high performance yielded the expected effects for IPLT congruence, no such effects emerged for antiprototype congruence (Study 3), contrasting relatively stable evidence from general ILT research (Epitropaki & Martin, 2005a; Riggs & Porter, 2017). To contribute conceptual clarity to the difference between ideal and typical IPLTs and their differential relationships with leadership outcomes, future research should focus on exploring ideal IPLTs.

In a similar vein, IPLTs' content relies exclusively on leader traits. Despite their follower-centric foundations, IPLTs in a way thus replicate the limitations of leader-centric approaches to leadership. Future explorations of followers' implicit leadership conceptions could try to capture the leadership situation more comprehensively. A useful concept to build on might be cognitive scripts that structure individuals' knowledge on behavioral and interactional sequences in specific contexts (Fiske & Taylor, 1991; Higgins & Bargh, 1987) and have been discussed anecdotally as a more situationally contingent form of leadership prototypes (Foti &

Lord, 1987). Scientific explorations of 'implicit leadership scripts' might reveal which behavioral patterns followers expect from their social interactions with leaders in various contexts and offer a more situationally and context-contingent account of leadership.

As Study 1 derived the IPLT model from a pool of adjectives that were retrieved from existing academic trait taxonomies, the scope of results is limited by the academic frameworks that underlie these taxonomies. Methodologically, future research endeavors might benefit from employing qualitative research to explore IPLTs' content more freely and unrestricted. Qualitative, explorative approaches of social inquiry, such as narrative interviews, critical incident techniques or systematic qualitative content analyses might be more suitable to detect more nuanced, symbolic, and idiosyncratic components of IPLTs than questionnaire designs (Schyns & Schilling, 2011; Sharifirad, Mortazavi, Rahimnia, & Farahi, 2017). In a similar vein, even though Studies 2 and 3 provide a compelling example for an implicit assessment of leadership categorization, future research should aim to shrink the gap between theory and methods and assess the content of leadership images in an implicit manner. For such endeavors, rapid categorization methods such as the implicit association test (Greenwald et al., 1998; Marvel & Resh, 2019) might be especially powerful to detect the implicit structures that underlie IPLTs. A combination of qualitative and implicit techniques might yield even more accurate results.

Scholars have argued that public leadership research should actively try to outgrow its status as the 'poor cousin' of general leadership research (Hartley, 2018) by developing more self-confidence as an independent research discipline and aiming to advance the general leadership conversation through rigorous research (Ospina, 2017). In this spirit, I will succinctly explain how this thesis contributes to general research on a socio-cognitive approach to leadership. The results support the proposition that the organizational context features in distinctive implicit leadership schemas (Junker & Van Dick, 2014; Lord et al., 1982; Lord et al., 1984). Still, IPLTs cannot with certainty be located on the basic or superordinate category level. The large overlaps between IPLTs and general ILTs and the low category-specific cue validity of IPLT attributes suggest that IPLTs are not more inclusive than ILTs. However, the unique factors that appeared in both IPLTs and generic ILTs do neither allow for the conclusion that IPLTs reside on the same category level as general ILTs. This ambiguity supports criticism of the simplified assumptions underlying hierarchical models of leadership categorization and implies that more flexible frameworks, such as connectionist models, may have more explanatory value for ILTs' structure (Hanges, Lord, & Dickson, 2000; Lord, Brown, & Harvey, 2001). Connectionist models of leadership categorization assume that ILTs'

microstructure resembles neuron-like networks in which information units pertaining to a prototype (traits) are connected by weights of different strength (Hanges et al., 2000). Since ILTs are conceived as the result of stable, context-contingent activation patterns, connectionist models account better for the possibility that the same input stimulus can activate different leadership schemas and that leadership categories might overlap (Epitropaki et al., 2013; Hanges et al., 2000; Lord et al., 2001; Lord & Shondrick, 2011).

Lastly, future research could build on the insights of a public administration psychological process perspective and explore the causal processes of leadership categorization more in-depth. For example, evidence on the effects of transformational leadership in the public context suggests that leadership can also alter structural organizational reality and thus change the way employees perceive it (Moynihan, Wright, & Pandey, 2012). In a similar vein, the possibility of reversed causality in the effects of ILT congruence on leadership outcomes has been theoretically acknowledged, yet not studied empirically (Lord et al., 2020; Riggs & Porter, 2017). Future research should explore the existence and potential impact of reciprocal processes in leadership categorization, by which leaders or leadership outcomes, such as high LMX, feed back into the leadership categorization process (Lord et al., 2020). In addition, given that sector affiliation emerged as an important moderator of socio-cognitive leadership processes (Studies 1 and 2), such exploration might also yield valuable insights into the impact of organizational socialization on the origin and operation of implicit leadership images.

Avenues for future research on public leadership in applied settings

Public leadership is of key relevance for public management and the significance of public leadership for organizational success permeates nearly all levels and areas of public organizations (Crosby & Bryson, 2018; Leisink et al., 2021; Raffel et al., 2009; Vandenabeele et al., 2014). Apart from providing a novel theoretical approach to public leadership, a socio-cognitive approach may also advance research on public leadership in more applied settings.

One of the most critical challenges of public management is to eradicate social, racial, and material inequality in senior public leadership positions (Adams & Ferreira, 2009; Opstrup & Villadsen, 2015). While structural barriers to equal representation in public leadership have been identified (Feeney & Stritch, 2019; Llorens, Wenger, & Kellough, 2008), little is known about how implicit perceptions might foster discrimination against underprivileged groups in the public context.

Research from the context of private organizations suggests that people's gendered leadership perceptions are a decisive driver of discrimination against women in leadership

positions (Eagly & Karau, 2002; Paustian-Underdahl, Walker, & Woehr, 2014). This is because the inherent incongruence between most decision-makers' implicit expectations of leaders and internalized gender roles fosters discrimination against women in career-relevant situations, for example in promotion decisions (Eagly & Karau, 2002; Eagly, Wood, & Diekman, 2000; Johnson, Murphy, Zewdie, & Reichard, 2008). However, the differences between public and private organizations, and between private ILTs and IPLTs (Study 1), leave open whether publicness as a cognitive frame moderates or alleviates such effects. For example, while masculinity figures as a defining feature of general ILTs, resulting in an inherent disadvantage for leadership recognition in women (Offermann & Coats, 2018; Offermann et al., 1994), masculinity does not emerge as a unique dimension in IPLTs (Study 1). Future studies should aim to investigate the socio-cognitive processes underlying leadership perceptions of groups with distinctive sexual and ethnic identities in the public sector. Systematic, scientific insights on this matter might help getting to the core of minorities' structural underrepresentation in public leadership more generally and direct subsequent efforts for change more precisely.

An organization's leadership style and culture are decisive employer attractiveness factors, especially for younger (millennial or generation Z) applicants (Hubner, Rudic, & Baum, 2021; Jain & Bhatt, 2015). Research has also suggested that implicit expectations, attitudes and values, and the perception of organizational signals of their fulfilment, shape decision-making on both the recruiter's and candidate's side (Bromberg & Charbonneau, 2020; Leisink & Steijn, 2008; Sievert, Vogel, & Feeney, 2020). Such evidence inevitably raises a number of questions on the role of implicit leadership expectations in public organizations' recruiting processes. For example, do differences between public and private experienced hires' ILTs and IPLTs, as well as biases against public leaders (Study 2), account for different attraction levels to public and private organizations? Do candidates implicitly employ contextual or social cues to make sense of their potential supervisor in situations of sparse information and do these sensemaking processes influence their attraction to the public employer? Does interpersonal ILT congruence affect applicants' and recruiters' hiring decisions? Answers to these questions could help public organizations address the enduring challenges to attract, recruit, and retain qualified personnel.

Lastly, a socio-cognitive approach might be highly valuable for research on crisis management. Organizational or national crises are critical moments in the leadership life cycle because they expose public leaders to the public eye and put immense pressure on their decision-making and communication (Boin & Hart, 2003; Boin, Stern, & Sundelius, 2016). In addition, the public's perception of the quality of crisis leadership affects an organization's external reputation and legitimacy (Boin & Hart, 2003; Christensen, Fimreite, & Lægreid,

2011). A socio-cognitive approach might help to identify decisive, currently neglected factors for the outcomes of crisis management. Future research could for example examine whether citizens' IPLTs shape their perceptions of public leaders' crisis management and their subsequent trust in institutionalized public leadership (Christensen et al., 2011). Given that ILTs are culturally contingent and interact with universal, cultural value dimensions (Den Hartog et al., 1999; Kono, Ehrhart, Ehrhart, & Schultze, 2012; Stephan & Pathak, 2016), such research could also explore whether collective leadership stereotypes account for national differences in this relationship (Christensen et al., 2011; Drennan & McConnell, 2012).

Conclusion

In times of global, political and economic upheaval, good and effective public leadership is as important as ever. In an attempt to move research on public leadership forward, this thesis provides a novel theoretical lens on the phenomenon and introduces a socio-cognitive approach to public leadership. Shifting the focus from traditional, leader-centric approaches to a more follower-centric, social constructionist view, this project demonstrates the explanatory potential of followers' implicit information processing for the emergence and outcomes of public leadership. The socio-cognitive model of public leadership drafted in this project suggests that public leadership remains a human enterprise that deals with the general 'grand challenges' of leadership and is charged with universal expectations. However, public leadership becomes a more differentiated relational phenomenon as a product of followers' context-contingent, implicit sensemaking, which arises from the interaction between their ex ante mental models of leadership and the distinctive context of publicness. I find that the notion of administrative conservatorship and the public context's complexity and goal ambiguity figure highly in followers' public leadership constructions. The findings also suggest that public leadership differs from other forms of leadership in more complex forms than accounted for by simplified, comparative designs. In this regard, a deeper exploration of the socio-cognitive processes underlying public leadership may help to provide a more differentiated perspective on the mechanisms by which publicness affects public leadership. Given the multitude of potential yielded by a socio-cognitive approach to public leadership, I hope this thesis inspires researchers to explore some of the avenues it leaves open.

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CHAPTER II: CONTENT OF IPLTS

Study 1

What is public about public leadership? Exploring implicit public leadership theories.

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What is Public about Public Leadership? Exploring Implicit *Public* Leadership Theories

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Abstract

While scholarship on public leadership has recently gained momentum in public administration, it is unclear how researchers should account for the "public" in public leadership. We shed new light on this issue by introducing the approach of Implicit Leadership Theories (ILTs) to the field of public administration. This socio-cognitive approach suggests that people's everyday, rather than scholarly, theories about the characteristics of leaders provide important explanations of how they respond to leadership situations. We investigate whether people hold Implicit *Public* Leadership Theories (IPLTs) and explore how these images of public leaders contrast with generic ILTs. We extract these taxonomies from data gathered in a survey experiment in Germany ($N = 1{,}072$). Results show that IPLTs have overlaps with generic ILTs but are unique in terms of rule abidance and innovation-orientation. In contrast, charismatic aspects of leadership only figure in generic ILTs. The structure of ILTs, both generic and public, is surprisingly stable across the subsamples of public and non-public employees. We discuss how the findings may assist public management scholars in the development of explicit theories of public leadership and derive a research agenda based on a socio-cognitive approach.

Introduction

An increasing number of scholars in public administration have recently devoted attention to the phenomenon of public leadership, defined here as organizational leadership in public administration (e.g., Chapman et al. 2016; t'Hart and Tummers 2019; Van Wart 2013a; Vogel and Masal 2015).[1] As is often the case with young and growing fields of research, scholarship on public leadership is fragmented and has not yet arrived at a state of theoretical and conceptual coherence and integration (Crosby and Bryson 2018). Among the controversial issues is the fundamental question as to whether, and if so how, researchers should account for the "public" in public leadership by developing specific theories, concepts, and measurements, or if they should instead draw on generic leadership approaches as applicable in any sector. Is public leadership genuine to the public sector or does it merge into leadership as a generic concept? This issue has important implications for the field: If scholars insist that public leadership is conceptually and empirically distinct, they run the risk of succumbing to "public idiosyncrasy" and of being trapped in a disciplinary silo (Ospina 2017; Perry 2016). This would impede cross-fertilization with general leadership studies and

1 It is important to note that other definitions of public leadership refer more generally to leadership in the public sector, which is distinguishable from other types of leadership by the purpose to create public value (Crosby and Bryson 2018). As such, public leadership is a "boundary-crossing process" (Getha-Taylor et al. 2011, i84) and also encompasses leadership in other, sometimes less formalized forms and structures of organizations and networks, such as political leadership, non-profit leadership, or network leadership (Getha-Taylor et al. 2011).

decrease opportunities to learn from sector comparisons. However, if researchers lump together public and generic leadership, their theories, concepts, and measurements may fall short of grasping essential aspects, or even the true nature, of public leadership (Getha-Taylor et al. 2011).

In face of this controversy, we believe that shedding more light on what is public about public leadership will move research forward. Beyond fragmentation and debate, the field also offers points of agreement to build on, such as the assumption that public leadership is a social construction emerging from the interactions of organizational members (t'Hart and Tummers 2019; Van Wart 2013a). That is, public leadership is a product of people's interpretations rather than an objective reality. Scholars commit themselves to this perspective when they apply theoretical approaches in the tradition of social constructivism (Ospina 2017). Even without this epistemological commitment, many leadership concepts carry the idea of leadership as a subjective construction. For example, the most widely applied leadership concept (i.e., transformational leadership; Bellé 2014; Wright and Pandey 2009) puts strong emphasis on the visionary character of effective leadership, with leaders providing sense and meaning to their followers. More recently, public administration scholars have shifted attention to less heroic, more collective forms of leadership, such as shared or distributed leadership (Crosby and Bryson 2018; Ospina 2017; t'Hart and Tummers 2019). Works in this stream elevate the role of the follower in the leadership relationship as co-constructor of leadership in dyads or groups. Many if not most scholars would therefore agree that leadership is "in the eye of the beholder" (Jacobsen and Bøgh Andersen 2015; Meindl, Ehrlich, and Dukerich 1985) and "can only be understood in context and by way of understanding how people make sense of it" (Ospina and Sorenson 2006, 195–6).

Given the unsolved puzzle of how "public" public leadership is, on the one hand, and the widely accepted view that followers' perceptions and interpretations are constitutive of leadership, on the other hand, it is reasonable to ask how public leadership emerges in the minds of followers. Furthermore, if the inter-individual variation in the content of these images is systematic and conforms to a stable factorial structure, we may ask whether it contrasts with the images of leadership in general. Previous research does not provide a sufficient answer to these questions. Hitherto, scholarship has predominantly applied concepts that reflect either general or public leadership, whereas few works have made attempts to measure both (for an exception, see Tummers and Knies 2016). Consequently, the issue of conceptual and empirical distinctiveness of public leadership is difficult to address based on available research findings. More importantly, researchers have commonly pursued a top-down approach by applying leadership concepts that are charged with scholarly assumptions and ideas, thus superimposing strong "a priori views" (Rainey and Bozeman 2000). While this research has its merits in expanding the nomological network of leadership research in the public sector, it also limits the cognitive range within which followers are encouraged to think about leadership. It thus remains unclear whether public leadership figures distinctively in followers' freely associated rather than in scholarly predefined concepts.

To fill this gap, we introduce Implicit Leadership Theories (ILTs) to the study of public leadership. ILTs are implicitly held assumptions about traits of leaders, with "theories" referring to everyday theories of people rather than to academic theories developed by scholars (Eden and Leviatan 1975; Lord et al. 2020). This approach fosters a socio-cognitive perspective, defining leadership as the product of cognitive information processing by organizational members (Lord, Foti, and Phillips 1982). A socio-cognitive perspective on leadership resonates with the view that leadership is a social construction (Ospina and Sorenson 2006) and suggests that followers' mental representations of leaders are important drivers of their perceptions of and responses to leadership. While the potential of this approach has been well recognized in general leadership research (Epitropaki et al. 2013; Fiske and Taylor 1991; Junker and Van Dick 2014; Lord et al. 2020), ILTs about public leaders, or Implicit *Public* Leadership Theories (IPLTs), have not been explored so far. An explorative approach to IPLTs promises to be insightful, particularly because it gives rise to followers' images of public leaders in the very first place, without restricting their attention to what is within the scope of predefined leadership concepts.

In this study, we explore the structure and content of IPLTs, and we compare and contrast them with general ILTs. Do people hold specific images about public leaders? If so, what are the inter-individually generalizable components of these images and how do they differ from images about leaders in general? Do public sector employees hold different leadership images than non-public sector employees? By addressing these research questions, we make three contributions to the literature. First, we foster a deeper understanding of laypersons' mental models about public leaders to provide further insights into what exactly constitutes the "public" component in public leadership. Previous research provides evidence on how public leaders gradually differ from leaders in other sectors in their traits, behaviors, and roles (Andersen 2010; Hansen and Villadsen 2010; Hooijberg and Choi 2001). However, there is no prior knowledge on

how public leaders differ from leaders in general at the more fundamental level of mental representations. Second, we "roam more freely through the disciplines" (Crosby and Bryson 2018, 1265), as has recently been called for, and introduce the approach of ILTs to public administration. We thus join recent theorizing about leadership that emphasizes the role of the follower and the nature of leadership as a socially constructed phenomenon emerging from actors in leadership relationships (Crosby and Bryson 2018; Ospina 2017; Ospina and Sorenson 2006). Third, our study is of broad relevance to general leadership theory. Although leadership scholars have recently called for more variation in the contexts in which researchers examine ILTs (Epitropaki et al. 2013), to the best of our knowledge, we are the first to investigate the relationship between sector affiliation and ILTs.

In the subsequent section, we outline the theoretical framework of our study. In the data and methods section, we explain the procedure we followed in conducting a survey among 1,072 employees in Germany. Participants were randomly assigned to one out of two conditions, i.e., public or generic leader, and were asked to rate items from a pool of 100 traits in terms of their typicality for a public or generic leader. In the fourth section, we present the results of exploratory and confirmatory factor analyses (EFA and CFA) as well as a measurement invariance analysis. We arrive at new taxonomies of typical characteristics implicitly attributed to leaders in general and public leaders in particular. Although IPLTs have substantial overlaps with generic ILTs, they are unique in two dimensions (rule abidance and innovation-orientation). In contrast, charismatic aspects of leadership only figure in generic ILTs. We interpret these findings and discuss their theoretical and practical implications, as well as the limitations of our study, in the final section. As part of this discussion, we develop a research agenda of how to capitalize on the approach of IPLTs in future public leadership research.

Theoretical Framework

We develop the theoretical framework in three steps. First, we briefly introduce the socio-cognitive approach to leadership, since a social cognition perspective is fundamental to the study of ILTs. Second, we elaborate on how ILTs shape perceptions of leadership. Third, we examine how the contextual contingencies of these images may give rise to the emergence of ILTs that are specific to public leadership, that is, IPLTs.

The Socio-cognitive Approach to Leadership

The socio-cognitive approach to leadership advances the idea that leadership emerges from the cognitive information processing by those who are involved in leadership relationships (Brown 2013; Lord et al. 2020). This perspective emerged in response to leader-centricity in leadership research, which has also been adopted for the study of public leadership (Crosby and Bryson 2018; Vogel and Masal 2015). In contrast, a post-heroic, socio-cognitive approach sees leadership as a social construction to which both leaders and followers contribute (Ospina 2017; Uhl-Bien et al. 2014). Leaders only gain influence if followers perceive them as leaders. Understanding leadership thus requires exploring followers' perspectives on and their role in the leadership process, a claim that has recently been echoed in public management (Jacobsen and Bøgh Andersen 2015).

The socio-cognitive approach to leadership resonates with more general insights from the field of social cognition, providing ample evidence that basic modes of human information processing affect the outcomes of any social interaction (Fiske and Macrae 2012; Fiske and Taylor 1991). Cognitive categorization lies at the core of this information processing and is particularly relevant for leadership. It refers to the cognitive organization of perceived stimuli according to groups or classes. Leadership categorization theory (LCT) posits that cognitive categorization determines how individuals interpret leadership situations and respond to them (Cronshaw and Lord 1987; Eden and Leviatan 1975; Lord, Foti, and Phillips 1982). For example, early evidence has shown that respondents' preformed images of a leader are stronger predictors of how a leader is rated in terms of effectiveness than the actual behavior of the rated leader (Eden and Leviatan 1975). Rush, Thomas, and Lord (1977) were the first to explain these effects with the existence of ILTs.

Implicit Leadership Theories

Given the fundamental role of cognitive categorization in the formation of expectations and behaviors of both leaders and followers, two questions arise: First, according to which categories do people respond to cues in leadership situations, and second, how do these categories relate to each other? Both questions are at the core of scholarship on ILTs (Epitropaki et al. 2013; Junker and Van Dick 2014; Lord et al. 2020). ILTs comprise the structure and content of images that laypersons hold about leaders. The content of these images is represented in trait descriptors, which are considered the most basic yet richest cognitive structures people use to make sense of others (Fiske and Taylor 1991). Individuals draw on their ILTs when interpreting, evaluating, and responding to leadership situations, hence stabilizing and perpetuating their very own "theories" of leadership (Den Hartog et al. 1999; Hunt, Boal, and Sorenson 1990; Junker and Van Dick 2014).

It is debatable, however, whether the notion of "implicit theories" is appropriate in this context because foundational works in social cognition have coined this term for people's everyday assumptions and convictions about causal relationships in the world (Heider 2013; Piaget, Garcia, and Davidson 2013). Although ILTs per se do not entail such causal attributions, leadership scholars have adopted the term for implicit images of leaders to acknowledge their constituting role in people's sense-making in leadership situations. It should also be noted that the term "implicit" does not imply that leadership images are not subject to introspection. Rather, while the activation processes of ILTs operate unconsciously and automatically, the content of leadership images varies in the degree to which people are aware of it (Epitropaki et al. 2013; Hanges, Lord, and Dickson 2000).

ILTs guide sense-making in leadership situations because they serve as cognitive filters through which organizational members perceive and respond to leadership cues (Lord et al. 2020; Lord and Maher 2002; Lord and Shondrick 2011). Previous research provides vast evidence that the results of the cognitive matching process between held ILTs and perceived characteristics of a target person affect individual and organizational outcomes. For example, higher fits between a follower's ILT and the leader's actual characteristics result in better leader-member exchange, higher job satisfaction, improved well-being, and better performance ratings (Junker and Van Dick 2014; Lord, Foti, and Vader 1984; Rush, Thomas, and Lord 1977).

ILTs can be conceptualized in two ways (Junker and Van Dick 2014): The ideal approach focuses on traits of leaders that are most or least instrumental for specific leadership goals. For example, being "visionary" may drive the effectiveness of a leader in motivating followers and aligning them with organizational goals, but only few leaders may actually exhibit this characteristic. Ideal and counter-ideal ILTs thus describe leader attributes that tend towards the extreme ends of the distribution of characteristics across the population of leaders. In contrast, the typical approach views ILTs as a combination of traits that are most characteristic for a leader, representing a central tendency measure of leaders. For example, people may consider many if not most leaders as "goal-oriented." Typical ILTs thus approximate the average in the distribution. In this study, we chose to examine typical ILTs to maintain a broader focus, which is more in line with our explorative approach. However, we acknowledge that ideal ILTs are also worth studying in the public sector. We will address this point in the discussion section.

Implicit *Public* Leadership Theories

Cumulative evidence on the variations in ILTs' structure and content suggests that even though ILTs are idiosyncratic, they also show considerable inter-individual overlaps and intra-individual stability over time (Epitropaki and Martin 2004; Lord and Maher 2002). Yet, leadership prototypes are also contingent on the context. For example, Junker and Van Dick (2014) suggest that organizational and cultural characteristics determine the content and salience of ILTs emerging in specific situations. They call for more variation in empirical research settings in order to better understand this context-dependence of ILTs.

The impact of sector differences on the emergence of ILTs, however, has hitherto not received much attention in the literature. A small number of studies have analyzed how sector differences influence different outcomes of ILTs, such as employee well-being (Epitropaki and Martin 2004; Junker and Van Dick 2014). However, research has not examined how a public sector setting may influence the structure and content of emergent ILTs. As it is with most subfields in leadership studies, prior studies have almost exclusively focused on settings within the private sector, drawing inferences about the general phenomenon of leadership primarily from business leaders (Van Wart 2013b).

Lord et al. (1984) suggested the existence of domain-specific ILTs by proposing a hierarchical three-level structure for the organization of the cognitive categories that constitute leadership images. At the first level, the superordinate level, ILTs differentiate between leaders and non-leaders, thus defining the social category of leader very broadly and inclusively. This has been the primary focus of research on ILTs so far (Epitropaki et al. 2013; Junker and Van Dick 2014). The next-lower level is the basic level, which distinguishes leaders by specific fields of leadership (e.g., business, military, or politics). The bottom of the hierarchy is the subordinate level with further specifications within a basic category. For instance, a political leader may be Democratic or Republican, and depending on the party affiliation, voters may evaluate him or her against different characteristics of a leader.

It is clear from the hierarchical model that IPLTs reside at the basic level because they organize assumptions about prototypical characteristics of leaders in a particular societal field (i.e., public administration). Although the basic level has been considered as the most important because it is less abstract than a superordinate category and carries the largest amount of information (Offermann, Kennedy, and Wirtz 1994), previous research has largely neglected this level. As far as we know, no prior works have explored IPLTs.

Data and Methods

While IPLTs are highly idiosyncratic, analyzing the collectively shared content and structure of IPLTs can help to identify the public elements in public leadership. In order to explore the socially shared content of IPLTs, we reduce the systematic variance of a multitude of idiosyncratic leadership images to a factor model. Thereby, we extract the generalizable elements of IPLT content and structure while still allowing individuals to differ in their individual leadership image patterns (Offermann, Kennedy, and Wirtz 1994).

Sample

We collected data with the support of a professional panel data provider.[2] We sampled in the general workforce for two reasons: First, the nuanced and differential features of IPLTs, which we aim to detect, may only develop over time with organizational socialization and work experience. Although individuals have tacit images of prototypical leaders even without such experience (Lord, Foti, and Vader 1984), research has shown that work experience and age indeed shape leadership prototypes (Epitropaki and Martin 2004; Junker and Van Dick 2014). Moreover, an employee sample allows us to investigate the influence of respondents' sector affiliation on their IPLTs. We collected data in an online survey experiment in 2019. The total sample consisted of 1,072 German employees (96%) and former employees (4%). Public sector employees accounted for 50.8% of the participants. Table 1 provides an overview of the demographic characteristics of the sample. In terms of age structure, mean age, and gender, both the public and generic employee sub-sample, as well as the total sample, did not differ significantly from the population of German employees, as chi-square tests revealed. Due to our sampling approach, which aimed at a balanced sample of employees from the public and from other sectors, public employees (who account for about 10% of the total workforce) were overrepresented in our sample.

2 The service recruits people who participate in scientific or market research surveys in exchange for monetary compensation. The provider holds various quality certifications and conducts rigorous plausibility, identity, and answer tendency checks. The client can define sampling characteristics or quotas that are realized by screen-out mechanisms in the course of the survey, thus ensuring maximum randomization.

Measures

Measuring the content of cognitive categories is challenging due to their highly idiosyncratic and mostly implicit character. In early assessments of general ILTs' content and structure, a critical number of individuals were asked to spontaneously generate traits they associated with the cue "leader"; the resulting item lists were then narrowed down to taxonomies of ILTs (Offermann, Kennedy, and Wirtz 1994). However, such designs are of limited use for a broad exploration of IPLTs. As memory research (e.g., Loftus and Loftus 2019) suggests, participants do recognize elements of their own cognitive schema in an explicit rating task without previously listing these elements in a spontaneous recall task. This indicates that leadership images contain more information than can be recalled freely.

Facing this dilemma, we adopted a balanced approach to both enable participants' spontaneous associations and increase the probability to detect IPLTs in sufficient width and depth. We developed a pre-selected, yet vast pool of 100 items based on the following

Table 1. Descriptive Statistics of Sample

	Generic Condition (N = 532)		Public Condition (N = 540)	
	Value (%)	Mean (SD)	Value (%)	Mean (SD)
Sector affiliation				
Public	276 (52)		269 (50)	
Non-public				
Private	237 (45)		249 (64)	
NGO	19 (4)		22 (4)	
Gender				
Female	245 (46)		238 (44)	
Male	281 (52)		300 (56)	
Others	1 (0.2)		2 (0.4)	
Non-specified	5 (1)		0 (0)	
Employment status				
Employed	512 (96)		520 (96)	
Currently unemployed (formerly employed)	20 (4)		20 (4)	
Age		45.5 (11.2)		44.5 (11.2)
Work experience		22.5 (12.4)		21.7 (12.1)

theoretical considerations: IPLTs' content should (a) contain general adjectives that describe a leader as a person, (b) encompass cues accounting for the implicit manifestation of leadership, and (c) represent potential specifics in public leadership by considering its broader social and organizational context. Furthermore, to correspond with general ILT taxonomies and to allow a flexible application in further research, the items used to describe IPLTs should be as short as possible, at best single-worded. This criterion is a prerequisite for many implicit measurement methods, which promise to further advance research on ILTs.

We selected all items carefully from existing scales or derived them from theory. The ratio of attributes stemming from the three categories was balanced to avoid an initial representation and accessibility bias. Similarly, by ensuring that items with rather positive (e.g., *friendly*), negative (e.g., *narrow-minded*), and neutral (e.g., *tall*) connotations were evenly proportioned within and between the categories, we controlled for potential valence biases in the typicality ratings.

ILT Theory-Specific Items

We adopted the 46-item ILT scale developed by Offermann and Coats (2014). Offermann and colleagues (1994) were pioneers in investigating whether generic ILTs show inter-individual and generalizable content and factor structure. We chose this scale because of its well-established temporal stability and validity in describing the ILT construct (Epitropaki and Martin 2004; Offermann and Coats 2014). Furthermore, the scale length suited our needs for a balanced composition of the attribute pool. We added the items *female* and *feminine* to counterbalance the items *male* and *masculine* in the generic ILT scale.

Public Sector-Specific Items

In the search for traits that are sufficiently distinctive to represent publicness in public leadership, we first turned to one of the most popular concepts of individual predispositions specific to the public sector: public service motivation (Perry and Wise 1990). Items of a PSM short scale (Coursey and Pandey 2007) were transformed into attributes (e.g., *I unselfishly contribute to my community* into *common good-oriented*). Furthermore, some scholars posit that embodying and appealing to public values lies at the core of public leadership (Crosby and Bryson 2005; Ospina 2017). Following this reasoning, we employed Jørgensen and Bozeman's (2007) public values taxonomy to derive value-based attributes. For example, we extracted the item *responsive* from *responsiveness*. Finally, we assumed that public sector-specific attributes of IPLTs can also be derived from social stereotypes and tacit images on the public sector and its employees. We, therefore, extracted single-word descriptions from Caiden's (1991) and Baldwin's (1990) review of public sector stereotypes (e.g., *staid*, *retrograde*).

Generic Personality Items

To balance the representation of ILT- and public sector-specific items, we incorporated 19 items of the agency and communion scale developed by Abele et al. (2008). The dichotomy of agency and communion represents two fundamental modalities of human existence and has offered a useful conceptual framework for phenomena in social cognition, social interaction, and self-perception (Paulhus and Trapnell 2008). Agency refers to the motive of self-differentiation as an individual and comprises qualities related to goal-attainment, mastery, and power. Communion relates to the goal of being part of a social group and manifests in qualities that support the establishment and maintenance of intimacy, solidarity, and belongingness within the group (Abele et al. 2008; Paulhus and Trapnell 2008).

Procedure

Supplementary Appendix A shows the flow of the experimental procedure. We adopted the data collection process from former studies on the content of ILTs (Lord, Foti, and Vader 1984; Offermann and Coats 2014; Offermann, Kennedy, and Wirtz 1994). The experiment conformed to a between-subjects design. After passing the screen-out question on their work status, participants were randomly assigned to one out of two conditions. These conditions only differed in the sector origin of the leader to whom the characteristics should be attributed (i.e., public leader or no specification, that is, generic leader). In the generic leader condition, we asked "*How typical is the following item for a leader?*," whereas in the public leader condition, the instruction read as "*How typical is the following item for a leader in the public sector?*" Each participant rated the total of 100 items, split up into three attribute sets that were fully randomized and interrupted by two number counting tasks as attention and quality checks.[3] The respondents rated each attribute's typicality on a 10-point scale ranging from 1 (*not at all typical*) to 10 (*extremely typical*). Finally, further

3 Easy counting tasks are a useful means to measure alertness and attentiveness among participants (e.g., Spong, Haider, and Lindsley 1965) and do not impact the scale validity negatively (Kung, Kwok, and Braun 2018). In the survey, we asked participants to provide the sum of "4s" and "1s" in a square similar to a Sudoku piece. We counted a given sum as correct if it was within an error range of ± 3 points below or above the exact sum, and only participants that gave a wrong answer in both instances were excluded from the sample. These liberal selection criteria ensured that only an extreme deviation—indicating a lack of willingness or carefulness—led to an exclusion from the sample. This was true for 17 participants (1.6%) in total.

demographic information and sector affiliation were assessed to enable comparisons between reported ILTs for participants employed in public or non-public organizations, respectively.[4] The procedure thus generated two subsamples (n_{gen} = 532, n_{pub} = 540).

General Analysis Strategy

Supplementary Appendix B shows the procedure followed in the data analysis. In line with similar designs (Epitropaki and Martin 2004; Offermann and Coats 2014), we first applied an EFA to reduce the covariance in IPLTs' systematic, inter-individually shared content to a factor structure. EFA is especially useful when researchers have no ex-ante hypothesis on the exact structure of the construct of interest. Conducting an EFA thus allowed us to explore whether latent dimensions caused systematic variance in otherwise uncorrelated item typicality ratings, hence providing evidence for the existence of an IPLT construct. We conducted a maximum likelihood EFA with split-half samples emerging from both subsamples (i.e., public or generic leader condition). Since existing evidence on ILTs suggests that ILT models comprise correlated dimensions (Epitropaki and Martin 2004; Offermann and Coats 2014), we assumed that the same would be true for IPLTs and applied an oblimin axis rotation.

In the second step, we validated the final models by means of a CFA on each of the remaining split-half samples to analyze the stability and replicability of the model we retrieved the EFA. We applied the Satorra-Bentler correction for non-normality and interpreted the adjusted test statistics. In addition to the chi-square value, we also interpreted the normed chi-square measure (X^2/df), root mean square error of approximation (RMSEA), standardized root mean square residual (SRMR), and comparative fit index (CFI). In univariate post-hoc analyses, we compared each model's relative differences in mean typicality ratings per item between conditions to investigate more nuanced differences between the models.

In the final step, we elaborated the models' measurement invariance between groups of sector affiliation. The purpose of this step was to test whether employees from the public and non-public sectors differed in the structure or content of their general ILTs and IPLTs. If parallel data for multiple groups (in this case, sector affiliation) is given, the degree of measurement invariance across groups indicates whether the measured model parameters and associated constructs are the same across these groups. Data was analyzed with the free statistics software R (R Core Team 2014), RStudio (RStudio Team 2015), and the lavaan package (Rosseel 2012).

4 We defined respondents as being affiliated to the public sector if their employers had a public legal form, which implies full public ownership and funding as well as high degrees of political control (Rainey and Bozeman 2000).

Results

Exploratory Factor Analysis

Before conducting the EFA, we assessed the psychometric adequacy and factorability of both split-half data sets (n_{pub_sub} = 270, n_{gen_sub} = 266). Bartlett's test of sphericity was significant in both cases (X^2_{pub} (df = 4,950) = 23,814.24, $p < .001$, X^2_{gen} (df = 4,950) = 22,396.26, $p < .001$), and the Kaiser-Meyer-Olkin measure of sampling adequacy indicated strong relationships among variables (KMO_{pub} = .942, KMO_{gen} = .931). Given these excellent prerequisites, we proceeded with the EFA.

Parallel analysis (Horn 1965) suggested a six-factor structure for the public condition and a five-factor structure for the generic condition. An examination of the scree criterion indicated that between five and six factors had to be extracted from both samples. Comparisons of both solutions revealed that while the six-factor solution was most suitable for the public sample, the five-factor solution reproduced the best loading matrix in the generic sample. We removed items with cross-loadings higher than .40, resulting in the elimination of four items in the public sample. In the final solutions, a total of 55% of variance was explained by six factors in the public sample, whereas the extracted five factors accounted for 51% of variance in the generic sample. Supplementary Appendices C and D show the factor loading matrices for each solution.

All factors in our sample comprised a multitude of high-loading items. Complying with our endeavor to extract the most relevant attributes for each factor and to develop parsimonious ILT models, we adopted Offermann et al.'s (1994) strategy and selected items for each factor based on their loadings and the eigenvalues of the corresponding factors. We retained only items with main loadings higher than .40. For factors with an eigenvalue higher than seven, we selected the four items with the highest factor loadings, and for the remaining factors, we kept the first three items with the highest factor loadings.

Factor Labeling and Content Validation

In order to validate the meaning of the factor labels and the adequacy of the item-factor allocation, a two-step procedure similar to the one used in Offermann et al. (1994) was applied. First, four subject matter experts (scholars and practitioners in public leadership) agreed on the meaning of each factor. Based on the items associated with each factor, they formulated a descriptive factor definition and label. For example, for the factor

comprising the items *merciful*, *kind*, and *affectionate*, the experts agreed on the label *kind-heartedness* and the descriptive definition of *a person filled with affection, grace, and compassion for others*. The abstract labels and descriptions of the factors should fulfill two criteria (Lord, Foti, and Vader 1984; Rosch 1999): Items of the same category should be similar to each other but dissimilar from items in other factors, and a factor should substantially differ from other factors.

Second, 46 undergraduate and graduate students assessed whether the deducted factor labels represented an adequate category for the attached items. In an online trait-sorting task, participants were exposed to all items of the final models (e.g., *merciful*, *kind*) as well as the descriptive definitions (e.g., *a person filled with affection, grace, and compassion for others*) and factor labels (e.g., *kind-heartedness*). They allocated each item to the descriptive definition that they perceived as most appropriate. We assessed the content fit as the relative frequency with which each item was allocated to the factor suggested by the EFA. Due to a very low content fit, we dropped one item (*efficient*) from the IPLT model (Offermann and Coats 2014). We calculated Fleiss' Kappa to assess the item-factor allocation agreement between all raters within each dimension. The average agreement for all dimensions was moderate for the public model (κ_{pub} = .53) and substantial for the generic model (κ_{gen} = .67) (Landis and Koch 1977).

Confirmatory Factor Analysis

Appendix 1 lists the fit statistics for the CFA. Both model fits showed an acceptable fit and were used for the multiple-group comparison (X^2_{pubYB} (df = 155, N = 286) = 329.19, X^2/df = 2.1, p < .001, RMSEA = .065, 90% CI [.056–.073]; standardized root mean residual [SRMR] = .078; CFI = .916 and X^2_{genYB} (df = 109, N = 218) = 264.89, X^2/df = 2.0, p < .001, RMSEA = .062, 90% CI [.055–.081]; SRMR = .076; CFI = .947). Appendix 2 shows the model coefficients of our final models. Table 2 includes the means, standard deviations, inter-correlations, and reliabilities of these dimensions. Figures 1 and 2 illustrate the resulting models for both the public and generic samples (i.e., IPLTs and generic ILTs models).

Appendix 3 shows the results of the post-hoc analysis for the items that comprised either the IPLT or the generic ILT model and their mean differences between the public and generic leader conditions. Supplementary Appendices H–K list the item and factor means for each condition depending on participants' sector affiliation.

Measurement Invariance Analysis

The measurement invariance analysis followed a recommended procedure. We first assumed a baseline

Table 2. Means, Standard Deviations, Reliabilities, and Inter-correlations Among Dimensions of the IPLT and Generic ILT Model (N = 1,072)

	M	SD	1	2	3	4	5	6	7	8	9	10	11
IPLT Dimension													
1. Achievement orientation	7.16	1.53	(.86)a										
2. Tyranny	5.73	1.85	−.15***	(.87)									
3. Kind-heartedness	4.54	1.91	.29***	−.24***	(.85)								
4. Progressiveness	6.09	1.86	.65***	−.29***	.49***	(.85)							
5. Righteousness	5.51	1.70	.46***	−.40***	.67***	.70***	(.85)						
6. Rule abidance	6.85	1.71	.27***	.01	.27***	.08	.29***	(.88)					
Generic ILT Dimension													
7. Righteousness	5.96	1.74	.43***	−.44***	.65***	.61***	.85***	.38***	(.85)				
8. Achievement orientation	7.18	1.69	.91***	−.28***	.34***	.72***	.55***	.24***	.51***	(.86)			
9. Tyranny	6.21	1.71	.01	.89***	−.23***	−.18***	−.31***	.07	−.36***	−.12***	(.88)		
10. Kind-heartedness	4.36	1.95	.26***	−.18***	.99***	.47***	.63***	.25***	.61***	.30***	−.19***	(.86)	
11. Lady/Appearance	6.99	1.68	.78***	−.03	.26***	.47***	.30***	.31***	.29***	.59***	.09	.25***	(.87)

Note: [a]Values in parentheses indicate the Cronbach's α scores.
***p < .001, **p < .01, *p < .05.

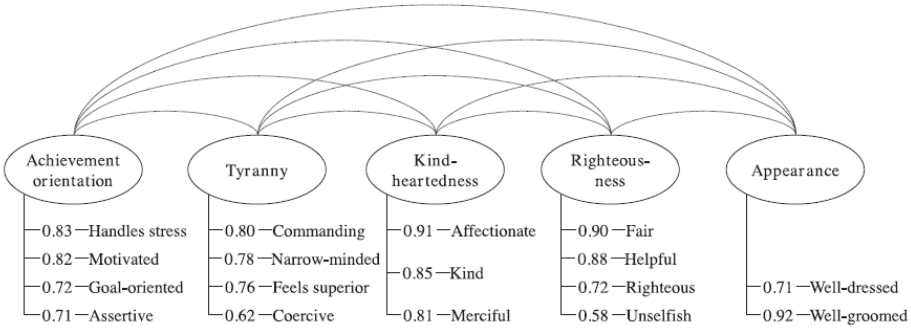


Figure 1. Validated Factors and Factor Loadings from Confirmatory Factor Analysis for the Generic ILT Model. Factor Correlations are Listed in table 2.

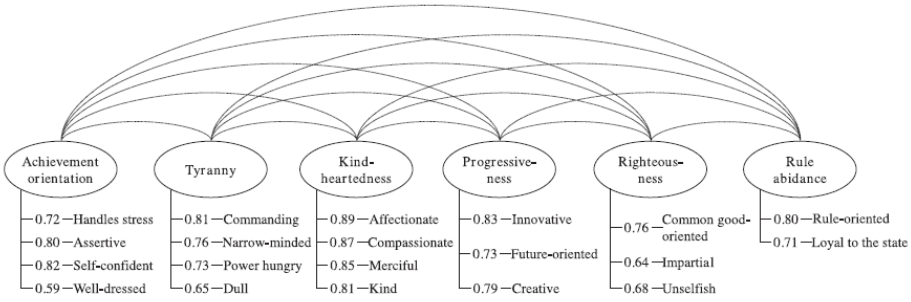


Figure 2. Validated Factors and Factor Loadings from Confirmatory Factor Analysis for the IPLT Model. Factor Correlations are Listed in table 2.

model with the lowest, that is, configural invariance for both groups (e.g., Jilke, Meuleman, and Van de Walle 2015). Based on the interpretation of relative fit indices (AIC, BIC) and the Satorra-Bentler-scaled difference chi-square test statistics, we then tested three nested models, with increasing equality constraints, to determine the appropriate level of measurement invariance. As illustrated in Appendix 4, the fit statistics of a model testing the IPLT model's invariance led us to assume strong invariance ($X^2_{\text{diff SB}}$ (df = 338) = 26.221, p = .024, ΔAIC = 2, ΔBIC = 62). This allows for the conclusion that, across groups of public and non-public employees, the IPLT model has an equal model structure, number of factors, equivalent item-factor relationships (factor loadings), and intercepts.

Since strong invariance was established, we could proceed with a comparison of the latent means between the sector groups for the IPLT model to see whether people from the public and non-public sectors differed in the degree to which they considered IPLT dimensions as typical for public leaders (Steinmetz et al. 2009). Appendix 5 presents the average latent mean—or factor—differences between sector affiliation groups. Two of these differences were significant: On average, people employed in the public sector considered the factor *tyranny* significantly less typical (ΔM = –.381, p = .015) and the factor *rule abidance* significantly more typical (ΔM = .305, p = .042) for a public sector leader than people employed in the non-public sectors.

For the specified generic ILT model, model comparisons established only weak measurement invariance ($X^2_{\text{diff SB}}$ (df = 230) = 7.660, p = .811, ΔAIC = 14, ΔBIC = 65), indicating that generic ILT factors have the same meaning for employees from the public and non-public sectors. However, as intercepts of the observed items are not equal across groups, meaningful comparisons of latent means across sector affiliation groups are not permissible for the generic ILT model (Steenkamp and Baumgartner 1998).

Discussion and Conclusion

An emerging stream in public management research is intrigued by the phenomenon of leadership but disagrees on what constitutes the "public" component in public leadership. (Getha-Taylor et al. 2011; Ospina 2017; Tummers and Knies 2016; Vogel and Masal 2015). Related to this issue is the question of how scholarly concepts and measurements should account for these specifics. Our study contributes to this conversation by adopting a socio-cognitive perspective, which advances the idea that leadership is a social construction rooted in people's images of a leader. Our study is the first to examine such ILTs in the public sector and to contrast these implicit images

with general images of leaders. This approach explores public leadership at the fundamental level of manifestation, where people's everyday, and often subconscious, images of leaders reside.

The findings suggest that publicness does indeed matter with regard to leadership because people hold specific images of public leaders, that is, IPLTs. The public sector, as a contextual cue, initiates categorization processes that activate specific public leadership images and causes systematic item typicality ratings. Hence, we infer that the context of the public sector manifests in the way people think about—and presumably respond to—leadership. Our factor analytical results reveal that, on a structural level, images of public leaders are, to some extent, distinctive, given that they only partially match generic ILTs. Understanding the particular role of the public context for the social construction of leadership requires a closer inspection of these distinctive aspects.

Differences Between Generic ILTs and IPLTs

In structural terms, the most obvious difference between generic ILTs and IPLTs is the number of extracted factors, with IPLTs amounting to one factor more than generic ILTs. This may indicate that respondents perceive public leadership as more differentiated and diverse than leadership in general. Research has repeatedly stressed that the public sector is characterized by a pluralism of values, goal ambiguity, and the simultaneous exposure to multiple stakeholder groups (Rainey 2009). The model may thus reflect the characteristics that scholars consider useful to master the entire range of tasks and challenges in such multi-context and multi-actor settings (Rainey 2009; Silvia and McGuire 2010).

The structure and the content of IPLTs and generic ILTs differ with regard to three factors. First, the dimension *rule abidance* (i.e., *rule-oriented, loyal to the state*) emerged exclusively in the IPLT model. This is broadly in line with former theoretical elaborations on the importance of rules in public leadership and corresponding empirical support (Fernandez, Cho, and Perry 2010; Fernandez and Rainey 2017; Tummers and Knies 2016). Usually embedded in bureaucratic systems, public leaders are subject to institutional and political constraints as well as to public scrutiny, thus making integrity and discipline imperative for their job (Rainey 2009). Besides these external restrictions, the public service ethos of public leaders (Perry and Wise 1990; Plant 2003) is likely to be reflected in high levels of rule-orientation and loyalty to government.

Second, the attribution of the *progressiveness* factor (i.e., *innovative*, *future-oriented*, *creative*) only to public leaders may be surprising. This factor corresponds to what some scholars have labeled change-oriented leadership (Fernandez, Cho, and Perry 2010; Yukl 2002). The ability and motivation to prepare, implement, and motivate change has been considered an increasingly critical aspect of leading public organizations (Fernandez and Rainey 2017; Van der Voet, Kuipers, and Groeneveld 2016; Van Wart 2003, 2013a). Empirical evidence from Denmark suggests that public managers tend to exhibit a change-oriented leadership style, whereas private managers prefer a relationship-oriented style (Andersen 2010). However, the item-level analysis reveals that in terms of typicality, respondents rate public leaders significantly lower on the *progressiveness* items than generic leaders. Accordingly, they perceive *not* being progressive as typical for public leaders. This finding is consistent with research on the link between leadership roles and leader effectiveness conducted in the United States (Hooijberg and Choi 2001): In the self-assessment of leaders in the private sector, performing the role of an innovator contributes to the effectiveness of leadership, whereas leaders in the public sector do not assume such an association. Faced with the challenge of navigating between the opposing values of stability and change (Hooijberg and Choi 2001) or the conflicting logics of bureaucratic loyalty and organizational change (Pandey and Wright 2006), public leaders seem to be perceived as prioritizing stability and rules, rather than change, innovation, and creativity. This also echoes prevailing negative stereotypes of bureaucrats (Marvel 2016; Van de Walle 2004).

Third, the *appearance* factor (i.e., *well-dressed*, *well-groomed*) figures only in the generic ILT model. This may indicate that images of leaders, in general, are charged with the idea of charismatic authority (Weber 1978), derived from individuality, an impressive appearance, and a strong ego (Conger 1993). In contrast, the legitimation of public leaders arises more from a rational-legal authority of which bureaucracy is the purest form (Weber 1978). This may explain why the *appearance* factor is lacking in the model for IPLTs.

Commonalities of IPLTs and Generic ILTs

The results also show that there are overlaps between the retrieved generic ILT and IPLT models, indicating commonalities in envisioning leaders in general and public leaders in particular. Four dimensions emerge in both models, two of which seem to replicate what has been considered as the two fundamental dimensions of leadership competence (Bass and Bass 2009; Yukl 2002) over many years of leadership research. First, task-orientation describes leaders' competence to adjust to situational needs and to perform well under stress in the best interest of the task, project, or organization. This competence is reflected in the factor *achievement orientation* (i.e., *handles stress*, *motivated*,

goal-oriented). Second, relationship-orientation refers to the ability to build social relationships and to increase the team's welfare by empathically sensing the followers' needs. This orientation finds expression in the *kind-heartedness* dimension (i.e., *affectionate, kind, merciful*). Our results thus complement evidence on the important role of both task-oriented and people-oriented behavior in public organizations (Silvia and McGuire 2010; Van Wart 2003). They suggest a critical reexamination of the most widely discussed leadership concept in public management research, that is, transformational leadership (Wright and Pandey 2009). The concept of transformational leadership strongly emphasizes relationship-orientation but tends to neglect task-orientation. Our results remind public leadership scholars of task-orientation as an important competence of leaders who want to live up to followers' expectations.

Less predictably, characteristics associated with the pursuit and maintenance of fair practices, equal treatment, and integrity were attributed to leaders regardless of the sector. The *righteousness* factor (i.e., *fair, helpful, righteous*) resembles Fernandez et al.'s (2017) role of integrity-oriented leadership as a facet of integrated leadership. Plenty of evidence has corroborated the linkages between different forms of organizational justice and positive outcomes in both private (Colquitt et al. 2001) and public sector organizations (Rubin 2007). Our results highlight the significance of leadership for organizational justice because followers assign leaders personal authorship in the creation of organizational justice. This resonates with the burgeoning literature on ethical and values-based leadership in public administration (e.g., Hassan 2015; Vandenabeele 2014) since justice is among the core public values that set high ethical standards in public organizations (Jørgensen and Bozeman 2007).

Finally, the emergence of the *tyranny* factor (i.e., *commanding, narrow-minded, feels superior*) indicates that, in addition to more idealized features, a destructive aspect of leadership is central to its implicit manifestation. This factor adds to a growing stream of research on the dark side of leadership (Conger 1990), which has only rarely been studied in the public sector so far (Luu 2018; Vogel, Homberg, and Gericke 2016). Surprisingly, the *tyranny* factor emerges in our data within a zero-order model, instead of being represented in a second-order structure for negativity (Epitropaki and Martin 2004). The paradox of managerial tyranny (Ma, Karri, and Chittipeddi 2004) may explain this finding: Tyrannical leaders may behave destructively toward their subordinates (e.g., belittle or undermine their motivation or self-esteem), but at the same time show extraordinary social skills and performance in other contexts in order to manifest their power (Einarsen, Aasland, and Skogstad 2007; Ma, Karri, and Chittipeddi 2004). This ambiguity resonates with socio-cognitive theory, which assumes that cognitive categories are an abstracted product of both positive and negative characteristics and behaviors (Lord and Shondrick 2011; Rosch 1999). We conclude that followers ascribe a certain ambivalence to leadership and consider constructive and destructive traits as typical for leaders irrespective of the sector.

Generalizability of IPLTs

The measurement invariance analysis (Appendices D and E) showed that employees from the private and public sectors do not differentiate in their interpretation of the basic structure and factor meanings between generic ILTs and IPLTs. We can infer from this that IPLTs are just as robust and generalizable across organizations and employees from different sectors as are generic ILTs. However, sector affiliation does influence the relative weight of specific factors. Public sector employees rated public leaders as more obedient to rules and regularities, but also as less tyrannical. This difference in evaluation adjusts the partly negative image of public leaders that is drawn with respect to change-orientation and tyranny in this study.

The moderate interrater-reliability for the item-factor allocation in our content validation, as well as the factor correlation in the EFA, suggest that, despite this generalizability, the exact traits expressing the IPLT dimensions are somewhat fuzzy and interchangeable. This finding is in line with former evidence on the exact replication of ILT models on an item level (Epitropaki et al. 2013) and corresponds with the socio-cognitive postulation that leadership images at the basic level evolve around abstract and blurring, rather than fixed, sets of traits. Individuals may thus rely on these traits differently and interchangeably in the cognitive matching process.

Theoretical Implications

Our study contributes to leadership research in general and to scholarship on public leadership in particular in four ways. First, we introduce IPLTs as a new, socio-cognitive construct that accounts for people's everyday assumptions about public leaders. As previous research in leadership studies has repeatedly shown, such implicitly held images of leaders are important antecedents of how followers form expectations towards leaders and evaluate their traits and behaviors (Epitropaki et al. 2013; Junker and Van Dick 2014; Lord et al. 2020). At this fundamental level, IPLTs are likely to shape important aspects of public leadership that more explicit, scholarly theories address without theorizing the underlying mechanisms of cognitive categorization.

Second, we encouraged respondents to envision public leaders and attribute typical characteristics more freely than they would when exposed to predefined leadership questionnaires. Most leadership concepts claim general validity for the phenomenon of leadership but have been developed and tested in business contexts. Such concepts carry strong a priori assumptions, narrowing the focus of what will fall into the scope of public leadership research (Crosby and Bryson 2018). Followers' implicit images of public leaders emphasize aspects that currently do not rank high on the agenda of public leadership theory. For example, despite the widespread enthusiasm for transformational leadership, task-orientation of leaders remains an important yet often overlooked facet. In a similar vein, the dark sides of public leadership, including tyranny, await further exploration.

Third, while most comparative works try to contrast leadership in the public sector with leadership in the business sector (Andersen 2010; Hansen and Villadsen 2010; Hooijberg and Choi 2001), we account for public leadership as nested in general conceptions of leadership. This approach is at the core of the debate of whether and how to account for specific features of leadership in the public sector (Getha-Taylor et al. 2011; Ospina 2017; Tummers and Knies 2016; Vogel and Masal 2015). Our results show that public leadership is neither completely distinct from generic leadership nor simply a copy thereof. This supports calls for the application of generic leadership concepts to the public sector because such concepts are indeed likely to cover important aspects of public leadership (Ospina 2017). We conclude from the overlaps between generic and public ILTs that leadership in different organizational contexts seems to have a common core, which accounts for the majority of inter-individual variations in ILTs. At the same time, our findings also advance the idea that public leadership has unique aspects, which accounts for the "public" component (Getha-Taylor et al. 2011; Tummers and Knies 2016; Vogel and Masal 2015), that is, people clearly distinguish public from other types of leaders.

And fourth, our findings respond to calls for more empirical research on how ILTs vary across different contexts (Epitropaki et al. 2013). While previous research on general leadership has examined variations across cultures and employee groups, we pioneer the exploration of sector-specific ILTs. Our study provides evidence that ILTs are generalizable across different contexts and levels of analysis only to a limited extent (Epitropaki and Martin 2004; Lord and Maher 2002), which highlights the importance of experience and socialization in the emergence of ILTs.

Practical Implications

IPLTs may assist public managers in the identification of specific needs for leadership and organizational development. For instance, we find that IPLTs convey an image of public leaders as little change-oriented, innovative, and creative. Given the importance of change and innovation for public organizations and the crucial role of leaders in such endeavors (Fernandez, Cho, and Perry 2010), the emergence of this dimension suggests facilitating change-oriented leadership, for example by selecting and promoting leaders whose own IPLTs correspond to this type of leadership. Furthermore, exploring the range of IPLTs among internal and external stakeholders may also become part of training programs: On the one hand, leaders who are aware of their stakeholders' IPLTs are likely to have a better understanding of the expectations towards them and the implicit standards against which they will be evaluated. This awareness should improve leaders' abilities to adapt to existing expectations and to engage in expectation management. On the other hand, reflections on leaders' own IPLTs will increase their self-awareness. The burgeoning literature on authentic leadership suggests that self-awareness is likely to elevate the authenticity of leaders, with beneficial attitudinal and behavioral outcomes (Gardner et al. 2011; Iszatt-White and Kempster 2019). Public managers who want to elevate the self-awareness of both leaders and followers may draw on the toolbox of introspective practices, such as 360° feedback, diaries, and drawing exercises (Reave 2005; Schyns et al. 2011).

Limitations

As with any research, our study has some limitations worth noting. First, for reasons outlined above, participants in our survey rated items from a given pool of attributes, instead of generating new or additional ones themselves (Offermann and Coats 2014; Offermann, Kennedy, and Wirtz 1994). Although the item pool was very large, it restricted the range of possible results to some extent. However, we prevented biases as far as possible by following a thorough and theory-driven item selection process. Second, external validity may be limited because we did not observe how generic ILTs and IPLTs emerge and operate in real-life situations. Third, since we only recruited among people who were willing to participate in a scientific survey for monetary compensation, a self-selection bias could have limited the representativeness of our sample. However, there is currently no evidence on a systematic association between personality characteristics, the participation in surveys, and the content of leadership images. Fourth, we expect that the results are, to some extent, contingent on the German administrative structure and culture. Germany is almost the blueprint of the continental-European *Rechtsstaat* tradition with a strong emphasis on stability and legality (Kuhlmann

and Wollmann 2019). This may have particularly given prominence to the dimension of *rule abidance*, which may not emerge in other systems. Fifth, we deliberately asked for a "public sector leader" (instead of a "public leader") to refer to administrative leaders in public state institutions. The public sector in Germany is limited to the part of the national economy that comprises all economic activities of state institutions, federal, state, and local authorities. However, we cannot rule out the possibility that participants also had elected (i.e., political) leaders in mind and that this association also caused the prominence of law devotion and rule orientation.

Research Agenda

Despite these limitations, and in part resulting from them, our study sets the stage for a rich agenda of future research on IPLTs. First, while the focus of our pioneering study was on typical IPLTs, ideal IPLTs also deserve attention. Research suggests that even though typical and ideal ILTs have substantial overlaps, they can have different effects on leadership outcomes (Van Quaquebeke, Graf, and Eckloff 2014). Future studies could analyze the content, structure, and consequences of ideal IPLTs. For example, which characteristics do people attribute to a leader whom they expect to be effective in the pursuit of public welfare? Second, previous research in leadership studies (Junker and Van Dick 2014) and social cognition (Fiske and Taylor 1991) has provided overwhelming evidence that implicit theories have important attitudinal and behavioral consequences, but the specific outcomes of IPLTs await further exploration. For instance, how does the fit between IPLTs and the characteristics of a real leader affect attitudes towards that leader and, in turn, followers' motivation and performance? Third, future research could explore the conditions under which certain IPLTs emerge and change. For example, do some IPLTs become more salient with increasing leadership experience, and how resistant are these images against critical incidences (such as promotions or sector change) in the course of a leadership career? Fourth, since our study makes a case for contingencies of ILTs, further contextual antecedents (besides the sector) are worth studying in comparative research. This applies particularly to the administrative tradition in which IPLTs emerge and with which they are likely to interfere. For example, to what extent and in which aspects do IPLTs differ between the Continental European rule-of-law culture and the Anglo-Saxon public interest culture (and even between countries within either of these traditions)? Fifth, public administration is only one societal subfield in which ILTs, despite their nestedness in more general images of leaders, may figure distinctively. Among public administration's nearest neighbors are the nonprofit sector and the political system, both of which are also driven by the common interest. For instance, what are the similarities and differences of IPLTs in comparison to popular images of political and nonprofit leaders, and how are these ILTs intertwined?

Concluding Remarks

A new and exciting stream in public management research builds on the insight that human information processing substantially impacts how people think and behave in public sector settings (e.g., Asseburg et al. 2019; Marvel 2016). This is especially true for public leadership, which scholarship has largely acknowledged as a socially constructed phenomenon (Van Wart 2013a; Vogel and Masal 2015). This study pioneered the application of the socio-cognitive approach to the field of public leadership, bridging it to research on the role of implicit information processing in other fields of public management. We encourage future research to explore IPLTs more deeply to arrive at a closer definition of what is "public" about public leadership. The first insights that our study provide suggest that generic and public leadership are same but different.

Supplementary Material

Supplementary material is available at the *Journal of Public Administration Research and Theory* online.

Appendix 1. Fit Statistics of Confirmatory Factor Analysis for the IPLT and Generic ILT Model

	X^2_{YB}	df	X^2/df	p	CFI	RMSEA	$RMSEA_{[CI\ lower]}$	$RMSEA_{[CI\ upper]}$	SRMR	N
IPLT	329.19	155	2.1	.000***	.916	.065	.056	.073	.078	268
Generic ILT	218.12	109	2.0	.000***	.947	.062	.055	.081	.076	263

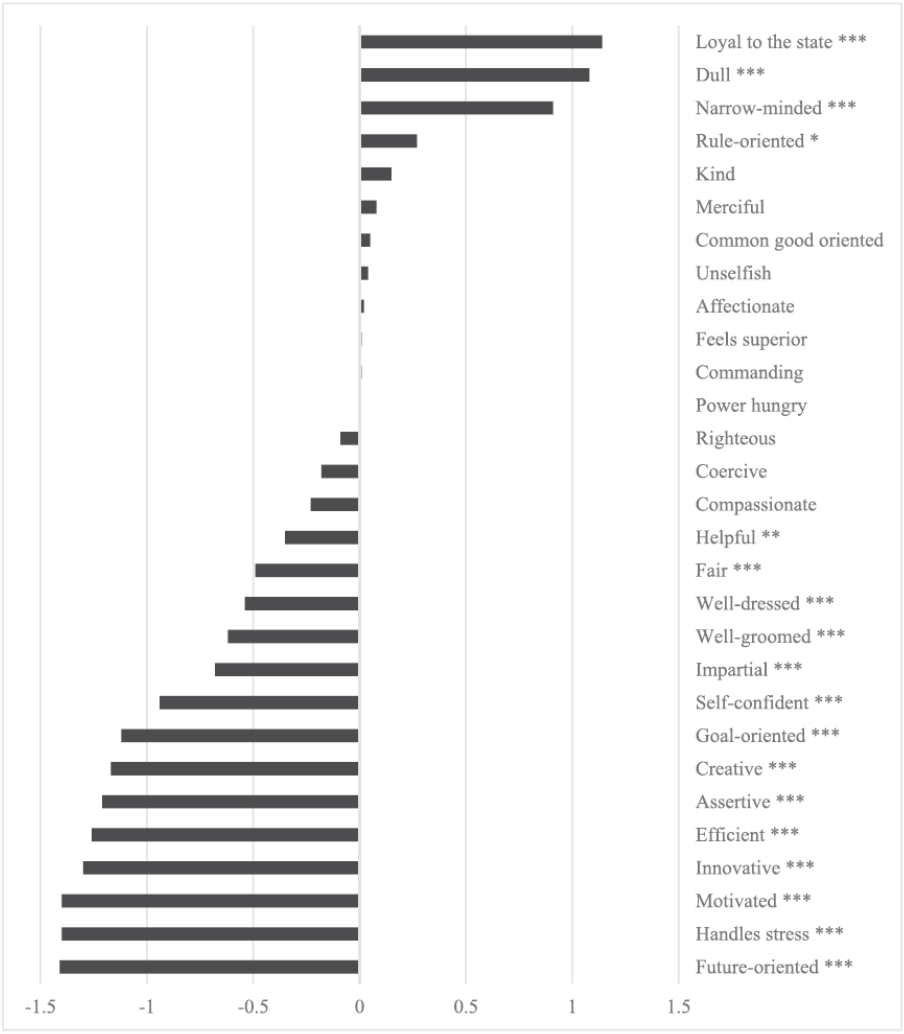
Note: ***$p < .001$, **$p < .01$, *$p < .05$.

Appendix 2. Model Coefficients of Confirmatory Factor Analysis for the IPLT and Generic ILT Model

Latent Factor (ω)	Indicator	*B*	SE	*Z*	β	Rel	*p*
IPLT Model							
Achievement orientation (.82)	Assertive	1.474	.099	14.935	.801	.199	.000***
	Handles stress	1.541	.119	12.935	.722	.278	.000***
	Self-confident	1.499	.098	15.355	.816	.184	.000***
	Well-dressed	1.151	.116	9.916	.587	.413	.000***
Tyranny (.82)	Commanding	1.671	.115	14.592	.808	.192	.000***
	Dull	1.519	.139	10.941	.647	.353	.000***
	Power-hungry	1.705	.135	12.671	.725	.275	.000***
	Narrow-minded	1.638	.122	13.459	.760	.240	.000***
Kind-heartedness (.91)	Merciful	1.736	.102	17.026	.852	.148	.000***
	Kind	1.725	.110	15.667	.808	.192	.000***
	Affectionate	1.909	.106	18.087	.885	.115	.000***
	Compassionate	1.764	.101	17.493	.867	.133	.000***
Progressiveness (.82)	Future-oriented	1.541	.118	13.022	.726	.274	.000***
	Innovative	1.665	.107	15.532	.824	.176	.000***
	Creative	1.614	.110	14.656	.790	.210	.000***
Righteousness (.74)	Impartial	1.412	.130	10.883	.642	.358	.000***
	Common good-oriented	1.702	.126	13.521	.763	.237	.000***
	Unselfish	1.526	.130	11.717	.681	.319	.000***
Rule abidance (.72)	Rule-oriented	1.561	.123	12.684	.797	.203	.000***
	Loyal to the state	1.421	.125	11.332	.708	.292	.000***
Generic ILT Model							
Righteousness (.86)	Righteous	1.459	.110	13.243	.724	.276	.000***
	Helpful	1.877	.106	17.636	.878	.122	.000***
	Fair	1.964	.107	18.354	.900	.100	.000***
	Unselfish	1.298	.130	9.968	.581	.419	.000***
Achievement orientation (.86)	Assertive	1.108	.088	12.551	.705	.295	.000***
	Goal-oriented	1.069	.083	12.818	.716	.284	.000***
	Handles stress	1.421	.089	15.896	.832	.168	.000***
	Motivated	1.348	.087	15.463	.817	.183	.000***
Tyranny (.83)	Coercive	1.195	.116	10.301	.616	.384	.000***
	Commanding	1.752	.121	14.480	.798	.202	.000***
	Feels superior	1.580	.116	13.616	.763	.237	.000***
	Narrow-minded	1.755	.126	13.903	.775	.225	.000***
Kind-heartedness (.89)	Affectionate	1.980	.107	18.589	.914	.086	.000***
	Kind	1.881	.113	16.611	.850	.150	.000***
	Merciful	1.728	.112	15.453	.810	.190	.000***
Lady/Appearance (.79)	Well-dressed	1.288	.106	12.120	.708	.292	.000***
	Well-groomed	1.549	.095	16.355	.918	.082	.000***

Note: ***$p < .001$, **$p < .01$, *$p < .05$.

Appendix 3. Differences in Item Means of Public Condition Versus Generic Condition



Note: Positive values indicate a *higher* average typicality rating of the items in the public condition than in the generic condition. Negative values indicate a *lower* average typicality rating in the public condition than in the generic condition. The significance of mean differences was tested by *t*-tests; ***$p < .001$, **$p < .01$, *$p < .05$.

Appendix 4. Comparison of Four Models Assuming Different Levels of Measurement Invariance (MI) for the Grouping Variable *Sector Affiliation*

	df	$X^2_{\text{diff SB}}$	$df_{\text{diff SB}}$	*p*	AIC	BIC	ΔAIC	ΔBIC
IPLT model								
Configural MI	310				40954	41597		
Weak MI	324	15.317	14	.28	40944	41528	10	69
Strong MI	338	26.221	14	.024*	40942	41466	2	62
Strict MI	358	38.917	20	.007**	40965	41403	23	63
Generic ILT model								
Configural MI	218				33313	33834		
Weak MI	230	7.660	12	.811	33299	33769	14	65
Strong MI	242	32.791	12	.001**	33307	33726	6	43
Strict MI	259	28.247	17	.042*	33326	33673	13	53

Note: ***$p < .001$, **$p < .01$, *$p < .05$.

Appendix 5. Latent Mean Group Comparison of Factor Means of the IPLT Model Across Groups of *Sector Affiliation*

	ΔM[a]	*p*
IPLT dimensions		
Tyranny	−.381	.015*
Kind-heartedness	−.181	.258
Progressiveness	−.178	.302
Righteousness	.033	.822
Rule abidance	.305	.042*
Achievement orientation	.045	.736

Note: [a]ΔM = average difference in latent mean units between people with non-public sector affiliation (= reference group) and public sector affiliation.

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

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CHAPTER III: OPERATION OF IPLTS

Study 2

The a priori of public leadership: Social attributions to public and private leaders in different performance contexts.

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Abstract

Previous scholarship provides little insight into differences between public and private leadership in people's a priori assumptions about leaders. We advance a socio-cognitive approach and examine how implicit social attributions to leaders are contingent on sector and performance cues. Participants completed the Semantic Misattribution Procedure to reveal implicit associations of traits with leaders in contrasting scenarios. Results show that sector cues affect such attributions, which in turn influence behavioral intentions, but only so in interaction with performance information. While public leaders earn less credits for success than private leaders, they are to the same extent scapegoats for failure.

Keywords: Implicit public leadership theories; public leadership; implicit methods; romance of leadership; semantic misattribution procedure

Introduction

Public administration (PA) scholarship has for a long time spent only scant attention to the phenomenon of leadership. In his review of the then available literature, Van Wart (2003) arrived at the conclusion that the field severely lagged behind leadership studies in the business sector, where the conceptual and empirical variety had begun to grow much earlier. In search for an explanation for this neglect, a predominant narrative is that the public sector provides more 'substitutes for leadership' (Kerr & Jermier, 1978) than the private sector: Public organizations are characterized by a denser web of rules and regulations, which provide strong enough guidance for organizational members and thus inhibit or neutralize the influence of leadership. Moreover, public organizations have a role to play in the implementation of policies and the enforcement of law, which implies that many programs and activities are determined by external bodies and thus beyond the scope of administrative leadership. Under these constraints in the organizational structure and environment, public leaders' room for manoeuvre is limited, as is their responsibility for organizational performance. In turn, leaders in the public sector cannot be held accountable for success or failure to the same extent than their counterparts in the business sector.

Recently, research on leadership in the public sector has gained considerable momentum (Crosby & Bryson, 2018; t'Hart & Tummers, 2019; Vogel & Masal, 2015). Few scholars and practitioners would disagree that public leaders can make a difference for the better of public organizations and beyond. However, if and how public and private leadership differ, and if and how such differences matter, is still an unsolved puzzle. This is an important knowledge gap because still the vast majority of leadership studies is carried out in private organizations, and the transferability of results to PA remains in question as long as sector differences in leadership are unclear. Previous research provides only piecemeal evidence in this regard, with few scholars studying how public and private leaders differ in terms of personality traits (Andersen, 2006; Judge, Bono, Ilies, & Gerhardt, 2002) , ascribed roles (Hooijberg & Choi, 2001; Tummers & Knies, 2016), or behavioral patterns (Hansen & Villadsen, 2010). Consistent with the view that leadership 'is in the eye of the beholder' (Jacobsen & Bøgh Andersen, 2015), most studies in this stream use perceptual measures and ask followers for their a posteriori ratings of leaders. This approach leaves open whether differences in such ratings result from cues that indeed emanate from variations in leaders' personality, roles, or behaviors, or if the mere context of public or private sector organizations triggers followers' a priori attributions that are independent from leader-related characteristics.

Scholarship in social cognition suggests that leadership attributions might originate from individuals' perception and cognitive processing of contextual cues, rather than from observable characteristics of a target person. The socio-cognitive approach to leadership has shown that people bring their implicit conceptions of leadership to social situations and to the categorization of actors therein (Lord, Epitropaki, Foti, & Hansbrough, 2020). Such 'ILTs' (Eden & Leviatan, 1975; Epitropaki, Sy, Martin, Tram-Quon, & Topakas, 2013; Junker & van Dick, 2014; Lord et al., 2020) are organized in a hierarchical system with the broadest possible category of a 'leader' at the top and more nuanced conceptions of leaders in particular social spheres (e.g., societal sectors) at lower levels. These mental representations of prototypical traits are important drivers of attributions to leaders; a categorization process that largely occurs at subconscious levels (Epitropaki et al., 2013). It follows from this line of reasoning that people may approach public and private leaders differently in the first place and independently from observed personal or behavioral characteristics. In this case, the sectoral affiliation of an organization (i.e., public vs. private sector) is a contextual cue leading to social attributions to leaders that might differ in both strength and kind.

Among the insights provided by the socio-cognitive approach is the observation that people tend to overestimate the influence of leadership (Meindl, Ehrlich, & Dukerich, 1985). More precisely, they ascribe organizational success to leaders even if the success is beyond leaders' influence and, for instance, the result of mere luck. This phenomenon, called the 'romance of leadership' (Meindl et al., 1985), is likely to interfere with the attribution process when people are exposed to public or private leaders. In the case of public organizations, limited responsibility for success and failure might be part of individuals' mental heuristics that structure their sensemaking. The public sector is thus likely to be a less romantic setting than the private sector, resulting in other, and potentially weaker, trait attributions to leaders. Accordingly, the public-private distinction might matter more for social attributions to leaders once people additionally receive and process contextual information on performance.

Previous scholarship in PA has not explored if and how ex ante attributions to leaders, as triggered by contextual cues, differ. We address this gap and pursue the following research question: *Do social attributions to leaders differ depending on sector (i.e., public vs. private) and performance cues (i.e., success vs. failure), and if so, how and at which strength?* We tackle this question in an online scenario experiment with a total of n = 734 German employees. To account for the implicit dimension of social attributions, we apply the Semantic Misattribution Procedure (SMP; Imhoff, Schmidt, Bernhardt, Dierksmeier, & Banse, 2011), thus extending the range of implicit methods in PA research (e.g., Marvel & Resh, 2019; Ngoye, Sierra, Ysa,

& Awan, 2018) and responding to calls to 'roam more freely through the disciplines and experiment with a variety of methods' (Crosby & Bryson, 2018, p. 1265). Results of linear mixed modelling show that followers' social attributions to leaders vary mainly as a result of interactions between the sector and performance context. A successful performance context triggers higher attributions of leadership traits to private leaders than contexts of failure, whereas no such effect appears for trait ascriptions to public leaders. This pattern replicates for traits clustered in three dimensions of ILTs (i.e., rule abidance, tyranny, and achievement orientation) and suggests that people tend to romanticize only private leadership. We conclude that the public-private distinction is relevant to social attributions to leaders only when combined with further contextual information, suggesting that context matters for public leadership in complex ways.

The contributions of our study reside at the crossroads of three developments in scholarship on public leadership and beyond. First, the issue if and how public leadership is different from other forms of leadership, notably from private leadership, is subject to an ongoing debate (Getha-Taylor, Holmes, Jacobson, Morse, & Sowa, 2011; Ospina, 2017; Tummers & Knies, 2016; Vogel & Werkmeister, 2021). By further deepening a socio-cognitive approach to public leadership (Vogel & Werkmeister, 2021), we shed new light on this issue and explore if such differences exist in traits that people attribute to leaders ex ante and in the absence of observational cues from personal or behavioral characteristics. Second, while there is large agreement that 'context matters' in the study of public leadership (Crosby & Bryson, 2018; Hartley, 2018; Ospina, 2017; Van Wart, 2013), scholarship still provides only sparse empirical evidence for this claim. By focusing on the sectoral context and situational performance information, we consider interactions between multiple contextual cues in the social construction of public leadership. Third, an emerging stream in PA scholarship shows that implicit associations with the public sector shape people's evaluations of attitudinal objects. While available studies have investigated this effect for attitudes towards service delivery (Marvel, 2016) and professional groups (Willems, 2020), we extend this line of inquiry to implicit associations with public leaders.

Theory

The a posteriori of public leadership

Almost 20 years since Van Wart's (2003) empathic call for more research on leadership in the public sector, the community of public administration scholars has broadly acknowledged the crucial role of public leaders (Van Wart 2013; Vogel and Masal 2015). Yet, the distinctive

characteristics of public leadership remain a puzzle in the burgeoning literature. On the one hand, advocates of a genuine approach consider the public context a focal determinant and essential dimension of public leadership, making it distinct from leadership in the business sector in important respects (Getha-Taylor et al. 2011; Tummers and Knies 2016). On the other hand, proponents of the generic approach assert that sector contingencies of leadership should not be overemphasized and that the same concepts can grasp essential aspects of both public and private leadership (Ospina 2017; Vandenabeele, Andersen, and Leisink 2014).

Previous empirical studies on public-private differences are still too sparse to provide clarifications to this debate. The few available findings emanate from a variety of disciplinary backgrounds (Kellerman & Webster, 2001) and address different aspects of public leadership, including personality traits as well as leadership roles, styles, and behaviors (Chapman et al., 2016). For example, results indicate that the prevalence of personality traits in leaders of business and government organizations varies in two out of the big five personality dimensions (i.e., openness and conscientiousness; see Judge et al., 2002). Public leaders also seem to be less materialistic than their counterparts in the private sector (Boyne, 2002). The dissimilar job contexts might also explain why public leaders engage more in participatory and less in directive leadership styles than private leaders (Hansen & Villadsen, 2010). Leaders and followers in the public and private sector have also different role expectations towards effective leaders (Hooijberg & Choi, 2001). Consistent with this insight, scholars have developed and validated instruments to measure how specific roles allow public leaders to master challenges that particularly arise from the public context, among them rule-following and political loyalty (Tummers and Knies 2016; Vogel, Reuber, and Vogel 2020).

Most of these and further studies build on observational data from ex post assessments and ratings of leaders, notably using questionnaires by which followers evaluate particular leaders with whom they have a leadership relationship for varying spans of time. This research thus improves the scholarly understanding of the ‘a posteriori of public leadership’, i.e., insights into differences between public and private leaders, which are derived from followers’ observations of characteristics and behaviors of leaders and expressed in deliberative judgements. However, less is known about the ‘a priori of public leadership’, i.e., the generalized images that people have about public and private leaders and that they bring into a leadership relationship in the first place, independent from observable characteristics and behaviors of a specific leader and often operating at levels below consciousness. This is an important yet neglected dimension of the social construction of public and private leadership, as the ex-ante assumptions about and expectations towards leaders might be an

important source of variation in ex post ratings of particular leaders. A socio-cognitive approach to leadership accounts for this a priori dimension.

The a priori of public leadership

A socio-cognitive approach to leadership explores how the emergence and outcomes of leadership are determined by social cognition, i.e., the cognitive processes that guide how humans perceive, process, store, and subsequently retrieve information in social situations (Eden & Leviatan, 1975; Lord, Foti, & Vader, 1984). Three principles of social cognition are of particular relevance for the socio-cognitive approach to leadership. First, individuals' behavior in a social situation is not solely a function of generalized stimulus-response reactions but rather the result of automatic cognitive processing of incoming information, targeted at determining the most adequate and effective response (Cohen & Lefebvre, 2005; Fiske & Taylor, 2017). A central feature of implicit information processing is the grouping of perceived information into cognitive categories, which structure peoples' implicit, abstract knowledge of a field, and provide a framework for appropriate sensemaking (Fiske & Taylor, 2017; Rosch, 1983). ILTs (Eden & Leviatan, 1975) are cognitive categories that comprise implicit knowledge on leadership, encoded in trait taxonomies that describe an abstract prototype of a typical or ideal leader (Epitropaki & Martin, 2004; Lord et al., 2020).

Second, driven by an internal desire to find causal explanations for the world that surrounds them, humans employ their leadership categories as mental heuristics to make sense of organizational leadership (Cronshaw & Lord, 1987). Automatically triggered by contextual cues, the implicit matching process of leadership categorization involves the encoding of novel information into the most matching leadership category on the one hand, and the retrieval of information encoded by that category on the other hand (Lord, Foti, & Phillips, 1982). Leadership categorization results in the classification of a person as a leader or non-leader (Lord et al., 1982; Lord et al., 1984) and the attribution of unobserved, but ILT-inherent traits to that person (Cronshaw & Lord, 1987). As a consequence, people's a priori conceptions of leadership affect tangible outcomes of the leadership situation. For example, leaders that do not match followers' ILTs will be rated less favourably by their followers; this mismatch will also negatively affect followers' attitudes and behaviors, such as leader-member exchange, engagement, and well-being (Epitropaki & Martin, 2005; Junker & van Dick, 2014).

Third, since socio-cognitive processes are largely based on heuristics, they are not always accurate. That is, individuals' a priori implicit constructions of leadership bias their sensemaking of, and causal attributions to, leaders in a given situation. For example, the ILTs

that people bring to the leadership situation can be stronger predictors of their leadership ratings than the actual behavior of the rated leader (Eden & Leviatan, 1975; Rush, Thomas, & Lord, 1977). In addition, individuals might infer leadership from the mere perception of organizational outcomes, e.g., high or low organizational performance, and consequently attribute leadership qualities to the next likely causal agent in a situation (Lord and Maher 2002). Such unsubstantiated attributions of influence and potency to leaders at the neglect of other influencing factors, such as structures or mere chance, has also been referred to as 'romance of leadership' (Meindl et al., 1985). The likelihood of 'romanticizing' leaders increases with the magnitude of organizational events, peaking at very positive and negative organizational outcomes (Bligh & Schyns, 2007; Meindl et al., 1985).

A socio-cognitive inquiry of public vs. private leadership

The aim of this study is to detect differences between public and private leadership that are not covered by followers' ex-post assessments. In order to do so, we build on the particularities of leadership categorization. While ILTs are generalized, abstract conceptions of leaders' typical traits, the categorization process decomposes into separate effects of the single traits constituting the cognitive category. That is, not all of the trait dimensions weigh equally in the process of forming an impression of a leader (Tavares, Sobral, Goldszmidt, & Araújo, 2018). Instead, some ILT dimensions are more informative or important to distinguish a leader from a non-leader (Hanges, Lord, & Dickson, 2000; Rosch, 1983). However, a dimension's relative importance in leadership categorization is also a function of the context (Lord & Shondrick, 2011; Shondrick, Dinh, & Lord, 2010). Cognitive salience refers to an ILT dimension's relative probability to differentiate leaders from non-leaders in a certain context (Fiske & Taylor, 2017). The higher the salience of a dimension in a given context, the more likely will it be activated by cues of this context. For example, ILT dimensions that are more informative for the recognition of public leaders will be more salient, that is more prone to be activated by cues indicating publicness, than dimensions that are less decisive. Note however that dimensions which are particularly important for the recognition of leaders in the context of public organizations might also become salient in a private context. In this case, the dimension is equally important to distinguish public and private leaders from public and private non-leaders.

Drawing on these principles, we explore which leadership associations arise in the context of public vs. private organizations and investigate how sector differences manifest in individuals' social constructions of leadership. Doing so, we apply an implicit priming method, which allows us to tap into the implicit components of people's ILTs which are not captured by

explicit rating scales (Bargh, 2006; Ngoye et al., 2018). Beyond the mere differentiation between public and private leaders, the analysis of employees' implicit social attributions has central implications for our understanding of the organizational significance of leadership (Bligh & Schyns, 2007; Meindl et al., 1985). It follows from a socio-cognitive approach that leaders' potential to motivate and mobilize followers is limited by the degree to which organizational members attribute leadership to them (Lord et al., 2020; Lord & Hall, 2003). Exploring how followers causally link leadership to organizational outcomes in public and private organizations, and which ILT dimensions become salient in such attributions, reveals which of the differences between public and private leadership actually matter for organizational outcomes. To arrive at a more finely grained understanding of how public and private leadership differ, we explore how followers' trait attributions to public and private leaders interact with contextual information on team success and failure.

Lastly, followers' implicit social attributions to leaders matter to the extent to which they mediate followers' perceptions of leadership cues and their attitudinal and behavioral responses to leadership. So far however, little is known about the implications of followers' leadership categorization of public and private leaders for their behavioral intentions. We therefore investigate how individuals' context-contingent implicit attributions to leaders translate into commitment and support towards leaders in different contexts.

Method

Semantic misattribution procedure

With minor adjustments to our research context, we adopted the SMP from Imhoff et al. (2011) and Sava et al. (2012). The SMP is a semantic variant of the affect misattribution procedure (AMP; Payne, Cheng, Govorun, & Stewart, 2005) and the most reliable implicit method regarding internal consistency and robustness (Znanewitz, Braun, Hensel, Altobelli, & Hattke, 2018). The 'S' in SMP (i.e., semantic) refers to the kind of primes that are used in the procedure. Whereas in the AMP, visual cues (i.e., pictures) serve as primes, the SMP uses semantic cues (i.e., single words or short phrases). In our study, the attributes of leaders, as organized in ILTs, are the semantic primes (e.g., 'innovative', 'compassionate', 'loyal to the state'). The SMP is thus a priming method, building on the general phenomenon that exposure to certain stimuli influences subsequent judgments, attitudes, and behaviors (Bargh, 2006). Priming roots in the principle of spreading activation within neurological networks, wherein the activation of one concept (e.g., team performance) results in the automatic activation of semantically related concepts in close proximity (e.g., leadership; McNamara, 2005). This principle even holds

when primes are presented only for extremely short spans of time, wherein information processing largely resides at a subliminal level.

The 'M' in SMP (i.e., misattribution) exploits the phenomenon that individuals possess only limited ability to identify the (true) source of their emotions or cognition (Wells & Loftus, 2003). As a result, they wrongly attribute (i.e., *mis*attribute) this emotional state or cognitive evaluation to a 'neutral' target that has, in fact, not caused it. For example, walkers crossing a suspension bridge may mistake their own physiological arousal resulting from the bridge's instability for sexual attraction to a stranger (Dutton & Aron, 1974). The SMP uses a Chinese character as a neutral, ambiguous target of misattributions because it has no meaning to those who do not speak Chinese. Participants rate this character as significantly more pleasant if it is preceded by a pleasant, subliminally presented prime (Payne et al., 2005). In contrast, participants rate the same character as more unpleasant if it is preceded by an unpleasant prime. Without being aware of it (i.e., implicitly), individuals misattribute their quasi-automatically triggered associations with the prime to the evaluation of the Chinese character (Payne et al., 2005). Since any systematic shifts in the evaluation of the otherwise ambiguous Chinese character can be considered an effect of the preceding semantic prime, participants' evaluation of the character reveals their implicit associations with the semantic stimulus of interest (Sava et al., 2012). We maximized the ambiguity of the target by enforcing a dichotomous judgment of the Chinese character (i.e., fit or no fit; Payne et al., 2005).

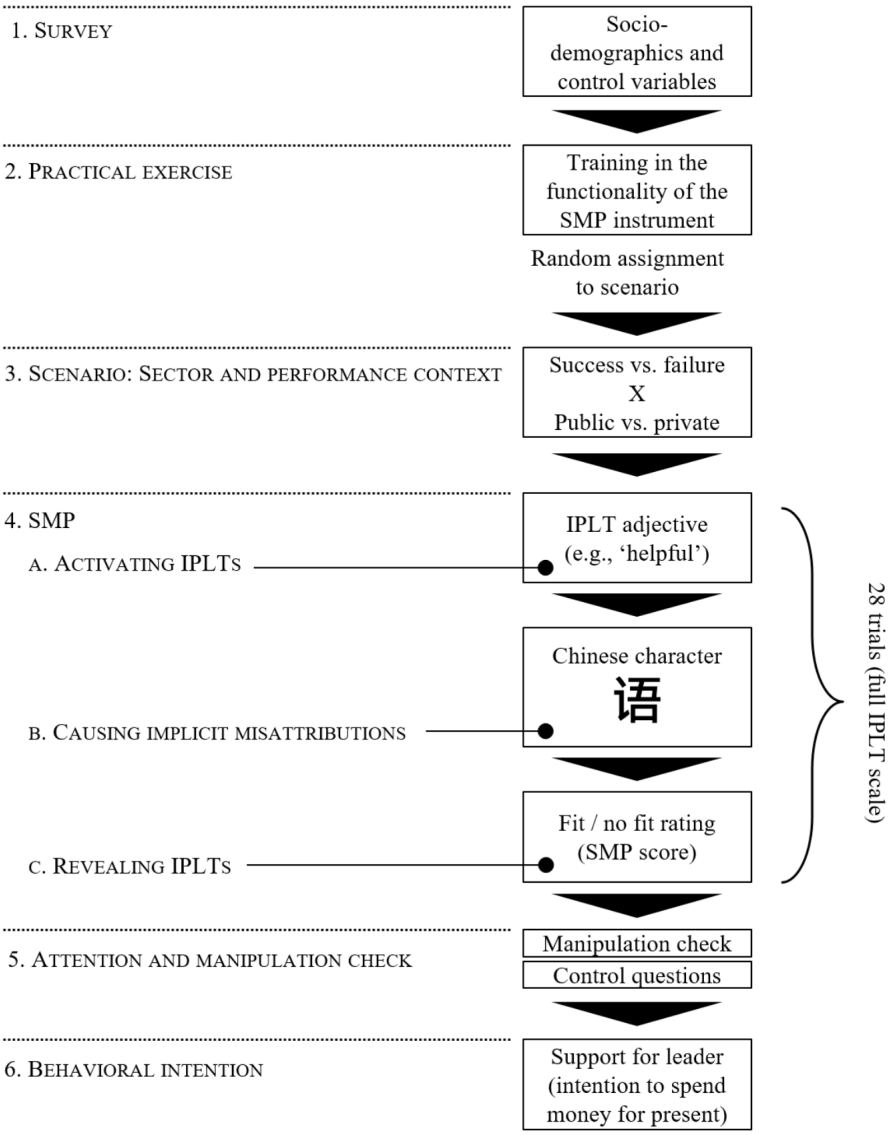
The advantage of implicit methods in general and the SMP in particular is that they are less prone to response biases (such as social desirability; Payne & Lundberg, 2014) than explicit methods. Implicit methods reduce participants' explicit information processing in order to access subconscious contents and processes. Accordingly, they are useful to delve into those parts of IPLTs that are not accessible to introspection and reflection (Epitropaki et al., 2013) and account for the fact that a substantial part of human information processing occurs below the level of consciousness in the manner of associative recognition (Evans, 2012; Kahneman, 2013). By introducing an implicit measurement method of ILTs, we respond to calls from the field of general leadership studies (Epitropaki et al., 2013). Our methodological choice ties up with the recently increasing acknowledgement of implicit methods in public administration (Ngoye et al., 2018) and successful cases of their application (Marvel & Resh, 2019).

Experimental procedure

Our experiment followed a fixed sequence of different assessment methods, including survey elements, case scenarios to vary the context, a practical exercise in the implicit tool, and the

SMP itself. Figure 3.1 gives a schematic illustration of the procedure and Appendix 3.3 provides a more detailed description of each step.

Figure 3.1. Schematic illustration of experimental procedure



Step 1: Survey

At the beginning of the experiment, participants completed control questions. Participants who did not match our filter criteria — at least one year of employment and/or inability to identify neutral targets (i.e., to read Chinese characters) — were excluded.

Step 2: Practical exercise

Participants then completed a practical exercise to learn about the technical handling of the SMP and to get used to the answering principle. This training levelled out potential effects of inter-individual differences in the understanding and handling of the SMP.

Step 3: Team performance scenarios

Hypothetical, yet realistic scenarios are a popular method to activate participants' experiences with leadership by putting them mentally into a leadership context (see e.g., Haslam & Ryan, 2008). To examine how performance and sector context influence leadership perceptions, we assigned respondents randomly to one out of four high-contrast scenarios, corresponding to one cell of our 2x2 design. While neither scenario described the leader's traits or behaviors directly, the contextual information provided in the scenarios varied along the two factors of the sector and performance manipulation. To manipulate the sector context, the scenarios described either a public or a private leader and utilized sector specific terminology (e.g., 'agency' vs. 'company'). The performance context was manipulated by describing a leader in the context of either team success or team failure and supplementing the information with a graphic performance forecast (Haslam & Ryan, 2008). The scenario corresponding to the public organizational success condition is provided by Appendix 3.1.

Step 4: Semantic misattribution procedure

Following the scenario, participants read that the leader should receive a poster presenting a Chinese character as an appreciation gesture (success condition) or a means to increase motivation (failure condition). This information introduced participants' main task in the SMP, which consisted in deciding whether a selection of Chinese characters would be a suitable print for the appreciation or motivation poster. To measure participants' implicit leadership schemas, we applied the complete set of 28 items from Vogel and Werkmeister's (2021) Implicit Public Leadership Theories (IPLT) scale (Table 3.1 and 3.D). In each of the following 28 main SMP trials, participants saw an IPLT adjective (semantic prime) for 200 milliseconds (ms), followed by a blank screen (125 ms). The blank screen was followed by a Chinese character (200 ms) with a neutral emotional valence, as validated in former studies (Hensel, 2020). In a speeded-choice task, participants rated whether the Chinese character fit or did not fit the leader described in the scenario. They indicated a fit or misfit by pressing the 'A'- or 'L'-key on the keyboard as fast as possible. From these responses, we calculated the SMP score as the average

'fit'-rating across all items in each dimension. This score served as our dependent variable to answer our first research question.

Table 3.1. IPLT model dimensions and corresponding items (R. Vogel & Werkmeister, 2021)

Dimension	Items
Achievement orientation The drive to pursuit and implement organizational goals and tasks even under pressure and against resistance.	• Handles stress • Assertive • Self-confident • Well-dressed
Tyranny The abuse of power to achieve own goals through oppression, penetrance and coercion of employees.	• Commanding • Narrow-minded • Power hungry • Dull
Kindheartedness Feeling of affection, grace and compassion for others.	• Affectionate • Compassionate • Merciful • Kind
Progressiveness Drive and openness for new entrepreneurial ideas and innovation.	• Innovative • Future-oriented • Creative
Righteousness Drive to establish the common good and justice rather than realizing interests.	• Common good-oriented • Impartial • Unselfish
Rule abidance Commitment to the observance of rules and loyalty to the state.	• Rule-oriented • Loyal to the state

Step 5: Attention and manipulation check

After completion of the 28 SMP trials, participants answered a number of questions to validate both their correct understanding of the scenario and to explore their perception of the presented leader.

Step 6: Behavioral intentions

In order to examine the relevance of IPLTs beyond cognitive processes, we finally asked for respondents' support for the leader presented in the scenario (i.e., *'If you were to contribute money to the poster, how many euros would you be willing to spend?'*). This measure addresses a more consequential outcome than cognitive attributions.

Data

With the support of an online panel data provider, a total of n = 812 German employees were recruited. All participants had at least one year of work experience to ensure that their cognitive leadership schemata had established (Epitropaki & Martin, 2004). We excluded participants who did not meet our quality criteria. We excluded observations from the initial sample based on two criteria: First, we checked the SMP ratings and considered a rating invalid if not falling within the conventional response time range of 100 to 10,000 ms for implicit tests (Greenwald, Nosek, & Banaji, 2003). We excluded participants with ratings outside this time range in more than 10 % of the trials, and those who did not recall the team performance correctly. The final sample consisted of n_{final} = 734 participants. Randomization checks with univariate analyses of variance (ANOVA) and Chi-square tests show that experimental conditions did not differ substantially. While men were slightly overrepresented in our sample, this was true across experimental conditions so that overall, we expect no sampling bias. The average reaction time per SMP trial was 420 ms. Table 3.2 provides a full overview of the demographic variables grouped by condition

Table 3.2. Descriptive statistics of demographic variables grouped by experimental conditions

Sector context	**Public**				**Private**				**Total**	
Performance context	**Success** (n = 183)		**Failure** (n = 177)		**Success** (n = 192)		**Failure** (n = 182)		N = 734	
	Value (%)	Mean (SD)	Value (%)	Mean (SD)	Value (%)	Mean (SD)	Value (%)	Mean (SD)	Value (%)	Mean (SD)
Gender										
Female	95 (43.1)		73 (41.0)		85 (44.0)		65 (36.0)		299 (40.7)	
Male	125 (56.8)		104 (59.0)		107 (56.0)		117 (64.0)		435 (59.3)	
Sector affiliation										
Public	91 (50.0)		85 (48.0)		88 (46.0)		98 (54.0)		362 (49.3)	
Private	92 (50.0)		92 (52.0)		104 (54.0)		84 (46.0)		372 (50.6)	
Leadership position (yes/no)	54 (29.5)		52 (29.3)		56 (29.1)		54 (29.6)		216 (29.4)	
Age		44.3 (11.9)		47.6 (11.7)		45.0 (11.7)		44.0 (10.9)		45.6 (11.9)
Work experience		22.02 (12.8)		24.6 (13.0)		22.6 (12.5)		21.2 (12.1)		23.0 (12.8)

Data analysis

Due to the repeated-measures design (i.e., one participant completed several SMP trials), our data yields a significant amount of within-variance (i.e., shared variance of SMP ratings stemming from the same participant). Since standard univariate procedures such as OLS regression or (between-subject) ANOVA are not robust to violated assumptions of independent and identically distributed data points, we applied linear mixed modelling (LMM). In addition to fixed effects, which capture the population-level average effect of an independent variable on the dependent variable and essentially resemble model terms from a standard regression model, LMM allows to control for stochastic variability that roots in grouping factors (random effects, i.e., within-person variance). We calculated LMMs that modelled SMP scores by experimental conditions and interactions between them as fixed effects. In addition, we specified random intercepts in each model to account for data dependencies that resulted from idiosyncratic response patterns. All independent variables were dummy-coded. Analyses were conducted with RStudio (R Core Team, 2014).

Results

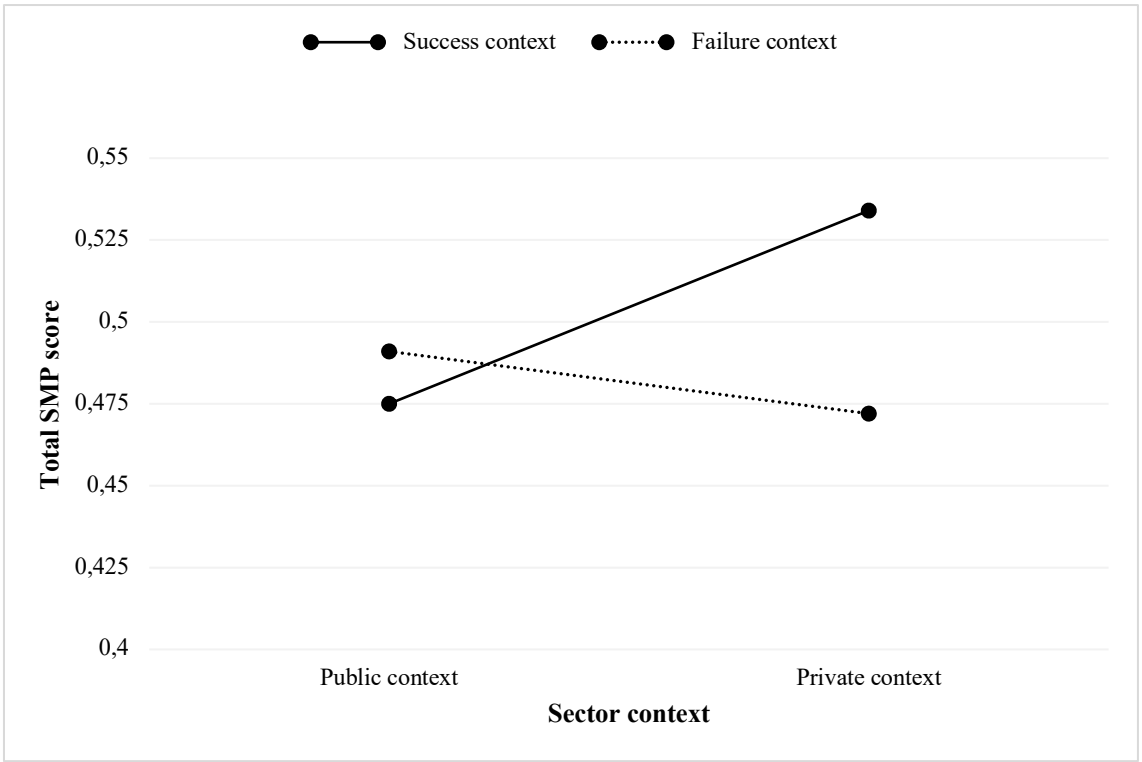
Leadership attributions to public vs. private leaders

To address our research question, we present the results of two LMMs testing the effects of organizational context on the overall SMP score in Table 3.3. Model I yields no significant main effects of the context manipulation. However, as the significant interaction effect in model II exposes (model II; b = –.08, $p < .024$) the effect of *sector context* is contingent on the *performance context*. Figure 3.2 illustrates the estimated means of the total SMP score adjusted for experimental conditions and demonstrates the interaction between *sector context* and *performance context*. In the private condition, the SMP score is significantly higher in the context of team success than in the context of team failure. In the public context however, participants' trait attributions do not vary as a function of the performance context.

Table 3.3. Results of linear mixed model; DV: Total SMP score

	SMP score			
	Model I		Model II	
Fixed Effects	*b*	*p*	*b*	*p*
Intercept	.50	**<.001**	.46	**<.001**
Sector context (d; 1 = public)	–.02	.277	.06	**.018**
Performance context (d; 1 = success)	.02	.168	.02	.521
Sector context * Performance context			–.08	**.024**
Random effects				
τ_{00}	.05 ID		.05 ID	
R^2	.210		.210	

Figure 3.2. Estimated means of total SMP score depending on sector context, adjusted for performance context



Dimensional effects

In a post-hoc analysis, we examined whether participants attributed leadership traits (IPLT dimensions) differently to public and private leaders in different performance contexts. Appendix 3.4 lists the marginal means for each dimension, grouped by experimental condition. Tables 3.4 and 3.5 present six additional LMMs which specify each IPLT dimension's SMP score by experimental conditions (models I) and interactions between the experimental conditions (models II). Significant interactions between *sector context* and *performance context* appear for *achievement orientation* (model II_{ACH}; b = –.11, p = .023), *rule abidance* (model II_{RA}; b = –.21, $p < .001$), and *tyranny* (model II_{TYR}; b = –.10, p = .034).

Table 3.4. Results of linear mixed model; DV: IPLT dimensions (I – III)

	Achievement orientation				**Kindheartedness**				**Progressiveness**			
	Model I $_{ACH}$		**Model II $_{ACH}$**		**Model I $_{KHN}$**		**Model II $_{KHN}$**		**Model I $_{PRO}$**		**Model II $_{PRO}$**	
Fixed Effects	*b*	*p*	*b*	*p*	*b*	*p*	*b*	*p*	*b*	*p*	*b*	*p*
Intercept	.57	**<.001**	.55	**<.001**	.43	**<.001**	.41	**<.001**	.63	**<.001**	.62	**<.001**
Performance Context (d; 1 = success)	.05	.051	.10	**.003**	–.01	.720	.04	.291	.05	.126	.03	.467
Sector Context (d; 1 = public)	-.03	.288	.08	.381	–.01	.643	.04	.263	–.03	.297	–.05	.280
Sector Context * Performance Context			–.11	**.023**			–.06	.260			–.03	.631
Random Effects												
τ_{00}	.10 $_{ID}$		.10 $_{ID}$		.12 $_{ID}$		.12 $_{ID}$		.17 $_{ID}$		.17 $_{ID}$	
R^2	.012		.019		.005		.006		.008		.008	

Table 3.5. Results of linear mixed model; DV: IPLT dimensions (IV – VI)

	Righteousness				**Rule abidance**				**Tyranny**			
	Model I $_{RHS}$		**Model II $_{RHS}$**		**Model I $_{RA}$**		**Model II $_{RA}$**		**Model I $_{TYR}$**		**Model II $_{TYR}$**	
Fixed effects	*b*	*p*	*b*	*p*	*b*	*p*	*b*	*p*	*b*	*p*	*b*	*p*
Intercept	.46	**<.001**	.44	**<.001**	.53	**<.001**	.38	**<.001**	.33	**<.001**	.30	**<.001**
Performance context (d; 1 = success)	–.00	.990	.05	.224	.07	**<.001**	.10	**<.001**	.01	.798	.05	.090
Sector context (d; 1 = public)	–.02	.543	.06	.102	.00	.961	.17	**<.001**	.01	.757	.05	.088
Sector context * Performance context			–.09	.087			–.21	**<.001**			–.10	**.034**
Random effects												
τ_{00}	.13 $_{ID}$		.12 $_{ID}$		.01 $_{ID}$		.01 $_{ID}$		.09 $_{ID}$		.09 $_{ID}$	
R^2	.001 / .997		.005 / .997		.372 / 1.000		.250 / 1.000		.000 / .998		.006 / .998	

As Figure 3.3 illustrates, performance information on team success leads to significantly higher ascriptions of *achievement orientation* to leaders in the private context. In the public context however, no significant differences between leaders of successful and unsuccessful teams emerge. For both *tyranny* and *rule abidance* (Figures 3.4 and 3.5), we find significant cross-level interactions. While participants attribute significantly higher levels of *tyranny* and *rule abidance* to private leaders of successful than of unsuccessful teams, the opposite pattern appears in the public condition, where participants attribute significantly higher levels of *tyranny* and *rule abidance* to leaders of unsuccessful than of successful teams.

Figure 3.3. Estimated means of *achievement orientation* SMP score depending on sector context, adjusted for performance context

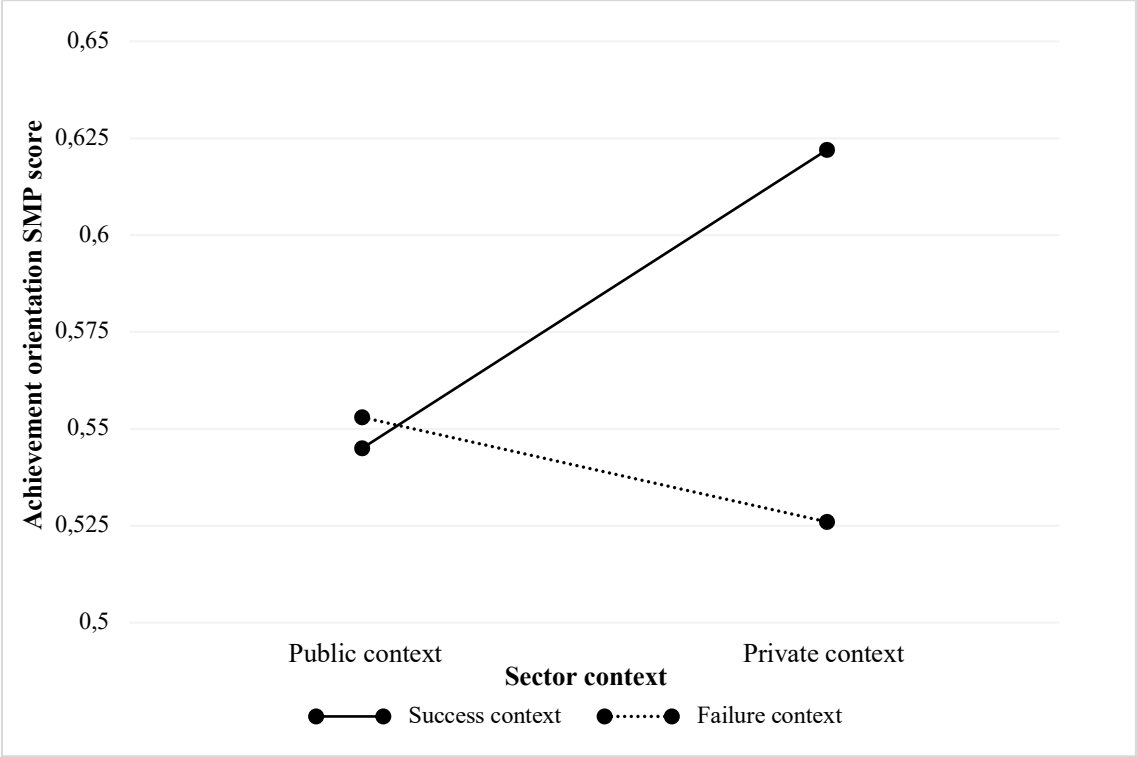


Figure 3.4. Estimated means of *tyranny* SMP score depending on sector context, adjusted for performance context

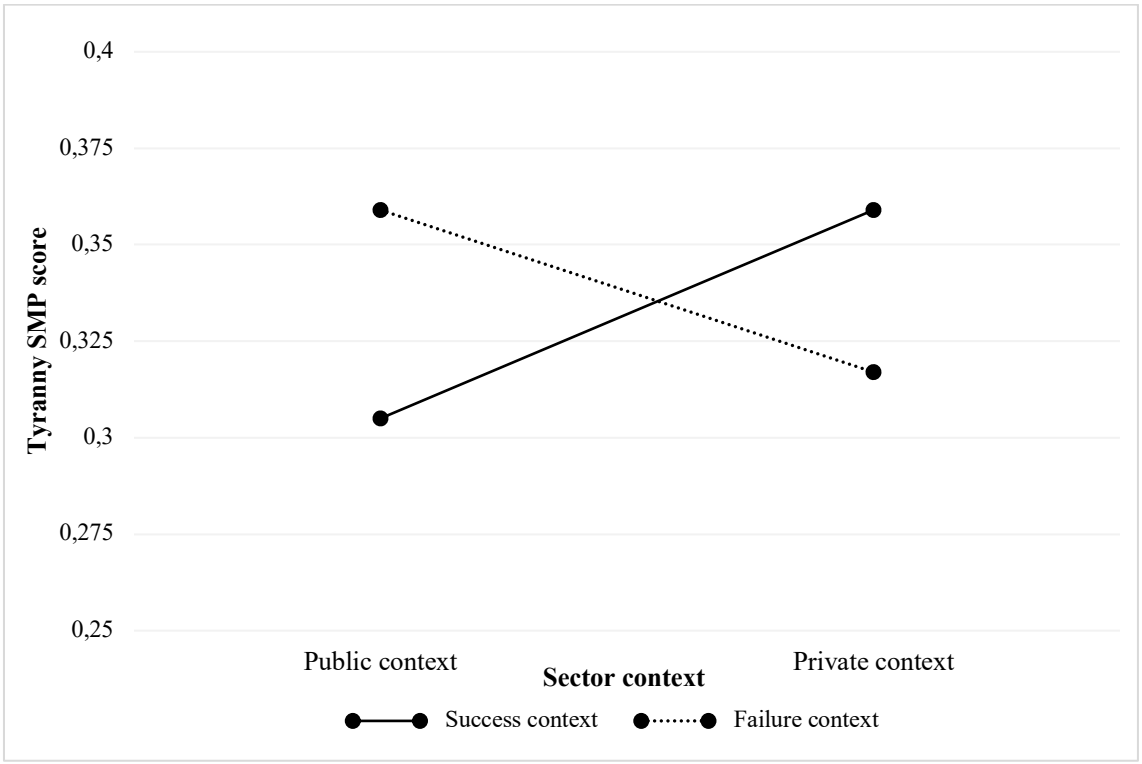
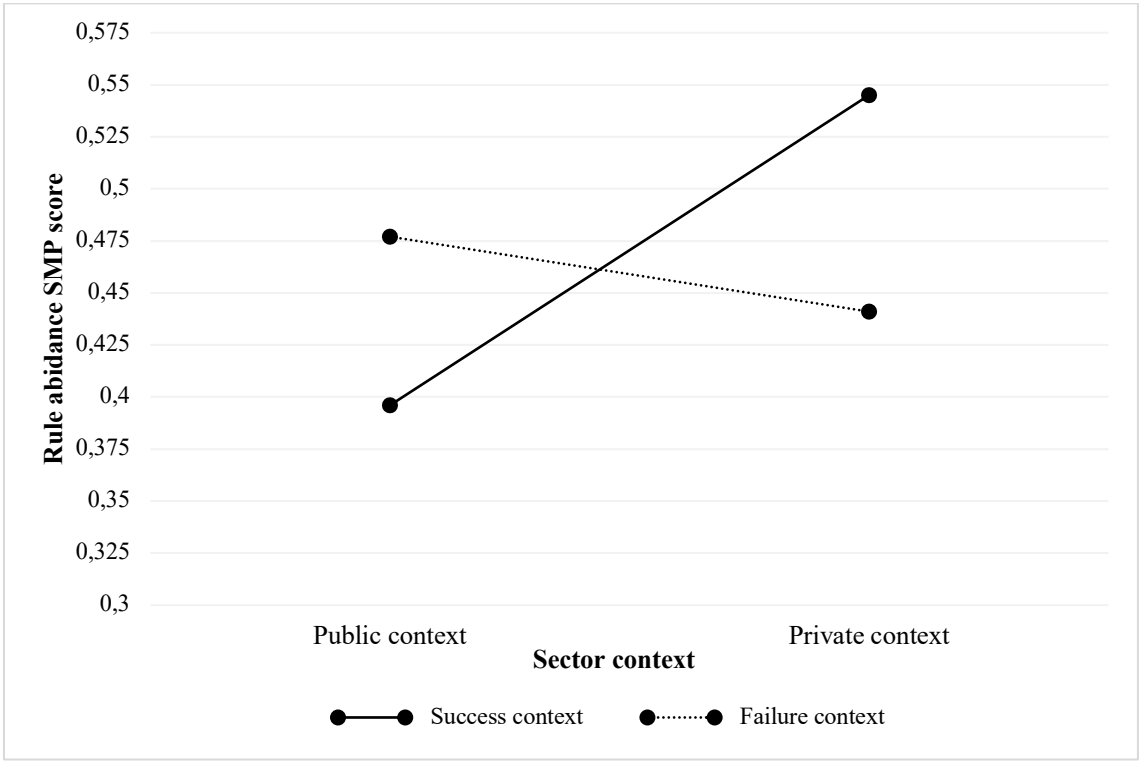


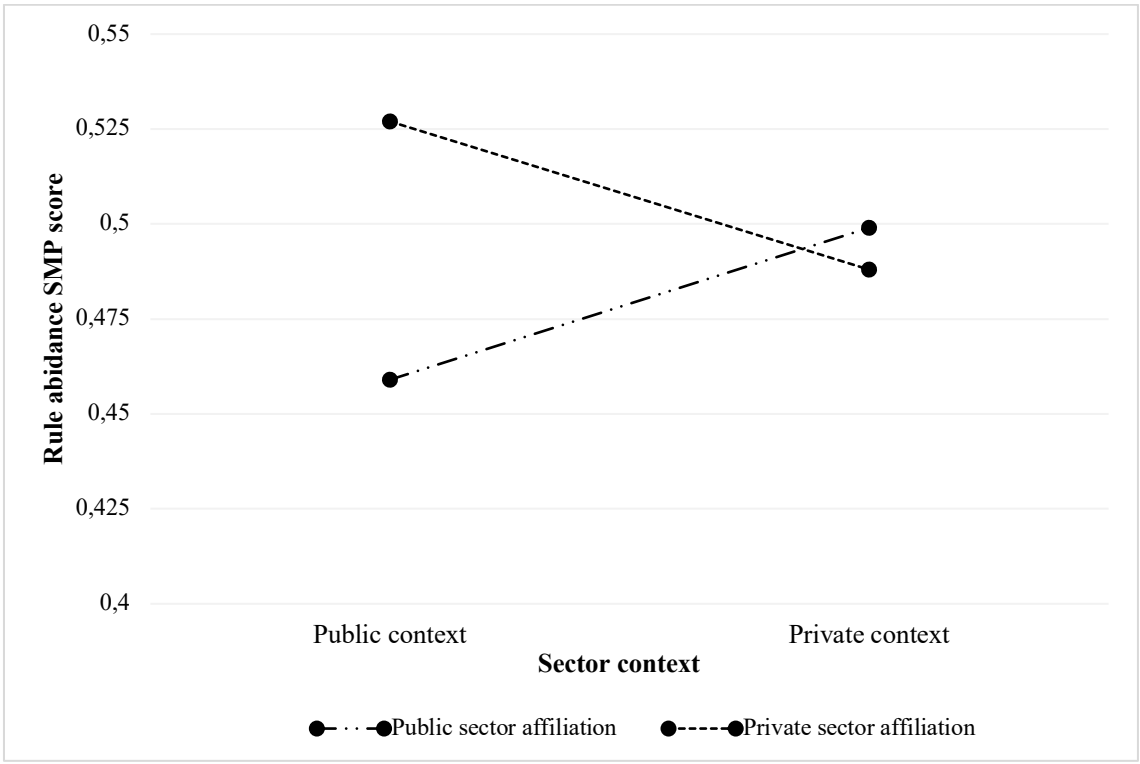
Figure 3.5. Estimated means of *rule abidance* SMP score depending on sector context, adjusted for performance context



Effect of sector affiliation

In addition, we explored the effect of participants' sector affiliation. Analyses reveal only a significant interaction effect between participants' *sector affiliation* and sector context on participants' attributions of *rule abidance* (Appendix 3.2). Figure 3.6 illustrates how attributions of *rule abidance* to public and private leaders vary systematically between public and private employees. Public and private employees ascribe similar levels of *rule abidance* to private leaders. However, they differ significantly in their ascriptions of *rule abidance* to public leaders. Private employees associate significantly higher levels of *rule abidance* with public leaders than public employees do.

Figure 3.6. Estimated means of *rule abidance* SMP score depending on sector context, adjusted for sector affiliation



Implications for behavioral intentions

We also examined whether participants' willingness to contribute financially to the poster depends on the context manipulation and the IPLT dimensions. We calculated a stepwise LMM (Table 3.6), with participants' reported financial contribution to the poster in euros (*EUR spent, M* = € 8.95) as the dependent variable, *sector context* and *performance context* as dummy-coded categorical independent variables, and the SMP score for each IPLT dimension as metric, standardized independent variables.

Table 3.6. Results of linear mixed model; DV: Money contributed to poster

	EUR spent	
Fixed effects	*β*	*p*
Intercept	8.95	**<.001**
Achievement orientation	–2.61	**<.001**
Kindheartedness	.99	**<.001**
Progressiveness	1.12	**<.001**
Rule abidance	1.06	**<.001**
Righteousness	.74	**<.001**
Tyranny	–0.82	**<.001**
Performance context (1 = success)	4.56	**<.001**
Sector context (1 = public)	.99	**<.001**
Performance context * Sector context	–2.74	**<.001**
Random effects		
$\tau_{00\ ID}$		2.64
Marginal R^2		.58

Note. Standardized coefficients are reported

The best fitting model accounts for 58.4 % (R^2_{Marg} = .584) of the total variance in *EUR spent*. The final model reveals that all of the six IPLT dimensions significantly predict the amount of *EUR spent.* The higher participants' SMP scores on *kindheartedness* (β = € .99, p < .001), *progressiveness* (β = € 1.12, p < .001), *rule abidance* (β = € 1.06, p < .001), and *righteousness* (β = € 0.74, p < .001), the more money were they willing to contribute to the poster for the fictitious leader. In contrast, the higher participants' attributions of *achievement orientation* (β = € –2.61, p < .001) and *tyranny* (β = € –.82, p < .001) to a fictitious leader, the lower the amount of money they were willing to contribute. Overall, participants indicate a higher willingness to contribute money to the present of a public leader than of a private leader, as the significant effect of *sector context* reveals (β = € .99, p < .001). However, as a significant interaction effect of *performance context* and *sector context* (β = €–2.74, p <0.001) indicates, the positive relationship between *sector context* and *EUR spent* is significantly smaller in the success condition.

Discussion and conclusion

The public-private distinction in leadership has been a recurrent issue in PA scholarship, but evidence on how public and private leadership differ is still sparse and inconclusive. In particular, previous research has been preoccupied with the judgements that followers in the two sectors make about their leaders a posteriori (Hansen & Villadsen, 2010; Hooijberg & Choi, 2001). Less is known about the a priori of leadership, i.e., the implicit assumptions, attributions, and associations that people bring into their evaluation of public and private leaders in the first place. By addressing this issue, our study has advanced a socio-cognitive perspective (Lord et al., 2020; Lord et al., 1984), as has recently been introduced to the study of public leadership (Vogel & Werkmeister, 2021). It shows how people's attributions of traits to otherwise unknown leaders vary with contextual cues on sector and performance, and how they adapt their attitudinal responses accordingly.

The results show that context matters for the social construction of public and private leadership, but that it matters in more complex ways than the simple public-private distinction suggests. We do not find that people make stronger or weaker implicit attributions to leaders depending only on the sectoral context, suggesting that, everything else being equal, they do not attribute more or less leadership qualities to public than to private leaders. This most general finding applies both on aggregate of all attributes (i.e., the total SMP score) and for the particular dimensions of IPLTs in which these attributes cluster. However, this finding gains nuance, as interactions occur with the respondents' own sectoral affiliation to either the public or the private sector. Employees working in the private sector attribute significantly more *rule abidance* to public leaders, thus echoing prevailing and often stereotypical assumptions about bureaucrats. Indeed, previous conceptualizations of public leadership suggest that rule-following behaviors constitute a typical and distinct role of public leaders (Tummers & Knies, 2016). In contrast, public employees might have internalized and 'normalized' the prevalence and necessity of rules in bureaucratic organizations, such that they do not perceive leaders' rule abidance as a particularly strong identifier of public leaders (e.g., Hattke, Vogel, & Znanewitz, 2018).

The public-private distinction becomes much more relevant for the social construction of leadership when co-occurring with further contextual information on performance. While respondents' implicit attributions of traits to private leaders are contingent on performance information (i.e., team success and failure), the same does not apply to their attributions to public leaders. Respondents implicitly attribute stronger leadership qualities to private leaders of successful teams than to private leaders of unsuccessful teams, whereas no such difference

occurs in the case of public leaders. We conclude from this finding that people ascribe more responsibility and agency for performance to private than to public leaders. This interpretation is in line with the assertion that leaders' capacity to directly promote performance in public organizations is limited by specific institutional and structural constraints, such as stronger political control by external bodies, more bureaucratic rules and regulations, and limited managerial discretion. While this 'substitutes for leadership' argument is not new to the scholarly debate on the distinctiveness of public leadership (Javidan & Waldman, 2003), our results indicate that limited accountability for performance is reflected in peoples' everyday theories about public leaders, in spite of continuous efforts to 'let leaders lead' in more entrepreneurial models of public leadership (Currie, Humphreys, Ucbasaran, & McManus, 2008; Lane & Wallis, 2009; Osborne, 1993).

Our findings suggest that the public sector is a far less romantic place for leaders than the private sector. It is worth noting that all context effects occurred although the experimental scenarios did not contain any information about traits or behaviors of the leader. There were also no other cues as to whether and how the leader might have contributed to the team results. Nevertheless, success triggers much weaker implicit attributions to public than to private leaders, while no such differences between public and private leaders occur in the case of failure. In other words, private leaders earn more credits for success than public leaders, but they are not bigger scapegoats for failure. The 'romance of leadership' (Meindl et al., 1985), as suggested by the socio-cognitive approach to leadership and claimed also for the public sector (Nielsen & Moynihan, 2017), thus applies more to private than to public leadership. Mental models of 'private leadership' and 'performance' seem to be more tightly connected than models of 'public leadership' and 'performance'.

Our conclusion that the public sector is a less romantic setting for leadership than the private sector does not imply, however, that people attribute more negative traits to public than to private leaders. Rather, the general attributional pattern across all dimensions of the IPLT scale replicates for sub dimensions with both positive (i.e., achievement orientation) and negative valence (i.e., tyranny). In the success condition, respondents attribute destructive, oppressive traits more strongly to private than to public leaders, while the opposite effect holds for the failure condition. In concert with the differential attributions of *achievement orientation*, this pattern could point to the dark side of successful, goal-oriented leadership in private organizations. From followers' perspective, particularly high levels of private leaders' goal-orientation might drive team success but also comes along with social dominance and emotional suppression of their employees. Indeed, research has demonstrated that narcissistic leaders with

grand self-esteem, above average power motifs, sense of entitlement, and achievement orientation tend to exert emotional manipulation, suppression, and exploitation of their co-workers as a means to attain organizational success (Higgs, 2009; Resick, Whitman, Weingarden, & Hiller, 2009). The dark side of leadership might surface in particular in the private context, where more managerial autonomy and less structural and normative regulation might provide leaders more room for toxic behavior and emotional power play. Evidence demonstrating that private leaders report higher levels of relationship and power-orientation than public leaders point into this direction (Andersen, 2010; Hooijberg & Choi, 2001).

Our findings also demonstrate the relevance of social attributions of leader traits for follower responses beyond the cognitive sphere. We examined participants' willingness to contribute money to a present for the fictitious leader, arguably a gesture of benevolence with financial consequences. We find that this kind of support for a leader is indeed contingent on the sector and performance context as well as on the extent to which characteristics have been attributed to the leader. In this regard, participants' higher willingness to support a public than a private leader demonstrate the distinction between followers' attributions of causal agency to organizational effectiveness, and their own attitudes towards a leader. In addition, the drastic decline of financial support of successful public leaders indicates that positive behavioral intentions towards public leaders only unfold if they are confirmed by expectation-contingent performance. This is in line with broad evidence from the field of social judgment, which suggests that if performance expectations are violated by first impressions, they are met with negative evaluations and disliking (Biernat, Vescio, & Billings, 1999; Bond et al., 1992).

Practical implications

Implications for management practitioners in public administration unfold along two lines of reasoning. First, there is broad evidence that a match of perceived traits and behaviors of real leaders with followers' implicit trait attributions to leaders lead to favourable responses on the part of followers (Epitropaki et al., 2013; Junker & van Dick, 2014). Accordingly, the traits that followers attribute to leaders might serve as normative benchmarks for the selection and development of public leaders. This particularly applies to attributions in the success condition because they are more likely to reveal ideal (rather than typical) images of public leaders than attributions in the failure condition. Second, and related to the previous point, training programs designed for public leaders might draw on IPLTs for reflection tasks. Leadership research provides broad evidence that self-awareness of leaders increases their impact through self-regulation and authenticity (Avolio & Gardner, 2005; Hattke & Hattke, 2019). A better

understanding of followers' implicit attributions to leaders implies a better understanding of the standards against which leaders are likely to be evaluated. This should facilitate leaders' reflections on how far they comply with these standards and where they deviate. To further encourage this self-reflection, taxonomies of leader attributes, such as IPLTs, might become integrated into the toolbox of introspective practices of organizational and leadership development (e.g., Reave, 2005).

Limitations and outlook

Some limitations of our study are worth noting and call for further research. First, our sample consists of individuals who have been socialized in a legalistic and corporatist administrative tradition (Painter & Peters, 2010). Social attributions might differ from other traditions, such as the Anglo-American, which emphasizes political over legal accountability and thus especially affects the dimension of rule abidance. We therefore encourage replications in other countries to elaborate on the cultural aspect of IPLTs. Second, we manipulated the sector and performance context as triggers of social attributions to leaders, but it is likely that manipulations in other domains will yield different attributions. Future studies could experiment with other manipulations of leadership contexts, such as the administrative field, the organizational hierarchy, or social impact of public leadership, to learn more about how contextual stimuli trigger implicit attributions to leaders. Third, we used a limited pool of items because the SMP only allows for a limited number of trials. The initial study from which we adopted the item pool has a focus on characteristics that people consider as typical of leaders (Vogel & Werkmeister, 2021). However, further research could still include other items so as not to miss characteristics that may be desirable but untypical. Fourth, we need deeper explorations into the behavioral consequences of IPLTs. We made a first step into this direction by asking participants for the amount of money they were willing to spend to support the leader. However, given the robust evidence on the intention-behavior gap, especially for socially desirable behavior such as contributing money to a present (Sheeran & Webb, 2016), our results may overestimate the amount that people would actually donate. The behavioral impact of information processing should therefore be a key point on the research agenda of a socio-cognitive approach to public leadership.

Concluding remarks

This study extends social constructionist developments in public leadership research (Ospina, 2017; Ospina & Sorenson, 2006) by moving further towards a socio-cognitive view. This perspective suggests that observed traits, roles, or behaviors of leaders are not the only source of variation in ratings of public and private leaders. People also hold assumptions about and expectations towards leaders which they have generalized from various sources, including their own experiences, others' narrations, and popular images conveyed in medialized discourses. These images often reside at levels below consciousness and trigger implicit attributions, often accounting for more variance in leadership ratings than the actual characteristics and behaviors of observed leaders (Eden & Leviatan, 1975; Rush et al., 1977).

How this 'a priori of leadership' that people bring to their work and other social interactions differs between the public and private sector has not been researched so far. Our results show that the sector does not matter much as stimulus of social attributions to leaders when considered in isolation from other contextual cues. However, it strongly matters in combination with performance information, as attributions to leaders of successful and unsuccessful teams differ in both kind and strength between the public and private sector. The findings imply that context indeed matters for the social construction of public leadership, and that it matters in complex ways. Sector is only one, albeit important, cue in a web of contextual stimuli that unfold their attributional effects in interaction. Exploring deeper into these contextual cues and their interdependence sets a rich agenda of future research for the socio-cognitive approach to public leadership.

The interaction of sector cues with performance information reveals a picture of the public sector as an unromantic place for leadership. Performance cues trigger weaker trait attributions to public than to private leaders and also lead to weaker support intentions. However, this also implies that the public sector is less charged with the heroic pictures of leaders that many leadership scholars want to see overcome (Crosby & Bryson, 2018; Ospina, 2017; Vogel & Masal, 2015). Trait attributions to leaders at the absence of direct information about characteristics or behaviors as mere inference from team success is more likely to occur in the case of private leaders than in the case of public leaders. Accordingly, people might be less prone to attribution errors that lead to an overglorification when it comes to evaluate public leaders. Put differently, there might be a realism rather than a romance of public leadership.

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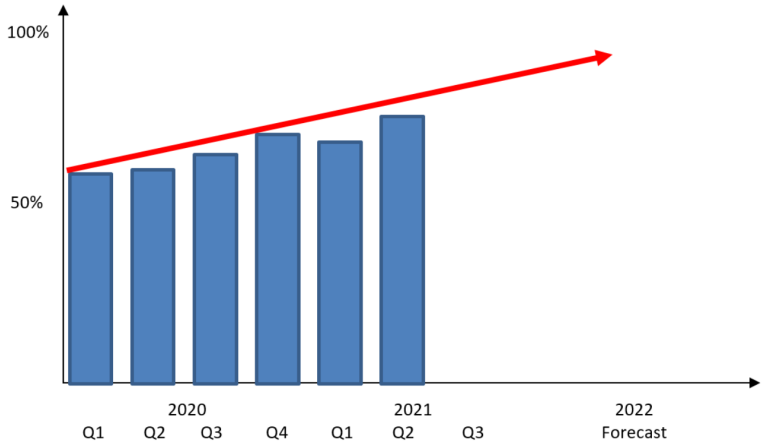
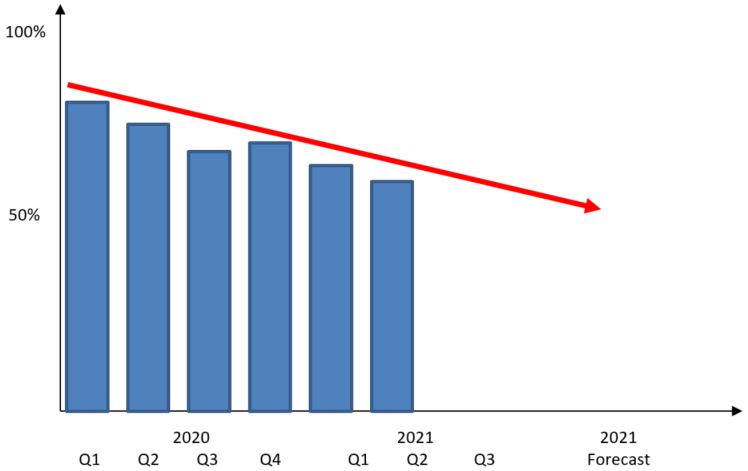
Appendix

Appendix 3.1. Screenshots from the scenarios presented in the public organization x successful performance context (above) and private organization x unsuccessful performance context (below).

Alex is leading a team in a public agency. This year, the team performed very well. Alex' team realized all of the set performance targets set last year and even exceeded some of them. The citize satisfaction survey results indicated a particularly positive development. The forecasts for the upcoming fiscal quarter seem to confirm this rising performance trend.



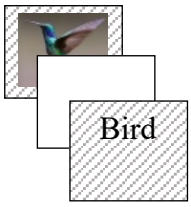
Alex is leading a team in a private company. This year, the team performed very badly. Alex' team realized none of the performance targets set last year. The customer satisfaction survey results indicated a particularly negative development. The forecasts for the upcoming fiscal quarter seem to confirm this declining performance trend.

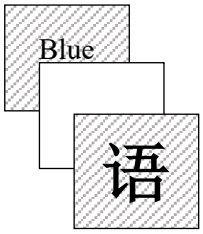
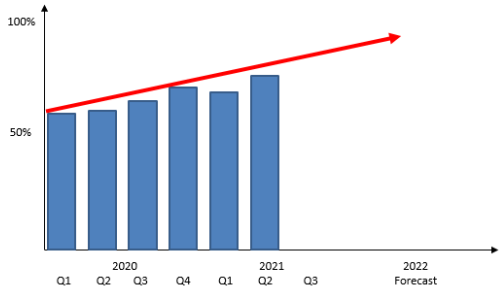


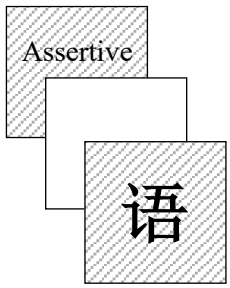
Appendix 3.2. Results of post-hoc analysis; linear mixed model; DV: Rule abidance

	Rule abidance			
	Model I		**Model II**	
Fixed Effects	*b*	*p*	*b*	*p*
Intercept	.35	**<.001**	.50	**<.001**
Performance context (d; 1 = success)	.08	**<.001**	.07	**<.001**
Sector context (d; 1 = public)	.15	**<.001**	.04	**<.001**
Sector affiliation (d; 1 = public)	.08	**<.001**	.07	**<.001**
Sector context * Performance context	–.18	**<.001**		
Sector context * Sector affiliation			–.08	**<.001**

Appendix 3.3. Detailed description of experimental procedure

Description	Instructions
• Participants complete socio-demographic and filter questions. • Participants who do not match filter criteria are thanked for their willingness to participate in the study and informed that unfortunately, they cannot proceed with the study.	• What gender do you identify with? o Male o Female o Diverse • How old are you? o [Insert age here] • Can you read Chinese characters?* o Yes o No • Please indicate your current employment status.* o Employed o Unemployed, previously employed (Note: Please apply the following questions to your previous employer) o Unemployed, previously never employed • What is your current employment relationship? o Part-time (less than 35 hours per week) o Full time (more than 35 hours per week) o Marginally employed (e.g., working student activity) o Trainee / Apprentice o On leave (e.g., maternity leave, parental leave) • What is the legal form of your current employer? o Public o Private • How many years of professional experience do you have? o [Number of years]
• Participants complete an exercise that follows the SMP answer principle, however with different stimuli and with response feedback.	This part of the survey is about your spontaneous decision making. We ask you to make spontaneous decisions by pressing the 'A' or 'L' key on the keyboard. We will begin with a small exercise. Shortly, you will see pictures on the screen. Short terms will appear shortly after. Your task is quite simple: Please press the 'A' key with your left finger if you think the presented term matches the previously presented picture. Please press the 'L' key with your right finger if you think the presented term does not match the previously presented picture. **Important: Please answer as spontaneously and fast as possible!**
• A pictorial stimulus (e.g., picture of a bird) flashes over the screen very briefly (300 ms) and is followed by a neutral term (e.g., 'bird', presented until key is pressed). • In three trials, participants indicate whether the pictorial stimulus matches the term by pressing the 'A' key on the keyboard for a match and by pressing the 'L' key for a mismatch.	
• Participants receive feedback on the response for the first training examples.	• [If participants indicate a 'match' for the above example]: That was correct. • [If participants indicate a 'mismatch' for the above example]: That was not correct.

• After being acquainted with the answering principle of the SMP, participants complete a simulation of the actual SMP. • Neutral adjectives and Chinese characters similar to the experimental stimuli are used, however not analyzed.	Great! We will proceed with the second part of our short exercise. Again, your task is to spontaneously decide whether the presented pictorial stimuli match or don't match the terms that follow them. Please press the 'A' button if you think the presented term matches the previously presented stimulus. Please press the 'L' button if you think the presented term does not match the previously presented stimulus. **Important: From now on there will be no right or wrong answers. Please answer as spontaneously and fast as possible!**
• An adjective (e.g., 'blue') flashes over the screen very briefly (300 ms) and is followed by a Chinese character (presented after key is pressed). • In three trials, participants indicate whether the Chinese character matches the term by pressing the 'A' key on the keyboard for a match and by pressing the 'L' key for a mismatch.	
• Participants are allocated to one of four scenarios. They are asked to read the scenario carefully.	Thank you very much, now we will start with the actual test. Please read the following case description carefully. [Public Success Scenario:] Alex is leading a team in a public agency. This year, the team performed very well. Alex' team realized all of the set performance targets set last year and even exceeded some of them. The citizen satisfaction survey results indicated a particularly positive development. The forecasts for the upcoming fiscal quarter seem to confirm this rising performance trend. 
• Participants read that Alex should receive a poster presenting a Chinese character as an appreciation/motivation gesture. • Participants are instructed that their main task consists in deciding whether a number of Chinese characters presented on the following pages would be a suitable print for the poster.	Given this extraordinary good performance, Alex is to receive a motivational poster showing a Chinese character. On the next page, you will be presented characters that could be printed on such a poster. Your task is to decide whether, in your opinion, the presented character would be appropriate on a certificate of honor for Alex. Each decision is very simple and there are no right or wrong answers. You do not need to know the true meaning of the characters.
• Participants are informed that adjectives precede the Chinese characters and can influence participants' judgements in the rating tasks, yet they should try their best to remain unbiased.	Adjectives will precede the Chinese characters to focus your attention. The adjectives are not related to the Chinese characters in any way. Please answer as spontaneously and fast as possible! Before you complete the actual task, you will begin with a trial round. Please note: Some of the adjectives may influence your decisions. Please try to remain unbiased and only rate the Chinese characters! Please decide for every Chinese character whether it fits Alex.

	Press the 'A' key with your left finger or the 'L' key with your right finger as soon as you are ready
• In each of the 28 SMP trials, participants see an IPLT adjective (presented for 100 ms) immediately followed by a Chinese character (presented for 200 ms). • Participants rate whether the Chinese character does or does not fit the leader described in the scenario by pressing the 'A' or 'L' key on the keyboard. • The order of primes and the prime-target allocation is completely randomized.	 [Schematic example of SMP principle]
• Participants complete survey questions.	Thank you. In this part of the survey, we ask you to remember as much as possible about the situation presented at the beginning of the test and to answer a series of questions about it. • Which sector did the Organization Alex works in belong to? o Public Sector o Private Sector o I don't know • How did the team perform in the situation described earlier? o Well o Badly o I don't know • What was the name of the person described in the scenario? o Alex o Andrea o Anton
N/A	You have successfully completed the survey. Thank you very much for your participation!

Appendix 3.4. Estimated marginal means per IPLT dimension grouped by experimental condition

Experimental conditions		**Mean SMP score**					
Performance context	Sector context	Achievement orientation	Kindheartedness	Progressiveness	Righteousness	Rule abidance	Tyranny
Success	Public	.55	.41	.63	.43	.51	.30
	Private	.63	.45	.67	.50	.55	.36
Failure	Public	.56	.46	.56	.48	.48	.36
	Private	.53	.44	.61	.45	.44	.32

CHAPTER IV: EFFECTS OF IPLTS

Study 3

The benefits of following one's ideals: How followers' implicit public leadership theories determine their LMX and work engagement.

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Abstract

Work engagement has been considered one of the most robust micro-level determinants of public organizations' performance outcomes. Examining previously unnoticed socio-cognitive and relational antecedents of work engagement, the present study tests how public employees' implicit cognitive images of leaders, their IPLTs, affect the quality of their leader-follower-relationship (LMX) and thereby increase their work engagement. In a priming experiment, the match between participants' IPLTs and their actual supervisor's characteristics was assessed. Structural equation modeling revealed that IPLT match resulted in higher LMX, which fully mediated the indirect effect of IPLT match on work engagement

Keywords: Work engagement; implicit public leadership theories; lmx; semantic misattribution procedure; congruence

Introduction

In the wake of public organizations' increased focus on efficiency and service quality, upholding and improving public employees' performance has become one of the most critical challenges for public managers (Pollitt & Bouckaert, 2004; Van Wart, 2013; Vigoda-Gadot, Eldor, & Schohat, 2013). Among the various determinants of employees' performance, work engagement, most commonly defined as a '[…] positive, fulfilling, work-related state of mind that is characterized by vigour, dedication, and absorption' (Schaufeli, Salanova, González-Romá, & Bakker, 2002, p. 74), has particularly attracted scholarly attention (Bakker, 2015; Vigoda-Gadot et al., 2013).

A growing body of research on the topic has highlighted the positive impact of this positive, cognitive-emotional state on public employees' performance behavior (Borst, Kruyen, & Lako, 2019; Luu, 2019) and other outcomes (for a review, see Borst, Kruyen, Lako, & de Vries, 2020). In light of this evidence, understanding which factors facilitate the creation and promotion of work engagement is of paramount importance for public managers. Building on the proposition that any personal, organizational, or relational factors related to the job (i.e., 'job resources') can increase work engagement (Bakker & Demerouti, 2007), a number of studies have sought to identify job resources in public work environments.

Despite valuable advancements, the relatively young field of research still suffers from limitations, two of which motivate the current study. First, the majority of work has focused on characteristics of the job, the individual, or organization, at the neglect of factors stemming from the social and relational work environment, most notably leadership (Fletcher, Bailey, Alfes, & Madden, 2020). While the impact of public leaders' behavior and style on followers' attitudes, behavior, and motivation has been discussed extensively (Ospina, 2017; t'Hart & Tummers, 2019; Van Wart, 2013; Vogel & Masal, 2015), the link between work engagement and leadership in general, and the quality of the leader-follower relationship in particular, remains understudied (Ancarani, Di Mauro, Giammanco, & Giammanco, 2018; Eldor, 2018). Second, with its preoccupation with objective features of the job, existing research has not taken into account that organizational members' subjective perceptions and meaning making — rather than objective parameters — of organizational reality are a critical contingency for organizational outcomes (Jacobsen & Bøgh Andersen, 2015; Ospina, 2017; Song & Meier, 2020; Vogel & Werkmeister, 2021). Building on the constructionist premise that 'leadership lies in the eye of the beholder' (Meindl, Ehrlich, & Dukerich, 1985; Ospina & Sorenson, 2006), a socio-cognitive approach to public leadership proposes that followers' *ex ante* expectations of public leadership, their IPLTs (Vogel & Werkmeister, 2021), determine the emergence and

outcomes of public leadership. Specifically, a match or mismatch between followers' IPLTs and their leaders' actual traits is expected to impact followers' attitudes and behavior significantly (Junker & Van Dick, 2014). While the latter proposition has not been empirically validated in the public context, it suggests that the degree to which leaders embody their followers' IPLT is an important direct driver of followers' work engagement and a critical contingency of the link between leadership and work engagement.

Thus, addressing the paucity of research on socio-cognitive and relational job resources on the one hand, and the lack of empirical evidence on the behavioral and attitudinal implications of IPLTs on the other hand, the current study asks: *Does the match between public employees' IPLTs and their actual leader's traits affect LMX and thereby operate as a direct and indirect antecedent of work engagement?*

To answer this research question, I conducted an implicit priming experiment with N = 102 public employees. Participants' implicit cognitive images of ideal public leaders were measured with the SMP (Payne, Cheng, Govorun, & Stewart, 2005). Structural equation modelling reveals that a match between participants' IPLTs and their actual supervisors' traits increases employees' LMX substantially. In addition, LMX mediates the indirect effect of IPLT match on work engagement.

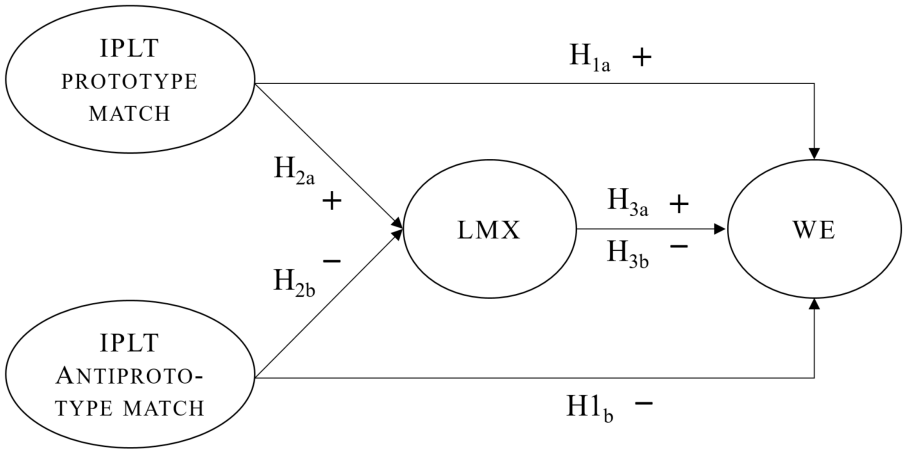
This study's contributions to public management research are three-fold. First, amid the rise of digital and distributed forms of work and the resulting challenge of upholding an engaged public workforce (De Vries, Tummers, & Bekkers, 2019; Gascó, 2003), I identify less visible socio-cognitive and relational job resources and join a stream of research that emphasizes the potential of a trustful, positive leader-follower-relationship (Ancarani et al., 2018; Borst et al., 2019; Hassan & Hatmaker, 2015). Contributing further evidence to the precursors of such a relationship, I find that the extent to which employees see their IPLTs embodied in their leader has an indirect effect on work engagement. Second, by shedding light on the attitudinal implications of employees' public-specific leader stereotypes, my results further develop the socio-cognitive approach to public leadership (Vogel & Werkmeister, 2021), corroborate the conception of public leadership as a socially constructed phenomenon (Ospina, 2017; Vogel & Masal, 2015), and highlight the significance of employees' implicit information processing for organizational outcomes (Asseburg, Hattke, Hensel, Homberg, & Vogel, 2020; Marvel, 2016).

Third, by adopting the SMP to measure IPLTs, this study provides new avenues for the application of implicit methods to the field of public leadership (Crosby & Bryson, 2018; Ngoye, Sierra, Ysa, & Awan, 2020), offering a remedy to the issue of reversed causality in congruence measurement.

Theoretical framework

Figure 4.1 shows the theoretical framework of the study, including the core constructs and hypotheses.

Figure 4.1. Theoretical framework and hypotheses



Work engagement

Work engagement is a pervading, cognitive-affectional psychological state, which is characterized by high levels of energy, vitality, and mental strength (*vigor*), the feeling of pride and significance (*dedication*), and a state of intense focus and immersion in one's work (*absorption*; Ancarani et al., 2018; Schaufeli, Bakker, & Salanova, 2006). Highly engaged employees are enthusiastic about their work, more emotionally involved, and feel highly rewarded by their task. They are thus willing to invest more effort in their work and are more resilient towards occupational strain than less engaged colleagues (Bakker, 2015; Bakker & Demerouti, 2007). Studies have highlighted the positive effects of work engagement on a number of public employee outcomes, such as in-role (Hakanen, Schaufeli, & Ahola, 2008; Luu, 2019) and extra-role-oriented performance behavior (Borst et al., 2019), organizational commitment (Agyemang & Ofei, 2013), or job satisfaction (De Simone et al., 2016). In addition, work engagement can buffer occupational stress arising from administrative burden, structural reforms, or economic pressure (Bakker, 2015; Borst, 2018).

The job demands-resources model (Bakker & Demerouti, 2007) provides an explanatory framework for the creation of work engagement. Accordingly, job resources, referring to all job features that meet employees' needs, foster personal development, and augment their chances of achieving work goals, can increase work engagement (Bakker & Demerouti, 2007; Borst et al., 2019). There has been a growing interest in the identification of potential job resources in

public organizations (e.g., Eldor, 2018; Mostafa & Abed El-Motalib, 2020; Noesgaard & Hansen, 2018).

However, as Fletcher et al. (2020) noted in their comprehensive review of the literature, the main focus of previous work has been on objectively measurable features of the job (e.g., autonomy; Tummers et al. 2018), the individual (e.g., public service motivation, De Simone et. al 2016), or organization (e.g., red tape; Borst 2018), at the neglect of social or relational features of the job. Most notably, while there is widespread agreement on the positive effects of public leadership on followers' attitudes, behavior, and motivation (Schwarz, Eva, & Newman, 2020; t'Hart & Tummers, 2019; Van Wart, 2004), research has only yielded a limited number of scattered results on the link between public leadership and work engagement (Ancarani, Arcidiacono, Mauro, & Giammanco, 2020; Eldor, 2018).

In general, the relationship between public leadership and work engagement remains poorly understood. While the few recent advances in this matter (Ancarani et al., 2020; Eldor, 2018) have generated valuable insights, they only provide a limited perspective by focusing on leader-centric, explicit, and direct dimensions of leadership, e.g., the effects of a leader's traits or behavior. However, it is a widely accepted notion that, to large parts, leadership is a socially constructed phenomenon (Ospina, 2017; Uhl-Bien, 2011; Van Wart, 2004), and at least partially determined by implicit, follower-centric processes (Meindl et al., 1985; Ospina & Sorenson, 2006). Indeed, research has repeatedly suggested that followers' implicit meaning making of seemingly objective leadership traits and behavior directly determine the outcomes of leadership (Jacobsen & Bøgh Andersen, 2015; Ospina, 2017; Song & Meier, 2020; Vogel & Werkmeister, 2021). Even though this contingency should apply in particular to the highly subjective construct of work engagement, research to date has not determined how employees' implicit constructions of public leadership shape the leadership-work engagement link.

Since public organizations are essentially social systems (Agranoff, 2007), public employees' day-to-day-interactions with other organizational members, and with their supervisor in particular, should be an important relational factor of employees' attitudes towards the job (Clark, Denham-Vaughan, & Chidiac, 2014; Ospina, 2017). However, in the present literature on public work engagement, relational job resources have been almost entirely overlooked (for an exception, see Ancarani et al., 2018). Addressing both of the above research gaps, the current study examines socio-cognitive and relational antecedents of work engagement and places particular emphasis on their interplay within the leadership-work engagement link.

Implicit public leadership theories

A socio-cognitive approach to leadership highlights the role of organizational members' implicit information processing in the emergence and outcomes of leadership (Epitropaki, Sy, Martin, Tram-Quon, & Topakas, 2013; Shondrick & Lord, 2010). Research in this stream places particular emphasis on ILTs (ILTs; Eden & Leviatan, 1975), individuals' ex ante expectations of how a leader typically is (i.e., comprised by typical ILTs) or should be (i.e., comprised by ideal ILTs). The centerpiece of ILTs are leadership prototypes and antiprototypes, which encompass abstract sets of characteristics people associate with the most and least prototypical exemplars of typical or ideal leaders (Epitropaki & Martin, 2005; Lord, Epitropaki, Foti, & Hansbrough, 2020).

LCT (Lord, Foti, & Phillips, 1982) explains the process by which ILTs guide individuals' meaning making in the leadership situation: In the automatically triggered, subconscious process of leadership categorization, followers compare their own leadership (anti)prototypes against a target leader's traits (Epitropaki et al., 2013; Lord, Foti, & Vader, 1984). The outcome of this comparison (i.e., the degree of congruence or match) determines the classification of the target as a leader or non-leader and shapes followers' consecutive attitudes and behavior towards that leader (for a review, see Junker & Van Dick, 2014). While research of ILTs has added significantly to a conceptualization of leadership as a dynamic, socially-constructed phenomenon and interactive process, up until recently, the scope of research in this field has been limited to the private sector context.

Advancing a socio-cognitive approach to *public* leadership, Vogel and Werkmeister (2021) have applied the study of ILTs to the public context and empirically identified a model of I*P*LTs. These implicit images of public leaders are comprised of five prototypical dimensions and are neither completely different from nor identical to ILTs on general leaders (Vogel & Werkmeister, 2021). Table 4.1 lists the dimensions and corresponding items of the IPLT model.

Table 4.1. IPLT model dimensions, short description, and corresponding items

Dimension	Items
Achievement orientation The drive to pursuit and implement organizational goals and tasks even under pressure and against resistance.	• Handles stress • Assertive • Self-confident • Well-dressed
Tyranny The abuse of power to achieve own goals through oppression, penetrance and coercion of employees.	• Commanding • Narrow-minded • Power hungry • Dull
Kindheartedness Feeling of affection, grace and compassion for others.	• Affectionate • Compassionate • Merciful • Kind
Progressiveness Drive and openness for new entrepreneurial ideas and innovation.	• Innovative • Future-oriented • Creative
Righteousness Drive to establish the common good and justice rather than realizing interests.	• Common good-oriented • Impartial • Unselfish
Rule abidance Commitment to the observance of rules and loyalty to the state.	• Rule-oriented • Loyal to the state

While Vogel and Werkmeister's (2021) study demonstrated that employees' public-specific leader stereotypes structure their leadership perceptions, it is not clear whether the prominent effects of a match between followers' IPLTs and their leader's traits replicate for the public context (Epitropaki et al., 2013; Junker & Van Dick, 2014). In order to fully gather the significance of employees' subjective constructions of leadership for organizational outcomes, while avoiding the risks of missing sector-specific differences and particularities (Getha-Taylor, Holmes, Jacobson, Morse, & Sowa, 2011), I examine how IPLTs operate as a socio-cognitive antecedent of employees' work engagement. Building on the theoretical proposition that a fit between employees' desired and actually perceived organizational environment enhances their work engagement (Noesgaard & Hansen, 2018; Vigoda-Gadot et al., 2013), I propose a direct effect of IPLT match on work engagement. Employees who are led by a supervisor who meets their leadership expectations will see their needs and ideals fulfilled and generally feel more satisfied with their work environment (Decuypere & Schaufeli, 2020). This way, they will become more susceptible to other organizational resources and have more

cognitive capacity to obtain an energetic, positive state of mind (Bakker, 2015; Tummers & Knies, 2013). Analogously, followers' work engagement should decrease if they feel their leader represents their undesired leadership traits (i.e., antiprototype match). My first pair of hypotheses thus reads as follows:

Hypothesis 1a: Prototype match has a positive effect on work engagement.

Hypothesis 1b: Antiprototype match has a negative effect on work engagement.

Leader-member exchange

Advancing a relational approach to leadership, LMX theory sees the key determinant of employees' behavior and attitudes in the quality of the dyadic social exchange relationship between leaders and followers (Ospina, 2017). Accordingly, both leaders and followers actively construe a social exchange relationship based on their day-to-day interactions. If the latter is characterized by trust, positivity, and reciprocity regarding investment and benefits, it will create a more resourceful environment for employees and lead to more positive outcomes (Graen & Uhl-Bien, 1995; Henderson, Liden, Glibkowski, & Chaudhry, 2009). Indeed, there is ample evidence on the positive effect of high LMX on public employees' work-related attitudes and behavior as well as on general organizational outcomes (Hassan & Hatmaker, 2015; Ospina, 2017).

LCT proposes that followers' evaluations of the leadership relationship should become more favourable the more their leaders correspond to followers' ILTs. In line with this, research on general ILTs has demonstrated that a match between employees' ILTs and their actual managers' traits had a positive impact on followers' LMX with that manager (Epitropaki & Martin, 2005; Riggs & Porter, 2017). I assume a similar positive effect of a congruence between employees' IPLTs and their supervisors' traits on LMX. Specifically, I propose that the more leaders represent followers' desired leadership traits (i.e., prototype match) the higher followers' LMX. My second pair of hypothesis thus reads

Hypothesis 2a: Prototype match has a positive effect on LMX.

Hypothesis 2b: Antiprototype match has a negative effect on LMX.

Bridging the first two sets of hypotheses, I also hypothesize an indirect effect of IPLT match on work engagement. There is bourgeoning recognition of the positive effects of leaders' acts of inspiration and motivation on followers' work engagement (Ghadi, Fernando, & Caputi, 2013; Mostafa & Abed El-Motalib, 2020; Raja, 2012). However, this effect should be contingent on the degree to which followers are susceptible to their leaders' influence. Employees who experience a trustful relationship with their supervisor are provided more

instrumental and emotional support and thus should be more inclined to subordinate to the leadership initiatives of their supervisor. As a consequence, followers with high LMX work harder, are more satisfied with the job, and perform better (Ancarani et al., 2018; De Vries et al., 2019; Gerstner & Day, 1997). Drawing from this evidence and from evidence on a link between prototype match and LMX found for general ILTs (Epitropaki & Martin, 2005; Riggs & Porter, 2017), I hypothesize that it is *through a better relationship quality with their supervisor* that prototype match has a positive effect on employees' work engagement.

Hypothesis 3a: LMX mediates the positive relationship between prototype match and work engagement.

Hypothesis 3b: LMX mediates the negative relationship between antiprototype match and work engagement

Method

Implicit measurement of IPLTs

Even though ILTs operate implicitly, large portions of their content are accessible to introspection (Epitropaki et al., 2013). To measure prototype match and its effects, most studies in the field have therefore applied survey questionnaires. However, the use of explicit rating scales increases the probability of ignoring a potential reversed causality in the relationship between ILT match and LMX (Lord et al., 2020). Precisely, participants with high LMX might subconsciously adapt their ILTs to correspond with their supervisor's traits. One approach to solve this problem involves the use of implicit methods, which measure participants' ILTs below their awareness, thus limiting their ability for explicit reflection and an ex-post adaptation of their ILTs (Epitropaki et al., 2013; Foti, Hansbrough, Epitropaki, & Coyle, 2017). In order to obtain an unbiased measurement of participants' IPLTs and foster consistency between the implicit nature and measurement of ILTs (Lord et al., 2020), this study applies an implicit priming method to measure IPLTs.

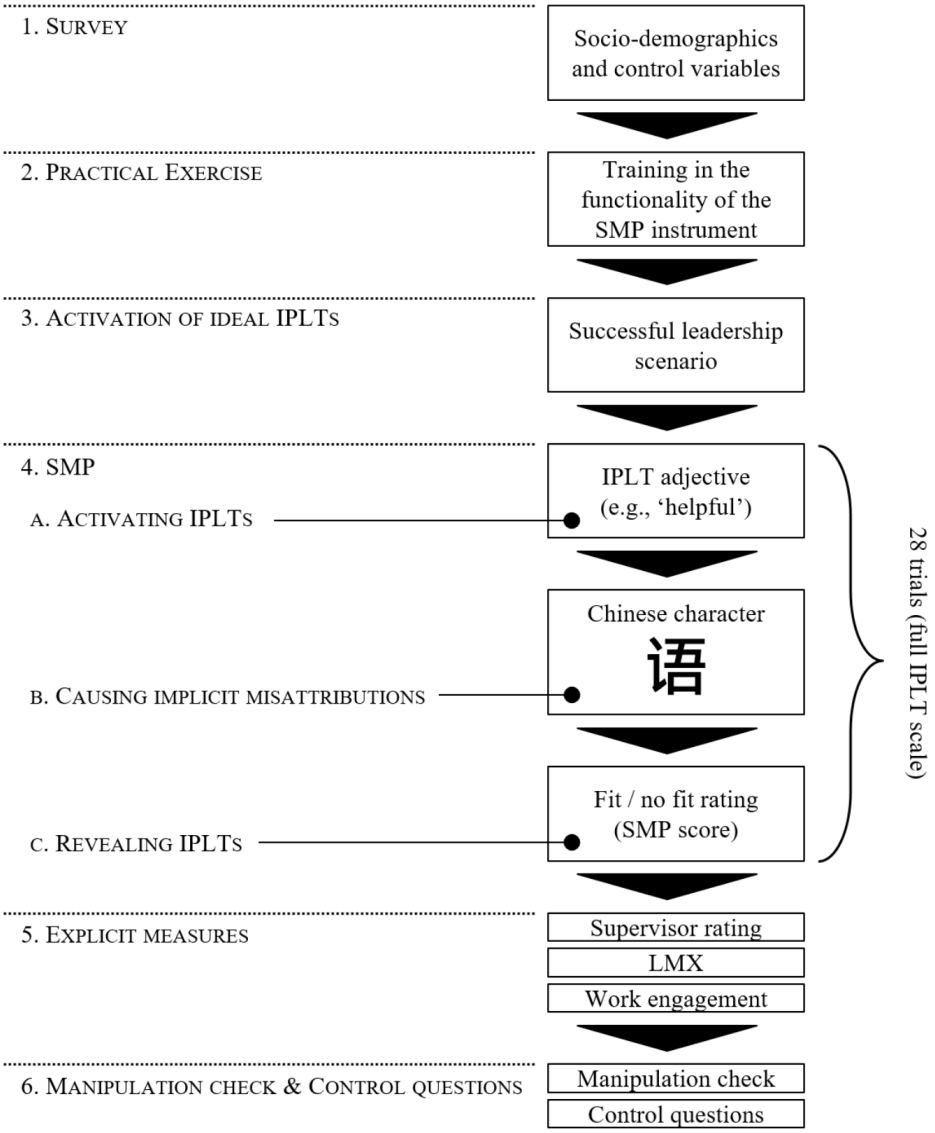
Sample

N = 102 German public sector employee were recruited with the help of an online panel data provider to participate in the study. Current employment was a recruiting criterion to ensure that participants were in an active leader-follower-relationship and that their IPLTs had evolved.

Procedure

The hypotheses were tested in an online survey experiment that followed the design of Hesmert, Hattke and Vogel (2021), however utilized a different sample, which was gathered in an independent data collecting process. Figure 2 illustrates the experimental procedure schematically.

Figure 4.2. Schematic illustration of experimental procedure



Survey

After reading the instruction and agreeing to the consent and privacy forms, participants reported their demographics, such as age, gender, and work experience. To ensure the stimuli used in the SMP had the intended effects, participants who indicated an ability to read Chinese characters were excluded from the experiment. This was true for seven participants.

Activation and implicit measurement of IPLTs

Due to their embeddedness in implicit cognitive structures, measuring IPLTs requires two steps. First, IPLTs need to be made salient, that is more susceptible to cognitive processing. This has to occur without participants' awareness of the measurement object (i.e., their IPLTs), in order to minimize interference of explicit information processing (Epitropaki et al., 2013). A useful means to indirectly trigger leadership-based associations are scenario designs.

Scenario. Scenario designs evoke participants' associations with leadership by exposing them to fictitious leadership situations (Haslam & Ryan, 2008). I designed a scenario that described a successful, high-performing team and its leader (named Alex), supported by a chart indicating a positive performance forecast (see upper part of Appendix 3.1). The scenario description read as follows:

> 'Alex is leading a team in an organization. This year, the team performed very well. Alex' team realized all of the set performance targets set last year and even exceeded some of them. The client satisfaction survey results indicated a particularly positive development. The forecasts for the upcoming fiscal quarter confirm this positive trend.'

The situational framing intended to facilitate the performance cue effect (Baltes & Parker, 2000), which refers to raters' tendency to infer effective or ineffective leadership merely from cues on good or bad organizational performance and even in the absence of a leader. Thus, this inference-based processing of successful leadership activated participants' ideal IPLTs (Lord & Maher, 2002).

SMP. Following their activation, participants' IPLTs were measured with the implicit priming tool. A detailed description of the exact SMP procedure is provided in Appendix 3.3. Priming methods build on the effect that exposure to certain stimuli influences individuals' subsequent judgements or evaluations below the level of awareness (Bargh 2006; Bargh and Pietromonaco 1982). This effect is rooted in the organization and processing of implicit knowledge in multi-node networks, wherein the activation of one node spreads to nodes in close proximity, so that exposure to one stimulus can activate an entire set of associations pertaining to a cognitive schema (Bargh & Pietromonaco, 1982; Lord, Brown, & Harvey, 2001). Priming methods actively prime participants with stimuli, i.e., primes, of interest to enquire how certain knowledge structures influence participants' decision-making and perceptions (Bargh 2006; McNamara 2005).

To assess the influence of semantic, that is linguistically meaningful, knowledge structures, the SMP combines priming with the principle of cognitive misattribution. Cognitive misattribution refers to the phenomenon that individuals are inclined to falsely attribute the cause of internally-caused phenomena, e.g., implicit knowledge about a leader, to an external source, e.g., an ambiguous stimulus (Payne et al. 2010). In order to measure participants' automatic associations with a semantic *prime* of interest, e.g., adjectives, the SMP encourages participants to misattribute their spontaneous associations with that prime to an ambiguous symbol, which lacks further meaning for participants (i.e., *target*, e.g., a Chinese character). In several trials of a speeded decision task, participants make dichotomous judgements (e.g., *pleasant* or *not pleasant*) on Chinese characters (Payne et al., 2005), each of which is preceded by subliminally presented primes (e.g., adjectives). In absence of the primes, the judgements of the Chinese characters would yield a random distribution of evaluations. However, since participants misattribute their spontaneous associations with the adjectives to the Chinese characters, any systematic shifts in the evaluation of the characters reflect individuals' association with the primed adjectives (Payne et al. 2005; Sava et al. 2012).

I adopted the above logic from Sava et al. (2012). After finishing reading the scenarios, participants were instructed about their task, which consisted in deciding whether a number of Chinese characters suited the leader described in the scenario. In 28 SMP trials, participants were first primed with an adjective from the full IPLT scale (Vogel & Werkmeister, 2021), which was presented to them for 100 milliseconds (ms). After a blank screen, participants saw one of 28 neutral Chinese characters (target), for 200 ms. In each trial, participants had to indicate whether the character fit or did not fit the leader described in the scenario by pressing the '*A*' or '*L*' key on the keyboard. The number of fit ratings per prime category were averaged across trials to obtain an SMP score for each IPLT dimension. The SMP score indicated the extent to which the dimension was a part of participants' IPLTs. Participants' SMP scores are thus used as a measure of participants' ideal IPLTs.

Explicit measures

Following the SMP, participants completed a survey, which assessed their LMX, work engagement, and ratings of their leaders' traits.

IPLT match. IPLT match was operationalized as the absolute difference between participants' ideal IPLT dimension and participants' ratings of their actual supervisor on the same dimension. To assess the supervisors' leader profile, I applied Vogel & Werkmeister's (2021) full IPLT-

scale (α = .90). On a 7-point-likert scale (ranging from 1 = not at all to 7 = extremely well), participants indicated for each IPLT adjective how well it described their supervisor. In order to facilitate the interpretation of the IPLT match variable, I report it as the negative of the difference variable.

LMX. I applied a German variant of the LMX-7 scale (Graen & Uhl-Bien, 1995; Schyns & Paul, 2002) to assess participants' perceived relationship quality with their leader. A sample item is: 'How would you characterize your working relationship with your leader?', with answers ranging from 1 = extremely ineffective to 7 = extremely effective.

Work engagement. To measure participants' work engagement, I applied the well-validated, 9-item variant of the Utrecht Work Engagement Scale (Schaufeli et al., 2006) in German (Sautier et al., 2015). With three items each, the scale (α = .85) measures the three dimensions of work engagement: vigor (e.g., 'At my job, I feel strong and vigorous'), dedication (e.g., 'I am enthusiastic about my job'), and absorption (e.g., 'I am immersed in my work'). Answers on a 7-point Likert scale range from 1 = completely disagree to 7 = completely agree.

Manipulation check

The experiment concluded with a final set of questions to validate participants' correct understanding of the scenario and to ensure the experimental manipulation had the intended effects. Participants were asked 'How did the team in the scenario perform?' and 'What was the name of the leader?'

Results

Preliminary analyses

With 872 ms per SMP trial, the average reaction lies within the conventional response time range of 100 to 10000 ms for implicit tests (Greenwald, Nosek, & Banaji, 2003). Participants whose reaction times lay outside of this time range in more than 10 % of the cases were excluded from the sample (Sava et al., 2012). To ensure that participants actually perceived the leader as effective, I removed four participants who did not recall that the described team was successful. Means, standard deviations, reliabilities, and correlations of the resulting final sample are presented in Table 4.2.

Table 4.2. Means, standard deviations, and correlations with confidence intervals

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1 Age	43.16	11.83	N/A																
2 Work experience	19.59	13.37	.88**	N/A															
3 Work engagement	3.42	.88	–.01	.01	*(.94)*[a]														
4 LMX	3.36	.91	.09	.14	.60**	*(.94)*[a]													
5 Leadership position (y/n)	2.23	.89	–.17	–.18	–.21*	–.15	N/A												
6 Tyranny (SMP)	.35	.33	–.07	–.00	.02	–.04	–.10	*(.80)*[b]											
7 Achievement orientation (SMP)	.64	.33	–.07	–.02	.07	–.02	–.00	.20	*(.95)*[b]										
8 Righteousness (SMP)	.49	.36	.01	.03	–.14	–.07	.22*	.27**	.50**	*(.60)*[b]									
9 Rule abidance (SMP)	.56	.39	–.02	.04	–.09	–.17	.18	.32**	.33**	.46**	*(.78)*[b]								
10 Kind–heartedness (SMP)	.52	.37	–.02	.03	.06	.10	.03	.28**	.43**	.45**	.40**	*(.86)*[b]							
11 Progressiveness (SMP)	.68	.39	–.01	.10	–.08	–.03	.02	.01	.38**	.30**	.25*	.14	*(.80)*[b]						
12 Tyranny (Supervisor)	7.43	1.00	–.12	–.08	–.25*	–.48**	.07	.22*	.16	.05	.25*	.20	–.01	*(.84*[a]					
13 Achievement orientation (Supervisor)	7.52	.78	.09	.07	.42**	.43**	.03	.08	–.05	–.03	–.03	.06	–.13	–.06	*(.75)*[a]				
14 Righteousness (Supervisor)	8.24	.85	.12	.17	.34**	.61**	–.15	.04	–.05	.11	–.10	–.01	.10	–.53**	.35**	*(.73)*[a]			
15 Rule abidance (Supervisor)	8.88	.79	.13	.12	.02	.13	–.06	–.00	–.08	–.05	.06	–.04	–.17	–.10	.11	.18	*(.59)*[a]		
16 Kind–heartedness (Supervisor)	8.06	.89	–.19	–.22*	.41**	.52**	–.17	.07	.11	.14	–.03	.17	–.04	–.46**	.07	.50**	.11	*(.84)*[a]	
17 Progressiveness (Supervisor)	8.35	.85	.01	–.03	.39**	.49**	.01	.15	–.00	.07	.00	.06	–.15	–.26*	.66**	.42**	.07	.35**	*(.77)*[a]

Note. Values in parentheses indicate Cronbach's alpha for the explicit measures and McDonald's Omega for the implicit measures.

* $p < .05$; ** $p < .01$.; [a] Cronbach's alpha; [b] McDonald's Omega

Structural equation modeling

To test the hypothesis, I applied structural equation modeling (SEM) with bias-corrected bootstrap confidence intervals. This approach outperforms simple regression-based mediation approaches in terms of bias and confidence interval coverage and allows for a more precise modelling of the causal relationships between variables (Cheung & Lau, 2008; MacKinnon, Cheong, & Pirlott, 2012). All analyses were performed with RStudio. Since a Henze-Zirkler's test indicated that the data did not comply with the assumption of multivariate normality, the robust maximum likelihood method and the Satorra-Bentler correction were used. As a principal fit indicator, I interpreted the chi-square value. A significant chi-square value means that the empirical covariance matrix differs substantially from the model-implied covariance matrix, which indicates that the theoretically proposed model does not fit the data. Since the chi-square value is very sensitive to violations of normal distribution (Schermelleh-Engel, Moosbrugger, & Müller, 2003), I also interpreted the root mean square error of approximation (RMSEA), the comparative fit index (CFI), and the standardized root mean square residual (SRMR), which are less sensitive to sample size (Browne & Cudeck, 1993)

Relative and absolute model fit

To test the robustness of the theoretical model, I compared it to alternative models. By interpreting the Akaike information criterion (AIC) and Bayesian information criterion (BIC), I assessed which model represented the observed data best. Relative and absolute model fit statistics of all competing models are presented in Table 4.3.

Table 4.3. Fit statistics of competing structural equation models

Model	df	AIC	BIC	Δ AIC	Δ BIC	X^2_{YB}	Δ X^2_{YB}	CFI	RMSEA	SRMR
Null model $MATCH_{Proto}$; $MATCH_{Antiproto}$; LMX; WE	209	5240.8	5352.2			407.42		.875	.101	.265
Model 1 $MATCH_{Proto/Antiproto}$ → WE	207	5229.9	5346.4	10.9	5.8	392.55	$M_0 - M_1 = 14.87^{**}$	.884	.098	.248
Model 2 $MATCH_{Proto/Antiproto}$ → WE $MATCH_{Proto/Antiproto}$ → LMX	205	5184.3	5305.8	56.5	64.4	342.89	$M_1 - M_2 = 49.66^{**}$	.918	.085	.103
Model 3 $MATCH_{Proto/Antiproto}$ → LMX → WE $MATCH_{Proto/Antiproto}$ → WE	204	5168.7	5292.8	72.1	59.4	325.32	$M_1 - M_3 = 67.32^{**}$ $M_0 - M_3 = 82.10^{**}$	.933	.064	.070

Note. MATCH refers to the negative of the congruence variable computed from the absolute difference between implicitly assessed IPLT average and the score on the explicit scale. AIC = Akaike Information Criterion; BIC = Bayesian Information Criterion; CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation; SRMR = Standardized Root Mean Square Residual.

* $p < .05$; ** $p < .01$

Both a baseline model (null model; CFI = .875, RMSEA = .101, SRMR = .265), assuming three uncorrelated latent variables, and a simple regression model (Model 1; CFI = .884, RMSEA = .098, SRMR = .248), specifying only direct effects of (anti)prototype difference on work engagement, show an insufficient fit to the data. Model 2, adding a relationship between (anti)prototype match and LMX, showed a better fit (Model 2; CFI = .918, RMSEA = .085, SRMR = .103, $\Delta X^2_{YB} = 49.66$, $p < .001$) and Model 3, including the effects of (anti)prototype match on work engagement both on a direct and an indirect path, the best absolute fit (Model 3; CFI = .933, RMSEA = .064, SRMR = .070). A direct model comparison confirms that Model 3 accounts best for the observed data structure ($\Delta X^2_{YB} = 82.10$, $p < .001$). Figure 4.3 shows the structural part of the final model. The full model, including the measurement model and control variables in unstandardized parameters, is presented in Appendix 4.1.

Figure 4.3. Path coefficients of the final model

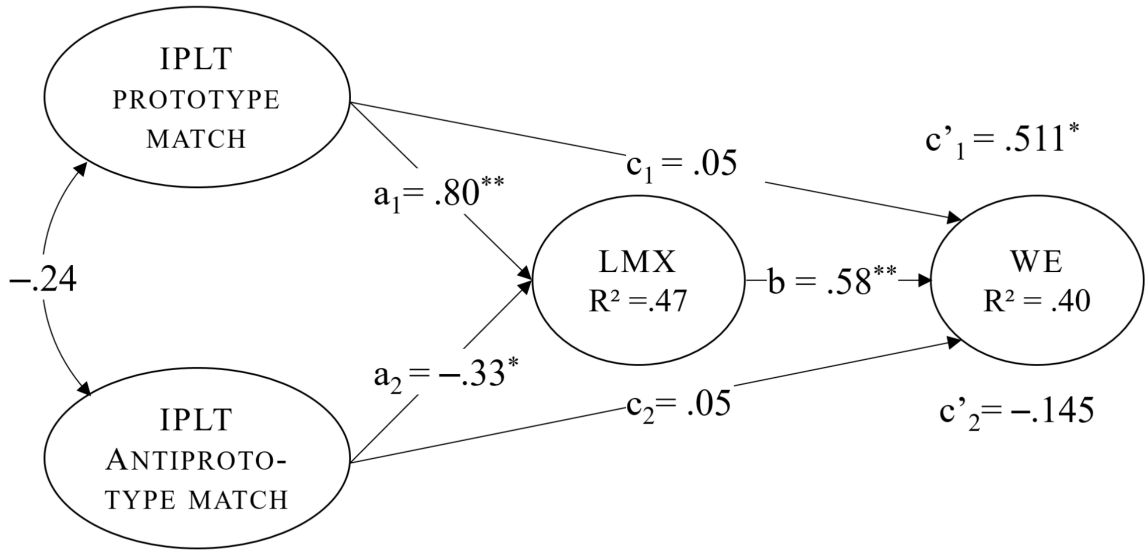


Table 4.4 presents the standardized regression path coefficients for all latent variables and the indirect and total effects. Bias-corrected bootstrapped confidence intervals with 1000 samples are reported for the estimates.

Table 4.4. Standardized path coefficients and bootstrapped confidence interval of hypothesized effects of the final structural equation model

Path	Estimate	CI 2.5%	CI 97.5%	SE	*p*
DV: Work engagement (*b*)					
$MATCH_{Proto}$	-.048	-.397	.301	.178	.788
$MATCH_{Antiproto}$	-.048	-.282	.187	.120	.691
LMX	.582**	.296	.868	.146	< .001
DV: LMX (*a*)					
$MATCH_{Proto}$	.796**	.440	1.151	.181	< .001
$MATCH_{Antiproto}$	-.331*	-.582	.080	.128	.010
Indirect effect (*a x b*)					
$MATCH_{Proto}$ → LMX → WE	.463**	.191	.735	.139	.001
$MATCH_{Antiproto}$ → LMX → WE	-.193*	-.363	-.023	.087	.026
Total effect (*c' = a x b + c*)					
$MATCH_{Proto}$ → LMX → WE; $MATCH_{Proto}$ → WE	.511*	.202	.820	.158	.001
$MATCH_{Antiproto}$ → LMX → WE; $MATCH_{Antiproto}$ → WE	-.145	-.405	-.115	.133	.275

Note. MATCH refers to the negative of the congruence variable computed from the absolute difference between implicitly assessed IPLT average and the score on the explicit scale.
* $p < .05$; ** $p < .01$

Hypotheses testing

The first hypothesis predicts a direct positive effect of IPLT match on work engagement. The path coefficients of (anti)prototype match on work engagement (β_{Proto} = .048, p = .788; $\beta_{Antiproto}$ = .048, p = .691) does not reach the significance level required to reject the null hypotheses. Thus, I have to reject both hypotheses 1a and 1b.

Hypothesis 2a and 2b state that LMX is contingent on the degree to which the employees' supervisor embodies the leadership traits they implicitly consider ideal. Indeed, prototype match has a positive effect on LMX (β_{Proto} =.796, p < .001), indicating that followers' LMX increases to the degree to which their leader embodies their ideal leadership images. Analogously, the higher the match between participants' undesired and their supervisors' actual trait profiles, the lower participants' LMX ($\beta_{Antiproto}$ = –.331, p = .010). I therefore assume a positive effect of IPLT match on LMX, which lends support to hypotheses 2a and 2b.

The last set of hypotheses predicts that LMX mediates the positive relationship of IPLT match on work engagement. The significant path coefficients for an indirect positive effect of prototype match on work engagement via LMX (β_{Proto} = .463, p = .001) and a significant total effect (c'_{Proto} = .511, p = .001) support hypothesis 3a. While the more traditional causal step

approach (Baron & Kenny, 1986) requires a significant direct effect of the independent variable on the dependent variable, the SEM bootstrapping approach allows to conclude a mediation effect from a significant indirect path only (Cheung & Lau, 2008; Preacher & Hayes, 2008). Thus, despite the insignificant total effect of antiprototype match on work engagement ($c'_{Antiproto}$ = –.145, p = .275), its significant indirect effect ($\beta_{Antiproto}$ = –.193, p = .026) lends support to hypotheses 3a and 3b.

Discussion

This study set out to expand the general nomological network of public job resources facilitating employees' work engagement. Focusing on the role of socio-cognitive and relational dimensions of public leadership as potential job resources, it tested the proposition that followers' implicit images of public leaders have a direct and indirect effect on their work engagement (Lord et al., 1984; Vogel & Werkmeister, 2021). Interestingly, and contrary to my hypotheses, the analyses do not yield a significant direct effect of a match between followers' implicit images of leadership and their actual leader on work engagement. Even though the work engagement literature has discussed that employees' perceived 'fits' (e.g., person-organization-fit) might have the potential to increase work engagement (Vigoda-Gadot et al., 2013), the results indicate that a fit between public employees' leadership stereotypes and their actual leader alone is not a sufficiently powerful driver of work engagement. A possible explanation for this finding might be the multidimensional nature of work engagement, which spans across cognitive, affective, and energetic domains simultaneously (Vigoda-Gadot et al., 2013). It seems that followers' fulfilled leadership expectations only address a small fraction of the motivational dimensions constituting work engagement, leaving other types of fit as more promising predictors.

Instead, the results demonstrate that the more public leaders possess traits belonging to their followers' implicit images of ideal public leaders along the dimensions of *achievement orientation*, *kind-heartedness*, *rule abidance*, *righteousness*, and *progressiveness,* the higher follower-rated LMX with these supervisors. In addition, employees' perception that their leader deviates from their public leadership antiprototypes, i.e., traits pertaining to *tyranny*, positively affects followers' LMX ratings, allowing for the conclusion that followers who feel that their leader embodies their image of an ideal leader bring more favorable attitudes and trust to the leadership relationship. This invigorates the reciprocal process of mutual social exchange, encouragement, and support, in which employees feel psychologically safe and emotionally supported to grow within the cognitive, affective, and energetic dimensions of work

engagement (Borst et al., 2019). These findings suggest that a functional leader-follower-relationship can operate as a job resource that positively and directly affects followers' work engagement, thus corroborating the validity of a job demands-resource approach in the context of public organizations (Ancarani et al., 2018; Borst et al., 2019; Mostafa & Abed El-Motalib, 2020).

The finding that LMX fully mediates the relationship between IPLT match and work engagement is noteworthy because it underlines the significance of a positive leader-follower-relationship as a necessary condition for the socio-cognitive antecedents of work engagement to canalize. It also supports a stream of public leadership research, which, as an alternative to more traditional, transactional perspectives, has highlighted the significance of relationship-oriented approaches to public leadership (Van Wart, 2013; Vogel & Masal, 2015). Such research has placed particular emphasis on LMX's role as a predictor or moderator of organizational outcomes, such as employee performance (Hassan & Hatmaker, 2015), organizational commitment, work effort (Tummers & Knies, 2013), or demands of teleworking (De Vries et al., 2019).

Even though objective features of the leadership relationship (e.g., duration and gender difference) have been identified as moderators of this relationship (Hassan & Hatmaker, 2015), authors have requested a deeper exploration of the antecedents of LMX and specifically of 'the social construction processes through which relationships are developed and leadership produces outcomes' (Hassan & Hatmaker, 2015, p. 22). As a response to these calls, this study suggests that early precursors of the social construction process leading to the leader-follower social exchange relationship lie beneath the surface of objective work and relationship features and manifest in followers' implicit expectations of public leadership. These findings provide compelling empirical footing for a follower-centric, socio-cognitive approach to public leadership. Theoretically, the evidence presented in this study corroborate a conceptualization of public leadership as a socially-constructed phenomenon (Crosby & Bryson, 2018; Ospina, 2017; Van Wart, 2013; Vogel & Masal, 2015) and highlight the importance of incorporating a follower-centric perspective, as well as its cognitive and perceptual micro-foundations, when tackling theoretical and practical issues in public leadership.

One of these issues is the gap between leadership-intended and follower-perceived leadership endeavours. While it is widely accepted that leadership effectiveness is limited to the degree to which employees and leaders 'see eye to eye' (An et al., 2020), the constantly low self-other-agreement between leaders' and followers' actual ratings of, e.g., leadership style (Jacobsen & Bøgh Andersen, 2015), performance appraisal (Kim & Holzer, 2016), or

management skills (Song & Meier, 2020) remains an enigma. An et al. (2020) have recently demonstrated how practitioners might close such gaps by offering leaders structured leadership training, which includes both objective performance feedback, self-reflection, and information about leadership. My findings suggest that training modules which increase leaders' awareness of followers' IPLTs might be a useful addition to such training curricula. If leaders recognize that their leadership behavior does not address all followers alike but is filtered by their followers' subjective constructions of organizational reality, leaders might be able to self-reflect more accurately on the contingencies and outcomes of their leader-follower-relationships.

It is striking that the significant positive effects of antiprototype mismatch (i.e., leaders' deviance from tyrannical aspects of leadership) on LMX and work engagement contradict earlier research on the outcomes of ILT congruence, which only found significant effects of prototype, but not of antiprototype congruence (Epitropaki & Martin, 2005; Riggs & Porter, 2017). The authors of these studies held response biases, such as social desirability or positivity bias in employees' ratings responsible for the insignificant results. Thus, on the one hand, the significant effects of antiprototype match in this study might result from the implicit assessment of IPLTs and the subsequent elimination of such biases. Methodologically, this study therefore offers a bias-free measurement alternative to explicit measures in the field of public leadership (Crosby & Bryson, 2018; Ngoye et al., 2020). On the other hand, the incongruent findings might point to actual empirical differences between general ILTs and IPLTs, and public and private employees, respectively. While the above studies analyzed general (i.e., not sector-specific) ILTs with samples of employees from private industries, the present study examined IPLTs with a sample consisting of public employees only. Amid the differences between public and private organizations (Perry & Rainey, 1988; Rainey & Bozeman, 2000) and their employees (Andersen, Pallesen, & Holm Pedersen, 2011; Boyne, 2002), as well as the content and structural variations in generic ILTs and IPLTs (Vogel & Werkmeister, 2021), it is thinkable that sector-specific contingencies of the link between socio-cognitive job resources and employees' engagement drove the effects. This is in line with evidence on the differential links between work engagement and its attitudinal outcomes between public and private organizations (Borst et al., 2020) and underlines the importance of incorporating the sector-specific, socio-cultural, and institutional context when studying engagement in the public sector (Fletcher et al., 2020).

Limitations and directions of future research

Some limitations of my study are worth noting and might inspire future research. First, even though a major strength of this study is the application of an implicit priming method to assess IPLTs, the application of explicit self-report scales to measure the dependent variables might still have yielded response biases, such as social desirability. A remedy to this problem could be the application of objective measures, such as other-report, observational, or actual performance data (Jacobsen & Bøgh Andersen, 2015; Lord et al., 2020). Second, I only assessed followers' LMX-ratings but did not obtain leaders' evaluation of the leader-follower-relationship. Since former studies have established that self- and other perception of LMX are likely to differ (Schriesheim, Castro, & Cogliser, 1999), future research should also incorporate leaders' evaluations of the leadership relationship. Finally, as any other experimental design, the current study can only claim limited external validity. Even though the manipulation checks indicated that participants interpreted the leadership scenarios in the intended way, the descriptions remained hypothetical for participants. Research of IPLTs would benefit from field studies, which could also examine the activation and evolvement of IPLTs in a variety of organizational settings, e.g., in recruiting or promotion decisions.

Concluding remarks

This study has contributed novel evidence to the literature on public work engagement by identifying previously unnoticed, socio-cognitive, and relational job resources and their direct and indirect link to work engagement. The findings highlight that job resources do not operate in a vacuum but are strongly dependent on psychological and relational processes in public organizations. This is particularly true for public leadership, which, as a socially-constructed and relational phenomenon, requires a social exchange relationship to unfold its positive effects.

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Appendix

Appendix 4.1. Unstandardized parameter estimates and bootstrapped confidence interval of full structural equation model

	Estimate	CI 2.5%	CI 97.5%	SE	*p*
Measurement Model					
Prototype match					
Righteousness	1.034***	.773	1.296	.133	<.001
Achievement orientation	.872***	.572	1.172	.153	<.001
Kind-heartedness	.690***	.422	.957	.136	<.001
Progressiveness	.745***	.426	1.063	.162	<.001
Rule abidance	.673***	.383	.963	.148	<.001
Antiprototype match					
Tyranny	1.224***	1.048	1.400	.090	<.001
Control variables					
Work experience	13.339***	11.422	15.257	.978	<.001
Age	11.852***	10.149	13.555	.869	<.001
Gender	.492***	.421	.562	.036	<.001
LMX					
lmx 1	.469***	.311	.627	.081	<.001
lmx 2	.666***	.516	.816	.077	<.001
lmx 3	.655***	.495	.815	.081	<.001
lmx 4	.651***	.502	.799	.076	<.001
lmx 5	.593***	.423	.764	.087	<.001
lmx 6	.708***	.549	.866	.081	<.001
lmx 7	.623***	.472	.774	.077	<.001
Work engagement					
we 1	.671***	.531	.812	.072	<.001
we 2	.545***	.419	.672	.064	<.001
we 3	.733***	.588	.879	.074	<.001
we 4	.720***	.573	.866	.075	<.001
we 5	.726***	.587	.866	.071	<.001
we 6	.369***	.246	.493	.063	<.001
we 7	.555***	.419	.692	.070	<.001
we 8	.820***	.666	.973	.078	<.001
we 9	.754***	.607	.901	.075	<.001
Structural model					
Work engagement					
$MATCH_{Proto}$	.044	–.408	.319	.185	.810
$MATCH_{Antiproto}$	.052	–.286	.182	.119	.666

LMX	.586***	.294	.878	.149	<.001
Work experience	–.004	–.042	.034	.019	.840
Age	–.004	–.046	.038	.021	.846
Gender	.300	–.157	.756	.233	.198
LMX					
$MATCH_{Proto}$	.833***	–.462	1.203	.189	< .001
$MATCH_{Antiproto}$	–.305	–.559	.052	.129	.018
Work experience	.035	–.006	.076	.021	.091
Age	–.030	–.075	.016	.023	.200
Gender	.087	–.411	.584	.254	.733
Prototype match					
$MATCH_{Antiproto}$	–.245*	–.467	–.024	.113	.030
Work experience	.010	–.029	.049	.020	.610
Age	–.016	–.060	.028	.022	.475
Gender	–.012	–.501	.477	.249	.961
Antiprototype match					
$MATCH_{Proto}$	–.245*	–.467	–.024	.113	.030
Work Experience	.019	–.015	.054	.017	.267
Age	–.016	–.054	.022	.019	.409
Gender	.129	–.298	.556	.218	.553
Indirect effects					
$MATCH_{Proto}$ → LMX → WE	.488**	.202	.774	.146	.001
$MATCH_{Antiproto}$ → LMX → WE	–.179*	–.349	.009	.087	.039
Total effects					
$MATCH_{Proto}$ → LMX → WE; $MATCH_{Proto}$ → WE	.532**	.218	.847	.161	.001
$MATCH_{Antiproto}$ → LMX → WE; $MATCH_{Antiproto}$ → WE	–.127	–.135	.389	.134	.341

APPENDICES

Appendix A: Abstracts in English and in German

Abstract

The current dissertation project introduces a socio-cognitive approach to public leadership, which explores how public leadership is determined by followers' implicit information processing in the leadership situation. Three studies test the validity and implications of the core propositions of this approach and place particular emphasis on the manifestation, operation, and effects of followers' subjective and implicit mental models of public leadership, their implicit public leadership theories (IPLTs). Results from survey and implicit priming experiments reveal that individuals possess distinctive IPLTs, which structure their context-contingent perception, categorization and implicit attribution processes in the public leadership situation. Within these socio-cognitive processes, publicness operates as a cognitive frame, which interacts with situational variables and triggers distinctive implicit sensemaking processes about public leaders. These sensemaking processes are characterized by a lower significance of agentic aspects of leadership and a comparatively weaker direct link between public leadership and organizational outcomes, as well as a higher relevance of normative public leadership dimensions, i.e., administrative conservatorship. The thesis discusses how the empirical findings, and the broader implications of a socio-cognitive approach to public leadership, may enrich public leadership research in general and could advance the academic discussion about the role of publicness in public leadership in particular.

Zusammenfassung

Die vorliegende Dissertation entwickelt und testet einen sozial-kognitiven Ansatz für Führung im öffentlichen Sektor (engl.: A socio-cognitive approach to public leadership). Letzterer untersucht, wie öffentliche Führung durch die impliziten Informationsverarbeitungsprozesse von Mitarbeitenden in der Führungssituation determiniert wird. Drei empirische Studien untersuchen die Anwendbarkeit und Implikationen eines sozial-kognitiven Ansatzes und fokussieren dabei insbesondere auf die Manifestation, die Funktionsweise und die Effekte von impliziten öffentlichen Führungstheorien (engl.: Implicit public leadership theories). Ergebnisse aus Survey- und impliziten Priming-Experimenten zeigen, dass Individuen über distinktive IPLTs verfügen, und dass diese mit spezifischen Wahrnehmungs-, Kategorisierungs- und Attributionsprozessen im Kontext öffentlicher Führung assoziiert sind. Innerhalb dieser kognitiven Prozesse operiert der Kontextfaktor „Öffentlichkeit“ (engl.: publicness) als kognitiver Rahmen, der mit situationalen Hinweisreizen interagiert und kontextspezifische Informationsverarbeitungsprozesse auslöst. Der Inhalt dieser Prozesse zeichnet sich durch eine geringere Bedeutung agentischer Aspekte, eine vergleichsweise schwache direkte Kausalbeziehung zwischen öffentlicher Führung und organisationaler Effektivität, sowie einer höheren Relevanz normativer Dimensionen öffentlicher Führung, aus. Die Arbeit diskutiert, wie die vorliegenden empirischen Erkenntnisse und ein sozial-kognitiver Ansatz im Allgemeinen die aktuelle Forschung zu öffentlicher Führung bereichern und dabei insbesondere die Debatte über die Rolle des Kontexts für öffentliche Führung weiterbringen können.

Appendix B: Declarations

B.1 Erklärung

Hiermit erkläre ich, Laura Hesmert, dass ich keine kommerzielle Promotionsberatung in Anspruch genommen habe. Die Arbeit wurde nicht schon einmal in einem früheren Promotionsverfahren angenommen oder als ungenügend beurteilt.

Ort/Datum	Unterschrift Doktorand/in

B.2 Eidesstattliche Versicherung gemäß § 6 Abs. 6 PromO

Ich, Laura Hesmert, versichere [1] an Eides statt, dass ich die Dissertation mit dem Titel „A socio-cognitive approach to public leadership: Content, operation, and effects of implicit public leadership theories“ selbst und bei einer Zusammenarbeit mit anderen Wissenschaftlerinnen oder Wissenschaftlern gemäß den beigefügten Darlegungen nach § 6 Abs. 13 der Promotionsordnung der Fakultät Wirtschafts- und Sozialwissenschaften vom 18. Januar 2017 verfasst habe. [2] Andere als die angegebenen Hilfsmittel habe ich nicht benutzt. [3]

Ort/Datum	Unterschrift Doktorand/in

B.3 Selbstdeklaration

Gemäß § 6 Abs. 3 der Promotionsordnung der Fakultät für Wirtschafts- und Sozialwissenschaften der Universität Hamburg vom 18.01.2017 sind bei Vorlage einer kumulativen Dissertation, deren Beitrage in Zusammenarbeit mit anderen Wissenschaftler:innen entstanden sind, im Einzelnen darzulegen mit welchem Anteil der/die Doktorand:in an Konzeption, Durchführung und Berichtsabfassung des jeweiligen Beitrags mitgewirkt hat

	Aus Dissertation hervorgegangener Beitrag	**Selbstdeklaration** Geleisteter Beitrag der Doktorandin	
1	Vogel, R., & Werkmeister, L. (2021). What is public about public leadership? Exploring implicit public leadership theories. *Journal of Public Administration Research and Theory*, *31*(1), 166-183.	Konzeption Durchführung Berichtsabfassung	50 % 50 % 50 %
2	Hesmert, L., Hattke, F. & Vogel, R. (2021). The a priori of public leadership: Social attributions to public and private leaders in different performance contexts. *Public Administration.* Veröffentlicht	Konzeption Durchführung Berichtsabfassung	33.3 % 33.3 % 33.3 %
3	Hesmert, L. (2021). The benefits of following one's ideals: How followers' implicit public leadership theories determine their LMX and work engagement. *Public Management Review.* Im Begutachtungsprozess	Konzeption Durchführung Berichtsabfassung	100 % 100 % 100 %

Die vorliegende Einschätzung in Prozent über die von mir erbrachte Eigenleistung wurde mit den am Artikel beteiligten Koautoren einvernehmlich abgestimmt.

_____ _____

Ort/Datum Unterschrift Doktorand/in