UNIVERSITÄT POTSDAM

DISSERTATIONSSCHRIFT

The Public Encounter — Dynamics of Citizen–State Interactions

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Author: Matthias DÖRING

Lehrstuhl für Public und Nonprofit Management, Betriebswirtschaftslehre

Dissertationsschrift zur Erlangung eines Doktors der Wirtschafts- und Sozialwissenschaften (Dr. rer. pol.)

an der

Wirtschafts- und Sozialwissenschaftlichen Fakultät

Datum der Disputation: 03.12.2019

Dekan:
Prof. Dr. Maik Heinemann
Erstgutachter:
Prof. Dr. Isabella Proeller
Zweitgutachter:
Prof. Dr. Dominik Vogel

Published online on the
Publication Server of the University of Potsdam:
https://doi.org/10.25932/publishup-50227
https://nbn-resolving.org/urn:nbn:de:kobv:517-opus4-502276

Danksagung

Als ich an der Universität Potsdam zu studieren begann, hätte ich mir nicht ausmalen können, dass mich Verwaltungswissenschaft und Public Management für ganze drei Jahre während meines Bachelorstudiums interessieren könnte. Nach insgesamt fünf Jahren des Studiums hätte ich mir nicht vorstellen können, dass ich sogar noch eine Doktorarbeit in diesem Feld schreiben würde. Und dennoch erlebte ich in dieser Zeit so viele Aha-Momente, inspirierende Menschen und machte bereichernde Erfahrungen. Es gab dabei zahlreiche Augenblicke, in denen ich alles verwerfen, einfach über Bord werfen und endlich einen "vernünftigen" Job machen wollte. Nichtsdestotrotz habe ich dank der Unterstützung anderer, Glück und einer (hoffentlich) gesunden Portion Sturheit dieses Ziel nun erreicht.

Daher möchte ich einigen Menschen ganz besonders danken, die mich auf diesem Pfad begleitet und unterstützt haben. Allen voran, selbstverständlich, meiner Doktormutter, Isabella Proeller, für ihr großzügiges Maß an Freiraum und Hilfestellung. Sie unterstützte mich in all meinen Bestrebungen, mich in nerdige Methoden und seltsame Themen einzuarbeiten und lieh mich sogar bereitwillig an das Bundesministerium für Gesundheit aus. Die regelmäßige Teilnahme an Konferenzen, Winter und Summer Schools sowie verschiedenen Workshops war nur dank ihrer großzügigen Unterstützung möglich. Als Zweites möchte ich meinem Zweitbetreuer, Dominik Vogel, für seine unschätzbaren Hilfestellungen, Tips und Ermunterungen danken. Zusätzlich war er häufig derjenige, der mich dazu trieb, mich mit aktuellen Themen, Diskussionen, Statistiksoftware und Programmierung auseinanderzusetzen. Sein Twitterfeed ist eine großartige Quelle der neuesten Wissenschaftsnachrichten und reichlich Amüsement. Die regelmäßigen Telefonate waren immer auch ein wenig Psychohygiene – für beide. Danke für alles.

Ein besonderer Dank gilt auch Christoph Reichard, Rick Vogel und Jurgen Willems für ihre vielfältige Unterstützung während meiner Reise zum Doktortitel. Ihre Hinweise waren unschätzbar wertvoll und ihre Ermunterungen essenziell für meinen Verbleib und mein Vorankommen während meiner Forschung. Zwei besonders inspirierenden Wissenschaftlern möchte ich gesondert danken, da sie letztlich die Verantwortlichen dafür sind, dass ich überhaupt in der Wissenschaft geblieben bin: Markus Seyfried und Christian Stecker. Für mich waren sie frühe Vorbilder während des Studiums und entfachten in mir die Begeisterung für Wissenschaft und kritischen Diskurs in der Forschung. Da ich nicht weiß, ob ihnen klar ist, was für eine wichtige Rolle sie für Studierende spielen können, möchte ich ihnen explizit noch einmal "Danke" sagen. Darüber hinaus bin ich dankbar dafür, dass ich mit Markus das eine oder andere Projekte absolvieren durfte und hoffe, dass sich auch in Zukunft weitere Möglichkeiten ergeben.

Schließlich möchte ich mich bei allen anderen am Lehrstuhl Public und Nonprofit Management bedanken, die mich über die Jahre so sehr unterstützt haben: Caroline Fischer, Anne-Kathrin Wenzel, Annett Wadewitz, Stephanie Massar, Jan Adam, Nicolas Drathschmidt, Anja Marx, David Müller, Lisa Preller, Andrea Schäfer und viele mehr. Der Universitätsalltag und tägliche Wahnsinn war dank euch gut zu überstehen.

Selbstverständlich danke ich auch meiner geliebten Verlobten, Hanne Krüger, die mir über die vergangenen Jahre viel Nachsicht und Unterstützung entgegenbrachte. Manchmal wirkte sie überzeugter von meiner Forschung als ich selbst. Und das war ungemein motivierend. Danke für all das und für alles, was noch kommen wird. Und für die Katze. Schließlich möchte ich auch meiner Familie, meinen Schwestern, meinem Bruder, meiner Horde von Nichten und Neffen, meiner Tante und deren jeweiligen zweiten Hälften danken. Ihr habt mich daran erinnert, was ein Zuhause ist und mir das unbezahlbare Gefühl von Sicherheit gegeben.

Abschließend möchte ich den unterstützenden KollegenInnen, ReviewerInnen und anderen danken, die mich über die Jahre auf Konferenzen und Workshops unterstützt und motiviert haben, damit ich mit meiner Forschung weitermache. Es sollte viel mehr von euch auf dieser Achterbahn der Gefühle namens Promotion geben.

Liebe LeserIn, ich hoffe, die Ergebnisse dieser Dissertation sind interessant, Futter für die Gedanken und vielleicht auch ein wenig überraschend. Wir werden sehen, ob die Zukunft einen längeren Weg für mich in der Wissenschaft bereithält.

Abstract

This thesis puts the citizen-state interaction at its center. Building on a comprehensive model incorporating various perspectives on this interaction, I derive selected research gaps. The three articles, comprising this thesis, tackle these gaps. A focal role plays the citizens' administrative literacy, the relevant competences and knowledge necessary to successfully interact with public organizations. The first article elaborates on the different dimensions of administrative literacy and develops a survey instrument to assess these. The second study shows that public employees change their behavior according to the competences that citizens display during public encounters. They treat citizens preferentially that are well prepared and able to persuade them of their application's potential. Thereby, they signal a higher success potential for bureaucratic success criteria which leads to the employees' cream-skimming behavior. The third article examines the dynamics of employees' communication strategies when recovering from a service failure. The study finds that different explanation strategies yield different effects on the client's frustration. While accepting the responsibility and explaining the reasons for a failure alleviates the frustration and anger, refusing the responsibility leads to no or even reinforcing effects on the client's frustration. The results emphasize the different dynamics that characterize the nature of citizen-state interactions and how they establish their short- and long-term outcomes.

Zusammenfassung

Die vorliegende Arbeit setzt sich mit der direkten Interaktion zwischen BürgerInnen und Verwaltungen auseinander. Auf Basis eines umfassenden Modells, das verschiedene Perspektiven auf die Dynamiken dieser "public encounter" beschreibt, werden ausgewählte Forschungslücken hervorgehoben. Die drei Artikel, die diese Dissertation konstituieren, fokussieren diese Lücken. Dabei spielt die Frage nach den notwendigen Kompetenzen von BürgerInnen, die es ermöglichen, erfolgreich und auf Augenhöhe mit Verwaltungen interagieren zu können, eine wichtige Rolle. Die Relevanz verschiedener Dimensionen wird herausgearbeitet und mit Hilfe eines Survey-Instruments validiert. In einer weiteren Studie zeigt sich, dass VerwaltungsmitarbeiterInnen BürgerInnen bevorzugen, die dank dieser Kompetenzen besser auf Interaktionen vorbereitet sind. Aufgrund der besseren Vorbereitung sowie der Fähigkeit, ihr Gegenüber vom Nutzen des Antrags zu überzeugen, gelingt es BürgerInnen mit einer hohen Kompetenz, eine höhere Erfolgswahrscheinlichkeit im Sinne der organisationalen Ziele zu signalisieren. Der dritte Artikel beleuchtet die Dynamik der Kommunikationsstrategien von MitarbeiterInnen im Falle von Fehlern bei der Erbringung von Dienstleistungen. Die Studie stellt heraus, dass verschiedene Kommunikationsstrategien zur Wiedergutmachung von Fehlern unterschiedliche Effekte auf das Frustrationsniveau der KlientInnen haben. Hierbei zeigt sich, dass die bewusste Übernahme von Verantwortung sowie die Erläuterung der Ursachen des Fehlers die Frustration senken, während das Abwälzen der Verantwortung keinen bzw. sogar einen verstärkenden Effekt auf die Frustration hat. Die Ergebnisse verdeutlichen die Dynamiken, die bei der Interaktion zwischen BürgerInnen und Verwaltungen entstehen und für das kurz- und langfristige Ergebnis dieser Interaktionen maßgeblich sein können.

Contents

Dedicated to my parents.

Chapter 1

Introduction

The movie scene shows a man named Daniel Blake who, after suffering a heart attack, tries to apply for support allowance. He is caught between standard procedures, routine questions, and forms that are to complicated for him to complete. While he suffers from a lack of competences to encounter the administrative processes and fails to convince the employees at the Jobcentre, he gets more and more frustrated. After about 90 minutes of a kafkaesque fight against welfare bureaucracy, he faces a tragic end. Although, this is a fictional piece called "I, Daniel Blake" (2016, directed by Ken Loach), it emphasizes some of the fundamental problems that may derive from encounters between citizens and public organizations. The research on this so-called "public encounter" (Bartels 2013) is still in its infancy as public administration research lacks profound knowledge about what happens in-between client and frontline employee. This is especially true for the citizen's role in this interaction. However, public encounters may be the most fundamental episode in the relationship between citizens and the state as it is the public equivalent of what marketing scholars would call *the moment of truth* (Grönroos 2010). It is a potentially vital source for evaluation of public organizations (Brenninkmeijer 2016). It may induce frustration, prejudice against public organizations, and thus political pressure if organizations fail to meet minimum standards of service quality. Additionally, public encounters are essential episodes to ensure equity and welfare at the individal and societal level (as can be seen in the movie mentioned above). Yet, there are various blank spots about what happens during these encounters.

This dissertation project aims at shedding some light on this matter. It thereby contributes to research on street-level bureaucracy (Lipsky 2010) which focusses on the organizational side of the service counter. This research stream has investigated various antecedents for different behavior and decision-making of street-level bureaucrats. However, the client mostly plays a passive role. Thus, what competences do citizens need to successfully interact with public organizations? What is expected from them? How can they influence the bureaucrat's use of discretion? What role does communication play between both parties? How can frontline staff improve communication strategies in order to avoid frustration?

Research Question and Model

In order to answer these questions, the following research question guides this dissertation:

> *Which factors influence the perception and behavior of citizens and public employees in public encounters?*

The three articles approach this research question from different angles. Article 1 deals with the competences and knowledge of citizens necessary to interact with public organizations. Therefore, I develop the concept of administrative literacy as the capacity to obtain, process, and understand basic information and services from public administrations needed to make appropriate decisions. I rely on research on health literacy from the public health literature in order to conceptualize this term and its sub-dimensions. Furthermore, I develop a scale to measure and use the concept in future research.

The second article captures potential effects of administrative literacy on the frontline staff's decision-making process. The question is whether public employees treat clients preferentially that are well-prepared for public encounters and able to persuade the decision maker of their eligibility. Building on literature about cream-skimming, I expand the concept with respect to uncertainty in decision-making in street-level bureaucracy. I show that social cues and signals are an important substitutional source of information if the potential success of clients remains unclear. Using an experimental vignette approach, I show that public employees are willing to devote more limited resources to clients that are well-prepared and able to persuade the decision maker.

Finally, in the third article I examine the effect of the employees' communication on the clients' satisfaction. Specifically, I show how different types of non-monetary service recovery decrease (or increase) the frustration after a service failure. Service failures offer an unique episode in service provision in which communication is vital. In the movie mentioned in the introduction, these episodes are one of the fundamental sources of the protagonist's frustration with the bureaucratic system as the employees fail to offer a satisfactory recovery. The results from my two experimental vignette studies show that clients prefer justification (acceptance of own responsibility and giving explanation for the reason of the failure) to making excuses (denying own responsibility and making others responsible).

These articles build on a fundamental model of public encounters I developed based on a literature review from studies on citizen-state interactions, street-level bureaucracy, and service management. (see Figure 1.1). It tries to capture the bi-directional dynamics and their multiple antecedents. Acknowledging the multiplicity of potential antecedents and factors, I focus on two aspects in this dissertation that have only received little attention from public administration scholars: 1) the citizens' literacy and 2) the social dynamics during these interactions. The numbers in the figure indicate the respective scope of the research articles in this dissertation.

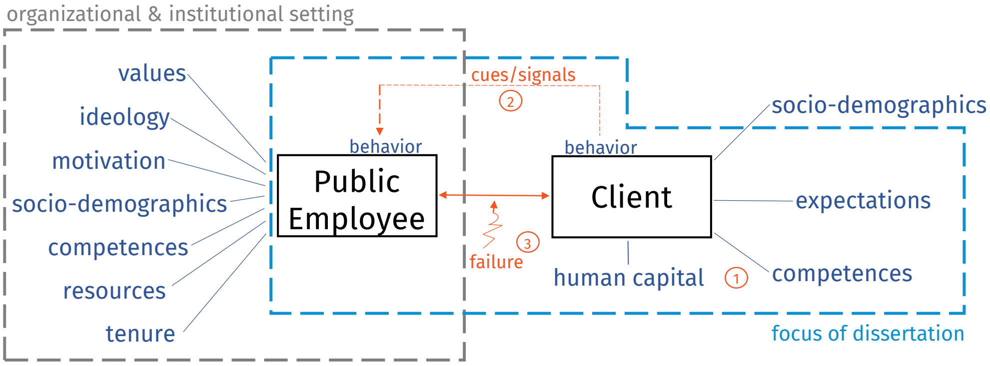

Figure 1.1: Model of public encounters

The model conceptualizes the public encounters as a bi-directional interaction in which the behavior of both parties, employee and client, create the outcome of the encounter. This underlines the negotiation-based character of such interactions (Raaphorst & Loyens 2018). The employee's behavior is affected by numerous individual, organizational, and institutional factors. Individual characteristics have been extensively researched, especially in the literature about street-level bureaucrats (Lipsky 2010). The employees' actions and decisions may be affected by their professional values (Eldor 2017), political ideology (Keiser 2010), motivation (Steijn & van der Voet 2019), tenure (Dubois 2014; Pedersen et al. 2018), competences (Hunter et al. 2016), and socio-demographic characteristics, such as gender (Andersen 2017; Guul et al. 2018), age (van de Walle & Lahat 2017), and race (Andersen 2017; Hong 2017). Additionally, the organizational setting affects their behavior. Performance regimes may induce dysfunctional behavior or cause role conflicts (Brodkin 2011; Cárdenas & La Ramírez de Cruz 2017; Cohen & Gershgoren 2016; Smith 1995). The lack of available resources may further increase the need for coping behavior (Andersen & Guul 2019; May & Winter 2009). Managers may affect the decision-making process by communicating priorities and goals, leadership style, or motiviation (Ellis 2011; Gassner & Gofen 2018; Marvel 2017). Additionally, the organizational culture and identity may affect the decision-making process

(Cohen 2018). Finally, the institutional setting may put additional pressure on the street-level bureaucrat's behavior. Policies may be contradictory to the street-level bureaucrat's (SLB) role identity causing role conflicts. Politicians and other stakeholders may try to influence their (non-)use of discretion (Andersen & Jakobsen 2017; Harrits & Møller 2013; May & Winter 2009; Tummers et al. 2012).

On the other side, the clients' behavior is affect by numerous factors. Studies have shown evidence for the impact of individual characteristics. Street-level bureaucrats may treat clients differently due to their gender (Pedersen & Lehmann 2019), ethnic background (Jilke & Tummers 2018; Pedersen et al. 2018), social status (Barnes & Henly 2018; Cárdenas & La Ramírez de Cruz 2017) or age (Ellis 2011). For example, Jilke & Tummers (2018) show that some teachers partially prioritize students depending on their race. The concept of administrative burden (Herd & Moynihan 2019) and its consequences on citizens emphasize the relavance of clients' resources in public encounters. These resources may be financial or time-based, but in particular necessary knowledge and competences. Citizens that do not have the knowledge and competences to overcome theses costs will suffer heavy stress. Third parties like professional firms (e.g. intermediaries), NGOs, or members of the citizen's social network may help moderating that lack. Although these competences might play a fundamental role in the process and outcome of public encounters, there are no systematic studies, conceptualizing and testing their effects. However, even Lipsky postulates that "those who are particularly able to assist in managing their own cases, tend to receive differential responses" (Lipsky 2010: p. 122). Yet, it remains unclear which of these competences are relevant and how they might affect the citizen or employee remains unclear. Nevertheless, several studies give first evidence for their impact (Ludwig-Mayerhofer et al. 2014; Senghaas et al. 2019).

The model combines three perspectives on public encounters: a transaction perspective, a social interaction perspective, and a service interaction perspective.

In the following section, these perspectives are conceptualized and described. I will emphasize the unique contribution of each perspective as well as research questions deriving from them. Afterwards, I describe the basic methodological approaches used in the studies. Eventually, the three articles are presented. They are followed by a summarizing discussion of the overarching results. Finally, I discuss the limitations of this dissertation and potentially fruitful future research.

Chapter 2

Public Encounters as Citizen-State Interactions

The modern state takes over different roles in society. It serves as the regulator of societal institutions and rules, as the protector of its citizens, as the enabler of prosperous well-being and the support of the weak. In these different roles, the state constantly interacts with its citizens, either indirectly, e.g. through laws, or directly when employees of the state interact with them concerning various matters. These interactions, however, are complex situations worth investigating.

The introduction of Lipsky's seminal concept on street-level bureaucracy offered a chance for closer investigations on the micro level of public administrations. Since then, the concept has been widely applied in different settings, most notably in the research on implementation, accountability, social equity, and the conflict between professionals and managerialization. However, the public encounter (Goodsell 1981a), remained underresearched. Public encounters describe the "face-to-face contact between public professionals and citizens" (Bartels 2013: p. 469). Although Goodsell (1981a) coined the concept in his edited volume in 1981, there is still little systematic research on this episode in public service provision (Bartels 2013: p. 469). Typically, this meet-up is characterized by bureaucratic rules and formal procedures which are enacted by impartial employees towards citizen. In reality, professional or personal values influence the decision-making process of employees. Citizen are not just passive applicants but actors trying to pursue personal value during these encounters. However, only in recent years, this gap is slowly filled (Jakobsen et al. 2016; Raaphorst 2018; Raaphorst & Loyens 2018; Senghaas et al. 2019). Scholars have investigated several factors influencing the citizen-state interaction, such as role conflicts of street-level bureaucrats (Evans 2010; Maynard-Moody & Musheno 2003; Tummers et al. 2012), attitudes and feelings towards target groups (Andersen & Guul 2019; Baviskar & Winter 2016; Hemker & Rink 2017; Jilke & Tummers 2018; Stone, Clarence, N. 1981), and restrictions as well as dysfunctions due to the institutional setting (Brodkin 2011; Dubois 2014; Keiser 2010). Yet, "[...] public encounters have been insufficiently captured as that which happens 'in-between' public professionals and citizens" (Bartels 2013: p. 470). The interactive perspective remains underdeveloped (Raaphorst & Loyens 2018). Recent studies conceptualize first (qualitative) approaches to get a grasp on this perspective (Raaphorst 2018; Raaphorst & Loyens 2018; Raaphorst & van de Walle 2018).

This development is accompanied by the rise of behavioral public administration (Grimmelikhuijsen et al. 2016). Hence, the micro level perspective gained a more prominent role in PA research and the citizen-state interaction has been at the center of that movement. The introduction of theories from behavioral economics and psychology enriches the analytical tool box of the field. Simultaneously, the application of experimental methods enables PA scholars to conduct more thorough analyses of causality. Despite these recent developments, there are still various blank spots on the research agenda of public encounters. The citizen's role during public encounters, for example, is often – implicitly or explicitly – characterized as passive, responding, or consuming. However, studies indicate that the clients' behavior and competences affect the public employee's behavior and the interaction's outcome (Ludwig-Mayerhofer et al. 2014; Raaphorst & Loyens 2018; Senghaas et al. 2019). Accordingly, Bruhn

& Ekström (2017: p. 213) call for research that addresses the knowledge and competences of citizens to interact with public administrations to overcome the power asymmetry.

In the following, I develop three distinct perspectives on public encounters. The transaction perspective emphasizes the nature of transactions costs and the exchange of knowledge that characterize public encounters. The social interactions perspective adds to this picture by focusing on social dynamics and norms. Hence, public encounters are not merely a chain of transactions but take place in an institutional setting of power asymmetry. Last but not least, the service interaction perspective stresses the clients' role in service interactions showing that their expectations and perceptions are crucial for service outcomes.

2.1 Public Encounters from a Transactions Perspective

Public encounters are described as knowledge-intensive (Goodsell 1981a: p. 6). This does not only refer to the necessary process-related knowledge held by the employees, but also to the very nature of most public services. Those services process and assess information and knowledge from applicants, clients, and citizens. That may encompass the work of tax clerks evaluating clients' tax forms, food inspectors investigating productions sites or restaurants, or welfare employees deciding on the a single mother's eligibility for social allowance. In each of these examples, the public employee has to gather and process information that is often owned by the clients. Sarangi & Slembrouck (1996: 37f) describe this process as a game of knowledge, in which the client is imposed with the supporter role, while the office enacts the demander role. The employee's goal is to gather all necessary information and evaluate the credibility of that information. For the client, on the other hand, information giving is rather risky due to uncertainty which information is necessary or could even be harmful. And thus, information and knowledge become the central component of administrative processing.

In order to create efficient and impartial procedures, public administrations develop routines, forms, and standards (Lipsky 2010: 105ff). These measures transfer transaction costs onto the clients as street-level bureaucrats may determine time, place, structure, and scope of the knowledge transaction. From the perspective of the clients, this may be perceived as administrative burden as a consequence (Burden et al. 2012; Herd & Moynihan 2019). Administrative burden manifests in the form of costs that are imposed on the citizen. Moynihan et al. (2014) distinguish between three types of costs. *Learning costs* incur when citizens have to collect, process, and evaluate information about services and procedures. *Compliance costs* describe the use of resources for following administrative requirements, rules, and procedures. The continuous reporting of family income for the application of welfare support is an example for such costs. Finally, *psychological costs* describe the loss of autonomy and the stigma of being dependent on programs that are negatively perceived. The impact of these costs will differs across different client groups (Herd & Moynihan 2019: 6f). Whether these costs will be easily handled, depends on the available human capital, such as resources and network of the clients (Herd & Moynihan 2019: 30f). Clients struggling with administrative processes may try to find (professional) help in the form of intermediaries (Döring 2018) or NGO's (Nisar 2018) that help the individual to navigate the procedures. Accordingly, clients' competences should play a major role in the face of public encounters. However, there is strikingly little research on that matter. This is one essential gap I address by developing the concept of clients' administrative literacy.

Despite the administrative measures mentioned above, SLBs inherently suffer from a lack of resources while facing a potentially infinite amount of work (Lipsky 2010: 29ff). This resource conflict leads SLBs to turn to coping strategies (Lipsky 2010; Maynard-Moody & Musheno 2012). Tummers & Rocco

(2015) distinguish between three coping families: moving towards, away from, or against the client. These coping strategies are justified by different mechanisms to reduce complexity and necessary resources, such as social categorization and stereotypes (Raaphorst & van de Walle 2018). These strategies, however, may lead to different types of discrimination (Jilke et al. 2018). Dysfunctional behavior may be the consequence, such as cream-skimming. While several studies examined various antecedents of deservingness of clients (Andersen & Guul 2019; Hemker & Rink 2017; Jilke & Tummers 2018), no study, to the best of my knowledge, investigated the effects of clients' interactional competencies on public professionals decision-making.

2.2 Public Encounters from a Social Interaction Perspective

Aside from that transactional perspective that focuses on the exchange of information and imposed transaction costs, public encounters can be conceptualized as inherently social interactions. Pre-eminently, the public encounter is characterized by a power asymmetry between the public employee and the client, mostly citizens (Goodsell 1981b: p. 10; Hasenfeld & Steinmetz 1981). This asymmetry may be rooted in the societal position of members of public administrations, the information supremacy over the procedures, and the clients' dependence on the employees' decisions. Studies have shown that the intensity of that power asymmetry depends on the clients' socio-economic status and power resources (Hasenfeld 1985). Procedural knowledge could, however, reduce this asymmetry as clients are aware of the informations needs, the steps taken during the process, and their rights. Thus, administrative literacy, again may play a fundamental role. A lack of resources may induce psychological costs (Herd & Moynihan 2019), especially in emotion-intensive encounters, such as welfare administrations. The stigma of interacting with public administration that one is depending on lowers the citizens' social stance and power which makes them especially vulnerable. The case study by Nisar (2018) describes the situation of a genderqueer group in Pakistan as an example of socially marginalized parts of society. While members of this group suffer from high illiteracy rates, these so-called Khawaja Sira are particularly vulnerable due to social stigmatization and exclusion. The case study describes a NGO that helps these people to overcome administrative burden, for example, to apply for an ID. The NGO helps the Khawaja Sira by informing them about the process, their rights, necessary information and ways to gather these. Basically, they are increasing people's knowledge and skills to encounter public administrations. The case study underlines the argument that the individual client's competence has a major impact on the effects of administrative burden imposed on them. Thus, it is worth to investigate these competences in more detail.

Furthermore, the public encounter itself follows social norms and processes (Dubois 2014; Hasenfeld & Steinmetz 1981). Raaphorst & Loyens (2018) find that the resulting social dynamics may affect the decision-making of SLBs, especially when the level of discretion is comparably high. Following that perspective, decision-making is not necessarily a rational process of information gathering but often a process of negotiation and finding agreements. As such, public encounters are situations of uncertainty. Street-level bureaucrats try to make informed decisions based on the information gathered. However, as the information is imperfect and deciders are limited by bounded rationalities, uncertainty characterizes most settings of their work (Raaphorst 2018; Simon 1955). Thus, street-level bureaucrats will refer to various sources of information, also implicit signals and cues. Raaphorst & van de Walle (2018) describe the effects of social signaling during public encounters. They distinguish between four frameworks: stereotyping, entitlement perception, incongruence procedure, and prior knowledge. While the transaction perspective would focus on a reduction of transaction costs, the signaling perspective puts trustworthiness of clients at the center of judgments. Individuals showing a potentially high trustworthiness are more likely to receive idiosyncrasy credits (Hollander 1958). Idiosyncrasy credits are defined as "an accumulation of positively disposed impressions residing in the perceptions of relevant others; it is... the degree to which an individual may deviate from the common expectancies of the group" (Hollander 1958: p. 120). Individuals with more credits are more likely to be accepted by others. In the context of public encounters, such credits may raise the likelihood of street-level bureaucrats to use their discretion in the applicants' favor despite them having unexpected features.

These types of signals may occur and take effect in various settings of decision-making. In different policy fields, such as policing (Dunham et al. 2005; Johnson & Morgan 2013) or social work (Møller & Stone 2013; Stone 1984), signaling is crucial to every-day's encounters. Police officers often base their decisions on membership of certain social groups to determine the level of trustworthiness. Discretion-based decisions will also be affected by the demeanor of the clients. Cooperative citizens will be more likely to be let "off the hook" instead of being fined when committing an infraction (Terrill & Paoline 2007). Experience and prior knowledge about clients, life circumstances, and typical client profiles affects the social workers perception of trustworthiness, too (Eikenaar et al. 2016: p. 778). However, Raaphorst & van de Walle (2018) implicitly assume encounters as one-shots. It remains unclear how the frequency and the development of long-term interactions (so-called rapports) may change the perception of social signals and how the effects may change over time. Two scenarios are possible: First, the first impression counts — the effects remain stable over time and the level of trustworthiness remains at the initial level. Second, don't judge a book by its cover — after the initial assessment of trustworthiness, additional signals may change that perception. For example, after being assessed based on stereotypical characteristics, the client may behave differently than expected which may change the trustworthiness and expectations projected by the SLB. Thus, the entitlement perception may change.

The social dimension of public encounters gets even more pronounced when including third-parties and bystanders. While the PA research offers little evidence on that matter, their are essential contributions from organizational psychology, service management research, and specific sub-fields such as policing that investigate the interaction between customers and observers (Albrecht 2016; Skarlicki & Kulik 2004). Albrecht (2016) offers a substantive literature review, identifying customer-related, firm-related, and encounter-related factors that may influence the interaction between citizens and employees. Hence, third parties may affect the perception and behavior of clients (Harris & Reynolds 2003), interfere in the encounter itself (Grove & Fisk 1997), and thereby affect the SLB's decision-making process, or may be primed by the treatment of other clients (Miao & Mattila 2013). Henkel et al. (2017), for example, find that customers observing other customer's incivility towards employees tend to approach them with more prosocial motives. However, this effect depends on the attribution of responsibility for possible failures.

There are several studies from neighboring fields, such as policing that indicate the relevance of third parties in public encounters. Tillyer & Klahm (2015) find that police officers discretionary decision to do searches is affected by size of groups, and thereby the number of bystanders. Bystander conflicts may pose a serious threat to the effectiveness and psychological well-being of public employees (van Erp et al. 2018). Thus, research on the dynamics of third-party involvement during public encounters is necessary and highly relevant for practitioners.

Finally, bystanders may also be the source of administrative burden, especially psychological costs. In his case study mentioned above, Nisar (2018) describes how the genderqueer group is also mocked and intimidated by others while waiting for their appointments in public offices. Therefore, administrations aiming for social equity should be aware of such dynamics in the periphery of public encounters as they may have a grave impact on their clients. Failing to account for such disturbing factors may lead to client dissatisfaction, an increase in complaints and disruptions during service provision, or even the failure to meet policy goals.

2.3 Public Encounters from a Service Interaction Perspective

Since the beginning of the discourse about the re-invention of government (Osborne & Gaebler 1992) and the introduction of New Public Management reforms (Schedler & Proeller 2011), it was argued to re-conceptualize the relationship between state and citizen towards market-based ideas. Accordingly, citizens should be understood as customers that public organizations are supposed to serve. That semantic change should change the role identity and expectations of both citizens and public employees during public encounters. Thus, public encounters would be understood as service interactions. Despite that change in concept, research on the service interactions and the management of services remained scarce in the PA literature (Osborne et al. 2012). The provision of public goods occurs mostly as services which seems to make the translation of the generic service management concepts and research to the PA context natural. Simultaneously, the applicability of these concepts has been challenged (Fountain 2001). While there are obvious differences between service markets in the public and the private sector – e.g. monopolies, price dynamics etc. – research on the social dynamics of service interactions and the role of the frontline staff might remain insightful for public managers. Except for a few studies (Thomassen et al. 2017; van de Walle 2016), this perspective remains, however, neglected.

The service encounter has been at the center of service management research. Services have distinct characteristics that differentiate them from the production and selling of goods (Parasuraman et al. 1985). They are intangible and production and consumption often co-occur. Additionally, they are heterogeneous and dependent on the customer's motivation and behavior making co-production necessary. Thus, the customer plays an important role in the course of service provision. (Czepiel 1990) provides an early literature review underlining the social dynamics in these encounters in which role clarity is essential for satisfactory encounters. Thus, role expectations of clients and employees need to match the agreed-on roles of both parties to play. Role ambiguity resulting from such a mismatch may have negative consequences for both customer (dissatisfaction with service) and employee (emotional labor). Current discussions about absenteeism and its sources point to emotional labor and coping behavior due to role ambiguity and conflicts (Nguyen et al. 2016), customer incivility (Ben-Zur & Yagil 2005) or customer misbehavior in general (Fisk et al. 2010).

Service failures are one particular episode of service provision that gives insights in the social dynamics of service encounters. As services are inherently complex, failures are inevitable. Service failures, in this sense, may be defined as "situations in which customers experience an economic (e.g. money, time) and/or a social loss (e.g. status, esteem) due to a mishap or a problem when experiencing a public service" (Thomassen et al. 2017: p. 896). This loss leads to situational assessments, such as perceived injustice or unfairness (Balaji et al. 2017) followed by emotional reactions, such as anger and regret (Bonifield & Cole 2007). Thus, service failures constitute a so-called *moment of truth* (Grönroos 2010) due to their strong impact on the service experience and evaluation. Service providers will, therefore, try to anticipate failures and try to engage in so-called service recoveries.

Tsai et al. (2014) differentiates between process and outcome failures. While the first refers to failures during the processing and delivery of services, the latter refers to failures that result from not fulfilling the basic needs of the customer. such as faulty decisions by employees. The type of failure will affect the customers emotional reaction and should be addressed differently during service recovery.

Service recovery comprises actions taken by service providers that identify service failures and “effectively resolve[...] customer problems” (Tax & Brown 2000: p. 272). These actions encompass tangible compensations (refunds, replacements etc.) as well as the employee’s interaction with the customer itself (Mattila 2001: p. 584). Thus, frontline staff plays a major role in the recovery process. Employees at the organizational frontline affect the customers by verbal and nonverbal communication (Lin & Lin 2017; Wang et al. 2017), their (citizenship) behavior (Chan et al. 2017), their emotional competences and empathy (Delcourt et al. 2017; Doucet et al. 2016; Fernandes et al. 2018; Marinova et al. 2018), and other psychological capacities (Azab et al. 2018).

Providing a satisfactory recovery is crucial after a service failure. Customers experiencing an effective recovery might even turn out to be more satisfied with the service than other customers who do not encounter any failure at all. This phenomenon is referred to as the service recovery paradox (Smith & Bolton 1998; however see McCollough et al. 2016). However, failing to meet a satisfactory resolution may generate a so-called double deviation, exacerbating the negative emotional reaction of the customers (Johnston & Fern 1999).

van Vaerenbergh et al. (2018) differentiate between three types of recovery strategies: compensation, favorable employee behavior, organizational procedure. Compensation encompasses monetary compensations, re-performed services as well as apologies. Favorable employee behavior refers to courtesy, empathy, excuses, justifications and other comparable options. Organizational procedures describe potential customer participation and empowerment, the recovery time and other procedural options. Research on service recovery focused for example on the effectiveness of compensation strategies (Huang & Lin 2011; Thomassen et al. 2017), the effectiveness of explanation strategies (e.g. excuses or justifications) (Bradley & Sparks 2012; Fernbach et al. 2013; Gelbrich 2010), the context sensitivity concerning different types of services and industries (Mattila 2001)Mattila.2005, and the temporal dynamics of recoveries (van Vaerenbergh et al. 2018). This stream of research acknowledges the social dimension of service interactions and the focal role of frontline staff.

Chapter 3

The Research Articles

The scope of the dissertation addresses two fundamental research gaps: First, a client-centered perspective on citizen-state interactions is promoted. Article 1 conceptualizes the knowledge and competences of citizens as *administrative literacy*. In this article, I define administrative literacy as the capacity to obtain, process, and understand basic information and services from public administrations needed to make appropriate decisions. I elaborate on the concept, describe sub-dimensions, develop a survey instrument, and test its validity. The article was presented at the Workshop for Young Researchers of the VHB Annual Meeting in 2018 and at the Annual Conference of the European Group for Public Administration (EGPA) in 2018 in Panel PSG XXII on Behavioral Public Administration. At the latter conference, it was awarded with the study group's Best Paper Award. The article is currently under review in International Review of Administrative Sciences.

Table 3.1: Overview of the Research Articles

Article	Presented at	Status of Publication
How-to Bureaucracy: Administrative Literacy of Citizens	• Workshop for Young Researchers, VHB in 2018 • EGPA in 2018 (Panel PSG XXII on Behavioral Public Administration)	Under Review in International Review of Administrative Sciences (IRAS)
Cream-Skimming at the Frontline: The Effect of Citizens' Administrative Literacy on Perceived Deservingness	• Workshop for Young Researchers, VHB in 2019 • EGPA in 2019 (Panel PSG XXII on Behavioral Public Administration)	Under Review in Public Management Review (PMR)
Service Recovery after Public Service Failures	• IRSPM in 2018 • Workshop for "The Future of Behavioral Public Administration" (University of Copenhagen) in 2018	Under Review in Public Administration Review (PAR)

In Article 2, I test the effects of manifesting higher levels of administrative literacy on public employees' behavior. Using data from a pre-registered survey experiment, I show that they prioritize citizens that are well prepared for the public encounter and possess superior communication skills. It is discussed that higher levels of administrative literacy may serve as a social cue for the potential of applicants. SLBs facing uncertainty about the client's potential may base cream-skimming behavior on these cues. The article was presented at the Workshop for Young Researchers of the VHB Annual Meeting in 2019 and is currently under review in Public Management Review.

Article 3 transfers concepts and results from the private sector research on service recovery to the public sector context. Based on data from two survey experiment, I show that giving reasonable justifications for service failures can inhibit anger and frustration on the client's side. Excuses, however, were found to have no or even negative effects. These results are surprising compared to previous research in private sector and discussed in the paper. The paper was presented at the Annual Conference of the International Research Society for Public Management (IRSPM) in 2018 and the Workshop for "The Future of Behavioral Public Administration" (University of Copenhagen) 2018. It is currently under review in Public Administration Review.

3.1 Methodological Approaches

This dissertation project follows a quantitative and experimental methodology. In the first article, I give an overview of various case studies that qualitatively observe concepts related to citizens' competences when interacting with public organizations (Barnes & Henly 2018; Heinrich 2016; Ludwig-Mayerhofer et al. 2014; Senghaas et al. 2019). However, for a general and systematic study of the topic in the future, a survey instrument is necessary. Therefore, I've followed a quantitative approach developing and testing a scale of administrative literacy (DeVellis 2017). The data was collected in November 2017 via an online survey among participants (n=1.090) of a German consumer panel. This sample was chosen randomly while being stratified, and is therefore representative of the German population, in terms of age, education and gender.

Accompanied by the rise of behavior public administration in recent years, experimental methods have been more and more established in public administration research (James et al. 2017). In search of causal relations, experiments are often referred to as the *gold standard*. In order to understand effects of literacy on cream-skimming in the second article and the effects of service recovery on anger and frustration in the third article, I have chosen experimental designs. Experimental vignette studies are widely applied in research on service failure (Tax & Brown 2000) and increasingly common in behavioral administrative research (Grimmelikhuijsen et al. 2016; Jilke & van Ryzin 2017). By presenting a fictitious scenario to the respondents, researchers are able to manipulate detailed nuances that would be hard to observe in real-life settings. Nevertheless, vignette experiments fulfill the criteria of experiments: They allow for the randomized allocation of respondents to treatment and control groups and the researcher has full control over the treatment. Thus, the validity of observed causal effects is rather high.

Both approaches offer valuable additions to current research in the different sub-fields. The results and their relevance are discussed within the particular article in the follwing chapter as well as methodological limitations.

3.2 How-to Bureaucracy: Administrative Literacy of Citizens

Administrative Literacy is the capacity to obtain, process, and understand basic information and services from public administrations needed to make appropriate decisions. Citizens' competencies necessary for successful interactions with public administration are an important resource that remains widely neglected. While interactions with public administrations impose a considerable administrative burden on citizens, that burden may differ quite significantly depending on their available resources to cope with such a burden. Research from other fields such as data literacy and health literacy suggests that these concepts influence a variety of outcomes for both the individual and society. Such competence may change behavior and perception when interacting with public administrations, indicating its potential as an important factor influencing behavior such as compliance, and other outcomes. Citizens with high administrative literacy have a better understanding of procedures, structures and rules. The article develops a concept and scale for measuring administrative literacy using data from a representative citizen survey. Results indicate that administrative literacy serves as a stand-alone concept that potentially influences public service encounters.

Citizens encounter public administrations in various situations, be it the police, the tax office or an office for social welfare. On these occasions, citizens interact (more or less) directly with the state and its administration. Yet, "[d]espite the critical importance of this link in public administration, citizen-state interactions have received relatively little direct attention within the field" (Jakobsen et al. 2016: p. 1). Public encounters (Bartels 2013), however, may have severe impacts on citizens' behavior, feelings, and evaluations concerning the public administration (Simmons 2016). Current discussions on the rising paradigm of the "Relational State" (Muir & Parker 2014) increase the need for investigations into how this relation is constituted. Therefore, Brenninkmeijer (2016) demands research and answers to the question "How to Connect Effectively with Citizens?"

While the role of street-level bureaucrats (SLB) in such public encounters has been intensely researched over the last decades (Keiser 2010; Maynard-Moody & Musheno 2012; Dubois 2014), recently, public administration scholars have also looked at the relationship between SLB and citizens. Research on representative bureaucracy (Lim 2006) has investigated the effect of ethnic (Hong 2017), gender (Meier & Nicholson-Crotty 2006; Riccucci et al. 2016; Guul et al. 2018), and cultural matches between bureaucracies and citizens (Andersen 2017). Furthermore, studies have examined the effects of the perceived deservingness of clients (Jilke & Tummers 2018), signals which are interpreted by SLB (Raaphorst & van de Walle 2018), causing discriminating behavior (Nicholson-Crotty et al. 2017; Andersen & Guul 2019), or the role of trust between both participants in these encounters (Senghaas et al. 2019).

However, the role of citizens remains mostly passive in these studies, while scholars agree that the abilities and capacities of citizens may be crucial for influencing the behavior of SLB (Ludwig-Mayerhofer et al. 2014; Senghaas et al. 2019: p. 10), e.g. during negotiation processes (Raaphorst & Loyens 2018: p. 22). While SLB will tend to treat most clients alike due to routinization, "[...] those who are particularly able to assist in managing their own cases, tend to receive differential responses [from the SLB]" (Lipsky 2010: p. 122). To what extent are clients with different abilities and capacities able to convince the street-level bureaucrat to use his or her discretion in favor of the client? Are clients with a better understanding of rules and regulations more capable of avoiding sanctions? This interactional dimension of public encounters remains widely unexplored.

This study seeks to support a more citizen-centered perspective on interactions even further. Citizens will not only differ in terms of their attitudes and trust towards public institutions (Cook & Gronke 2005), but also in the way they interact due to their knowledge and skills (Gordon 1975; Ludwig-Mayerhofer et al. 2014). By conceptualizing a model of "administrative literacy" and developing a scale, this study adds an explanation for differing behavior in public encounters.

The relationship between citizens and administrations, especially when interacting with street-level bureaucrats, is characterized by asymmetrical power relations (Lipsky 2010: 66ff.). Here, the specialized knowledge and bureaucratic language exacerbate the communication and interaction (Sarangi & Slembrouck 1996). Therefore, "administrative literacy" may influence the autonomy of citizens during such encounters. According to the skill-based approach from health literacy research, administrative literacy (AL) in this study is defined as the *capacity to obtain, process, and understand basic information and services from public administrations needed to make appropriate decisions.* There has been a long-lasting debate about the usage of plain language in legal and political contexts over the last decades (Adler 2016) and its effect, e.g. on citizens' policy understanding (Porumbescu et al. 2017). However, the concept of administrative literacy aims for a more holistic approach that combines functional literacy with an understanding of process- and system-related aspects. Gordon (1975) understands AL as the "abilities peculiarly related to bureaucratic interactions" (1975: p. 198). This includes the familiarity with bureaucratic vocabulary and applications as well as bureaucratic structures and processes. However, this definition is mainly focused on knowledge, thereby neglecting particularly necessary skills that are important for service interactions. Grönlund et al. (2007: p. 217) describe it as the ability to navigate in a bureaucratic system while having an understanding of the role of institutions and being able to process the provided information. While this definition covers a wider skill-based understanding of administrative processes, it neglects the effect on actual decision making and behavior.

Interactions with public administrations may have significant or even severe effects on citizens' everyday lives. Tax returns, applications for social welfare, day care – none of these interactions come without an administrative burden which shapes the perception of administration and politics (Moynihan et al. 2014). Administrative burdens – consisting of learning, psychological, and compliance costs (Moynihan et al. 2014: p. 46) – are imposed on the citizen and may cause dissatisfaction, stress or even deterrence (Burden et al. 2012). However, this very much depends on the individual resources and capacities the citizen has at his or her disposal, such as education, money, or a supportive network that help to compensate for these costs. The individual's administrative literacy may be a crucial explaining factor for differences in perceived burden. Yet, the individual's competence with interacting with public administrations remains underresearched in public administration research.

This article is structured as follows: First, the role of individual competencies will be explicated from a theoretical perspective. Second, the concept of administrative literacy will be developed. A few earlier studies that have picked up on this topic will be highlighted. Additionally, the concept of health literacy will serve as a blueprint. Afterwards, the construct is developed and tested with a representative citizen survey. Using both exploratory (EFA) and confirmatory factor analysis (CFA), the author reflects on the dimensions of the concepts.

Finally, further applications of administrative literacy to practice and other theoretical frameworks will be discussed.

The role of individual competencies in interactions with public administrations

Individual competencies are central to various interactions in everyday life. In order to assert oneself in such encounters, psychological empowerment plays a focal role. Psychological empowerment is a broadly, yet variously, applied concept in social psychology and organizational research (Hartmann et al. 2018). In management science, it is defined as a motivational construct (Conger & Kanungo 1988) that highlights individuals' or sub-organizations' abilities to act independently. Referring to self-determination theory, acting autonomously is a basic driver of intrinsic motivation (Deci & Ryan 2008) and perceived self-efficacy (Bandura 1986).

In public administration research, the concept is used particularly in intra-organizational working contexts (e.g. Goodsell 2006; Fernandez & Moldogaziev 2013a; Fernandez & Moldogaziev 2013b) or when investigating the relationship between citizens and politics (Kim & Vandenabeele 2010; Brinkerhoff & Wetterberg 2016). The rising provision of e-government tools (Linders 2012; Bertot et al. 2010) as well as co-production (Bovaird 2007) have re-established the discussion about strengthening the citizen's role. However, the discussion does not focus just on additional channels for communicating and interacting with the state, but also on the access to information and knowledge needed to simplify interactions with public administrations (Reddick 2005). Studies investigating the determinants of co-production show evidence that the lack of individual resources such as knowledge or skills can inhibit the citizen's involvement (Jakobsen & Andersen 2013; Clark 2018) and, thereby, risk that active role.

Interactions between individuals may be framed by the context, social status and dependencies of those interacting (Hartley 2001). Citizen-state interactions are special insofar as the context is often highly technical due to legal regulations underlying public services, the higher social status of state institutions, and the citizen's frequent dependence on decisions made by street-level bureaucrats (Lipsky 2010). These conditions may determine the behavior of the clients, as they require certain skills to cope with such situations. Depending on the nature of the administrative process, different costs may be imposed on the citizen. When applying for a program, for example, the citizen often needs to spend resources gathering information concerning the application process. Which institution is responsible for my application? Am I eligible for the program? Which information is needed from me? The level of these learning costs, however, may differ among individuals who are more familiar with administrative organizations and specific vocabulary, or more skilled in searching for this information. When these programs demand regular updates on the beneficiaries' situation, additional compliance costs occur. Depending on the individuals' self-efficacy and skills, these interactions may incur different levels of costs. The study by Heinrich (2016) offers an analysis of administrative burden in the context of child support in South Africa. In her analysis, she confirms that finding required documents is one of the major factors explaining interrupted payments for an especially vulnerable group. Citizens falling short of these skills and knowledge may depend on third parties to help them by increasing their administrative literacy. In his study on a marginalized genderqueer group in Pakistan, Nisar (2018) finds that NGOs play an important role for members of these groups in supporting them with knowledge about administrative processes in order to empower them to overcome the administrative burden. These examples illustrate impressively the role of administrative literacy in easing the costs imposed by administrative burden. At the same time, these examples emphasize the impact of AL on social equity. Increasing the level of administrative literacy empowers citizens to access services and decisions for which they are eligible. At the same time, having these skills and knowledge at the individual's disposal empowers him or her to interact, even on such an unfamiliar turf as administrative processes.

Similar discussions have been held in public health research. For years, practitioners and scholars have rallied for empowering patients to increase their self-efficacy (Strecher et al. 1986; Schwarzer 2014). Under the concept of "health literacy," studies have investigated the effects of health-related knowledge and competence on patient compliance, number of visits to the doctor, and the perceived health (DeWalt et al. 2004; Baker et al. 1998).

There is a wide debate on how to conceptualize and define health literacy (Sorensen et al. 2012). The most accepted approach is the "skill-based" concept that builds on knowledge and its application (Kickbusch & Maag 2008). Accordingly, it is defined as "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions" (Selden et al. 2000: p. ix). Within this skill-based perspective, Nutbeam (2000) identifies three dimensions that make up health literacy: functional, communicative/interactive and critical literacy. While functional literacy describes general reading and writing abilities (Baker et al. 1998), the latter two dimensions push the concept beyond mere information accumulation: A patient with high health literacy is able to read and understand more technical texts (such as drug descriptions). Additionally, the patient is also able to critically reflect on the information and express concerns to the doctor, ask questions and communicate on an eye-to-eye level despite the typical information hierarchy of doctor-patient relationships (Nutbeam 2009; Paasche-Orlow & Wolf 2007).

Manganello (2008) extends this concept with a dimension of media literacy due to the increasing importance of provision and selection of information in a mass media setting. The availability of such media enables clients to become increasingly autonomous while also overloading them with information. This potential overload again demands a critical evaluation of the information and its sources (Knibbe et al. 2016). Freedman et al. (2009) shift the concept from an individual level to a macro-level, conceptualizing the effects of public health literacy on complex social structures such as societies. By adding a civic orientation, they want to sensitize researchers to the societal implications of health-related decisions and behavior on the individual level (e.g. vaccination). Zarcadoolas (2005) follows a different approach, creating an analytical framework in which to evaluate the actions of policy actors concerning their communication of health-related issues. Beside functional literacy, she differentiates between science literacy, civic literacy, and cultural literacy. Science literacy constitutes the general knowledge and understanding of science, such as expressions of probabilities and relations (e.g. rates of contagion) and the ability to evaluate those. Civic literacy again resembles the approach by Freedman et al. (2009) in describing an understanding of complex interactions between the individual and society. Finally, cultural literacy emphasizes the relevance of social identities and symbols when communicating about health-related information.

The interaction between doctor and patient is characterized by an information asymmetry that constitutes the basis of a relationship of dependency in which trust is of special importance. These characteristics resemble those of public encounters, as well as the interaction between SLB and citizens.

A concept of administrative literacy

Taking the conception of health literacy and the given approaches defining administrative literacy as a basis, this article conceptualizes a multidimensional model of administrative literacy. For this purpose, six sub-categories of administrative literacy will be formed: functional literacy, communicative literacy, structural literacy, processual literacy, media literacy and civic literacy.

Functional literacy describes the basic capability to understand specific bureaucratic language. Therefore, it represents the basis for an understanding of administrative work procedures, writings and requests. Redish (1983) describes bureaucratic language as characterized by a specific technical vocabulary and longer and more complex sentence constructions (in particular, passive constructions). This complex and elaborate language is rooted in a judicial working structure and a depersonalized work manner. A certain level of functional literacy, therefore, is necessary for acquiring and exchanging information.

Communicative literacy builds on the basic skills of functional literacy by describing the ability to interact and communicate with others. This ability includes oral and written expression, actively listening to others, and discussing opinions. Especially in encounters in which the SLB have discretion, expressing one's concerns, persuading the counterparts, and objecting to decisions are crucial for citizens.

Structural literacy includes a comprehension of internal and external administrative structures. In particular, it gives insight into the general working and organizational structures of public administrations. The citizen understands administrations not just as a black box. Furthermore, the citizen is able to find the organizational unit relevant for his or her concerns in a broader bureaucratic system. This may turn out to be crucial in cases in which the client needs to find the right contact person for applications, complaints, or objections. It may also foster an understanding of the structure of work in public organizations and its effects on procedures.

Knowledge about bureaucratic working methods and the expected forms of interaction with public administrations is described under processual literacy. This is expressed mainly in an impersonal use of communication and a focus on routines (Lipsky 2010: 99f). In order to successfully complete especially long-term administrative processes with multiple episodes, citizens often need patience and resilience as an interactional component. This knowledge and the respective behavior may be crucial for appropriate interactions with SLB.

Media literacy is understood as the capacity to process, understand, and critically evaluate information from mass media such as television and the Internet. Media as a source of information is relevant for administrative literacy for different reasons: On the one hand, it influences communication between the political-administrative system and the citizens (Dahlgren 2005), e.g whether the citizen learns about new policies (such as new social programs) and whether he or she is able to judge his or her eligibility. On the other hand, a critical assessment of information gathered from various sources allows validation of its credibility. Internet sources play an increasing role when interacting with public administrations (Reddick & Turner 2012), e.g. to find forms, but also to get advice from other citizens in forums or social media.

Similar to the health care field, administrative action has a societal regulatory character. Civic literacy illustrates the capability of individuals to deduce the relevance of one's actions for society as a whole. For the individual, the purpose of certain regulations and obligations may not always be comprehensible, as they aim for a higher purpose for wider segments of society. Whether regulations are opposed as red tape (Bozeman & Feeney 2011; DeHart-Davis et al. 2015) or understood as justified may depend on that subjective perception.

As administrative literacy is described here as a skill-based concept, the individual's level is variable and not fixed. Experience from prior public encounters, information gathered from other sources, advice given by peers – all these aspects may increase (or potentially decrease) administrative literacy.

The concept of administrative literacy is closely related to other concepts such as self-efficacy and general education. Yet, the author argues that it is distinct from these concepts and enriches the analysis of individual behavior.

Self-efficacy has been studied by different streams of research (Gecas 1989). Motivation theories have adopted the concept as a motivation to strive for mastery and increase one's competence. Cognitive theories, by contrast, conceptualize self-efficacy as the prior assessment of perceived effectiveness when encountering a specific situation (Bandura 1977). However, this expectation of one's efficacy is complemented by the capabilities and skills that the individual has at his or her disposal (Caprara et al. 2009). As such, it cannot be taught, but with increasing mastery of certain tasks it will increase as a cognitive learning process. Thus, administrative literacy represents the capabilities, skills, and knowledge needed when interacting with public administrations. Higher levels of AL, however, will likely increase one's perceived efficacy when having experiences of mastery. Administrative literacy is therefore an addition to understanding citizen-state interactions connected to such concepts as public service efficacy (Kristensen et al. 2012). The effect of these necessary skills and knowledge will be mediated by self-efficacy into a more proficient performance (Ozer & Bandura 1990: p. 473).

Education is another concept that may be closely related to administrative literacy. At first glance, one would expect education to be a valid proxy for measuring administrative literacy. However, as studies on health literacy have pointed out, education does not fully account for variation in and effects of health literacy (Kalichman et al. 2000; Kickbusch 2001; van der Heide et al. 2013). The effect of education on administrative literacy could be even more ambiguous. On the one hand, higher levels of education are highly correlated with functional literacy (Baer et al. 2009) as one basic dimension. On the other hand, however, this is not necessarily the case with the other dimensions. Assuming that administrative literacy is a skill-based concept, it could be particularly influenced by experience. In certain policy fields such as social security support, citizens often come with lower levels of education. However, interactions in these subfields are often on a regular basis, creating more opportunities to gather experiences. In other policy fields, education is a predictor for a more frequent use of voice (Hirschman 1970; Shinohara 2018) – for example, in the context of parents interacting with their children's teachers. Yet, this could also be attributed to a higher level of self-efficacy rather than to actual higher levels of administrative literacy.

In general, AL is conceptualized as a universal set of skills and knowledge, applicable to a wide range of policy fields. However, it is primarily focused on formal public encounters that result in either status-changing decisions based on discretion or formal service encounters such as job service. Other more informal interactions that mainly provide a service function (think of parents interacting with teachers concerning their children's grades) may not necessarily be influenced by the AL level of the parents. Nevertheless, such formal encounters are also common in the education sector when parents apply for second-tier schools, exemptions from sports classes (e.g. for religious reasons) and other status-changing decisions.

The effects of administrative literacy

The effects of high AL may be manifold (see Figure 3.1). On the individual level, higher capacities may lower transactional costs, such as compliance costs, for the citizen (Lipsky 2010: p. 59). The citizen will find it easier to gather the necessary information and documents when e.g. applying for services, thus easing the administrative burden. Higher levels of administrative literacy may cause psychological empowerment, increasing self-perceived efficacy when interacting with official institutions (Paasche-Orlow & Wolf 2007; Kristensen et al. 2012). Thereby, the psychological costs may be cushioned. This may increase the propensity of citizens to actively engage in voice behavior when dissatisfied with public services (Hirschman 1970; Wallin Andreassen 1994). It could, for example, explain why some citizens tend to participate in citizen surveys or panels (Crosby et al. 1986), or get involved in citizen participation processes (Kathlene & Martin 1991; Weber et al. 2003; Bingham et al. 2005). Furthermore, it could prove to be a major antecedent for co-production behavior (Parrado et al. 2013; van Eijk & Steen 2016). Greater familiarity with administrative vocabulary as well as one's own rights and duties when interacting with public administrations may also influence the citizen's chances for successful applications. By knowing important key words or shortcuts in the administrative process, he or she may seize opportunities that citizens with lower administrative literacy may not be aware of. The empowerment may also have implications on the overall evaluation of public services. Studies on satisfaction with services in the private sector indicate that greater empowerment and self-efficacy of clients increase their satisfaction with services, positive word-of-mouth, and customer loyalty (Fuchs & Schreier 2011; Dong et al. 2008; Tiu Wright et al. 2006). To the best of my knowledge, there is no study on this relationship in the public sector. However, as most publicly provided goods are actually services, the results may be generalizable for the public sector as well (van de Walle 2018; Osborne et al. 2012).

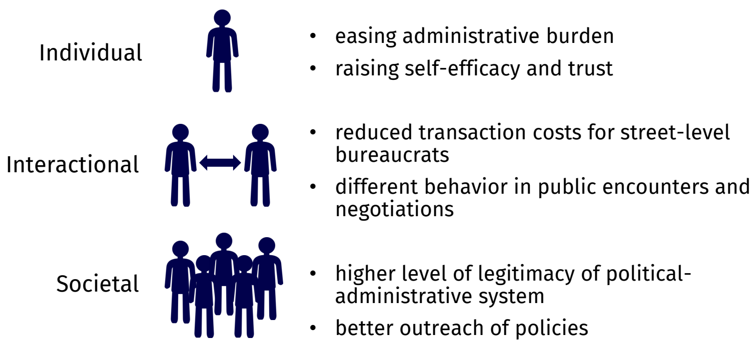

FIGURE 3.1: Different levels of effects

On the interactional level, citizens with higher administrative literacy may lower the transaction costs for SLB, as they require less consultation, make fewer mistakes when filling out forms and may be generally better informed. Furthermore, it may also be possible that such citizens behave differently when interacting with SLB. Courtesy and respectfulness, but also deliberately used communication strategies (Kasper & Kellerman 2014), may influence the behavior of the SLB who will make the decisions.

On the societal level, higher administrative literacy may be associated with higher levels of trust in public institutions. As people understand the nature of bureaucratic organization (and their rationality), public organizations may lose their Kafkaesque aura which often creates prejudice and skepticism about their legitimacy. Likewise, AL may be an important factor for the outreach of certain policies such as social programs. In order to be effective, such policy programs need to actually reach the supposed target groups in need. Oftentimes, however, missing knowledge of the existence of such services, one's potential eligibility or access barriers may lower the demand (Cortis 2012). Finally, higher administrative literacy may lower the societal costs for unjustified complaints and lawsuits that burden courts.

While the suggested effects may be substantive, it is clear that citizens remain in an asymmetrical relationship with public organizations. No matter how high the administrative literacy of an individual may be, decisions based on discretion will be made by street-level bureaucrats. Higher AL levels will not create privileges but may help to create more privileged outcomes compared to other citizens.

This also leads to the possible adverse effects of administrative literacy. Citizens with higher levels may be more capable of "gaming the system," as they are aware of administrative (inefficient) processes and are more willing to take risks, e.g. when not giving sufficient or necessary information in application processes. Additionally, higher levels could increase a citizen's self-efficacy, which in turn increases the likelihood voicing dissatisfaction with a decision made by the public organization, thus boosting transaction costs.

This list of the possible effects of administrative literacy is not meant to be exhaustive. Instead, it is supposed to give an outline of the variety of relationships that may be developed based on the concept, which makes it potentially fruitful for public administration and management science.

Attempts to measure administrative literacy

Gordon (1975) proposed a first attempt at measuring administrative competence. She used a mixture of survey, ethnographic, and quiz-based measures. This included a question about who filled out the person's tax form, a quiz about bureaucratic vocabulary, and an assessment of the comprehension of vocabulary during an interaction with caseworkers. While this triangulated measurement has its clear benefits in preventing common-method bias, it suffers from low statistical power (Gordon only measured about 60 individuals) due to its costly measurement. Furthermore, there might be concerns with the reliability of the measurement. The conceptualization of administrative competence also remains rather narrow by focusing mostly on functional literacy. Additionally, measurement instruments aimed at such issues need to manage the balance between the specificity of certain administrative fields (such as policing or social services) and general skills that are as widely usable as possible.

A vast landscape of different measurement tools has evolved in the field of health literacy (Haun et al. 2014). Most of them are related to the Rapid Estimate of Adult Literacy in Medicine (REALM) or the Test of Functional Health Literacy for Adults (TOFHLA), which serve as gold standards for objective measurement concerning health literacy. However, there is also a variety of self-assessed survey tools. One major advantage of such self-assessments is their efficiency in large-n studies. Despite that advantage, potential self-report bias is a commonly expressed critique of such instruments, as individuals tend to over-exaggerate their competence levels.

The aim of this article is to provide a multidimensional instrument for the survey-assessment of administrative literacy that allows for a wide usage in different policy fields. Its generality enables future research to use a common instrument in different policy settings while investigating the basic skills and knowledge concerning public administrations that are widely representative. This instrument shall be validated by exploratory and confirmatory analysis in order to get a deeper understanding of its dimensions and dynamics.

Measuring administrative literacy

In order to develop the concept of administrative literacy with its assumed sub-dimensions, this study follows a quantitative approach of scale development (DeVellis 2017). The data used here was collected in November 2017 via an online survey among participants (n=1.090) of a German consumer panel. This sample was chosen randomly while being stratified, and is therefore representative of the German population, in terms of age, education and gender.

First, an item pool was created building on the above-described sub-dimensions of administrative literacy, resulting in a scale of 27 items. All items were measured on a 5-point Likert scale. The item pool was then reviewed and revised in a pretest with 20 participants to evaluate face validity. To conduct factor analysis and post-tests, the author used the statistical program R and the packages "lavaan" (Rossel 2017), "psych" (Revelle 2017), and "semTools" (Pornprasertmanit et al. 2016).

For internal replication (Osborne & Fitzpatrick 2012), the sample was randomly split in half (n_1= 547, n_2= 543). While n_1 was used to calculate the exploratory factor analysis (EFA), the established factor structure was tested using confirmatory factor analysis (CFA) on sub-sample n_2.

Exploratory & Confirmatory Analysis

In a first step, the pool of 27 items composing the theoretically proposed 6 dimensions of administrative literacy was introduced into an exploratory factor analysis to investigate the data structure. The measure of sample adequacy (overall MSA = 0.86) as well as the Bartlett test ($\chi^2(df351) = 6996.958; p <$

0.001) (Dziuban & Shirkey 1974) suggest an appropriate sample and matrix structure. Using parallel analysis (Horn 1965), the items load into preferably 7 factors. Oblique rotation was used, since it is very likely that the sub-dimensions are correlated. Table 3.5 shows the loadings of the 27 items. A total of 10 items were omitted afterwards. Of these, eight items were removed due to low factor loadings ($< .4$) or substantial cross loadings. An additional two items were dropped for reasons of theoretical consistency in the different dimensions.

With the remaining 17 items (item descriptions can be found in Table 3.8), the EFA was repeated. As can be seen in Figure 3.2, parallel analysis suggests a 5-factor model. The loadings for this revised model are described in Table 3.6. The EFA shows five distinct factors: 1) communicative literacy, 2) processual literacy, 3) structural literacy, 4) functional literacy, and 5) media literacy. The factor loadings are satisfying and well above 0.5; there are no substantial cross-loadings.

In a next step, the second sample was analyzed to recreate the factor structure with sample n_2 using a CFA. The first model achieved a satisfying fit with $\chi^2(df109) = 353.222; p < 0.001; CFI = 0.941; RMSEA = 0.067$ (90 % CI: 0.059 - 0.075) (Hu & Bentler 1999). The internal consistency reliability of the first model is good, with an overall McDonald's omega ω of 0.92. The single sub-dimensions range from 0.75 (satisfying) to 0.92 (good) (see Table 3.8). McDonald's omega is more adequate than the commonly used Cronbach's alpha, as it accounts for different weights of sub-dimensions and items affecting the first-level dimension, while Cronbach's alpha builds on equal weights.

When analyzing the modification indices, particularly two pairs of items (PA2(1) ~ PA2(2), PA2(3) ~ PA2(4)) decrease the goodness of fit, both belonging to the sub-dimension of processual literacy. While the first two items refer to typical behavior of administrations themselves, the latter two are focused on behavior that clients adopt. Therefore, in a second model, an additional correlation between these pairs was specified to account for the similarities.

This second model achieved an even better fit, with $\chi^2(df107) = 282.205; p < 0.001; CFI = 0.958; RMSEA = 0.057$ (90 % CI: 0.049 - 0.065).

In order to test the parsimony of the previous first-order model, a second-order model with a latent factor combining the different dimensions was modeled. Therefore, the goodness of fit as well as the log-likelihood-based Akaike and Bayesian information criteria were compared (see Table 3.2). For the latter, the model is preferred that achieves lower AIC and BIC (Vrieze.2012). All estimated criteria indicate that the first-order model is to be preferred. However, the differences in AIC and BIC are rather small.

Table 3.2: Comparison of first- and second-order models

criteria	first-order model	second-order model
CFI	0.941	0.929
RMSEA	0.067	0.072
AIC	18800.309	18844.394
BIC	18985.663	19008.685

To assess whether the measurement proposed by the model may vary across different socio-economic groups, the author conducted measurement invariance testing (Vandenberg & Lance 2016; Jilke et al. 2017). The model achieves strict measurement invariance when comparing three different education groups, meaning that factor loadings, intercepts and error variances are invariant over such groups. Observed scores are comparable and do not depend on different educational backgrounds. The same goes for gender as well as the sector in which the individual works. Therefore, the construct remains homogeneous across different population groups.

Harman's Single Factor Test was applied to investigate the risk of common method variance. However, when conducting a factor analysis with the items of the different dimensions, satisfaction and self-efficacy, the single-factor solution only accounts for 29 % of variance within the data. This offers evidence against common method variance within this data set.

Construct validity testing

To evaluate the validity of the construct, further tests were conducted. The internal construct validity can be assessed by the inter-dimensional correlations. The different sub-dimensions should not correlate in the different directions as they measure a common construct. The correlations should not be too high, however, as the latent variables need to be distinguishable. Table 3.3 shows that the correlations range from $r = -0.085$ to $r = 0.431$, indicating that the constructs are heterogeneously related to each other. This is not surprising, since the different dimensions reflect a wide range of competencies that are not necessarily congruent. However, there are no significant contrary correlations.

TABLE 3.3: Internal construct validity

		1	2	3	4	5
1	Communicative Literacy	0.88				
2	Processual Literacy	0.310***	0.75			
3	Structural Literacy	0.281***	0.139*	0.83		
4	Functional Literacy	0.240***	-0.085	0.431***	0.92	
5	Media Literacy	0.361***	0.210***	0.285***	0.205***	0.80

*p<0.05; **p<0.01; ***p<0.001; diagonal contains McDonald's omega

The assessment of convergent construct validity adds to the evaluation of construct validity, as it shows the theoretically assumed effects on other factors (Campbell 1960). As the different dimensions are not congruent, the author expects that the investigated relationships will not necessarily be determined the same way by every sub-dimension. Each sub-dimension may play a major role when investigating different antecedents or dependent variables. As proposed in the theoretical explanations, the effects on self-assessed self-efficacy when interacting with public administrations, the ease of speaking with administrative staff, and the compliance with deadlines given by public administrations were assessed. Table 3.4 summarizes the results.

TABLE 3.4: Convergent and discriminant validity

	Communicative Literacy	Processual Literacy	Structural Literacy	Functional Literacy	Media Literacy
self-efficacy	0.193**	0.013	0.313***	0.348***	0.032
talking to employee	0.596***	-0.116	0.120	0.160**	0.106*
deadlines	0.284***	0.348**	0.065	-0.037	0.095*
satisfaction	0.118	-0.552***	0.260*	0.031	0.113*
male	-0.027	-0.002	0.057	-0.002	0.041
public sector	-0.046	-0.005	0.085	-0.007	-0.104
education	0.066	-0.063	-0.058	0.158**	0.095*

Standardized beta coefficients from SEM are reported
*p<0.05; **p<0.01; ***p<0.001

Self-efficacy is positively related to structural, communicative, and functional literacy. Higher levels of structural knowledge seem to empower citizens' autonomy. The high level of communicative and functional literacy may increase their abilities to communicate with public administrations.

This result corresponds with the effects on the ease of speaking to public employees. Additionally, media literacy supports this relationship. Citizens may be better prepared when talking and interacting with public employees as they search for information on applications and processes.

Compliance with deadlines is positively correlated with processual, communicative and media literacy. These dimensions seem to raise awareness about how vital such deadlines might be, especially when interacting with administrations that rely on standardized processes. Meeting deadlines is just one of many possible ways for a client to show compliance with the anticipated or demanded behavior. Failing to meet these requirements may result in the employee's reluctance to use discretion in favor of the client.

The correlation with the overall satisfaction a with public administration is especially interesting. Whereas structural and media literacy improve the satisfaction rating, processual literacy is surprisingly negatively correlated. This may be explained by the realization that public administrations apply impersonal interaction strategies that have a strong negative impact on service evaluations. These routines and standard procedures may be frustrating for citizens.

Finally, in order to assess the discriminant validity, the average variance extracted (AVE) is compared to the squared inter-construct correlation (Fornell & Larcker 1981). The sub-dimensions have a high AVE > 0.6, except for processual literacy which only achieves an AVE of 0.43 (see Table 3.8). However, compared to the squared inter-construct correlation, each dimension achieves satisfactory discriminant validity. Additionally, Table 3.4 shows that the measured construct is unrelated to other constructs from which it should theoretically differ. The investigated constructs are gender and education, as well as whether the citizen works in the public or private sector. The results show that neither of these variables is correlated with the sub-dimensions of administrative literacy. Education seems to be, as argued above, somewhat uncorrelated with administrative literacy, except for functional literacy as a basic skill mostly developed in school.

Limitations and Future Research

The limitations of this study need further discussion. The measurement strategy used in this paper is based solely on perceptual and self-assessed ratings. While this strategy offers a broad usability and convenient form of measurement, it also comes with substantial drawbacks. As discussed with other empirically measured concepts such as quality (Cheon et al. 2019), self-assessed perception-based measures may be distorted by other factors such as perception bias and misperception. This could cause people to both over- and underestimate their abilities in this measure. In this study, unfortunately, no other measurements (such as quizzes) were available for comparison. Accordingly, future research should validate this scale by comparing it with more objective measures on specific subfields. Additionally, it would be interesting to compare this measure with the assessment made by others, explicitly street-level bureaucrats. This could be especially important for research on public encounters. Are SLB able to assess the literacy level of their clients? How does it change their behavior? Will it trigger more facilitative behavior (Boer 2018), or could it lead to cream-skimming behavior, prioritizing those cases with expectedly lower transaction costs?

However, this generic approach to measurement comes with the advantage of broad applicability. More objective measures such as quizzes need to be specific for certain types of services. In this regard, we would need to measure the administrative literacy levels for child support differently than applications for pensions. Moreover, these measures would be more costly to implement than the approach presented here. Furthermore, as administrative literacy is complementary to self-efficacy, a more subjective self-assessed measure may be more appropriate to capture this interaction. Furthermore, replications of the factor structure are needed to assess the reliability of the scale.

Conclusion

Citizens interact with different kinds of public organizations on a fairly regular basis. Understanding the dynamics of these interactions is key to shaping it into an encounter that benefits both sides of the interaction. The awareness that citizens bring different competencies is important for managing the client relationship, e.g. when designing processes or application forms and training staff in communication (Bell et al. 2005).

The construct of administrative literacy captures these different competencies. It determines whether citizens are able to communicate on an eye-to-eye level. Since a lot of decisions by street-level bureaucrats depend on the appearance and behavior of citizens in public encounters (Jilke & Tummers 2018; Maynard-Moody & Musheno 2012; Andersen 2017), this factor may be crucial for understanding the use of discretion. Citizens' administrative literacy may also influence their knowledge about policies and their eligibility for social programs or the results of negotiations with public employees. At the same time, public employees may take advantage of the lower transaction costs due to fewer mistakes or questions from the clients, as well as their higher level of compliance with information delivery and deadlines.

Future research on the citizen-state interaction may benefit from this analytical tool. Concepts such as public self-efficacy, psychological costs, trust in institutions, and compliance, as well as political involvement and co-production, may benefit from the added perspective of citizens' skills and knowledge concerning the administrative system and processes. At the same time, administrative literacy may also be a factor explaining gaming behavior on both sides, that of citizens as well as SLB. Administrative literacy may serve as a useful tool in several methodological settings ranging from ethnographic and qualitative studies to, of course, quantitative surveys. Tools to improve administrative literacy may be tested in experimental settings. This could prove especially useful for practitioners and policy makers. Knowing the level of administrative literacy of their clients could improve the work of public employees, as they can address citizens more adequately. At the same time, as the concept of administrative literacy is skill-based, the SLB-client nexus could also be one of the major sources of improvement in the citizen's understanding when the SLB invest time to explain different procedures, for example. Therefore, it could also be useful to develop an objective measure of administrative literacy in order to accurately assess individual literacy in long-term service rapports. Policy makers could adjust their communication strategies to be more sensitive to differences in administrative literacy.

Appendix

TABLE 3.5: Factor loadings on seven literacy dimensions with 27-item pool

Variable	PA4	PA2	PA3	PA1	PA5	PA7	PA6	h2	u2	com
1				**0.67**				0.54	0.46	1.16
2				**0.99**				0.73	0.27	1.12
3				**0.90**				0.70	0.30	1.07
4		**0.70**						0.55	0.45	1.18
5		**0.69**						0.48	0.52	1.03
6		**0.70**						0.53	0.47	1.16
7		**0.73**						0.50	0.50	1.17
8		**0.64**						0.40	0.60	1.29
9		**0.55**				**-0.44**		0.37	0.63	2.17
10				0.37		**0.45**		0.49	0.51	2.09
11					0.33			0.41	0.59	3.53
12						0.38		0.67	0.33	3.48
13						**0.59**		0.48	0.52	1.49
14						**0.54**		0.37	0.63	1.60
15			**0.87**					0.75	0.25	1.02
16			**0.92**					0.78	0.22	1.06
17			**0.59**					0.54	0.46	1.16
18			**0.54**					0.46	0.54	1.44
19			**0.60**					0.51	0.49	1.25
20	**0.97**							0.81	0.19	1.08
21	**0.96**							0.84	0.16	1.03
22	**0.94**							0.76	0.24	1.07
23					**0.70**			0.43	0.57	1.21
24					**1.01**			0.80	0.20	1.12
25							0.35	0.19	0.81	1.65
26							**0.88**	0.83	0.17	1.18
27								0.19	0.81	1.93
SS loadings	2.82	2.83	2.87	2.54	1.51	1.58	0.98			
PA4	1.00	0.06	0.27	0.55	0.51	0.46	0.10			
PA2	0.06	1.00	0.41	0.25	0.32	0.28	0.20			
PA3	0.27	0.41	1.00	0.31	0.37	0.51	0.34			
PA1	0.55	0.25	0.31	1.00	0.51	0.48	0.15			
PA5	0.51	0.32	0.37	0.51	1.00	0.44	0.29			
PA7	0.46	0.28	0.51	0.48	0.44	1.00	0.14			
PA6	0.10	0.20	0.34	0.15	0.29	0.14	1.00			

rotation = Promax; loadings below 0.3 are not displayed

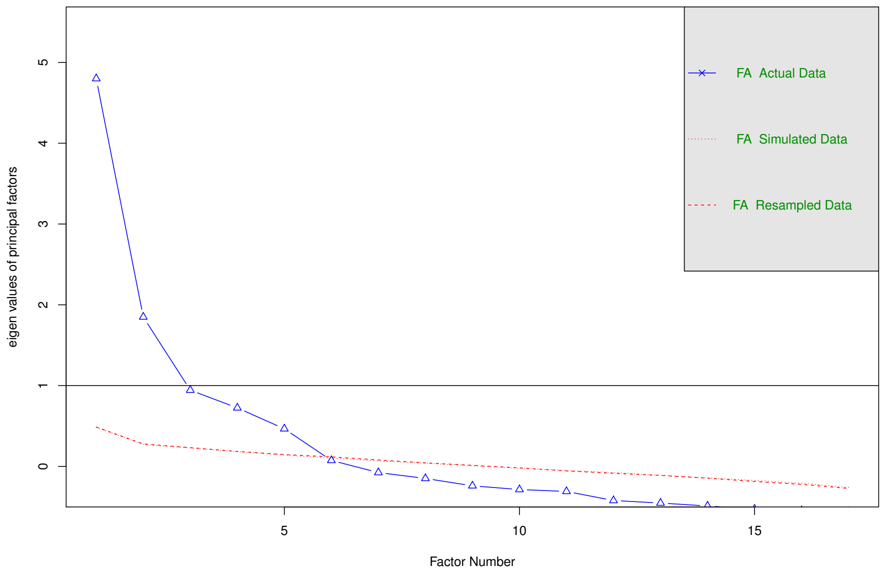

FIGURE 3.2: Parallel analysis of 17-item pool

TABLE 3.6: Factor loadings for five literacy dimensions with 17-item pool

Variable	PA1	PA2	PA3	PA4	PA5	h2	u2	com
1			**0.64**			0.50	0.50	1.03
2			**0.91**			0.74	0.26	1.03
3			**0.87**			0.74	0.26	1.01
4		**0.64**				0.46	0.54	1.06
5		**0.67**				0.45	0.55	1.06
6		**0.76**				0.60	0.40	1.04
7		**0.81**				0.60	0.40	1.04
8	**0.93**					0.76	0.24	1.02
9	**0.92**					0.75	0.25	1.02
10	**0.67**					0.54	0.46	1.05
11	**0.67**					0.46	0.54	1.13
12	**0.59**					0.51	0.49	1.12
13				**0.89**		0.81	0.19	1.03
14				**0.91**		0.86	0.14	1.03
15				**0.89**		0.75	0.25	1.01
16					**0.83**	0.66	0.34	1.02
17					**0.74**	0.55	0.45	1.01
SS loadings	2.96	2.1	1.99	2.46	1.23			
PA1	1.00	0.45	0.43	0.35	0.42			
PA2	0.45	1.00	0.25	0.05	0.20			
PA3	0.43	0.25	1.00	0.41	0.30			
PA4	0.35	0.05	0.41	1.00	0.34			
PA5	0.42	0.20	0.30	0.34	1.00			

rotation = Promax; loadings below 0.4 are not displayed
PA1 = Communicative Literacy, PA2 = Processual Literacy,
PA3 = Structural Literacy, PA4 = Functional Literacy, PA5 = Media Literacy

TABLE 3.7: Descriptive statistics

Statistic	N	Mean	St. Dev.	Min	Max
PA1(1)	1,017	4.129	0.874	1	5
PA1(2)	1,017	4.132	0.871	1	5
PA1(3)	1,017	4.221	0.856	1	5
PA1(4)	1,017	4.280	0.803	1	5
PA1(5)	1,016	3.939	0.908	1	5
PA2(1)	1,020	4.221	0.796	1	5
PA2(2)	1,020	4.125	0.841	1	5
PA2(3)	1,020	4.269	0.793	1	5
PA2(4)	1,020	4.210	0.827	1	5
PA3(1)	1,020	3.446	0.932	1	5
PA3(2)	1,020	3.125	1.010	1	5
PA3(3)	1,020	3.358	0.973	1	5
PA4(1)	1,017	3.041	1.128	1	5
PA4(2)	1,017	2.858	1.128	1	5
PA4(3)	1,017	3.125	1.140	1	5
PA5(1)	1,014	3.744	1.088	1	5
PA5(2)	1,014	3.366	1.107	1	5
selfeff(1)	1,043	4.031	0.971	1	5
selfeff(2)	1,043	3.649	1.040	1	5
selfeff(3)	1,043	3.409	1.004	1	5
selfeff(4)	1,042	3.722	0.947	1	5
selfeff(5)	1,043	3.865	1.064	1	5
male	991	1.476	0.500	1	2
education	995	1.930	0.825	1	3
deadlines	1,020	4.349	0.796	1	5
talking to employee	1,014	3.835	0.910	1	5
public sector	688	0.206	0.405	0	1

PA1 = Communicative Literacy, PA2 = Processual Literacy,
PA3 = Structural Literacy, PA4 = Functional Literacy,
PA5 = Media Literacy

Table 3.8: Item description

Variable	Dimension	Items
PA1 (Communicative literacy)	PA1(1)	It's easy for me to communicate with other people.
$\omega = 0.88$	PA1(2)	It's easy for me to express myself in oral form.
$AVE = 0.60$	PA1(3)	It's easy for me to express myself in written form.
	PA1(4)	It's easy for me to listen to other people.
	PA1(5)	It's easy for me to defend my own interests in discussions.
PA2 (Processual Literacy)	PA2(1)	Public administrations rely on standardized letters and processes.
$\omega = 0.75$ $AVE = 0.43$	PA2(2)	Public administrations rarely deviate from their routines.
	PA2(3)	When dealing with public administrations, one needs to be persistent.
	PA2(4)	When dealing with public administrations, one needs to be patient.
PA3 (Structural literacy)	PA3(1)	I know the purpose of different public administrations for citizens.
$\omega = 0.83$	PA3(2)	I know how public administrations are organized.
$AVE = 0.63$	PA3(3)	I know how public administrations work.
PA4 (Functional literacy)	PA41(1)	It's easy for me to read complex texts with multi-clause sentences.
$\omega = 0.92$ $AVE = 0.79$	PA4(2)	... complex texts with bureaucratic terms (e.g. substitute income).
	PA4(3)	... complex texts with the passive voice (e.g. The income will be taken as a permanent basis for the pension you're currently applying for.)
PA5 (Media literacy)	PA5(1)	I inform myself on a regular basis through media (print / digital news or newspaper).
$\omega = 0.80$ $AVE = 0.60$	PA5(2)	I get my information from different media and compare them critically.
education		1 = Hauptschulabschluss (9 years) with vocational training or less; 2 = Mittlerer Schulabschluss (10 years) or Fachabitur (specialized 12 years); 3 = Abitur (12-13 years) or higher
male		1 = female; 2 = male
self-efficacy	selfeff(1)	I am able to fill in forms on my own.
$\omega = 0.87$	selfeff(2)	I am able to fill in forms without any problems.
	selfeff(3)	I understand letters from public administration.
	selfeff(4)	I am able to deal critically with decisions of administrations on my own.
	selfeff(5)	I am able to lodge a complaint against decisions of administrations on my own.
talking to employee		It's easy for me to formulate my arguments when talking to administrative staff.
deadlines		I meet deadlines given by public administrations.
public sector		In which sector do you work currently? (0 = private / not-for-profit; 1 = public)

3.3 Cream-Skimming at the Frontline: The Effect of Citizens' Administrative Literacy on Perceived Deservingness

Coping behavior, such as cream-skimming, is at the heart of Lipsky's concept of street-level bureaucracy. However, the theoretical foundations for cream-skimming in citizen-state interactions remain vague regarding the level of uncertainty about the individual client's potential. This study argues that clients' potential is also assessed through their behavior and demeanor in public encounters. Due to uncertainty, public employees must refer to cues and signals as proxies for this assessment. Therefore, this study elaborates on the role of clients' interactional skills and their effects on cream-skimming behavior. Using data from a pre-registered survey experiment, I show that public employees attribute higher ratings of deservingness to citizens with higher levels of preparedness and effective communication strategies. The data provide empirical evidence that cream-skimming is not just a rational assessment of a cost-benefit ratio but is also influenced by social dynamics.

Introduction

Street-level bureaucrats (SLBs) are one of the key staff groups in public administration (Brodkin 2015; Goodsell 1981a; Lipsky 2010). Not only do they translate and shape policies (Andersen & Jakobsen 2017; Baviskar & Winter 2016; Tummers et al. 2012), they are often at the center of the citizen-state interface (Brenninkmeijer 2016). While this heightens the importance of their role, they are in a demanding position located between the political and administrative leadership and their clients (Barnes & Henly 2018; Tummers et al. 2015). As Lipsky (2010: 29ff) notes in his seminal work, they inherently suffer from a lack of resources compared to the sheer unlimited workload they face. In recent years, the functional and dysfunctional use of discretion has been investigated extensively by several studies (Andersen & Guul 2019; Baviskar 2018; Jilke & Tummers 2018; Keiser 2010; Pedersen et al. 2018; Raaphorst & Loyens 2018). These studies describe a conflict between SLBs' workload and the degree of discretion available to them. The resulting field of tension between securing equity, coping with limited resources, and avoiding discrimination is essential for both scholars and practitioners to understand (Maynard-Moody & Musheno 2012; Tummers et al. 2015).

This study seeks to add to this field by examining cream-skimming behavior (also referred to as creaming). The well-known assumption by Lipsky (2010: p. 107) is that SLBs may prefer *easy cases* in order to lower their workload. Additionally, they may treat citizens differently depending on their skills in interactions (Lipsky 2010: p. 122). However, Lipsky remained rather vague about these skills and what actually constitutes an easy case. While some studies show evidence that SLBs cream-skim for applicants with a higher potential to fulfill the organizational goals (Guul et al. 2018; Koning & Heinrich 2013; Weatherall & Markwardt 2010; Winter 2005), there are few studies investigating the effects of citizens' interactional skills in public encounters and their effect on cream-skimming. The first phenomenon can be explained by rational cost-benefit considerations. Potentially easy cases require fewer resources to achieve a positive outcome. However, due to incomplete information and uncertainty, the client's potential is often unclear. In this sense, the client's behavior and demeanor may signal a more complex cue to the SLB by providing proxy information about this potential. Therefore, this study outlines a theoretical model of SLBs' cream-skimming behavior. Additionally, the implications of citizens' preparedness and communicative strategies in terms of possible cream-skimming are tested.

The analysis is based on data from a pre-registered survey experiment ($n = 294$). The results indicate that, indeed, citizens' communicative skills and preparedness for the public encounter positively influence the likelihood of advantageous treatment. Clients who are better prepared and able to communicate on a level playing field with the public employee may be more likely to be rated as deserving additional effort in processing their case. Such clients will have the necessary forms at hand which are filled in correctly and will be able to answer questions about the application, while persuading the employee of its benefit. This result offers two substantial contributions: First, it presents a theoretically elaborated model of cream-skimming at the organizational frontline under conditions of uncertainty. Second, it provides experimental evidence for the postulated tendency of SLBs to engage in cream-skimming when facing cases that appear to require more work than others. Third, the study expands our understanding of citizen-state interactions. While these encounters should be understood as a bi-directional interaction (Raaphorst & Loyens 2018), most studies operationalize clients' behavior as mostly passive. This study indicates that citizens' behavior during the public encounter matters. More so, the social aspect of these encounters may play a more nuanced role than studied so far.

The study is structured as follows: First, the theoretical foundations are laid out in order to understand the rationale behind SLBs' cream-skimming behavior.

Based on that, the hypotheses are specified. Afterwards, the data and method are described. Finally, the results are presented and discussed.

Coping & Cream-Skimming

Street-level bureaucrats are at the center of public service provision. The variety of different types of public employees that are summarized under that label is strikingly vast, ranging from police officers, tax inspectors, food safety inspectors, and teachers, to social workers and many more (Brodkin 2012; Lipsky 2010). What they have in common, however, is their direct interaction with clients, especially – but not only – citizens. Furthermore, when processing cases they are granted a certain level of discretion on which they can base their decisions (Hill & Hupe 2009; Jensen & Pedersen 2017). The very nature and context of their jobs confront them with a sheer unlimited amount of work, while having only limited resources at their disposal (Lipsky 2010). The teacher could give additional tutoring, the police officer could go on another patrol, the food safety inspector could take more time during his or her inspection. The consequence is that SLBs face a distribution problem as to how many resources should be invested in which cases. Additionally, frontline workers may face "conflicting demands from policy rules, their clients' needs, their professional codes, and own personal values" (Tummers et al. 2015: p. 1099). Thus, SLBs will pursue different strategies to cope with that shortage.

Organizations design bureaucratic procedures and rules in order to manage the workload (Lipsky 2010: 105ff). Additionally, frontline staff will pursue individual approaches to cope. Tummers et al. (2015) operationalize these strategies and distinguish between two dimensions: whether the coping happens during or outside the interaction, and whether the coping materializes behaviorally or cognitively. Based on their literature review, they come up with three families of coping strategies: moving towards, away from, or against the client. Cream-skimming is one coping strategy in which the SLB moves towards certain clients due to their characteristic of being *easy cases* (Lipsky 2010: p. 107). While Tummers et al. (2015) base their categorization on the perspective of the client, Winter & Nielsen (2008) focus on the SLB's perspective when dealing with the workload. Winter & Nielsen (2008: pp. 116–126) conceptualize coping strategies by distinguishing between a) reducing demand for output, b) rationing output, and c) automating output (Vedung 2015: p. 16). Here, cream-skimming is understood as a strategy to ration the SLB's output by concentrating resources only on specific cases.

However, as a specific concept, cream-skimming has so far been only roughly conceptualized and researched (Weatherall & Markwardt 2010: p. 5). Winter (2002: p. 3) describes cream-skimming as a behavior that SLBs display when preferring clients that seem to have the highest success potential in terms of bureaucratic success criteria, despite not being the most in need. What constitutes an easy case remains fuzzy. Cases that get assigned that attribute are expected to consume fewer resources while achieving certain goals. As this appraisal is processed ex ante, it is only important that the employee *expects* a diminution of effort. Depending on the actual service, some customers may have a higher potential of success after the application. Well-educated individuals may be an easier group to be given a job when looking at labor administration, for example. This results in lower transaction costs for the SLB, as the case may be closed sooner (Weatherall & Markwardt 2010: p. 21). Organizational incentive structures may even enforce this behavior if the frontline staff needs to meet a certain quota (Tummers 2017).

This definition of cream-skimming, though, assumes that SLBs have the necessary information to estimate clients' potential. Accordingly, this assessment is characterized by a considerable degree of uncertainty (Raaphorst 2018), as "the criteria for determining who is or is not 'high risk' or 'likely to succeed' are [. . .] problematic" (Lipsky 2010: p. 107). Due to the restriction of resources, SLBs will tend to make sacrifices in their decision-making process (Raaphorst 2018: p. 491; Simon 1955).

This, however, is aggravated by the fact that in most interactions between SLBs and their clients, there is no clear maximum effort that can or should be invested by the case worker. In such instances, employees "will fall back on criteria of worthiness" (Lipsky 2010: p. 110). This worthiness, or deservingness (Jilke & Tummers 2018), is heavily influenced by cognitive and social dynamics from interactions, contrary to the more rational cost-benefit assessment of the clients' potential. Jilke & Tummers (2018) distinguish between earned, needed, and resource deservingness. Earned deservingness is achieved through the clients' previous effort. Needed deservingness is attributed to clients who are especially in need of the benefits and services due to their characteristics, such as poverty. Last but not least, resource deservingness is attributed to clients who require only little resources from the SLB to achieve the organizational goal. While the latter refers to the notion of cream-skimming behavior described above, the first and second types refer to normative assessments and moral judgments. However, these categories of deservingness are not necessarily mutually exclusive. A client displaying effort and commitment may be assessed as "earning deservingness," while the resources already invested in the case may lower the resources demanded from the SLB.

Cues for Clients' Potential

As the categorization of clients' potential is complex and uncertain, SLBs may rely on cues from different sources to satisfy their information needs. Scholars have studied several possible sources of information, such as work experience (Maynard-Moody & Musheno 2003: p. 119), the effects of social categorization and stereotypes (Maynard-Moody & Musheno 2012), and social signals from interactions (Johnson & Morgan 2013; Morrell & Currie 2015; Raaphorst & van de Walle 2018). These sources may be understood as proxies for evaluating the clients' potential, enabling the SLB to apply coping strategies such as cream-skimming.

Faced with insufficient knowledge to identify the clients' potential, public encounters provide a very rich source of signals and cues. The clients' effort is one major cue indicating the potential of applicants (Berglind & Gerner 2002; Jilke & Tummers 2018; Petersen, Michael, Bang et al. 2011). This effort is understood as clients' investment of their own resources in order to solve the problem at hand and for which they are applying for assistance. This effort may be related to the application process itself or separated from it, but is still focused on the same issue. Clients who make an effort to meet their own needs require fewer resources from the case-workers, thereby lowering the latter's transaction costs. The client's readiness displayed during interactions may also lead to priorization by the frontline worker (Rosenthal & Peccei 2006). Readiness in this sense displays the client's motivation to solve the problem at hand, resulting in cooperative behavior. Clients are evaluated on the basis of their motivation and attitude towards organizational goals. Thus, SLBs may assume that these clients may be more successful, leading to long-term savings in terms of transaction costs. Effort and readiness can be considered two sides of the same coin. While readiness is conceptualized as attitudes and motivation, effort is an evaluation of behavior indicating the individual's readiness. Clients showing a high level of dedication and motivation may be expected to go the extra mile in order take advantage of the benefits. This argument is in line with most narratives of SLBs that follow the idea of *helping others to help themselves* (Anagnostopoulos 2003).

An alternative interpretation could be that frontline staff interpret this effort as a signal of appreciation of the SLB's invested work. Public encounters are social interactions (Maynard-Moody & Musheno 2003: 20ff; Rosenthal & Peccei

2006). Accordingly, social norms may go beyond professional bureaucratic rules of equal treatment. Frontline workers may prefer clients who are aware of the SLB's limited resources. Lipsky (2010) refers to this appreciation as favoritism, when SLBs prefer clients who are "more likely to respond to treatment than others" (Lipsky 2010: p. 111). While this does not reflect a link to organizational success criteria, it is a basic individual need for positive social feedback. Clients showing that appreciation may appear more deserving of the resource investment, instead of energy being "wasted" on clients who do not appreciate that effort.

But, how can this effort and readiness be assessed? One fundamental cue is the level of preparedness for the public encounter that the client displays. Clients enter public encounters with a set of different competences and skills. While some of these competences may be central to the nature of the application process (e.g. qualification level when looking for a job), the ability to interact with public administrations is a general competence that may enable the client to achieve better results from public encounters. Döring (2018) conceptualizes this competence as administrative literacy, defined as the "capacity to obtain, process, and understand basic information and services from public administrations needed to make appropriate decisions" (Döring 2018: p. 5). Basically, a client with a higher level of administrative literacy finds it easier to navigate the bureaucratic system and fill out forms, knows about the nature of bureaucratic procedures, and is able to communicate his or her case to the public employee. Therefore, clients who are able to manage their own cases may be preferred by SLBs (Lipsky 2010: p. 122), as those public encounters demand fewer resources and those clients are easily processed (Weatherall & Markwardt, (Weatherall & Markwardt 2010: p. 21). Administrative literacy comprises five sub-dimensions: functional, communicative, processual, structural, and media literacy. Functional literacy describes basic reading and writing skills. Communicative literacy comprises the ability to participate in discussions and press one's claims. Processual literacy describe the knowledge about processes and routines in public organizations, as well as the necessary behaviors. Structural literacy describes knowledge about structural and functional characteristics of public organizations. Finally, media literacy describes the ability to assess and evaluate the information gathered.

Public encounters are specific situations in which some of these competences are especially helpful. Functional literacy enables applicants to read and understand information and forms. Additionally, they will be able fill to out forms correctly. Media literacy increases the applicant's ability to gather the necessary information before the public encounter. Applicants with high levels of both functional and media literacy should be able to achieve a higher level of preparedness. Thus, administrative literacy may serve as an important cue for clients' readiness and effort when they are well prepared for public encounters. SLBs may assume that clients' level of preparedness signals their willingness to invest their own resources, increasing their potential.

> H_1: Well-prepared citizens will be more likely to receive additional effort from the public employee.

Raaphorst & van de Walle (2018) distinguish between different types of cues in public encounters: stereotyping (membership in social group), entitlement perception (based on citizens' demeanor), incongruence procedure (behavior that is not in line with expectations of clients' role), and prior knowledge (individual or general). Following role theory (Biddle 1986; Solomon et al. 1985), we might assume that clients with a higher level of administrative literacy naturally fit in with role expectations in public encounters. Accordingly, clients may be able to increase their entitlement perception and show congruent behavior during procedures. Additionally, better communication skills may enable citizens to emphasize their readiness and convince the SLB to use his or her discretion in the applicant's favor. Communicative literacy will help clients interact with public employees on a level playing field. They will find it easier to answer case-related questions and convince the SLB of their deservingness or success potential. Raaphorst & Loyens (2018) find that negotiations with clients are typically dynamic in frontline decision making. Thus, clients who are able to negotiate more effectively should be more likely to achieve a better result.

> H_2: Citizens who are able to communicate better with public employees will be more likely to receive additional effort from the public employee.

Signals and cues that are consistent in the perception of the interpreter could reinforce each other. If the SLB is able to triangulate different signals into a consistent picture of the client, uncertainty about his or her potential is further reduced. Thus, the combined effects of preparedness and communicative skills should further increase their singular effects.

> H_3: The effects of good preparation will be amplified by effective communicative behavior in public encounters.

Data and Method

In order to test these hypotheses, I conducted a survey experiment using vignettes. The study was pre-registered on Open Science Framework (OSF): https://osf.io/wntu4. The vignettes consisted of a short description of a fictitious public encounter. The experiment followed a 2 (good / bad preparation) x 2 (effective / ineffective communication) within-subject design. The scenario described an unemployed client who was applying for funding for further occupational training at the labor administration office in order to increase the chances of getting a new job. The first treatment varied the degree of preparation before the encounter. Having all the necessary documents before an encounter was considered to be the result of higher skills in a priori research regarding the application process. A knowledgeable applicant would be able to identify the necessary documents. Correctly filling out an application form was an additional result of a higher level of administrative literacy, as the applicant would thus be familiar with bureaucratic terms and wording. The second treatment simulated the citizen's communicative skills. The clients was either able to answer necessary questions or showed difficulties. Additionally, in the communication treatment, he would also attempt to persuade the employee of the potential benefit of his application. Aside from being able to answer specific questions relevant to the application process, it could be crucial to emphasize the benefit of a discretionary decision in favor of the applicant. Varying both treatments, respondents were randomly given two of the possible four vignettes. Additionally, the order of the vignettes was counterbalanced to control for possible order effects. This analytical strategy provides an opportunity to investigate the effects of variables that may not be easily disentangled in real-life settings.

The dependent variable (deservingness) was measured after each vignette by asking the respondents: "How likely is it that you would use additional time to help the client? Remember that this could mean less time for helping other clients" (Guul et al. 2018). The answers ranged along a 1–10 scale (1=very unlikely – 10=very likely). In order to increase validity, the question emphasized the potential trade-off of using additional time for this applicant while possibly neglecting other clients.

The data were gathered using an online survey. Respondents were public employees enlisted in a consumer panel. As stated in the pre-registration, I aimed for a sample size of 350 respondents in order to achieve a statistical power of about 95 % assuming a medium effect size ($d = 0.25$) and an alpha level of 5 %. However, due to lower response rates, only 324 finished the survey. Due to missing data and a few bad-quality cases, the sample size was $n = 294$. Table 3.9 shows the descriptive characteristics of the sample.[1]

[1]The population of public employees in Germany has an average age of about 44.5 years, of which 57 % are female and 43 % male (Statistisches Bundesamt 2018). Thus, men are slightly overrepresentated in this study's sample.

Table 3.9: Descripte statistics

Statistic		N	Mean	St. Dev.	Min	Max
age		290	45.345	10.592	23.000	66.000
tenure		288	21.170	11.452	0.000	45.000
gender	female	293	0.481	0.501	0.000	1.000
	male	293	0.515	0.501	0.000	1.000
	diverse	293	0.003	0.058	0.000	1.000

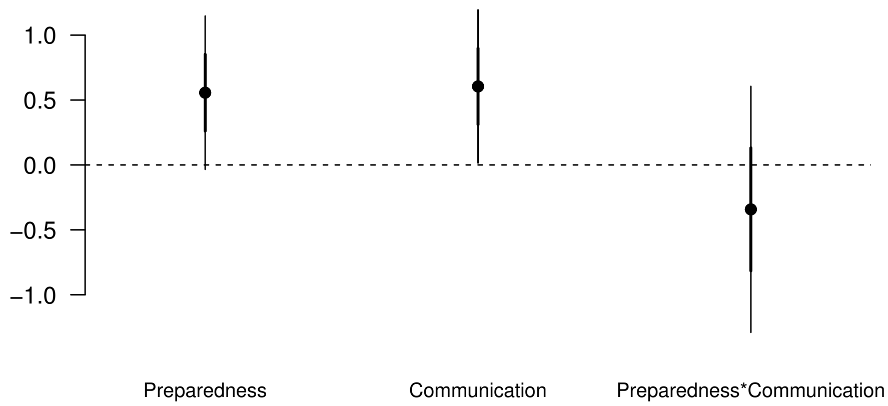

Figure 3.3: Regression Estimates of Model 2 including the 95% and 50% Confidence Intervals

Results

Table 3.10 below gives the results of the OLS analysis. The data in Model 1 show a positive and significant effect of preparedness ($\beta = 0.385, se = 0.201, p = 0.055$) and communication skills ($\beta = 0.434, se = 0.201, p = 0.031$) on the perceived deservingness of the applicants. Accordingly, both factors raise the likelihood that clients will have a positive outcome after the public encounter (see Figure 3.3). The effect size of effective communication skills is slightly higher, indicating a stronger influence.

The data support hypotheses H_1 and H_2, stating that public employees may be more likely to dedicate additional effort to clients who seem to better able

TABLE 3.10: OLS regression of the effects of preparedness and communication skills on deservingness

	Deservingness	
	(1)	(2)
Well prepared	0.385*	0.556*
	(0.201)	(0.296)
Effective communication	0.434**	0.605*
	(0.201)	(0.295)
Well prepared * Effective communication		−0.342
		(0.474)
Constant	5.756***	5.671***
	(0.202)	(0.223)
Observations	588	588
R^2	0.012	0.013
Adjusted R^2	0.009	0.008
F Statistic	3.520** (df = 2; 585)	2.546* (df = 3; 584)

Note: *p<0.1; **p<0.05; ***p<0.01,
Standard errors in parentheses,
Standard errors are clustered at the respondent level

to prepare for interactions with public organizations. Those clients need less assistance with forms and procedures, putting SLBs at less expense in the sense of transactional costs. Simultaneously, if clients are more capable of persuading SLBs by using the "right" arguments, they are more likely to achieve more favorable outcomes of discretionary decisions.

Model 2 gives the results for testing hypothesis H_3, including an interaction term of preparedness and effective communication. The data show no statistically significant evidence ($\beta = -0.342, se = 0.474, p = 0.470$) for an interaction between the two conditions. This is contrary to the proposed hypothesis H_3. While there is a cumulative effect of being well prepared and following effective communication strategies, there is no multiplying effect of both factors.

In both cases, the effect sizes are considerably small. Due to the complex nature of face-to-face communication, this is not surprising. Public encounters are rich in signals and cues based on explicit communication, implicit communication via demeanor and behavior, client characteristics, and potentially previous experience with certain clients. The manipulated factors represent only a limited – yet important – source of information.

Discussion

Although Tummers et al. (2015) categorize cream-skimming as a sub-category of "moving towards clients," the results underline the risks of inequity in public service provision resulting from cream-skimming behavior. Preparedness and effective communication are both based on the assumption of higher levels of administrative literacy. However, it is likely that it is especially the members of vulnerable population groups who fall short of the necessary knowledge and competences (Nisar 2018). If preparedness is understood as co-production in a broader sense, the argument becomes even more explicit. Studies show that individuals are more likely to partake in co-production if they have higher levels of education (Alonso et al. 2019), self-efficacy (Fledderus et al. 2014) and interactional skills (Lember et al. 2019). Additionally, characteristics such as ethnicity and social class, play an important role (Clark et al. 2013). Consequently, it is important to enable clients to interact with public organizations (Döring 2018).

The results indicate that cream-skimming behavior may be influenced by more subtle considerations than just a rational cost-benefit calculation. Studies found that SLB may feel the need for appreciation of their expert role and profession from their clients (Barnes & Henly 2018; Maslach 1978). Falling short of the necessary level of preparation for an encounter with a public professional may signal that the client does not take the role and decisions of the employee serious enough. An appropriate level of readiness may be an important cue for SLBs in social interactions such as public encounters. This appraisal, however, may overshadow the identification of clients in need who are lacking the skills and capacities to meet that demand.

Due to the structural resource problem, it is almost inevitable that SLBs will turn to coping strategies. This leads to a fundamental conflict of bureaucracy: Should public organizations focus on equality or equity? Traditional bureaucracies rely on the principal of equal treatment. However, if objective equality is almost impossible to achieve (which becomes apparent in the case of coping strategies), how can public organizations assure equity and prevent dysfunctional behavior? Or, posed differently: Should public organizations pro-actively set priorities in service provision instead of letting street-level bureaucrats arbitrarily cope with their resources? Public organizations may provide a structure of priorities in order to counterbalance coping behavior, such as cream-skimming. The structures may anticipate social preferences (e.g. prioritizing cases that are unable to advocate themselves). Another strategy could be to limit process discretion and thereby the opportunities for coping behavior (e.g. through standardization). On the downside, the priority structures may become difficult to adjust if institutional or environmental changes occur. Additionally, the limitation of discretion may undermine the role identity and motivation of public employees (Evans 2010).

The small effect size may also stem from the methodological design of the hypothetical vignettes. Future studies should investigate the phenomenon in real-life settings. Especially ethnological studies could prove essential to investigating public encounters and their dynamics (Hand & Catlaw 2019). Furthermore, future research could examine the effects of professional values and motivation, such as public service motivation. For example, studies found that employees with higher public service motivation are more inclined toward values such as social equity, fairness and neutrality (Kim & Vandenabeele 2010: p. 703). Thus, frontline staff with higher public service motivation may be less likely to show cream-skimming behavior. However, as Tummers et al. (2015: p. 1112) note, public service motivation may also be a driver for cream-skimming. Nevertheless, cream-skimming may be more prevalent in the private than in the public sector (Considine 2001: p. 111)).

The study has some limitations to discuss. First, the sample used in this study overcomes a common weakness of experimental data on SLB attitudes and behavior, which are often based on student samples. Unfortunately, it cannot be assumed that the sample solely consists of street-level bureaucrats. However, I argue that this sample is closer to the target population than are student samples due to socialization effects. Second, the complexity of the treatments is relatively low. While this ensures a comprehensible setup with higher statistical power, future studies should elaborate this method allowing for more complexity, especially when researching the effects of different client profiles. Third, the presented methodology only examines potential cream-skimming behavior in the sense of intention. As this is a common drawback of survey experiments, studies should try to aim for field studies capturing actual behavior while assuring ethical considerations.

Conclusions

The study takes a closer look at the concept of cream-skimming behavior. While this behavior is often described as a cost-benefit rationality, uncertainty is an omnipresent obstacle. The lack of information about the potential of clients makes the employee rely on social signals and cues in order to make an evaluation of the applicant. Public encounters serve as a rich source of such signals, such as via the preparedness and communicative skills of the clients.

The results from the experimental study support the suggested effects of these factors on the perceived deservingness of the applicant. These results pronounce the importance of research on citizen-state interactions, especially public encounters. While this study provides the first step, there is much more research needed in order to fully understand the social dynamics between public employees and their clients.

Appendix A – Vignette

Imagine you are an employee in a job center. You will be given two descriptions of applicants from which you have to make decisions. Please read the descriptions carefully. In both cases, the applicants want to be granted funding for further occupational training.

Person A is a 35 years old, a single man who wants to attend further training to qualify as an accountant after finishing his qualification as a retail employee. He hopes that this will give him better chances on the job market.

Person A attends the appointment in order to discuss and hand in his application.

He *[I: did / did not]* bring all the necessary documents with him. The application form *[is duly and correctly completed. / has missing information. Some details are wrong.]*

In order to process the application, you ask additional questions concerning the training and its provider.

[II: He easily answers the questions and emphasizes the increasing chances of getting a possible job due to the training. / He has difficulties answering the questions because, apparently, he does not understand several technical terms.]

For the final processing of the application you would need to consult your superior.

3.4 Service Recovery after Public Service Failures

Public service encounters between employees and citizens are daily fare which, makes the occurrence of service failures rather likely. However, public service failures and their recovery have been widely neglected in public administration research. Drawing from organizational justice theory and cognitive appraisal theory, the effects of different explanation strategies, excuses, and justifications are tested using representative population data from two survey experiments. Results show that justifications decrease the frustration of citizens after a service failure, whereas excuses could even worsen the situation. Simultaneously, the likelihood of a client complaining is lowered by the use of justifications. The two modes should not be combined, or else justifications lose their effectiveness. This article aims to promote public service management research by combining psychological theories with practical relevance.

Public service provision is mainly characterized by the delivery of services. However, studies on service encounters and their effects on citizen satisfaction remain scarce. This paper heeds the call for public service management (Osborne et al. 2012) by introducing evidence from the fields of service management and psychology into public administration.

Citizen satisfaction and its antecedents are currently a major topic in empirical research (James 2007; James & Moseley 2014; Olsen 2015). Experiences from interactions with public organizations, especially with street-level bureaucrats (SLB), are a focal source for evaluating them (van de Walle 2018). However, the actual interaction between SLB and citizens is widely neglected (Bartels 2013; Goodsell 1981a; Keiser 2010; Raaphorst & Loyens 2018). Recently, studies have emerged on the dynamics of interactions (Raaphorst & Loyens 2018) and their implications for equity (Jensen & Pedersen 2017; Ludwig-Mayerhofer et al. 2014) and discrimination (Jilke et al. 2018; Pedersen et al. 2018; Senghaas et al. 2019). The characteristics of service encounters (Parasuraman et al. 1985), however, demand a nuanced investigation of citizen-state interactions.

In service management research, the service encounter is a major object of interest. As service encounters are inherently complex (Grönroos 1984), service failures are likely to occur at some point (Hess Jr. et al. 2003: p. 127). Therefore, service failures constitute a special episode in service encounters. The effects of service failure offer rich insights into the dynamics that form a client's (dis-)satisfaction (Berry & Parasuraman 1991; McCollough et al. 2016; Smith & Bolton 1998). In such a situation, the role of frontline staff is of major importance in lessening outcome deterioration. However, service failures in public service encounters remain scarcely investigated (van de Walle 2016).

Different tools are at the frontline staff's disposal when trying to recover from a service failure. While most of the studies on service recovery focus on tangible and/or monetary compensation (Hess Jr. et al. 2003; McCollough et al. 2016; Sparks & McColl-Kennedy 2001; for a rare public sector example, see also Thomassen et al. 2017), the transfer to the public sector may be rather difficult as, for example, compensation payments may not be ethically accepted in public administrations (Thomassen et al. 2017: p. 897). Therefore, research on intangible recovery strategies may yield more fruitful insights into the dynamics of public service encounters. This paper will focus on non-monetary forms of recovery, as they are much more likely to happen in the real-world context of public services. One example of non-monetary recovery actions are explanations for the service failure. Therefore, this study tries to answer the following research question: What are the effects of explanations given by frontline staff on citizens' satisfaction after facing a public service failure? Two studies using survey experiments have been conducted to answer that question. Current studies on service recovery demand an investigation of more complex service interactions in different settings in order to increase the external validity of this field of research. Interactions with public administrations offer a great opportunity to fill this gap due to the different setting (van de Walle 2016). Public services are often provided in a monopolistic market. Additionally, rules and procedures often derive from multi-level governance structures, especially in federal states, raising the level of complexity of services. These characteristics offer an important contribution to both public administration and service management.

The paper is structured as follows. First, the theoretical framework is presented in order to understand the importance of (non-monetary) service recovery. Therefore, organizational justice theory as well as cognitive appraisal theory are applied to the research setting to derive hypotheses. Third, the design and results of the two studies are presented. Finally, implications are highlighted and suggestions for future research are given.

Theory

The interaction between public employees and clients or citizens has been an essential element of street-level bureaucracy (Lipsky 2010). Yet, empirical evidence on the dynamics of public encounters, the element of communication, and their psychological effects is still a blank spot in public administration research (Bartels 2013; Bartels 2014; Raaphorst & Loyens 2018; Raaphorst & van de Walle 2018). While the interaction of frontline staff with clients or citizens has only played a marginal role in public administration research, it has been a major issue of organizational frontline research during the last three decades (Rafaeli et al. 2016). Antecedents, as well as effects of these interactions have been studied with a variety of methods. Service failures and their recovery have been one of the focal research topics that can be considered to be of major interest for the public sector as well. As failures cannot be fully prevented, especially not in complex interactions such as services, the service provider's as well as the employee's behavior and reaction play a major role in determining the customer's satisfaction (Wallin Andreassen 2000; Wirtz & Mattila 2004). Public administration research has only recently started giving attention to the field of service management. van de Walle (2016) has proposed a research agenda to apply approaches and findings to the public sector.

Organizational Justice Theory and Recovery Modes

Organizational justice theory (or fairness theory) (Greenberg 1987)) provides an initial approach to understanding the relevance of service recoveries. It has been applied to a number of different research topics, such as work motivation and satisfaction (Battaglio & Condrey 2009; Cho & Sai 2013; Choi 2011; Cohen-Charash & Spector 2001; Colquitt et al. 2001; Husted & Folger 2004; Kurland & Egan 1999). Additionally, it has also been widely used in the service management context (Mattila 2001; Sparks & McColl-Kennedy 2001; Tax & Brown 2000). The concept explains the importance of different spheres of interaction to determine the perceived fairness of a decision made by individuals, groups of people, or organizations.

Three types of justice can be distinguished: distributional, procedural, and interactional justice (Greenberg 1987). Distributional justice is understood as the fairness of distribution of resources. In the context of service recovery, this is especially associated with tangible and/or monetary compensation. Procedural justice is conceptualized as the fairness of the process itself, focusing on involvement, ethicality, and bias-free behavior. Finally, interactional justice refers to the fairness of how individuals are treated after the decisions and is therefore applicable to the service encounter context. It may be further differentiated into interpersonal and informational justice, where, the former represents the respect, kindness, and courtesy with which the service employee interacts with the client. The latter reflects the distribution of information, explanations for decisions, and reasons for action.

Explanations for service failure represent a major mechanism to increase interactional justice. From the perspective of organizational justice theory, Folger & Cropanzano (1998) differentiate between four types of explanations:

1. Excuses: The individual tries to avoid responsibility by invoking circumstances or other organizations and individuals who caused the failure.

2. Justifications: The individual accepts the responsibility. However, reasons for the decisions or circumstances (mostly due to higher goals) are explained in order to legitimize the situation.

3. Referential accounts: Individuals try to ease the dissatisfaction with the failure by comparing the client's situation with others who may be even worse off.

4. Apologies: Individuals take responsibility. Additionally, they express their sympathy and/or remorse.

van Vaerenbergh et al. (2018) provide a different typology by differentiating between compensation options (e.g. monetary compensation or apologies), organizational procedures (e.g. customer participation), and favorable employee behavior (e.g. excuses, justifications, or empathy). The latter option plays an especially "important role in managing customers' emotional reactions" (van Vaerenbergh et al. 2018: p. 4). This is why, in this study, the use of excuses and justifications is of major interest. While both attempt to increase the informational justice of the encounter or decision, they follow opposing strategies in dealing with the responsibility for the failure. On the one hand, excuses aim at diverting responsibility to unavoidable events or other parties, blaming them for the service failure. Thereby, frustration is supposed to be channeled away from the service deliverer by emphasizing that the problem is not in that person's control, or even providing a scapegoat. The effectiveness of the excuse may differ depending on the specificity (Folger & Cropanzano 1998: p. 46). Blaming a specific individual or organization may be more convincing in trying to prove that the service provider is not to blame, compared to an unspecific excuse in which the provider is just shown as powerless. In public administration research, blaming theories (Hood 2011) have been mostly applied at the macro- or meso-level of policy analysis and public administration studies (Anderson 2009; Carpenter & Krause 2012; Hood 2007; James et al. 2016). Micro-level phenomena like public encounters have played no major role in this literature so far.

By using justifications, on the other hand, the employee accepts responsibility for the situation. An explanation is offered to the client, drawing on his or her understanding or sympathy. The causes for the failure may have intra- or extraorganizational origins. Their occurrence may, for example, be due to unknown standard procedures, extraordinary circumstances, or a superordinate goal. These circumstances allow the employee to justify his or her actions and the result leading to the service failure. Additionally, clients may perceive a given justification as an attempt to lower information asymmetries (Lipsky 2010: p. 65) and therefore as a kind of investment in their procedural and structural knowledge about administrations by the employee.

The question as to which of these types is more effective is highly contested (Bradley & Sparks 2012: 41f). Whereas some studies point to the superiority of excuses (Shaw et al. 2003: p. 447), other studies found contradictory results in favor of justifications (Conlon & Murray 1996). However, the effectiveness of these two strategies may be determined by the client's assessment of the adequacy, legitimacy, and credibility of such explanations (Shaw et al. 2003). The causal attribution can therefore be influenced by the stability, credibility, and locus of the failure (Hess Jr. et al. 2003).

Cognitive Appraisal Theory

Cognitive appraisal theory (CAT) (Folkman et al. 1986) offers a valuable approach to understanding why service recoveries play an important role after failure situations. Following CAT, emotions and affective responses in individuals may be caused by certain events that are assessed and evaluated in an appraisal process as the individual tries to interpret and explain the situation taking place. This process may be divided into two stages (Lazarus 1991). In the primary phase, the individual assesses the relevance of the event in terms of his or her needs and goals. During the secondary appraisal, the emotions are formed. The individual tries to hold others accountable for the event, giving blame (or credit) to other individuals, groups, or institutions. Thereby, different emotions such as anger, frustration, anxiety, or happiness may be triggered and investigated. In a service context, clients appraise their situation when exposed to a service failure. They will draw an evaluation based on the given problem, its magnitude, and the given resources. The level of perceived stress depends on this assessment. Frontline staff may positively influence this judgment by offering emotional support in the form of service recovery. In organizational frontline research, CAT has been adapted to investigate the effect of different behaviors and traits of frontline staff on the reaction of customers and clients, for example emotional competence (Bonifield & Cole 2007; Delcourt et al. 2017; Watson & Spence 2007).

As both excuses and justifications try to shape citizen' interpretation of the failure, both modes may affect their emotional responses. Excuses may help the public employee to shift the blame, and thus the frustration, towards other people or organizations, resulting in a lower level of frustration with the experience. Justifications may achieve a comparable effect but through an understanding of the accompanying circumstances, which may have reasonable explanations. Therefore, the following hypotheses are proposed:

> H_1: The use of excuses decreases the citizen's level of anger after a public service failure.

> H_2: The use of justifications decreases the citizen's level of anger after a public service failure.

As discussed, the effectiveness of excuses may depend on the specificity of the excuse. An excuse that blames a specific organization or individual may be more convincing than an unspecific excuse.

> H_3: A more specific excuse is more effective in service recovery than an unspecific excuse.

As both explanation types may appear in the same service encounter, the interaction of these is also of interest. Both modes, excuses and justifications, have rather different (if not adverse) approaches in dealing with service failures. The appearance of both modes may mutually negate the effects of the respective explanation. Therefore:

> H_4: The use of excuses negates the effects of justifications after a public service failure (and vice versa).

Study 1

Design and Data

To test the four hypotheses, this study follows an experimental approach using a survey experiment containing vignettes of fictitious service encounters. This approach is widely applied in research on service failure (Tax & Brown 2000) and increasingly common in behavioral administrative research (Grimmelikhuijsen et al. 2016; Jilke & van Ryzin 2017). Accordingly, a 2 (no / justification) x 3 (no / general / specific excuse) factorial between-subject design is used, in which one out of six vignettes was presented to the respondents in a survey experiment. In order to account for a more complex service situation with more diffuse failure responsibilities, the following scenario was developed: The scenario describes a citizen who has to get a new ID card from the local citizen office. However, the public service employee rejects the citizen's photo as it does not meet the required biometrical standards. The response of the employee is used as the treatment. Respondents rated the situation as moderately realistic (M=3.85 on a five-point Likert scale, SD=0.99).

> Imagine that you need to refresh your citizen ID card at the local citizen office. In preparation, you acquire a biometrical photo from a professional photographer.
>
> At the office, your photo is scanned. The computer gives an error message that the photo does not meet the required standards. It is too bright and too low on contrast.
>
> The employee tells you that she can't use the picture and that you need to get a new appointment with a better picture. \
>
> [T_0: **no / no**] – No additional message –
>
> [T_1: **no / general excuse**] "I'm sorry, but those are the regulations. We have no influence on that."

[T_2: **no / specific excuse**] "I'm sorry, but those are the regulations from the Federal Ministry of the Interior. We have no influence on that."

[T_3: **justification / no excuse**] "I'm sorry, but thiy way it can be ensured that the picture on the ID card is easily recognizable. In the end, this is for your own safety and enables the police to do a good job, for example."

[T_4: **justification / general excuse**] "I'm sorry, but those are the regulations. We have no influence on that. This way, it can be ensured that the picture on the ID card is easily recognizable. In the end, this is for your own safety and enables the police to do a good job, for example."

[T_5: **justification / specific excuse**] "I'm sorry, but those are the regulations from the Federal Ministry of the Interior. We have no influence on that. This way, it can be ensured that the picture on the ID card is easily recognizable. In the end, this is for your own safety and enables the police to do a good job, for example."

An a priori power analysis using G*Power (Faul et al. 2009) was conducted, aiming for 80 % power, with an expected effect size of $d = 0.15$ indicating a necessary sample size of 1102 to conduct a t-tests. The effect size was inferred from previous research on service recoveries (Bradley & Sparks 2012; Mattila 2001). The data was gathered via online survey using a representative (gender, age, and education) sample from a German online panel (n=1,090). Participants were randomly assigned to one of the six conditions. Randomization over all six treatments was achieved by order of accessing the online survey and using the residual value after dividing the respondent's ID by six. This way, an even distribution over all treatments was realized.

Variables. The dependent variable "anger" represents the negative emotional response after the service failure. It is measured as a composite mean index of three items measuring frustration, irritation, and anger with the situation ($\alpha = .82$) (see Table 3.14).

Results

Justifications have a redeeming effect on the level of anger ($M_{\text{no justification}}$=3.649, $M_{\text{justification}}$= 3.513, two-sided t (1070.2) = 2.0279, p-value = 0.043), which is in line with the expected hypothesis H_2. The effect size is Hedges' $g = .124$.

Excuses, however, do not have the expected effect on the appraisal of the situation. When investigating the effect of excuses (both unspecific and specific in contrast to no excuses at all), they unexpectedly even worsen the frustration of the citizen ($M_{\text{no excuse}}$=3.493, M_{excuse}= 3.624, two-sided t (662.62) = -1.792, p-value = 0.074). The effect size is $g = 0.116$. When further investigating the differing effects of the specificity of excuses, the data indicate that the anger-boosting effect of specific excuses is slightly higher ($F\ 2, 1071\ = 1.771, \beta = 0.148, p = 0.074$) than for unspecific excuses ($\beta = 0.115, p = 0.162$). Therefore, the data show evidence against hypotheses H_1 and H_3.

Aside from traditional null-hypothesis testing (NHST), scholars have recommended evaluating the effect sizes using so-called equivalence testing (Lakens 2017; Schuirmann 1987). This procedure complements NHST by evaluating whether an effect size is equivalent to zero assuming specific equivalence bounds. Hereby, the tested null hypothesis is any effect size deemed worthwhile. One widely used procedure is the "two one-sided t-tests" (TOST). Although the effect sizes of the t-tests above are comparably small, the TOST procedure gives additional guidance for evaluating the effects. Assuming equivalence bounds of $d = 0.2$, Figure 3.4 shows that the effect of justifications is statistically different from 0 and statistically not equivalent to zero. The same results can be found for the effect of excuses (Figure 3.5). While effect sizes of 0.2 are admittedly small, the intervention of using justifications and/or excuses requires minimal resources in service encounters. Considering this cost-benefit ratio, explanations may represent a valid recovery option.

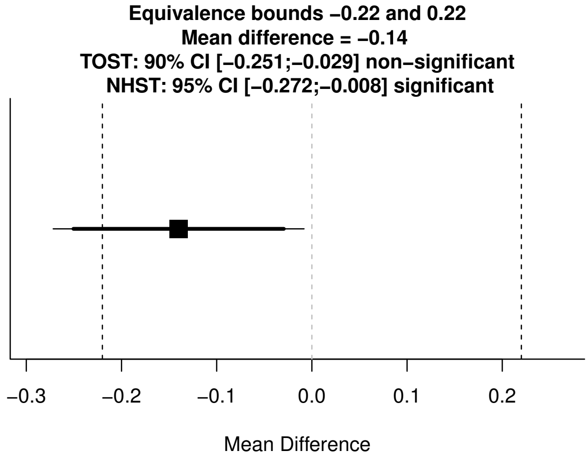

FIGURE 3.4: TOST of the effect of justifications

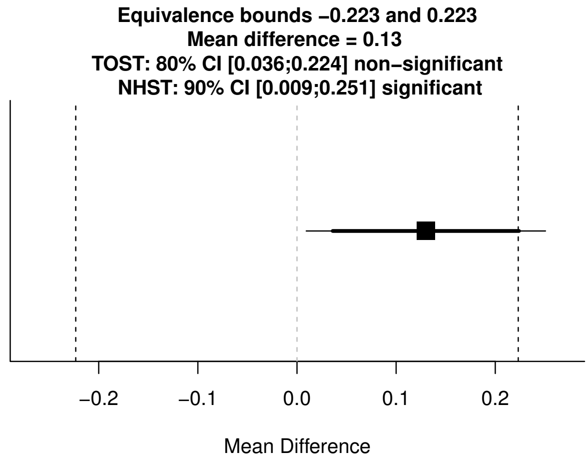

FIGURE 3.5: TOST of the effect of excuses

In order to test for hypothesis H_4, an ANCOVA is used including an interaction term between the use of excuses and of justifications. Table 3.11 gives the results. Including the interaction term in Model 2, the anger-boosting effect of excuses is mitigated and loses its significance. However, the interaction term is also not significant.

TABLE 3.11: ANCOVA of interactions between explanation types on anger from service failure after recovery (Study 1)

	Anger	
	(1)	(2)
Excuse	0.132*	0.036
	(0.071)	(0.101)
Justification	−0.136**	−0.264**
	(0.067)	(0.116)
Excuse * Justification		0.191
		(0.142)
Constant	3.561***	3.625***
	(0.067)	(0.082)
Observations	1,074	1,074
R^2	0.007	0.009
Adjusted R^2	0.005	0.006
F Statistic	3.767** (df = 2; 1071)	3.115** (df = 3; 1070)

Note: *p<0.1; **p<0.05; ***p<0.01,
Standard errors in parentheses,

Taking a closer look at the different treatments, Table 3.12 gives the results of an ANOVA comparing every treatment group compared to the control group. Only the group that received just a justification for the service recovery shows a significant drop in the anger level. Figure 3.6 shows the distributions of anger across the different treatment groups. This indicates that the use of different explanation strategies may be dysfunctional due to conflicting signals that are sent to the client. This in return may lower the credibility of the statement.

TABLE 3.12: ANOVA of treatments on anger from service failure after recovery (Study 1)

	Anger
Unspec. Excuse	0.007
	(0.117)
Spec. Excuse	0.064
	(0.116)
Spec. Excuse + Justification	−0.033
	(0.116)
Unspec. Excuse + Justification	−0.041
	(0.116)
Justification	-0.264^{**}
	(0.116)
Constant	3.625^{***}
	(0.082)
Observations	1,074
R^2	0.009
Adjusted R^2	0.004
F Statistic	1.913^{*} (df = 5; 1068)

Note: $^{*}p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$,
Standard errors in parentheses,

The results of this study offer initial evidence in favor of justifications and against excuses when compensating for service failure in public service encounters. Due to the small effect size, additional evidence is needed in order to raise the reliability of the results.

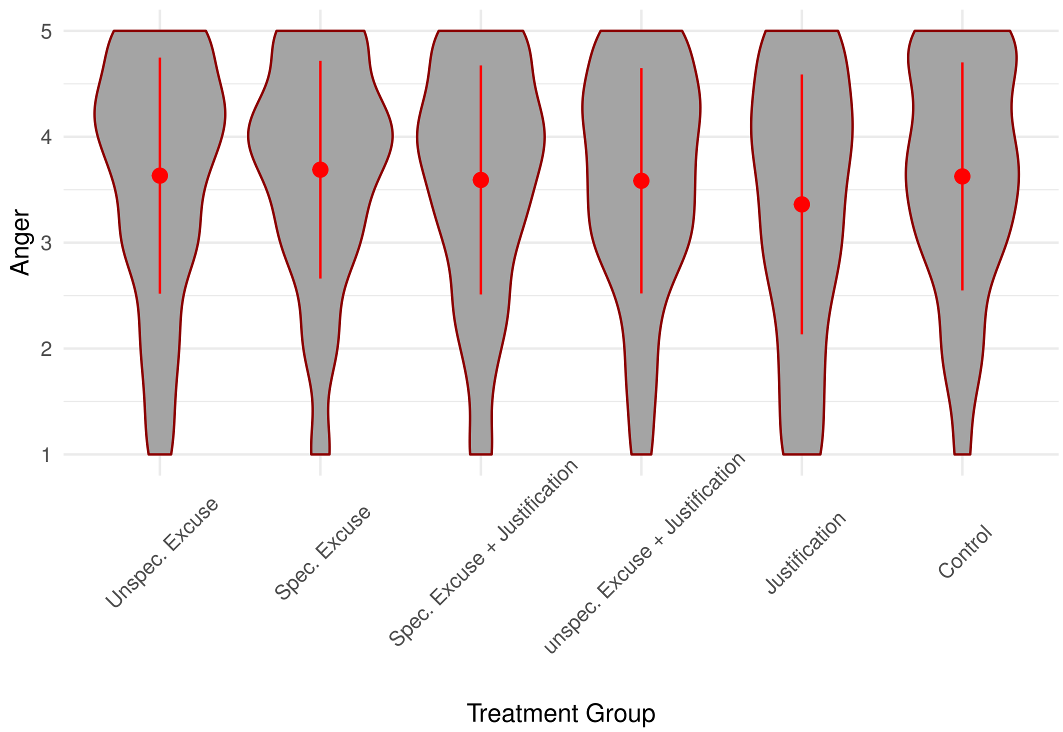

FIGURE 3.6: violin plot of treatment groups in Study 1

Study 2

The second study tries to replicate the previous results while extending the theoretical implications. Based on the results of Study 1, Study 2 will try to test the following hypotheses[2]:

> H_{1a}*: The use of excuses increases the citizen's level of anger after a public service failure.

> H_2*: The use of justifications decreases the citizen's level of anger after a public service failure.

While anger is only a cognitive response to service failures, complaining behavior materializes as a substantial phenomenon. Complaints can cause negative effects on both frontline workers and the organization itself, causing emotional labor (Babakus et al. 2003; Jerger & Wirtz 2017; Korczynski 2003; Mann 1999), reputational costs (Richins 1983), and the use of organizational

[2]Hypotheses highlighted with an asterisk have been pre-registered.

resources for complaint handling (Williams & Buttle 2014). Organizational complaint handling is an essential consequence of service failures. A meta-analysis by Gelbrich & Roschk (2011) distinguishes between three types of post-complaint responses: compensations (monetary as well as psychological), favorable employee behavior (explaining reasons for failure, active listening, careful communication), and promptness (smooth complaint-handling processes). They find that the employee's behavior has a substantial effect on the perceived interactional justice which, in return, has the strongest effect on the overall satisfaction of clients.

Complaints may target different goals. Clients showing problem-solving complaining behavior want to find solutions to encountered failures and thereby contribute to the organizational performance by improving processes (Hibbard et al. 2001). Vindictive complaining behavior (Grégoire & Fisher 2008), however, is an emotional coping strategy to reduce negative emotions. Citizens preferring vindictive complaining try to reflect their stress and anger onto the (seemingly) responsible person or organization in order to reduce emotional stress. Receiving a justification, however, succeeds in reducing emotional stress by offering an explanation. This, again, lowers the need for other coping strategies like vindictive complaining behavior. Simultaneously, justifications may also lower the likelihood of problem-solving complaining behavior, as explanations may signal that the reason for the failure has already been identified. Therefore, in addition to hypotheses H_{1a} and H_2, Study 2 will test the following hypotheses:

> H_5: The use of justifications decreases the likelihood of vindictive complaining behavior after a public service failure.
>
> H_6: The use of justifications decreases the likelihood of problem-solving complaining behavior after a public service failure.

Design and Data

Study 2 follows a similar approach to Study 1 using a survey experiment. For the vignette, the study refers to the scenario from (Thomassen et al. 2017), who chose a failed appointment for collecting a visa for which the citizen applied over the internet. This scenario was tested in a PA context and has a less complex structure of blame attribution. The treatment was modified towards a non-monetary attempt at service recovery. Respondents rated the described scenario as rather realistic (1–7 scale, $mean = 5.19, sd = 1.3$). The scenario reads as follows:

> In one month, you need to be in another country for which a travel visa is required, which costs you approximately 40 dollars. You have ordered it online. After a couple of days you receive a message that it is ready to collect at the office (about a 20-minute drive from your home) and you go to the office.
>
> Now you are at the desk, and the employee informs you that the visa is not there. The employee checks the system and informs you that it is still on its way. It will be available tomorrow.
>
> [T_0: **Control**] You leave the building.
>
> [T_1: **justification given**] The employee says: "I am sorry. We are currently making changes to our internal system to improve in the future. However, unfortunately this sometimes causes delays in the processing of applications." You leave the building.
>
> [T_2: **excuse given**] The employee says: "That's unfortunate. But the printer's delivery service failed to make the delivery." You leave the building.

The design was pre-registered on Open Science Framework (OSF): https://osf.io/et6aj[3]. Based on a power analysis ($d = 0.15, \alpha = 0.05, power = 80\,\%$), 699 participants were aimed for. The effect size was inferred from previous research on service recoveries (Bradley & Sparks 2012; Mattila 2001) and the results of Study 1. The data were gathered by conducting an online survey of a representative (in terms of gender, age, and education) population sample in Germany from a survey panel. After omitting cases that did not match a bad quality item, the sample size was n=785. The randomization procedure was the same as in Study 1.

Variables. Anger as a negative emotional response was measured using a two-item scale ($\alpha = 0.93$) ranging from 1–7. Vindictive ($\alpha = 0.86$) and problem-solving ($\alpha = 0.82$) complaining behaviors are conceptualized as proposed by Grégoire & Fisher (2008) and Gelbrich (2010). Table 3.14 in the appendix offers a thorough description of the items.

Results

The use of an excuse slightly increases the mean level of anger in the treatment group ($M_{\text{no excuse}}$=4.883, M_{excuse}= 4.992, two-sided t (648.44) = -0.9953, p-value = 0.32). However, this increase is statistically insignificant. The data show no support for H_{1a}. The justification, again, has a significantly redeeming effect on the level of anger ($M_{\text{no justification}}$=5.007, $M_{\text{justification}}$= 4.741, two-sided t (583.8) = 2.3634, p-value = 0.018), which indicates support for H_2. The effect size is slightly larger than in the previous study ($g = .168$). Figure 3.7 gives the distribution of anger across the treatment groups.

A structural equation model (SEM) was calculated in order to test hypotheses 5 and 6. Results are given in Table 3.13. The model fit is very good ($Chi^2[df = 27] = 118.971; CFI = 0.975, RMSEA = 0.062[0.051 - 0.073]$).

[3]Hypotheses 3 and 4 in the pre-registration have been omitted from this paper in order to increase the coherence of the study.

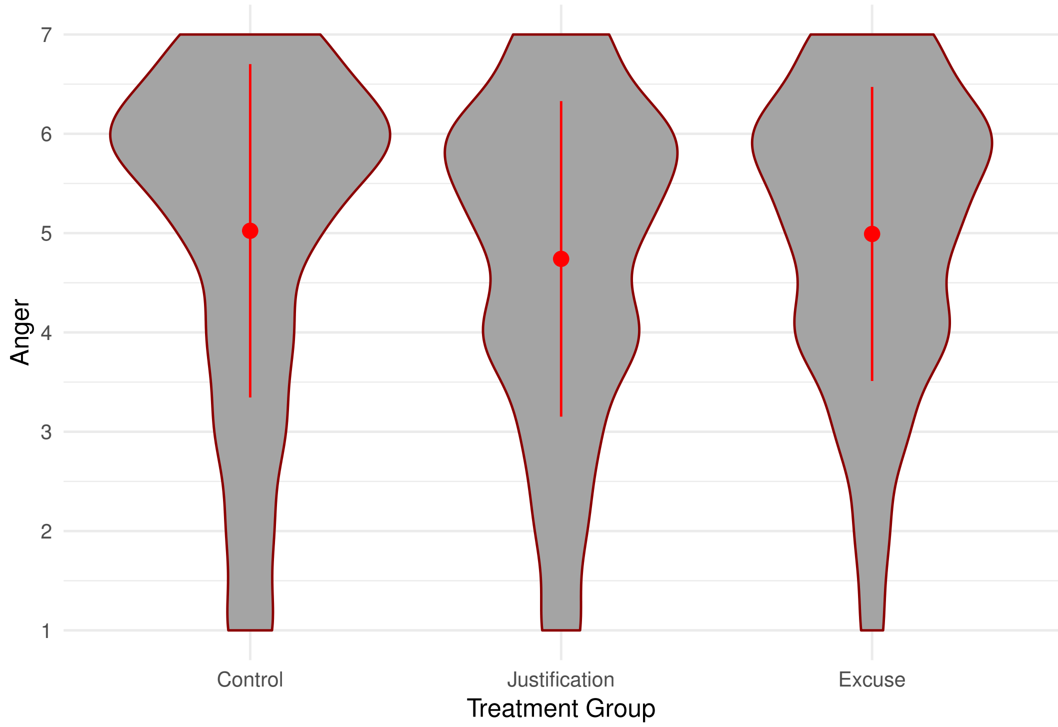

FIGURE 3.7: violin plot of treatment groups in Study 2

The results indicate that justifications significantly lower the tendency towards vindictive complaining, which is in line with the arguments of hypothesis H_5. Simultaneously, justifications also lower the likelihood of support-seeking complaining, supporting H_6, thereby indicating that the likelihood of complaining is generally reduced when offered an explanation for the service failure. The data show no effect for the use of excuses.

TABLE 3.13: Structural Equation Model of the effects of explanations on anger and complaining behavior

	lhs	op	rhs	est	se	z	pvalue
1	Vindictive Complaining	~	Justification	**-0.22**	0.11	-1.94	0.05
2	Vindictive Complaining	~	Excuse	0.00	0.11	0.03	0.98
3	Support-Seeking Complaining	~	Justification	**-0.24**	0.11	-2.17	0.03
4	Support-Seeking Complaining	~	Excuse	-0.00	0.11	-0.03	0.98
5	Anger	~	Justification	**-0.29**	0.13	-2.21	0.03
6	Anger	~	Excuse	-0.03	0.13	-0.25	0.80

General Discussion

The results offer five theoretical and practical contributions. First, contrary to the majority of studies on service recovery (Bradley & Sparks 2012; Shaw et al. 2003), the data from both experiments indicate no effect of excuses on the citizen's emotional response to the service failure. As this study is the first to apply this topic to the public sector context, there may be different reasons for this finding. The characteristics of public services may inhibit the effect of excuses. For example, the monopolistic nature of most core public services exacerbates the effectiveness of shifting the blame onto other actors. Citizens are often not able to choose from different service providers. Being told that other actors are to blame for the failure signals that such failures may occur in the future as well, and may provoke a feeling of helplessness, reinforcing angry reactions. Another characteristic may be the complex structure of regulation, especially in federal systems, often underlying public services. This diffusion of responsibility — as simulated in Study 1 — may reinforce further frustration, making excuses less suitable for public service failures.

Second, on the other hand, justifications seem to be an effective recovery measure for public service failures. By explaining the reason and meaning behind the service failure to the client, frustration may be mitigated. As the frustration level decreases, the second appraisal of the service failure is then less negative. However, as service failures may happen for an understandable reason, the kind of reason could influence the effectiveness of this recovery mode. If the failure can be attributed to a greater good (e.g. societal concerns), it may be easier to accept, whereas personal mistakes, red tape, or administrative burden may be harder to swallow for the client. Future studies should take a closer look into this possible moderator.

Third, to the best of my knowledge, this is the first study to investigate the interaction effect of different recovery modes. In real-life service encounters, it may be very likely that different explanations for service failures are given at the same time. Yet, different types of explanations may cancel each other out, resulting in non-effective service recovery. The data presented here indicate that excuses make justifications ineffective when used at the same time.

Fourth, despite the comparably small effect size of non-monetary recovery modes (Bradley & Sparks 2012; Mattila 2001), they provide an easy-to-implement and cheap measure to mitigate frustration. Additionally, justifications seem to diminish the likelihood of customers complaining. This in return lowers transaction costs for organizational complaint handling and cushions the public employee from emotional labor (Babakus et al. 2003; Jerger & Wirtz 2017; Korczynski 2003). Future research should elaborate on that effect by conceptualizing service recoveries in a more thorough way, such as combining interpersonal modes with organizational responses, and accounting for the temporal component of such recoveries (van Vaerenbergh et al. 2018). Furthermore, the emotional and psychological capacities and competencies of public employees may be crucial for such recoveries (Azab et al. 2018; Delcourt et al. 2017; Fernandes et al. 2018). Especially in emotionally charged service encounters, such as policing or welfare administration, these components may prevent extreme emotional or even physical responses.

Fifth, this study supports the attempt of van de Walle (2016) and Thomassen et al. (2017) to establish a public service management approach. While there is vast knowledge about the role of street-level bureaucrats (Brodkin 2012; Lipsky 2010; Maynard-Moody & Musheno 2012) and organizational settings (Keiser 2010; Marvel 2017; Steijn & van der Voet 2019), there are still very few studies investigating what happens in those public encounters (Bartels 2013; Raaphorst & Loyens 2018). Theoretical and methodological approaches from service management research may serve as a blueprint (Westrup 2018). The behavioral public administration movement may further endorse a demand for such studies.

Conclusion

This study examines the effects of different explanation modes in service recovery after public service failures. The results indicate that excuses may be rather ineffective, whereas justifications may decrease the negative appraisal, with the failure measured as anger and frustration. The experiments also show the diminishing effect of justifications on complaining behavior. Reasons for the partially different results compared to previous studies may be traced to the specific public sector context in which the service encounters are framed.

Nevertheless, there are some limitations to this study that need to be considered. First, the results are drawn from a survey experiment. This may also explain the comparably small effect size of the treatments. External validity should be increased by replicating the findings in field studies. This is especially important when concentrating on the communicative aspects of service encounters. However, the quality of the sample ensures a good degree of ecological validity by not only relying on convenience student samples. Second, the magnitude of the failure as well as the persuasiveness of the given explanations are not investigated in this study. However, they play a major role in service recovery, especially when using non-monetary modes. Last but not least, this is the first study on non-monetary service recovery in the public sector context. Further studies are needed to achieve a more nuanced picture of the differences and similarities in public and private service encounters.

Nonetheless, the results of this study promote further investigation into public service management and the specifics of public encounters, a field with various possibilities and unanswered research questions that may offer significant insights to research on citizen-state interactions.

Appendix

TABLE 3.14: Item descriptions

Variable	Items
Anger (Study 1)	I would have been frustrated.
$\alpha = 0,82$	I would have been irate.
	I would have been disappointed.
Anger (Study 2)	How angry would you be?
$\alpha = 0,93$	How irate would you be?
Problem-solving	I would complain to the administration to ...
complaining	... discuss the problem constructively.
$\alpha = 0,82$	... find an acceptable solution for both parties.
	... work with its representatives to solve the problem.
Vindictive	I would complain to the administration to ...
complaining	... give the representative(s) a hard time.
$\alpha = 0,86$	... be unpleasant with the representative(s) of the company.
	... make someone from the organization pay for its poor service.

Chapter 4

General Discussion

The following chapter summarizes the overarching results from the research articles. Afterwards, I will point out the limitations of this dissertation project while also indicating potential for future research.

4.1 Discussion

In recent years, the call for research on citizen-state interactions has gotten more pronounced (Jakobsen et al. 2016). The presented articles shall contribute to the development for a research agenda focused on public encounters and their dynamics as depicted in the previous chapters.

Individual competences and knowledge about bureaucratic processes and terminology have been shown to be an potential key element for that research. While it may have a multi-faceted impact on various levels of the administrative system and society, it is of fundamental value to the interaction between public employees and citizens. Administrative literacy may shape the citizens' behavior and potential success in public encounters but also serves as a social signal for street-level bureaucrats causing a different treatment. Hence, the training of administrative literacy may be a crucial task for various institutions. While skills take more time to develop, knowledge may be easier to disperse. Passive provision of such knowledge (e.g. through homepages or brochures) may have very limited effects unless the language is adjusted to a proper audience. The argument is also in line with discussions that advocate the introduction of everyday life subjects in school, including topics, such as the training for tax declarations. However, the effectiveness and appropriateness of such school subjects remains doubtful. Ultimately, the service staff in respective public organizations may be the most effective source to achieve specific and timely knowledge formation.

Simultaneously, the micro management of public encounters, understood as service interactions, deserves a fundamental revision. While concepts and research results from the service management literature have been widely neglected by public administration research, there are various insights that may turn out to be rather fruitful. The management of service failure serves as one example. If public organizations are willing to address customer satisfaction as a pivotal outcome, actively managing these failures, encouraging service recovery, and thus, training service staff, is crucial. However, the transferability of logics and results from private sector studies need to be critically evaluated as shown in Article 3. In the private sector, customers may rely on different behaviors to react to service experiences, such as exit, voice, and loyalty (Hirschman 1970). However, due to the structural monopoly in the public sector, the strategic options are quite limited. While these options are an important element of competitive markets, they also serve as a tool of emotional processing. If these options are limited, self-efficacy is restricted and powerlessness may be a result. Self-determination theory (Deci & Ryan 2008; Gagné & Deci 2005) may explain the resulting dissatisfaction and frustration. Accordingly, along with autonomy and relatedness, competence is an innate need to achieve. Competence is described as the need to be effective in dealing with the environment (Deci & Vansteenkiste 2004: p. 25). In order to fulfill this need in public service interactions, the client has to possess the necessary knowledge and skills in order to prevent a kafkaesque feeling. Thus, administrative literacy serves as an umbrella concept to reinforce a feeling of competence.

Across Article 1 and 3, structures and processes play a fundamental role. Citizen do not only need knowledge about these aspects of service provision in order to interact with public organizations, they also feel the need for more knowledge in order to process service failures. Thus, justifications are not only more successful during service recovery because the organization accepts the responsibility: Explaining the reasons for disruptions offers insights into the structures and processes *behind the scenes*. Thus, justifications could serve as a viable instrument to increase the processual & structural knowledge of citizens. As opposed to this, excuses seem to be useless or even counterproductive. Diverting the responsibility to third parties may further increase the feeling of powerlessness as clients cannot be sure whether they will encounter this problem in the future again. Furthermore, if employees blame other partners within the provision chain, clients may doubt the organization's ability to select appropriate production partners, and thus, deny the organization satisfactory problem-solving abilities.

The implications for this research are multi-faceted. First, it points towards the role of service management in the public sector. Based on the service-dominant logic (Lusch & Vargo 2015) widely applied in private sector service research, scholars highlighted specific challenges resulting from service interactions. The interaction of frontline staff and customers as well as the setting of the interactions have an important impact on service outcomes like citizen satisfaction (Grönroos 2010). Although the setting of service provision in the public sector differs concerning features such as competition or price dynamics, the basic logic of how to achieve customer satisfaction remains similar. Client satisfaction is, for a number of reasons, a pivotal performance indicator. Aside from the intrinsic motivation of public organizations and staff to care for the quality of their services, it is a useful signal for potential problems in the process chain of service provision. If satisfaction ratings drop, public organizations may initiate a thorough check of procedures and routines for waste of resources, such as time and personnel. Citizens that are highly content will show higher compliance with information demands and adjust their behavior accordingly. Thus, frontline staff needs fewer resources to take care of compliance demands. Excessive dissatisfaction may also lead to client misbehavior, resistance to decisions, or complaining behavior (Singh & Pandya 1991). All of these reactions, again, bind additional resources for processing. Additionally, misbehavior puts additional emotional stress and psychological pressure on the frontline staff. Ultimately, dissatisfaction may result in verbal and physical aggression against organization and staff. Hence, client satisfaction is not only relevant on the macro level by ensuring institutional trust (van Ryzin 2007), but also at the very micro level of everyday work. Furthermore, political goals such as equity may raise the relevance of satisfactory processes during service provision. Accordingly, the role of the frontline staff should be re-visited too. While research on street-level bureaucracy offers rich insights in this sub-group of the personnel, it neglects other groups of the frontline staff that do not have substantial discretion in their job. Nevertheless, this service staff plays a crucial role in citizen-state interactions too.

Second, based on the service-dominant logic, the importance for adequate processes becomes highlighted. The relevance of administrative literacy underlines the current discussion about administrative burden and its effects on citizens. Citizens that fall short of the necessary levels of administrative literacy are more vulnerable towards hidden policies and bureaucratic obstacles. Accordingly, in order to support equity, processes should be examined for administrative burden or red tape. Adjusting forms to simpler language is only one step. Developing one-stop (or even no-stop) shops may be a more effective approach to lower the costs imposed on citizens.

4.2 Limitations & Future Research

Nevertheless, this dissertation project suffers from limitations. First and foremost, the scope of the project excludes antecedents of the employees' behavior. Additionally, the interaction between employees' and clients' behavior has not been investigated directly in these studies. However, in order to get a full picture of what happens in-between (Bartels 2013), these interactions are essential yet difficult to capture. Accordingly, future research should try to observe such interactions possibly via qualitative and ethnological research methods (Hand & Catlaw 2019). This could help to develop a theoretical model of interactions that go beyond a *game of knowledge* (Sarangi & Slembrouck 1996) model. The results of this dissertation emphasize that there is more to it than merely an exchange of information between the two parties.

Furthermore, the studies in Article 2 and 3, albeit being experimental, build on fictitious scenarios. Thus, doubts remain whether the results will hold in real life. To solve this, additional research is necessary. Moreover, while survey experiments are useful to capture emotions, motivation, and perceptions, they are not prime to observe actual behavior. Different methodological approaches, such as lab or field experiments, could add to the foundations of this research and enhance the results' external and internal validity.

As discussed above, the formation of citizens' knowledge and skills could prove to be essential for research and policy-makers. Accordingly, research is needed to investigate which methods are effective and sustainable to achieve increases in citizens' administrative literacy. Research following that stream could build on work from education or pedagogy science. Longitudinal designs would help to evaluate different methods. Additionally, various conceptual gaps remain underresearched. On the one hand, challenges and dynamics of multi-episode encounters remain unclear. Furthermore, the role of third parties should be incorporated in future studies as indicated in Chapter 2.2.

Assuming the importance of communication in public encounters, the effects of emotional labor remain underresearched. Except for a few studies from public administration research (Wilding et al. 2014), the psychological consequences of displaying positive emotions during encounters despite being confronted with negative emotions from clients may be critical to understand. It could be a major source for common phenomenons in the public sector workforce, such as absenteeism. Emotional labor could turn out to be even more prominent in the public sector as various encounters are involuntary (e.g. police encounters, social welfare, tax inspections).

The role of digitalization has been excluded from this dissertation project. However, the dynamics of digitalized or digitally assisted service provision in present and future could have significant impacts on both sides of the interface of interactions described in Figure 1.1. There is a scientific discussion on whether digitalization will strengthen or weaken the role of street-level bureaucracy – formulated as the curtailment vs. enablement thesis (Buffat 2014). While some studies argue that digitalization leads to standardization, and thus to the abolition of discretion, others argue that the automation of monotonous work sets free resources that can be used for more complex cases and supports the effective use of discretion (Döring & Löbel forthcoming). Moreover, digitalization may turn out to be a double-edged sword in securing equity in public service provision. On the one hand, standardization through digital processing may strengthen the principle of equal treatment, thereby preventing sources of potential discrimination. Aside from discrimination due to race, gender or other socio-demographic characteristics, digital supported processes may equalize differences in competences to deal with public organizations. However, using digital channels for service provision may also lead to additional challenges for clients as they need additional skills to use these channels (Grönlund et al. 2007). On the other hand, a reduction of discretion also limits opportunities of street-level bureaucrats to adjust the case to the clients' individual situations and needs (Döring & Löbel forthcoming). Considering these challenges, advocates of digitalized service provision should take note of the current and future research in the field of (public) service encounters.

4.3 Conclusion

This dissertation project offers a multi-perspective approach to investigate citizen-state interactions, specifically public encounters. The encounter is conceptualized as a transaction of information and costs, a social interaction in a asymmetrical power relation defined by norms and values, and as a service interaction which incorporates both perspectives while adding a service-dominant logic and thus the focal role of customers.

These perspectives were used to investigate the effects of perception and behavior of both citizens and public employees during public encounters. Specifically, the citizens' competences to interact with public administrations were analyzed. Furthermore, the role of communication between both interaction parties was fundamental to the research frame. The results from the three articles show that interactional competences of both sides of the counter are essential for the outcome of the interaction. Citizens may improve their chances on successful applications, while public employees tend to prefer well prepared citizens that are able to articulate their matter. Simultaneously, the communicative behavior of frontline staff plays an important role during encounters. The example of service recovery shows that clients despise excuses and prefer justified explanations for failures. Both streams of research and their respective results point towards a larger need for more research. While this dissertation project incorporated quantitative and experimental methods in order to achieve a comprehensive approach to complex phenomenons, their is a need for additional studies incorporating, for example, ethnographic research (Hand & Catlaw 2019).

Hopefully, the results of this project stimulate further research in this field of study in order to enrich our understanding of how citizens interact with the state.

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