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Mobilizing knowledge in frontline work: A conceptual framework and empirical exploration

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Abstract

Frontline workers bring different forms of knowledge to bear on decisions and actions. Even so, knowledge has so far received limited attention in the street-level literature. This article develops a nuanced understanding of what constitutes knowledge in frontline work and shows how different forms of knowledge are mobilized on the ground. Taking a practice-based and abductive approach, the article draws on qualitative data from a multi-sited organizational ethnography in three Danish child welfare agencies as well as insights from a broad range of literature to build a conceptual framework for studying knowledge mobilization in frontline work. The framework delineates three interdependent forms of knowledge—knowledge-that, knowledge-how, and knowledge-by-acquaintance—that are all essential in frontline work. Knowledge-that is explicit and includes research evidence. Knowledge-how is rooted in experience and acquired through practice. Knowledge-by-acquaintance is rooted in encounters and denotes frontline workers' "sense" of a case or situation. The empirical work shows how each form of knowledge is mobilized in practice. The findings yield important insights into the dynamics of knowledge mobilization at the frontlines, including the detrimental effects of rapid turnover, the conditions for realizing ideals such as evidence-based practice and data-driven decision-making, and the potential implications of digitalization and algorithmization.

Keywords: Frontline work, knowledge, organizational ethnography, street-level bureaucracy, child welfare

Introduction

Frontline workers are important everyday decision-makers, and their role as “de facto policymakers” is widely recognized (Lipsky 2010). The street-level literature departing from Lipsky’s seminal contribution often focuses on frontline discretion. Frontline workers are routinely granted autonomy and discretion because they are professionals who possess the specialized knowledge needed to deal with complex cases (Evans, 2016; Harrits, 2019a; Hupe & Hill, 2007). At the same time, their position at the organizational periphery allows them to obtain intimate knowledge about particular cases and respond in a flexible manner (Carnevale & Stivers, 2019; Zacka, 2017). Frontline workers thus exercise professional judgment by bringing different forms and sources of knowledge to bear on specific cases, including knowledge about clients, practical knowledge rooted in experience and—in many cases—a more or less well defined and developed body of abstract scientific knowledge (Abbott, 1988; Etzioni, 1969; Schön, 1983).

Despite this centrality of knowledge, limited research attention has been directed to the question of what constitutes knowledge in frontline work, and how, why, and under which circumstances frontline workers mobilize different forms of knowledge in everyday practice. Although there is currently a growing interest in the notion of professionalism in the street-level literature (Evans, 2016; Harrits, 2019a; van der Aa & van Berkel, 2016), professionalism is often viewed as a matter of norms, values, or collective interest, while few studies address the role of professional knowledge (Harrits, 2019a; Møller, 2018; Cecchini & Harrits, 2021).

In a broader perspective, there is renewed scholarly interest in how particular forms of knowledge inform decision-making in public administration and management (e.g. Baekgaard et al., 2019; Baekgaard & Serritzlew, 2016; Cairney, 2016; Hall & Ryzin, 2019; Newman et al., 2016). However, these studies tend to focus on managers’ and policymakers’ use of knowledge rather than frontline workers’ (but see Destler, 2016; N. B. G. Petersen et al., 2019). Further, these studies rarely consider the broader context or *knowledge ecology* in which these particular forms of knowledge are brought to bear on decisions. Yet such

consideration appears essential for gaining a deeper understanding of the dynamics around the use or non-use of particular forms and sources of knowledge in everyday practice.

This article addresses two fundamental questions: Which forms of knowledge are relevant to frontline work, and how do frontline workers mobilize different forms of knowledge in everyday practice? I use the term *knowledge mobilization* to describe workers' actions, i.e., "bodily doings and sayings" (Schatzki 2002, 72), intended to bring different forms of knowledge to bear on problem setting, decisions, and actions. This is often a collective process (Foldy & Buckley, 2010; Møller, 2021; Zacka, 2017), and thus knowledge mobilization may encompass knowledge sharing. The underlying notion is that knowledge must be given a social life: Knowledge that resides in books or digital case filing systems will not make a difference unless it is mobilized in practice.

Taking a practice-based approach to theoretical development (Carboni et al., 2019; Feldman & Orlikowski, 2011; Wagenaar, 2004), this study contributes to the literature by developing a conceptual framework for studying knowledge mobilization in frontline work that is both theoretically informed and empirically grounded. It is based on an abductive approach, i.e. an iterative process of moving between theory, fieldwork, and data analysis (Schwartz-Shea & Yanow, 2012; Timmermans & Tavory, 2012). I combine various literatures—including the sociology of professions, philosophy of knowledge, and organizational knowledge and learning—with data from a multi-sited organizational ethnography in three Danish child protection agencies encompassing more than 150 hours of observation and 29 interviews with frontline workers, coordinators, and first-line supervisors.

I disaggregate the concept of knowledge by delineating three forms of knowledge that are all essential to frontline work: knowledge-that, knowledge-how, and knowledge-by-acquaintance. The empirical investigation demonstrates that the different forms of knowledge each fulfill important needs in practice and that they are interdependent. The analysis also shows that organizational routines and artefacts may

both enable and constrain frontline workers in bringing relevant knowledge to bear on decisions in a timely manner.

The study provides us with a deeper understanding of important dynamics around knowledge in frontline work. While such an understanding will not in itself lead to improved decision-making, it serves to shed new light on fundamental issues, for example how and why different forms and sources of knowledge are privileged, scrutinized, or neglected in practice. In particular, the study highlights the importance of recognizing knowledge-by-acquaintance as a crucial but contested form of knowledge in frontline work. It also yields important insights into the detrimental effects of rapid turnover on frontline workers' communities of practice, which function as organizational repositories of knowledge, and raises questions regarding the conditions for implementing evidence-based practice and data-driven decision-making and the implications of increasing digitalization and algorithmization of frontline work.

In the following, I begin by discussing how the concept of knowledge has been addressed in the street-level and social work literatures. I then present the conceptual framework, research design, and empirical findings. I end by discussing the implications of the findings and outline some avenues for future research.

The role of knowledge in street-level and social work research

In this section, I briefly review different perspectives on knowledge and knowledge mobilization in street-level and social work research. The purpose of this discussion is to highlight some persistent gaps in the literature that this study aims to fill and, at the same time, draw out some important insights to inform the development of the conceptual framework in the following section.

Studies of frontline work in public administration and management research often take Lipsky's theory of street-level bureaucracy as their point of departure (Lipsky 2010). The role of knowledge has generally received little focused attention in the street-level literature, and relevant contributions are few and far between. Even so, the literature does point to different forms of knowledge in frontline work and, not

least, how the absence of knowledge may affect decision-making. As perhaps the most prominent example of the latter, Lipsky (2010) focuses on the absence, or inadequacy, of information and the fundamental challenge that this constitutes in terms of ensuring sound decision-making. Raaphorst (2018) continues this line of thought and outlines three kinds of uncertainty in street-level work: information uncertainty, interpretation uncertainty, and action uncertainty. The first refers to a lack of knowledge in the form of information, the second refers to a lack of knowledge or clarity about the standards for evaluating a situation, and the third relates to the “yet unknown particulars” that will only manifest themselves in the situated interaction with citizen-clients. This notion, that uncertainty is inherent to frontline decision-making, is pivotal to the conceptual framework presented below.

Other scholars focus on the role of “professional knowledge” but conceptualize it in different ways. In their study of the influence of managers and policymakers on street-level decision-making, May and Winter (2009) conceptualize professional knowledge as knowledge about the rules. In contrast, Harrits and Møller (2014) use phrases such as “scholastic conceptions” and “systematic and scholastic procedures” to describe professional knowledge. Here again, the *lack* of knowledge is emphasized, as Harrits and Møller show how social workers, home nurses, and kindergarten teachers often resort to social and symbolic categorizations of citizen-clients in their identification and categorization of cases as “normal” or “abnormal.” Finally, Cecchini and Harrits (2021) define professional knowledge as both “education-based and experience-based” knowledge on “what works”.

Despite their differences, these perspectives share a fundamental understanding of professional knowledge as a resource for making sound decisions that adhere to professional standards (or, in the case of May and Winter, rules and regulations) and agree that professional knowledge is important to frontline work. However, they do not engage in-depth with the concept of knowledge as such. As I will argue below, “education-based” and “experience-based” dimensions of professional knowledge are different forms of knowledge, which are acquired and mobilized in different ways. For example, Dubois shows that reception

agents have little formal training but acquire expertise by working alongside seniors (Dubois, 2010, p. 89pp). Carnevale and Stivers (2019) focus on frontline workers' experiential knowledge as a particular form of expertise that allows them to attune themselves to the situation at hand to accomplish their work: As they engage in a situation, they receive a response ("data"), which they interpret and respond to. The more experience they have, the more skilled they become at doing so. Experience may thus alleviate some of the action uncertainty observed by Raaphorst (2018).

In addition to these concepts, Zacka (2017) introduces the notion of "soft evidence." Soft evidence is knowledge derived from how citizens present themselves in an encounter, which frontline workers use as grounds for making judgments about citizens and their problems. The concept appears related to what Raaphorst (2018) calls the "unknown particulars," and Carnevale and Stivers (2019) refer to as experiential "data" that informs workers' responses. It further evokes Maynard-Moody and Musheno's influential study of how frontline workers "get a fix on people," i.e. build a sense of citizens' character and "deservingness" based on direct encounters (Maynard-Moody & Musheno, 2003). Surprisingly, neither Zacka nor Maynard-Moody and Musheno discuss the role of knowledge in depth, even though Zacka presents an otherwise detailed account of street-level discretion as case-based reasoning.

In sum, the concept of knowledge is somewhat neglected in the street-level literature, although some contributions are indeed sensitive to the role of knowledge (or its absence) in frontline work. Taken together, the identified concepts and perspectives highlight the importance as well as the complexity of exploring knowledge as an aspect of frontline work. However, the various concepts of knowledge are not systematically linked or related to concepts of knowledge in other fields, and there is limited attention to how different forms of knowledge are mobilized in practice and come to matter for decision-making.

In contrast, the role of knowledge in practice has received considerable attention in other literatures, partly prompted by efforts to increase standardization through clinical guidelines and evidence-based programs in professional work (Boaz et al., 2019). The push for evidence-based practice has prompted scholars to

examine the concept of knowledge and the relationship between research evidence and practice across fields such as healthcare (Gabbay & Le May, 2011; Greenhalgh, 2010), education (Biesta, 2010; Schwandt, 2005), policing (Fleming & Rhodes, 2017), and social work (Gray et al., 2015; Mullen, 2016).

In the case of social work, many studies observe that social workers tend to rely on co-workers, experiential knowledge, and “gut feelings” rather than research evidence (e.g. Forkby & Höjer, 2011; Iversen & Heggen, 2016). While some find this problematic, others emphasize the importance of “practical wisdom” and criticize the ideal of evidence-based practice for being poorly attuned to the complex realities of practice (Otto et al., 2009; A. C. Petersen & Olsson, 2014; Webb, 2001). Attempting to create common ground, Trevithick (2008) develops a framework that includes theoretical, factual, and practical knowledge, while Pawson and colleagues (2003) distinguish between *sources* of knowledge, including organizational knowledge, practitioner knowledge, policy community knowledge, research community knowledge, and user and carer knowledge.

These debates underscore the importance of focusing on different forms of knowledge and their interplay. However, despite this interest in the role of knowledge in practice, the literature still offers limited insights into knowledge mobilization—that is, how frontline workers actually mobilize knowledge in everyday practice (cf. the definition above). One reason for this is that many contributions are theoretical and/or normative in nature (e.g. Otto et al., 2009), while empirical studies often rely on self-reported uses of different sources of knowledge (e.g. Iversen & Heggen, 2016). Taken together, the street-level and social work literatures demonstrate that there is still a need to define and delineate different forms of knowledge relevant to frontline work, to situate these within a broader literature on knowledge and ways of knowing, and to explore knowledge mobilization in practice.

Conceptual framework

In the following, I build on and add to the insights outlined above to develop a conceptual framework for exploring knowledge mobilization in frontline work. This framework is also informed by the empirical work presented below, cf. the iterative research process. I begin by presenting an epistemic perspective on frontline discretion, or *agency* (Maynard-Moody and Musheno 2012), and then describe three different forms of knowledge in frontline work.

An epistemic perspective on frontline agency

Molander and Grimen (2010) present two perspectives on discretion. From a *structural perspective*, discretion denotes a space left open by an authority within which frontline workers are free to choose between a set of alternatives. This is akin to Simon's notion of technical discretion, which involves assessing the relevance of a set of rules to a specific case (Simon, 1997). This understanding of discretion is common in the street-level literature (Maynard-Moody and Musheno 2012). However, discretion may also be approached from an *epistemic perspective*. In this perspective, frontline decision-making is not merely an instrumental task of matching ends and means. Instead, frontline workers must exercise professional judgment; that is, mobilize specialized knowledge to make sense of an uncertain situation.

Professional judgment is an iterative process of case-based reasoning, which involves *problem setting*—i.e. labeling relevant (f)actors, framing the context, and deciding on appropriate goals—as well as *problem solving* (Schön, 1983). Through problem setting, professionals transform an indeterminate situation into a manageable whole in the shape of a problem, which allows them to act (Dewey, 1938). In this process, they typically draw on a more or less well-defined body of abstract theoretical knowledge derived from education, as well as on practical experience (Abbott, 1988), as they engage in pragmatic improvisation (Maynard-Moody and Musheno 2012).

Importantly, even if professionals share a common knowledge base and reason “as thoroughly and conscientiously as possible,” they may reach different conclusions regarding the problem as well as the solution. This variation derives from the fact that cases often present several equally desirable but conflicting goals and values, which cannot be realized simultaneously (Molander & Grimen 2010, p. 183–84). Accordingly, frontline decision-making also involves normative judgments (Maynard-Moody and Musheno, 2012; Zacka, 2017, p. 40pp). Molander and Grimen label this the “burdens of discretion.”

Forms of knowledge in frontline work

To explore how knowledge is mobilized to inform discretionary decision-making, it is necessary to distinguish between different forms of knowledge that frontline workers may bring to bear on problems, decisions, and actions. Indeed, the concept of knowledge is *polysemous*; it has different but closely related meanings (Kremer, 2017, p. 24). In one understanding, knowledge represents human processing of data and information. For example, Kitchin (2014) conceptualizes knowledge as “organized information,” whereas data is “abstracted elements” and information is “linked elements.” Wisdom in Kitchin’s terminology is “applied knowledge.” In their highly influential contribution to organization studies, Cook and Brown (1999) argue that such an understanding of knowledge represents an “epistemology of possession” and should be supplemented with an “epistemology of practice,” which emphasizes the *enactment of knowledge* or knowing as a capability (Orlikowski, 2002). In line with this view, knowledge can also be defined as an “individual capability to draw distinctions, within a domain of action, based on an appreciation of context or theory, or both” (Tsoukas & Vladimirou, 2010, p. 973).

Following this definition, mobilizing knowledge in frontline work serves to draw distinctions; that is, to separate different cases of the same phenomena based on ever-finer details. The refined language and categories to do this are developed within a domain of action, e.g. social work or policing. Below, I

distinguish between three different but interdependent forms of knowledge, all of which are essential in frontline work: knowledge-that, knowledge-how, and knowledge-by-acquaintance.

Knowledge-that (Ryle, 1946) is also referred to as declarative knowledge, i.e. knowledge that can be expressed in declarative sentences or indicative propositions (akin to “theory” in the definition above). The abstract scientific (“education-based”) knowledge that defines professional groups belongs to this category, as does knowledge about legal frameworks, policies, rules, organizational standards, tools and guidelines, and information about citizen-clients, e.g. age and gender, school grades, diagnoses, etc. Knowledge-that thus has multiple sources but is always explicit and can thus be verbalized and shared both orally and in writing, e.g. in textbooks, legal documents, or research reports.

Knowledge-how (Ryle 1946) is also referred to as procedural knowledge, skill, or expertise. Knowledge-how is acquired through practice or learning-by-doing (Brown & Duguid, 1991; Cook & Brown, 1999) and is akin to Carnevale and Stivers’ (2019) notion of experiential knowledge (see also Wagenaar, 2004). It has a strong tacit dimension (Polanyi, 1966) but may still be verbalized to some extent, for example when accomplished practitioners simultaneously show and tell newcomers how things are done. One example of knowledge-how is the ability to use knowledge-that to draw distinctions. Knowledge-that and knowledge-how are thus “distinct but interdependent capacities” (Kremer 2016, 40) (see also Ryle, 1946, p. 7): While one can hardly do a proper job without (continuously) acquiring relevant knowledge-that, it requires knowledge-how rooted in experience to interpret its relevance to a particular situation. Knowing the law or the latest scientific developments does not make one an accomplished practitioner. We only acquire in-depth knowledge of a rule or theory when we use it to “interpret experience” (Polanyi, 1966, p. 21). Accordingly, an increase in knowledge-that cannot compensate for a lack of knowledge-how (Kremer 2016, p. 32-5).

As frontline workers learn to make competent use of knowledge-that, i.e., acquire knowledge-how and gradually advance from being novices to competent practitioners, they develop a tacit awareness of the normative expectations regarding their actions within a specific (e.g. social, professional and/or

organizational) domain of action; i.e. an appreciation of context. This can be related to the concept of *communities of practice*, which function as reservoirs for knowledge in organizational contexts (Brown & Duguid, 1991; Cook & Brown, 1999; Wenger, 1999). Communities of practice are regenerative in the sense that knowledge is continuously passed on to newcomers (Lave & Wenger, 1991). However, as the analysis shows, the conditions of frontline work may challenge this process.

Finally, this study's empirical analysis brought forward a third form of knowledge as essential to frontline work, which I refer to as *knowledge-by-acquaintance* (Russell, 1910). This form of knowledge is related to Polanyi's observation that the *meaning* of a theory lies in its bearing on a tacitly known case (Polanyi, 1966, p. 21), e.g. a particular situation or citizen-client. Frontline workers get to "know" citizen-clients through direct encounters. During these encounters, which may be either brief or protracted, the "unknown particulars" (Raaphorst, 2018) materialize, as frontline workers reflexively or instinctively note citizen-clients' body language or tone of voice, the clarity and logic of their story, the nature of bruises, signs of hesitation, etc.; i.e. "soft evidence" (Zacka, 2017, pp. 57–58; see also Dubois, 2010). This results in experiential and embodied knowledge, which is paradoxically both tacit and tangible. Knowledge-by-acquaintance is different from knowledge-how as it relates to a particular experience rather than a skill (e.g. pattern recognition). Knowledge-by-acquaintance instills knowledge-that and knowledge-how with particular and situated meanings. It enables frontline workers to "get a fix on people" (Maynard-Moody & Musheno, 2003) and draw finer distinctions between cases than those captured by professional or administrative categories (Zacka, 2017, pp. 103, 185; Hardesty, 2015).

Research setting, methods, and data

To explore how these three forms of knowledge are mobilized in practice, I draw on organizational ethnography (Ybema et al., 2009), a methodological approach that has proven well-suited to yielding novel theoretical insights regarding the complex nature of frontline work (e.g., Brodtkin, 2017; Dubois, 2010;

Zacka, 2017). Most importantly, ethnography allowed me to study actual knowledge mobilization practices and capture more tacit aspects, including the role of body language. By *practices*, I refer to “the coordinated activities of individuals and groups in doing their ‘real work’ as it is informed by a particular organizational or group context” (Cook & Brown, 1999, p. 387).

I conducted ethnographic fieldwork in three child welfare agencies located in two municipalities in different parts of Denmark. Child protection agencies generally present a complex decision-making environment where stakes are high, uncertainty is abundant, and timeliness is of the essence. Frontline professionals in this context are trusted with substantial discretion and are expected, at least ideally, to mobilize all relevant sources of knowledge to arrive at sustainable solutions. However, as the street-level literature informs us, this ideal is far from reality: Child protection workers, like other frontline workers, operate in a context characterized by limited resources, conflicting demands, and a persistent imperative to act in the face of overwhelming complexity. According to Lipsky, child protection workers are perhaps “the ultimate street-level bureaucrats” (Lipsky 2010, 233), as they experience these conditions more severely than most. Child protection is further characterized by extremely difficult problems and a scarcity of research-based evidence (knowledge-that) regarding causal mechanisms and the effectiveness of interventions (Møller, 2019). This makes child protection work a suitable context for investigating how frontline workers mobilize knowledge to inform decision-making in everyday practice under conditions that are far from ideal.

The three agencies examined are different in terms of size, location, and demographics of the clientele: Two are located in different districts of a large city, while the third is located in a midsized town and encompasses the surrounding countryside. They are similar in that they have invested considerable resources in the implementation and development of evidence-based interventions along with efforts to explicate the scientific knowledge and theoretical perspectives underpinning their work. I therefore expected that workers would seek to mobilize this knowledge in practice in rather explicit ways, and perhaps exhibit an awareness of different forms and sources of knowledge that would also make tacit

aspects of knowledge mobilization more available to me as an outsider. I will return to the implications of the case selection in the discussion.

I carried out fieldwork over a period of 14 months in the three agencies (referred to as Agencies A, B, and C in the following). Agencies A and B were the largest and smallest of six district agencies in the large city, while Agency C covered one of four districts in the smaller municipality. Data encompasses field notes from 150 hours of observation (29 days), including summaries of informal interviews, as well as 29 semi-structured interviews with agency directors, first-line supervisors, coordinators, caseworkers, and family therapists. In this way, I sought to capture the actual routes frontline workers took to accomplish their tasks (Brown and Duguid 1991) rather than relying solely on their self-reported practice. Interviews focused on intentions and challenges related to knowledge mobilization, particular on knowledge-that in the form of research evidence. Interviews also provided information regarding the intended purposes of organizational routines related to knowledge mobilization and decision-making.

Observations were conducted through shadowing (Czarniawska, 2007), as I followed in the footsteps of coordinators. Coordinators are experienced social workers who share responsibility for ensuring the professional quality of the agency's work with the first-line supervisor. They often also function as team leaders, but usually have few or no formal responsibilities in terms of personnel management. Shadowing coordinators allowed me to observe a broad range of organizational routines related to deliberation and decision-making in the "organizational backstage" (see Møller 2021). I did not observe direct encounters with citizens. Coordinators' formal job descriptions are often vague, but their primary tasks include participation in both formalized and informal case discussions between frontline workers, where they are expected to guide discussions and mobilize relevant knowledge in a timely manner. This study's analysis centers on how they seek to accomplish this task. At the end of each day, field notes were written in full and extended with reflective remarks (Emerson et al., 2011). Interviews were recorded, transcribed verbatim, and imported into NVIVO for analysis.

In line with the abductive research logic, the analytical process was iterative and cyclical, moving back and forth between theory and data (Schwartz-Shea & Yanow, 2012; Timmermans & Tavory, 2012). In between rounds of fieldwork, I engaged with theory to make sense of the data, focusing on ways of conceptualizing the different forms of knowledge I was observing, and how they were mobilized. After completion of the fieldwork, I first categorized and organized all data into broad themes and then conducted in-depth analysis of all subthemes related to knowledge. Combining open coding of interview data with close reading and rereading of field notes, I compared participants' accounts of the purposes of organizational routines related to knowledge mobilization and decision-making with my observations of how knowledge was actually mobilized in practice. The multi-sited research design allowed me to combine within- and cross-case analysis (Miles & Huberman, 1994), comparing similar practices across different sites. The analysis highlights some significant differences but focuses primarily on similarities. Member checking (Schwartz-Shea & Yanow, 2009) with participants revealed that the findings resonated well with practitioners' experiences and were helpful in terms of illuminating important dynamics in their work.

Mobilizing knowledge to inform decision-making in everyday practice

The analysis shows how each form of knowledge—knowledge-that, knowledge-how, and knowledge-by-acquaintance—is mobilized in practice. Implications of the findings are discussed in the following section.

Knowledge-that: Specification and interpretation

Knowledge-that includes information (e.g. about cases), knowledge about legal frameworks, and abstract scientific knowledge. It thus has many sources. In the three agencies, information about citizens (age, gender, family relations, relevant diagnoses, and other information) was available as words and numbers in the digital case management system. During case discussions, it was represented in printed case files or summaries that caseworkers and therapists brought with them, and sometimes on whiteboards or posters,

where children's names and ages were noted next to genograms illustrating their family relations. In one agency, the digital case file was broadcasted on widescreen for all participants in the meeting to see.

Knowledge about legal frameworks was available in huge textbooks and, in Agencies A and B, as a checklist outlining the required steps and relevant paragraphs for processing cases. Abstract scientific knowledge was somewhat less visible, but was still noticeable in the form of textbooks or certificates of completion from evidence-based programs that were pinned to the wall above frontline workers' desks.

I observed two distinct practices related to the mobilization of knowledge-that in practice, whether orally or in writing: specification and interpretation. Specification involves acknowledging the limits of knowledge-that and was particularly notable when frontline workers made "fact claims" about cases. For example, I observed coordinators correct participants during case discussions, encouraging them to be precise about what they knew and did not know to be a fact, as illustrated in the field note excerpt below.

Monday afternoon, time for the family therapists' regular case discussion meeting. A family therapist has agreed to lay out a case to be discussed by the team, though she did not prepare to present it. As she talks, the coordinator notes the facts of the case on a big poster, so that they are visible to everyone during the discussion. Well into her presentation, the family therapist explains that the father suffers from paranoia. The coordinator calmly interrupts her: 'Let us not call it paranoia, when it has not been diagnosed,' she says. 'I will write *fear of bacteria* instead.' Later, another therapist says that the child in the case is 'afraid of the world.' The coordinator immediately adds, 'And that is your *hypothesis*, because this is not something that she has told you herself' (Field notes, Agency B).

In another situation, a family therapist repeatedly stated the need to bring in other professionals to act on her observation that a child *appeared* to suffer from selective mutism. By mobilizing knowledge-that, namely scientific knowledge in the form of a formal diagnosis belonging to a different professional group of child psychologists, the therapist clearly signaled that this case was beyond her expertise and jurisdiction.

In both situations, the mobilization and specification of knowledge-that helps frontline workers observe the difference between informal categorizations and formal diagnoses and keep within the bounds of their professional jurisdictions. Further, both situations reflect a demarcation of knowledge-by-acquaintance and a prioritization of knowledge-that, first by the coordinator, and second by the family therapist.

As noted above, social workers are criticized for relying too little on research evidence. As a response, all three agencies had undertaken ambitious development projects aimed at systematizing and clarifying the scientific knowledge base of their work. While it was not my intention to evaluate the outcome of these efforts, I did observe several instances in which participants mobilized the scientific knowledge that informed the respective projects. In Agencies A and B, I repeatedly observed a particular way of structuring case discussions¹ used by different teams in various types of meetings. In Agency C, an ongoing project trained all workers to adopt an “organizational mindset” that involved particular approaches to child protection rooted in scientific evidence as well as local innovation and outside inspiration. Coordinators and first-line supervisors saw it as their responsibility to mobilize this knowledge during case discussions:

It is part of making sure that there is always someone around the caseworkers who can bring the knowledge we have from elsewhere—research, and articles, and the most recent [evidence] in play—when you discuss the cases (...) that we have used everything that we actually know (First-line supervisor, Agency C).

Yet this mobilization of scientific knowledge was difficult to detect in practice. Although coordinators would sometimes refer to specific theories or tools, most frontline workers did not mobilize scientific knowledge in explicit and systematic ways during case discussions. Instead, as one frontline worker explained in an interview, scientific knowledge gradually becomes “an integrated part of the way you perceive a problem.” A coordinator explained:

¹ Based on the Signs of Safety method rooted in brief solution-focused therapy (Wheeler & Hogg, 2011).

It is not like we sit and recite theories or ‘it says so in this exact report’; it is more a background mass of knowledge and an understanding of what is important (Coordinator, group interview, Agency C).

Notably, scientific knowledge was sometimes mobilized explicitly due to its absence or conflicting messages. In one case discussion, frontline workers disagreed on the proper amount of contact between a child in foster care and the child’s biological parents, and the coordinator offered the following reflection:

This is really about our lack of knowledge. We have studies that tell us that the children need to be shielded in the new attachment [with the foster parents], and others which say that the attachment [with the biological parents] must be strengthened and is crucial to the new attachment. This is why we waver. This gives us some trouble. And the Center for Foster Care has a different opinion (Field notes, Agency B).

The example clearly illustrates that scientific knowledge does not necessarily translate into clear guidelines for practice. Even when scientific knowledge is translated into tools, checklists, or guidelines, coordinators emphasized the need to reflect on the underpinning research base in order to specify and interpret its bearing on a particular case:

What I have tried to work with in the team is to use the risk factor checklist (...) to become more precise and be able to document the analytical steps. I mean, how did we get here [arrive at this conclusion], that this is concerning for a child? Because we need to be able to explain it to parents, so it is not enough to say, ‘It says so on page 248, that it is like this.’ We need to understand it, read it and transform it into practice, and communicate it (Casework coordinator, Agency B).

Together, these examples illustrate how knowledge-that is mobilized for the purpose of problem setting, as fact claims about the nature of a problem, as a particular perspective or “mindset” rooted in theory or

research-based evidence, and sometimes by acknowledging the absence of knowledge-that. In all instances, it requires specification and interpretation in relation to the case at hand.

Knowledge-how: Becoming an accomplished practitioner

To be an accomplished frontline worker in child protection involves problem setting as well as problem solving; that is, the ability to turn messy situations into manageable cases and thus frame the search for potential solutions. This again relies on the ability to mobilize knowledge-that and interpret its meaning, relevance, and relative importance to the case at hand, and to make proper use of tools and checklists. Moreover, frontline workers must know how to do many other things, such as when and how to register relevant information in the digital case filing system, and how to communicate with peers, clients, and collaborators. These abilities constitute knowledge-how and are acquired through practice.

Knowledge-how was regularly mobilized orally during meetings, through role modeling and learning-by-doing, to enable internalization and skill formation. Coordinators often took the opportunity to explain the principles and logics of processing cases during case discussion meetings; for example, by laying out the order of different steps involved according to the legal framework, or by reflecting on the best way to communicate a specific decision to parents. They often engaged in *inductive reasoning*, where they would first reflect on or simply explain what to do in a particular case and then explain how this advice reflected generalizing principles (for example, that decisions should always be explicitly grounded in specific paragraphs and reflect the intention of the law). Similarly, coordinators would highlight how specific actions were in fact examples of general rules and procedures. For example, a coordinator told a new caseworker: “What you are doing now is actually closure.” She then went on to explain the steps that constituted “closure” in the case process (Field notes, Agency B).

In another situation, the coordinator assisted a new caseworker writing a case file and decision letter. The coordinator continuously translated the actions of a young man into the categories of the legal framework:

“What he is doing, when he does that [i.e. stops spending the night at the institution] is that he is actually *recalling his consent* [to be placed out of home].” She explained that the intervention was based on consent and cannot be continued against the client’s will, and that the agency is therefore legally required to terminate the intervention, even if the client has not formally retracted his consent, as his actions speak for themselves. Later, the coordinator reminds the caseworker to “make sure to note that *we do not consider the purpose to be fulfilled*.” Again, there is an underlying process of reasoning, as this wording safeguards the agency from being accused of having terminated an intervention prematurely without having fulfilled the goals and purpose stated in the action plan, as is required by the law (Field notes, Agency B).

For these encounters, the coordinator brought along a heavy book outlining the legal framework in detail and frequently searched paragraphs and formulations, effectively showing how to use the law to undergird every decision, and to reflect this in the wording of case files and communication with clients. When assisting with letters, the coordinator would offer suggestions and remind caseworkers that citizens need to understand the decision, the grounds on which it has been made, what will happen next, and what their rights and options are, all communicated in an appropriate tone: authoritative, but not intimidating, as clients still need to cooperate. In these ways, the coordinator both explicates and *role models* a particular way of reasoning for new caseworkers to internalize in order to help build their professional skillset.

Knowledge-how not only pertains to complex processes of reasoning but also to more mundane tasks such as filling out forms and dealing with documentation requirements. Standardized forms and digital tools meant to support professionals often left them frustrated. While the digital case filing system was helpful in terms of storing and sharing knowledge-that, it was not in accord with the knowledge-how that frontline workers had acquired through other aspects of practice. For example, the standardized forms in the digital case filing system did not match the steps outlined in the legal framework. Fonts and headlines were fixed, preventing frontline workers from structuring the text according to their own sensemaking and professional reasoning. Further, the system did not allow for copying and pasting text between documents,

meaning that frontline workers often had to retype the same text repeatedly. It therefore required a separate learning process to navigate the system and learn the necessary workarounds, which sometimes overshadowed professional concerns pertaining to the case as such.

Overall, mobilizing the knowledge-how needed to accomplish the work required significant time and effort on the part of coordinators. This was amplified by the difficult nature of problems, regular changes in the legal framework, and a rapid turnover among caseworkers, which made training newcomers a true Sisyphean task:

I have followed the coordinator to the yard for a smoking break. We discuss a recent report showing that the agency's casework is riddled with errors. 'The field is wildly complex,' she says. 'And turnover is a huge problem.' She explains that every time she has completed individual training sessions with each of the newcomers, in which she seeks to address all aspects of systematic case processing in relation to their own cases, two in her team will quit and two new ones will begin, who are 'totally blank.' 'They come directly from school,' she says, 'they don't know a thing and with good reason. They do not learn it in school. They may be strong theoretically, and can often recite parts of the law. But it takes time to learn how to translate things into practice, why the different paragraphs have anything to do with each other, how they relate, and how to navigate in that. And the decisions we make are such an intervention in other peoples' lives. You should not have to make those decisions without more experience than that' (Field notes, Agency B).

Frontline workers need to mobilize both knowledge-that and knowledge-how. Whereas the former is mobilized orally and in writing to inform problem setting and hence problem solving, the latter is mobilized through inductive reasoning and role modelling, with the purpose of ensuring that the work is carried out properly, i.e. in accordance with professional and organizational standards.

Knowledge-by-acquaintance: Getting a sense of the case

Knowledge-by-acquaintance is acquired through direct encounters. Many participants view knowledge-by-acquaintance as a prerequisite for doing good work and explain that meeting citizens is essential to getting what they generally referred to as a “sense” of the case:

I think there are many things you cannot obtain by reading, and also you cannot, you need to have a relation to the citizens to be able to cooperate towards a goal (...). This sense of what would be the right intervention for them, and I know that *sense* sounds a bit unserious somehow, but something happens, and you can hear it when someone is assigned a new case: ‘I have to get into it. I need to talk to them, I have to meet them to gain a picture of what kind of family this is’ (Coordinator, Agency C).

Case discussions and decision-making in the organizational backstage rely on frontline workers’ ability to mobilize knowledge-by-acquaintance, stemming from their interactions with clients, to peers and collaborators. In order to solicit useful feedback and advice, frontline workers need to explicate the knowledge they acquire at these meetings and the inferences they make. To this end, they make use of imagery and imitation. For example, a family therapist described family members as “four little islands,” to which the coordinator replied: “If this is how you see them, how can you make them paddle to each other?” Later in the same meeting, another therapist tried to convey her experience of the relationship between a little girl and her father by telling her colleagues how the little girl would always be crawling on the father during visits, “as if she is literally trying to get under his skin” (Field notes, Agency B).

Body language, facial expressions, gestures, postures, and mimicking voices are also abundant in everyday practice, as frontline workers imitate clients’ behavior during interactions. The purpose of this is not to entertain co-workers but to mobilize the knowledge-by-acquaintance that is otherwise difficult to verbalize and invite them to imagine the situation for themselves. The following is an example from a case discussion meeting in which a young family therapist has volunteered to share a troubling case:

The therapist states the facts of the case; the coordinator notes these on the whiteboard and draws a genogram of the familial relations together with names, ages, and keywords. She asks about the goals in the action plan and the reason for choosing Functional Family Therapy in this case; the therapist answers. 'And you just started?' the coordinator asks. The therapist confirms. 'It is a typical divorce case,' she continues, 'with parents who are not in contact with each other. I have to divide them and do a double program, because they will not have anything to do with each other. I only just started and had two conversations so far.' The coordinator nods: 'And then something happened last week, can you tell us briefly?' The therapist begins: 'It is about (long pause); I think Father is difficult to handle. There is a lot of resistance. They come in, they will not take their jackets off, they sit like this [she slides down in her chair], they will not answer at all when you try to make small talk. One brother hangs over the table [she leans her upper body forward and lets it fall over the table, arms over her head], the other ones sit like this [she crosses her arms tightly across her chest]. [Long pause. Red spots have appeared on her neck, her voice is trembling.] The last conversation was very uncomfortable, in terms of having Father in the room. I don't know where to begin in order to explain?' She looks up at the coordinator. 'Start anywhere,' the coordinator says, 'it doesn't matter' (Field notes, Agency B).

As the therapist explains her predicament, she imitates clients' bodily movements to illustrate the situation. Later, she repeats the father's exact words, rising in her chair to illustrate his overwhelming stature against her own, and mimics the clients' joking about her. The bits of imitation and information eventually form a coherent picture of the situation. While the therapist intentionally uses body language to convey her knowledge-by-acquaintance, she also unintentionally reveals aspects of her experience through her own bodily reactions: As she speaks, she shows clear signs of distress, and the mood in the room, full of lively chitchat just moments earlier, becomes focused and intense. Participants' reactions signal that, despite the tacit nature of knowledge-by-acquaintance, the therapist is successful in inviting her peers to

imagine the situation and recognize a similarity with their own experiences. One participant labels the situation as one of “resistance,” thus invoking a well-known genre within the community of practice and creating a common ground for the subsequent discussion, during which participants mobilize both knowledge-that and knowledge-how in their suggestions for how to move forward.

While the need to get a “sense” of the case is widely recognized, knowledge-by-acquaintance is not easily communicated in writing, due to its tacit and embodied nature. This is one reason why it is not included in official case files, which are supposed to contain all relevant knowledge regarding a case for easy storage and retrieval. However, there is also another reason, namely the contested status and legitimacy of this form of knowledge. On the one hand, knowledge-by-acquaintance is viewed as essential for making professional judgments regarding problems as well as solutions. On the other hand, participants are well aware that the gut feelings and intuition that result from knowledge-by-acquaintance are not always trustworthy and carry an implicit risk of biased judgment if left unchecked.

This ambivalence has implications for when and how frontline workers mobilize this form of knowledge. Mobilizing knowledge-by-acquaintance during case discussions serves to make it available for critical questioning, but conveying it in case files is a different matter, because case files are legal documents that are available to and approved by families. Therefore, frontline workers are careful what they put in writing:

Even if we think we write a lot in our case files, because we have to do that, you cannot always describe the full picture of a family. Because you may also have an impression of ‘how well does it work,’ for example a parent, cognitive function or something like that, but it is not something that is documented, you did not see a psychological assessment of the person (...). So you cannot write in your case file that ‘I think Mother seems cognitively impaired.’ There is no use for that, but it still has an implication for what kind of support you would choose (Coordinator, Agency C).

The fact that knowledge-by-acquaintance is not readily available in case files may result in misguided decisions, as decisions are sometimes made by a separate referral team with extensive knowledge about different programs and interventions (knowledge-that and knowledge-how) but without participation of the caseworker who “knows” the client(s) (knowledge-by-acquaintance). This is the case in Agency A, where, in one case, the referral team decided that a mother should participate in a parent management training course, which involved classroom-style teaching in a group of 18 parents. It later turned out that the mother likely suffered from severe but undiagnosed attention deficit hyperactivity disorder (ADHD), which would probably prevent her from benefiting from such a program. Notably, the responsible caseworker already knew this but was not able to mobilize this knowledge to inform the decision. The coordinator, who was also part of the referral team, explained:

When you sit in the meeting, you have perhaps 10-15 pages, you can only read [the case file], and then you need to reach a judgment. You have not met the family, you have not met the child, [and] you cannot; all this information sits with the caseworker (Coordinator, Agency A).

Over time, various workarounds were created to accommodate this shortcoming in the referral routine. For example, the team requested frontline workers to provide a separate informal document containing additional information not included in the official case file, and would also sometimes invite frontline workers to present the case orally. The team also agreed to make notes of their discussions and email these directly to the responsible frontline worker along with their decision, to allow the caseworker to intervene in due time if the decision was not feasible.

In contrast, the referral routine in Agency B involved the entire group of caseworkers, following the notion that, at this point in the case process, “the caseworker is the one who knows the most” (Field notes, Agency B). As the caseworkers discussed a case to reach a decision, they relied on fragmented storytelling, body language, and voice imitation to convey their knowledge-by-acquaintance of the families in question,

whereas information, theory, or scientific knowledge about interventions (knowledge-that) was only mobilized to a limited extent. Both examples illustrate that knowledge-by-acquaintance is mobilized for the purpose of informing problem setting as well as problem solving, to ensure appropriate means of intervention. However, knowledge-by-acquaintance is difficult to convey in writing and may be neglected if routines constrain workers from mobilizing this knowledge, i.e. through imitation and body language. On the other hand, when routines enable mobilization of knowledge-by-acquaintance, frontline workers may get caught up in reliving their experiences at the expense of mobilizing knowledge-that.

Discussion

This analysis has demonstrated the importance of each of the three fundamental forms of knowledge in frontline work and illustrated how and why they are mobilized in practice during case discussions and decision-making processes in the organizational backstage. Knowledge-that is tied to reason and is acquired and mobilized through written or spoken language. Because of its abstract and general nature, it requires specification and interpretation in relation to specific cases. Knowledge-how is tied to action and is mobilized through inductive reasoning and role modeling. It requires internalization through practice. Knowledge-by-acquaintance is tied to the senses and acquired through direct encounters. It is mobilized through imagery, body language, and voice imitation that appeal to others' imaginations.

The three forms of knowledge are interdependent; none of them can substitute the other. Even so, different ways of organizing work may serve to privilege some forms of knowledge over others. The comparison of how referral processes were organized in two of the three agencies revealed that the routine in Agency B privileged caseworkers' knowledge-by-acquaintance at the expense of professional knowledge-that regarding programs and interventions, while the routine in Agency A did the opposite. In other words, organizational routines and artefacts shape whether and how different forms of knowledge are brought to bear on decisions and serve to prioritize some forms of knowledge over others. The

underlying reasons for organizing work in particular ways are many and may include jurisdictional struggles between groups of professionals. Future research should explore such dynamics in more depth.

Coordinators also purposively prioritized between different forms of knowledge. In general, they strived to enhance the mobilization of knowledge-that by bringing theory and research evidence to bear on particular cases. They also spent much time conveying knowledge-how through role modeling and inductive reasoning to support newcomers in developing the necessary skills to carry out the work in accordance with professional and organizational standards. In relation to knowledge-by-acquaintance, they all underscored that getting a sense of a case is essential to choosing the most appropriate intervention, but in practice they often engaged in critical questioning of this form of knowledge. There are several possible underlying reasons for these prioritizations. In the following, I discuss these reasons and their implications.

Knowledge-that. The findings underscore that knowledge-that is often uncertain, ambiguous, limited or simply missing, be it factual information or scientific knowledge. While previous studies have highlighted uncertainty or lack of information (Lipsky 2021; Raaphorst 2018), we see that the kind of abstract scientific knowledge that is usually considered a cornerstone of professional practice is also found lacking. The findings indicate that the mobilization of theory and research evidence depends heavily on whether individual frontline workers (primarily coordinators) keep themselves updated. Subsequently, the mobilization of scientific knowledge depends on whether frontline workers who possess this knowledge actually participate in case discussions, and on the extent to which more immediate concerns leave time for such reflection. The often-cited barriers in the literature on research utilization, such as lack of time and research availability (e.g. Iversen & Heggen, 2016), are thus recognizable here.

Notably, participants' reflections on the role of scientific knowledge, including theory and research evidence, were akin to Weiss' (1982) depiction of research utilization in policymaking. Most decision-makers, Weiss notes, "are largely unaware of how and when they use research" and will rarely be able to point to a single study that changed their way of thinking or led to some specific decision or action:

[They] have great difficulty disentangling the lessons they have learned from research from their whole configuration of knowledge. They do not catalog research separately; they do not remember sources and citations (...) They can't give specific illustrations of their use of a specific study, because that is not how they work (Weiss, 1982, p. 623).

Weiss further observes that scientific knowledge is helpful in ways other than problem solving, for example by providing order and labels for “previously inchoate and unorganized experience” and “molding” users’ thinking into categories derived from social science. In the words of Polanyi, theory and research evidence thus function as “proximal terms” *from* which frontline workers attend *to* the “coherent entity” that is the case or situation at hand, and they are aware of them *through* their bearing on that entity (Polanyi, 1966, p. 18). In other words, scientific knowledge and theory are not necessarily absent, even if explicit and systematic mobilization and reflection on scientific knowledge is rare.

Even so, the findings highlight the importance of education, as professional practice often does require a great deal of knowledge-that. However, educational standards and expectations vary significantly across policy and national contexts. Police officers in the United States receive 10-36 weeks of training before they are sent to the streets, whereas police officers in Denmark, Norway, and Finland receive approximately 3.5 years of education.² Danish nurses, social workers, and teachers all have professional BA degrees (also 3.5 years), and curricula are regularly debated, for example regarding how to balance social theory and empirical research on “what works.” In Finland, teachers have Master’s degrees in educational science and more autonomy in practice.³ These differences and debates reveal different ideas and expectations regarding the knowledge-that that we expect frontline workers to mobilize in practice.

In the past two decades, the implementation of evidence-based programs, guidelines, and checklists has been considered an important way of enhancing research utilization (Boaz et al., 2019). Yet, as this study’s

² <https://www.cbsnews.com/news/police-training-weeks-united-states/>

³ <https://www.sool.fi/in-english/the-finnish-school-system/>

findings demonstrate, the “instrumentalization” of research findings does not eliminate the need for specification and interpretation in relation to particular cases. Rather, both the conceptual framework and empirical findings support the notion that implementation of abstract and generalized rules or principles—be it a policy or a clinical guideline—requires innovation rather than replication (Sandfort & Moulton, 2020). Knowledge-that must repeatedly be brought to bear on particular cases or situations with an appreciation of the local, social, organizational, and/or professional context. This requires knowledge-how as well as knowledge-by-acquaintance. These reflections also demonstrate the limits of the compliance/non-compliance perspective in terms of grasping the nature and complexities of frontline work.

Knowledge-how. Because mobilizing knowledge-that requires knowledge-how, practice-based learning is of the essence. This stems from the complexity of the work, which requires a level of experience and specialization rarely possessed by newcomers. While new caseworkers may be knowledgeable of legal frameworks and able to cite all relevant paragraphs, the knowledge-how to perform the work is developed in practice, as newcomers gradually increase their participation in the local and broader community of practice in their field (Brown & Duguid, 1991; Lave & Wenger, 1991). Communities of practice provide continuity by allowing practitioners to reap the benefits of knowledge acquired by individuals over time. In the analysis, we see how coordinators continuously mobilize their knowledge-how through inductive reasoning and role modelling to build and regenerate the local community of practice. Yet the findings also revealed multiple interrelated dynamics that challenged this process.

First, the work is characterized by ever-increasing complexity, which places greater demands on workers’ knowledge-how. Both national and local reform initiatives are frequent and tend to increase the complexity of legal frameworks and standards governing practice. New regulation and documentation requirements are often accompanied by new digital case management systems, standardized forms, or checklists. These tools often became the focus of learning processes, effectively stealing attention from the tasks they were meant to support. Second, all agencies experienced rapid turnover—a well-known problem in social work

(Astvik et al., 2020)—which resulted in a constant influx of newcomers. Hence, knowledge-how came to dominate deliberations, as inexperienced employees tried to grasp the intricate workings of systems and tools while struggling with the complex and demanding work of child protection in itself. Third, high turnover resulted in a loss of knowledge-by-acquaintance. As cases were redistributed, newly assigned caseworkers needed to acquire knowledge-by-acquaintance of children and families.

Together, these dynamics leave little time to engage with knowledge-that beyond the most compelling needs, both on an abstract level and in relation to particular cases. They also mean that coordinators' efforts to build a resilient community of practice are continuously hampered. In effect, communities of practice become increasingly fragile and leave newcomers with poor conditions for becoming experts. Again, one solution to this is to introduce more manuals, checklists, and controls. But, as we have already seen, these are not self-explanatory and may even undermine frontline workers' abilities to instill knowledge-that and knowledge-how with meaning in relation to particular cases and situations and hence respond reflexively (Zacka, 2017).

Knowledge-by-acquaintance. Knowledge-by-acquaintance is less commonly recognized as a particular form of knowledge. Yet the analysis clearly demonstrated its importance in frontline work. "Getting a sense" of people is crucial to problem setting as well as problem solving. Mobilizing knowledge-by-acquaintance is therefore essential when frontline workers provide input for decision-making or seek out peers for advice. The notion that "gut feelings" are indispensable is a perspective also found in other professional fields, e.g. medicine (Pedersen et al., 2018), where *not* being able to sense and react to one's gut feelings is regarded as being just as problematic as relying solely on this form of knowledge.

However, there is good reason to be ambivalent towards knowledge-by-acquaintance. First impressions can be deceiving, especially in high-stress situation and when dealing with citizens in vulnerable positions. People may act in unpredictable ways when under distress. Their initial reactions may turn out to be a cover for shameful or traumatic experiences that are not revealed unless sufficient trust has been built

(Dubois, 2010; Zacka, 2017). Frontline workers may overlook important signs and jump to conclusions, or their judgment may be skewed by bias and stereotypes (e.g. Epp et al., 2014; Harrits, 2019b; Jilke & Tummers, 2018). Importantly, frontline workers' perceptions of citizen-clients tend to become more nuanced over time (Maynard-Moody & Musheno, 2003). Further, frontline workers' personal backgrounds and experiences with diversity also appear to play a role (Harrits, 2019b), as do institutionalized practices and social constructions of a policy's target groups (Epp et al., 2014; Schneider & Ingram, 2008).

This study's findings highlight the importance of recognizing the legitimate role of knowledge-by-acquaintance in frontline work as well as its problematic aspects. Previous studies suggest that storytelling (Maynard-Moody & Musheno, 2003), deliberation (Møller, 2021), and peer-level accountability (Zacka, 2017) are important mechanisms for combating bias, stereotypes, and social constructions around "deservingness" in frontline work. One of the reasons for this is that such practices enable frontline workers to mobilize their knowledge-by-acquaintance and subject it to critical questioning. An alternative approach is to diminish the role of knowledge-by-acquaintance by digitalizing or abolishing direct encounters in a transformation of street-level work to screen-level or system-level work (Bovens & Zouridis, 2002). It is an important question for future research to explore how increased digitalization and algorithmization (Meijer et al., 2021) affects knowledge mobilization practices, and particularly the role of knowledge-by-acquaintance.

Limitations. This study is limited to one area of frontline work in one national context. Its methodological approach allows for theoretical but not empirical generalization across contexts (Feldman & Orlikowski 2011). The findings are likely to be relevant for other areas of frontline work marked by high levels of complexity, uncertainty, rapid turnover, and prolonged encounters. Given that the selected municipalities had invested considerable resources in evidence-based programs and other knowledge-focused projects to improve the quality of services, the observed fragility of frontline workers' communities of practice due to turnover and the related dynamics regarding knowledge mobilization are particularly concerning. Another

limitation is that I did not attempt to critically evaluate participants' knowledge. While my own knowledge of social work and child protection was sufficient to allow me to pinpoint the mobilization of, e.g., particular theories or methods, I was not able to judge the accuracy, relevance, or truthfulness of participants' statements or expressions. It is also beyond the scope of this study to evaluate whether and how different knowledge mobilization practices actually result in better or worse decisions and outcomes for clients. These are important questions for future research.

Conclusion

Frontline workers are important decision-makers who rely on different forms of knowledge to accomplish their work. By demonstrating the relevance of exploring frontline work through a knowledge lens, this study adds a fresh perspective to the flourishing field of street-level scholarship. The conceptual framework and empirical findings reveal the complexity of knowledge and knowledge mobilization in frontline work and underscore the importance of recognizing different forms of knowledge and their interdependencies.

Adopting a knowledge perspective may inspire new research questions. For example, future research might explore connections between education, practices of knowledge mobilization, and the nature and quality of frontline decision-making. Taking communities of practice rather than individual frontline workers as units of analysis might reveal important dynamics related to turnover and inspire new approaches to the study of social norms and values, for example in relation to biased reasoning. The differences in frontline workers' educational backgrounds and training call for comparative studies. A knowledge perspective also raises questions regarding the role of coordinators and supervisors: How do supervisors' own knowledge and professional backgrounds influence their ability to function as role models (Keulemans & Groeneveld, 2020)? To what extent might knowledgeable supervisors compensate for a lack of knowledge-that or knowledge-how among workers?

Understanding dynamics around knowledge mobilization brings new perspectives to well-known issues related to implementation, evidence-based practice, and data-driven decision-making. Indeed, recipes for improvement are often underpinned by overly simplistic ideas of the nature of frontline decision-making and professional judgment, and hence are likely to encounter unexpected challenges when confronted with the realities of practice (Boaz et al., 2019). Approaching frontline work as knowledge work can help us understand the mechanisms at play here. This is also important in light of current developments around digitalization and algorithmization, which are likely to impact knowledge mobilization practices in important ways. As predictive algorithms are likely to be based in knowledge-that and not incorporate knowledge-how or knowledge-by-acquaintance, it becomes critical to explore whether and how the use of algorithms serves to displace other forms or sources of knowledge, and to what effect. While much hope is placed in algorithms as a means of eliminating bias, frontline workers' knowledge-by-acquaintance appears crucial for ensuring responsiveness to clients' particular situations.

In sum, there is much to be gained from approaching frontline work as knowledge work. Further exploration of prerequisites, conditions, and mechanisms related to knowledge mobilization across various professional, organizational, and policy contexts can yield valuable insights and provide a stronger foundation for improving frontline decision-making in practice.

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