Facilitating the Movement of Knowledge in Occupational Health Services: Building and Aligning Relationships

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Abstract

This article examines the establishment and maintenance of structures and relationships within interorganizational collaborations, specifically focusing on occupational health services in Sweden. It investigates how these collaborations are adjusted to existing structures to facilitate the movement of knowledge. The study draws attention to the gaps or seams (Vertesi, 2014) that arise when occupational health services providers and employers have different interests and objectives concerning occupational health and safety, and explores the continuous and often unnoticed relational work (Zelizer, 2012) undertaken by occupational health services providers to make their expertise and services relevant and appealing to customers and employers. This article contributes to the ongoing discussion on alignment work (Kruse, 2021, 2023) by highlighting its current limitations and underscoring the importance of relational work in creating the necessary conditions for moving knowledge.

Keywords: Relational Work, Alignment Work, Good Relations, Occupational Health Services, Sweden, Interorganizational Collaborations

Introduction

This article examines the establishment and maintenance of structures and relationships within interorganizational collaborations and investigates how these collaborations are adjusted to existing structures to facilitate the movement of knowledge. By employing occupational health services in Sweden as a case study, this article contributes to the existing discussion on alignment work by highlighting its current limitations and underscoring the importance of relational work in creating conditions that enable the movement of knowledge.

Occupational health services in Sweden operate in a market-driven environment, where customers decide which services to procure and utilize. The relationship between occupational health services providers and employers is complex, given that employers are the customers of occupational health services providers. Thus, their independent position, as defined by the legislation, becomes challenging and their ability to act as a neutral party between employers and employees has been called into question (SOU, 2004). The relationship between the patient
(i.e., the employee) and the occupational health professional is influenced by the involvement of the employer. Even though many assignments and interactions occur directly between the employee and the occupational health professional, the presence of the employer is implicitly acknowledged. This dynamic creates a triadic relationship, wherein the occupational health professionals find themselves in a challenging position. On the one hand, they are expected to provide care and support to the employee; however, they are also compelled to generate profit for the occupational health services provider and rely on the employer’s commission to achieve this goal.

As I will illustrate with material from occupational health services, the discrepancy between occupational health services’ “core” mission and their everyday work raises concerns. Many assignments undertaken by occupational health services providers involve individual-level rehabilitation or other issues, even though their primary mandate primarily focuses on organizational and preventive approaches. To fulfil the mission of preventing and mitigating health risks in workplaces, it becomes imperative to broaden the perspective beyond the individual level. Moreover, occupational health services are frequently expected to function as general healthcare providers for their customers (i.e., employers) and individual employees, contrary to their intended role as specialists within the field of occupational medicine and health. Thus, the challenge for occupational health services providers and occupational health professionals resides in effectively harmonizing an individual perspective with an organizational one, while concurrently conveying to customers that this integration embodies the core mission of occupational health services.

Speaking with Janet Vertesi (2014), this discrepancy between the legal mission and self-understanding of occupational health services providers, on the one hand, and customers’ understanding of and demands on them, one the other hand, could be called a seam between the occupational health services provider and the customer. In this context, a ‘seam’ should not be understood as the physical connection that binds different pieces of fabric together. Rather, Vertesi’s seam refers to the gaps that arise between different systems and infrastructures due to technical incompatibilities. When efforts are made to seamlessly integrate different systems to create “moments of alignment”, the gaps between them become invisible to users, and a state of seamlessness is experienced (cf. Vertesi, 2014: 268ff).

One way of achieving – or at least striving for – seamlessness between different sites or epistemic cultures (Knorr Cetina, 1999) is through the practice of alignment work – a notion introduced by Corinna Kruse (2021). The notion synthesizes Vertesi’s research on how actors align heterogeneous infrastructures to create a unified and seamless experience (Vertesi, 2014) with Anselm Strauss’s concept of articulation work, which highlights the continuous and essential yet often invisible efforts that enable the accomplishment of the work perceived as the core work (Strauss et al., 1985).

Kruse has developed the concept within the framework of her research on the movement of forensic evidence through the criminal justice system, using the notion to capture how for example crime scene technicians align the standards for recovering different kinds of traces with the specific circumstances of each crime scene to ensure the traces’ seamless movement from the crime scene to the laboratory. She employs the notion of alignment work to trace the process of facilitating the movement of knowledge by reconciling and resolving tensions between different sites (cf. Star and Ruhleder, 1996: 114) or epistemic cultures (Knorr Cetina, 1999).

The concept of alignment work has been used to examine the movement of knowledge between different epistemic cultures or sites (Kruse, 2021) or between experts and laypersons (Gleisner, 2023), capturing the often invisible or unacknowledged work of reconciling standards with individual situations or circumstances. Alignment work can also contribute to the movement of knowledge in indirect ways, for example by shaping professional identities and fostering interprofessional relationships (Kruse, 2023). In other words, it is a concept that makes it possible to draw attention to the continuous work of bridging the gaps between different sites.
However, the concept of alignment work alone, as proposed by Kruse (2021), is insufficient for understanding the establishment and maintenance of structures and relationships within the context of market demands and business relations, as well as the associated efforts to create the necessary conditions for moving knowledge. Kruse developed the alignment work concept based on empirical data collected from an organization characterized by clearly structured and institutionalized relationships among the professions involved in the movement of knowledge between them.

However, I argue that the movement of knowledge begins earlier within less organized structures, such as occupational health services, where interorganizational collaborations occur among occupational health services providers, customers (i.e., employers), and employees. Within this context, the creation of structures and relationships necessitates the practice of relational work. I seek to expand the scope of alignment work beyond the immediate movement of the knowledge object in question. As I will illustrate with material from occupational health services, the movement of knowledge and the relational work, which strives to establish the necessary conditions to be able to move knowledge, is intertwined with alignment work. Relational work endeavours to build trust, foster collaboration, and generate value for all involved parties (Zelizer, 2005, 2010, 2012). This entails creating a sense of shared purpose and fostering a culture of collaboration.

How occupational health professionals navigate the complexities of market demands and business relations within occupational health services offers a way to gain insights into how different perspectives and understandings among the actors can be patched together into local alignment; and how relationships can function as infrastructures. The success of the patchwork can either hinder or facilitate the movement of knowledge. Thus, I introduce the concept of relational work to enable the recognition and understanding of the continuous creation of conditions that facilitate the movement of knowledge.

This article contributes to studies on the movement of knowledge across different epistemic cultures or sites (Kruse, 2021, 2023) or contexts (Morgan, 2011), and the challenges involved in translating knowledge into practice (Timmermans and Berg, 2003; Mol, 2008; Sager, 2011; Gleisner, 2023). Additionally, it contributes to the ongoing discussion on alignment work by shedding light on its current limitations. By emphasizing the significance of relational work, I underscore the relational nature of structures and the continuous creation of conditions that facilitate the movement of knowledge. In other words, I argue that relationships and the relational work that nurtures them provide the foundation that makes it possible to perform alignment work.

**Material and methods**

My analysis draws on 14 semi-structured interviews conducted as part of a research project that examines the role of mediators in the movement of knowledge from its production to its application in practice, focusing on occupational health services providers in Sweden. The sample consists of two types of occupational health services providers: external occupational health services providers (the most common ownership structure for occupational health services), and in-house occupational health services units used by regions, county councils, municipalities, the Swedish Armed Forces, and large companies, particularly in the industry sector. In 2017 and 2018, I visited two large external occupational health services providers and two in-house occupational health services units located in different geographical regions in Sweden. During these visits, I conducted interviews with various professionals, including occupational health physicians, occupational health nurses, physiotherapists, psychologists, behavioural scientists, organization consultants, and environmental engineers. Many of these interlocutors held managerial positions within their respective workplaces, such as managers, heads of units, consultant managers, and business development managers. Although they did work with patients, not all of them did so on a daily basis.

My sampling strategy aimed at capturing a range of perspectives within the same occupational health services provider, as well as perspec-
tives from external occupational health services providers and in-house occupational health services units. The objective was to obtain diverse opinions and rich accounts of occupational health professionals’ experiences of translating medical guidelines into practice and moving knowledge between contexts against the background of market economics. Additionally, I sought to explore the negotiations and compromises they faced in balancing professional expertise, customer needs, and workplace demands, considering their dual role of assisting employees while being dependent on employer commission. This approach allowed me to gain insights into their descriptions and reasoning about their work. However, it did not provide an opportunity to observe their actual work, thus constraining my ability to compare their statements with their actions.

All interviews were conducted in person at the workplaces of the occupational health professionals. The duration of the interviews ranged from 45 minutes to 90 minutes. With the consent of the interlocutors, obtained in writing prior to the interviews, the sessions were audio-recorded and later transcribed. The interviews covered topics such as the occupational health professionals’ work, the services commissioned by occupational health services providers, the services utilized by customers, and the application of scientific knowledge and evidence-based guidelines in different assignments.

To ensure the anonymity of the two external occupational health services providers and the two in-house occupational health services units, I have omitted their names in this article. Likewise, to protect the identities of my interlocutors, they are referred to as occupational health professionals or by their specific profession or work title.

For the analysis of the interviews, I employed a thematic approach (Braun and Clarke, 2012). This involved coding the interviews and categorizing the codes into potential themes, while paying attention to patterns, similarities, and differences both within and between the interviews. Throughout the analysis, my specific focus was on the translation of medical guidelines into practice, examining how knowledge moves from occupational health professionals to customers and employees.

**Occupational health services in Sweden**

The commissioning of occupational health services in Sweden is regulated by the Work Environment Act (SFS, 1977). Although the Act defines the role of occupational health services, the utilization of these services is not specifically regulated by law. According to the Act, employers are responsible for preventing work-related ill health, ensuring a favourable work environment, and organizing work adjustments and rehabilitation activities as needed. Thus, it is the employer’s responsibility to ensure the availability of required occupational health services for their employees (SFS, 1977). In Sweden, access to occupational health services is based on voluntary contracts between employers and occupational health services providers. In other words, it is not mandatory for employers to have a contract with an occupational health services provider or offer these services to employees (SOU, 2004). Further, the extent to which employees have access to occupational health services varies significantly across different business sectors and is further influenced by the size of the company. Employees in the state and municipal sectors, as well as large companies, typically have access to occupational health services, while employees in companies with fewer than 50 employees often do not (SOU, 2011).

According to the Work Environment Act, occupational health services are considered independent expert resources in the fields of work environment and rehabilitation. Their role is to prevent and eliminate health risks in workplaces, possessing the expertise to identify and describe the connections between work environment, organization, productivity, and health (SFS, 1977). Through risk assessment, prevention measures, health surveillance, and rehabilitation support, occupational health services contribute to the well-being of employees and the overall productivity of the workforce. Referring to occupational health services as expert resources underscores the state’s emphasis on employers utilizing their knowledge about the interaction between work environment and health, which is regarded as unique and difficult to replace. However, the primary services provided by occupational health services providers include health check-ups,
addressing individual lifestyle concerns, administering medical treatments, facilitating work-life oriented rehabilitation, as well as providing healthcare services unrelated to work, promoting health initiatives and wellness programs.

Relational work

Relational work has been analysed in many different settings and particularly within the field of economic sociology (Zelizer, 1994, 2005; Bandelj et al., 2017; Kim, 2019; Chen, 2020), showing that handling and negotiating social, economic, and emotional dimensions in relationships are important factors in explaining various practices, such as egg donation (Haylett, 2012), surrogacy (Toleando and Zeiler, 2017), interorganizational cooperation (Whitford, 2012), consumer behaviour (Bandelj and Gibson, 2019), and financial investments (Hayes and O’Brien, 2021).

Relational work, a concept initially rooted in the negotiation of social relations encompassing intimacy and economic transactions, takes place when individuals try to manage the connections across social relations, economic transactions, and media of exchange (Zelizer, 2005, 2010, 2012). According to Viviana Zelizer, in all economic activities, “people engage in the process of differentiating meaningful social relations” (Zelizer, 2012: 145). Thus, relational work extends beyond mere social interaction, as the connection to economic activity is paramount, making the relational efforts goal driven (Bandelj, 2012). Relational work is an ongoing process that includes efforts to establish, maintain, negotiate, transform, and terminate personal relations. It also involves the continuous maintenance, matching, repair, and negotiation of relations as new challenges and opportunities arise.

In using the concept of relational work, I adopt Zelizer’s (2006: 307) perspective that the objective of relational work is to find viable matches – those that get “the economic work of the relationship done and sustains the relationship”. Similarly, people engage in these efforts to understand the nature of their social relationships and the expectations they have on each other. Nina Bandelj (2012, 2015, 2020) expands on Zelizer’s concept by emphasizing the importance of meaning-making by actors involved in relational work, as well as the significance of emotional embeddedness and power asymmetries. She argues that part of relational work involves gathering information, responding to emotional impulses, and building trust, all of which shape the unfolding of the economic relationship (Bandelj, 2015). Thus, relational work encompasses an affective dimension. According to Feldman and Khademian, relational work is about creating “connection between people in ways that legitimize perspectives and create empathy for participants who represent different ways of understanding and addressing the problem” (Feldman and Khademian, 2007: 306) and that “connections between people based on feelings are important in the ability to legitimize different perspectives and to create a community of participation” (Feldman and Khademian, 2007: 312). Thus, relational work is fundamental to the development of trust. Moreover, the issue of trust in central in economic exchanges (Granovetter, 1985, 2017).

I will employ the concept of relational work to scrutinize the strategies adopted by occupational health services to create conducive conditions and viable business relationships that enable the movement of knowledge to customers and employees. As my analysis will demonstrate, the establishment and maintenance of relationships within occupational health services are foundational for the execution of alignment work. An integral part of relational work involves navigating a complex practice characterized by interconnected customer demands and expectations, alongside endeavours to ensure profitability in a market-driven environment, all while adhering to commission regulations mandated by legislation. In other words, the entwined nature of alignment work is intricately linked with the realm of relational work.

Within occupational health services, numerous crucial relationships exist. These encompass the connection with the customer/employer as well as the link to the patient/employee. The latter association becomes complicated due to the circumstance that the patient’s employer serves as both the customer and the payer for the occupational health services provider’s services. Thus, the triadic dynamic involving the occupational health services provider, the patient/employee, and the customer/employer not only shapes the
provision of occupational health services but also influences the knowledge that can be conveyed. In this article, my emphasis is on the relationship between occupational health services and their customers, given its paramount importance in establishing the prerequisites for facilitating the movement of knowledge.

**Identifying viable matches and building trustful relationships**

In occupational health, the movement of knowledge depends on occupational health services providers’ ability to establish functional relationships with their customers, i.e., the employers that commission their services. Specifically, customers must want the knowledge the occupational health services provider has to offer. Thus, a recurring theme among my interlocutors when discussing their work and interactions with customers was cultivating “good relations” with customers. From their perspective, these relationships were characterized by open and effective communication, along with the customers’ genuine interest in their recommendations. The concept of “good relations” with customers also encompassed the customers’ comprehension of the overarching mission of occupational health services, namely preventive and workplace-level intervention rather than reactive individual-level assistance – that is, aiding individual employees after an issue has occurred.

One part of cultivating these good relations involved identifying the potential customers who would constitute a ‘viable match’ (Zelizer, 2012), that is, determining which customers to establish business relationships with and which relationships to deepen. On the one hand, there are, as a consultant manager and psychotherapist at a large external occupational health services provider explained,

customers who only have contracts with us because the trade union demands it or because the Work Environment Authority has been there, and it’s clear for us that a customer who expects nothing more than a contract to show the trade union, there we will never be able to work in a consultative or preventive manner. (Interview)

That is, some customers turn to occupational health services to fulfil the bare minimum the law requires of them. In the words of another interlocutor, these customers were “primarily concerned with costs rather than outcomes.” Their expectations revolve around minimal services at the lowest possible price (cf. Husman and Husman, 2006; Antonsson and Schmidt, 2003). In the opinion of my interlocutors, this translated into these customers placing their main emphasis on “fire-extinguishing” measures; in other words, on reactive services addressing illness or accidents after they have already taken place. Additionally, they might not show much interest in the proposals put forth by occupational health services providers regarding preventive measures aimed at minimizing the risk of recurrence.

In such cases, my interlocutors clarified that they limited their services to a basic scope, exclusively catering to specific requests and refraining from recommending additional interventions. It was deemed unprofitable to invest substantial efforts in forging more than a surface-level business relationship with a customer solely interested in receiving services mandated by legal regulations. In addition, persistent attempts by the occupational health services provider to introduce supplementary measures would invariably lead to friction in the existing relationship. In other words, these customers were not the viable matches (Zelizer, 2012) the occupational health services providers were looking for. Instead of expending effort to persuade them to engage in services surpassing legal mandates, my interlocutors concentrated on more viable (and profitable) matches – i.e., customers more open to exploring extended initiatives related to work environment enhancement and employee health.

Customers, on the other hand, who displayed a willingness to actively seek occupational health services expertise were regarded as significantly more inclined to evolve into collaborative partners, engaging in long-term contracts and partnerships. According to my interlocutors, such customers perceive the occupational health services provider as an engaged and appreciated partner identifying the interconnections between the work environment and health. They highly value the occupational health services
provider’s contributions, suggestions, consultative approach, and support in development and improvement of the work environment. This sentiment was captured by a customer manager and psychologist who portrayed these customers as individuals who “possess an understanding of the enhanced value derived from such collaboration.” It was with these viable matches that occupational health services providers strove to establish the “good relations” they considered crucial for the successful execution of their work. In such instances, services were custom-tailored in dialogue with these customers, empowering occupational health professionals to concentrate on preventive measures aimed at enhancing work environments.

That is, to identify potential customers that would qualify as a ‘viable match’ (Zelizer, 2012), occupational health services providers engage in differentiation between relationships, such as distinguishing between customers interested in genuine collaboration and those adhering solely to legal mandates. This differentiation also extends to the marketing of the boundaries of the relations, encompassing customers who seek either closely interwoven partnerships or more distant affiliations. Put differently, occupational health services providers engage in relational management, a focal point identified by Bandelj (2012), as the primary objective of relational work. This part of relational work bears certain resemblances to boundary work (cf. Gieryn, 1999). It is worth noting, however, in accordance with Bandelj (2012: 182), that “the focus of boundary work is on differentiation between entities... In contrast, relational work squarely centers on relationships.”

The discrepancy between the legal mission and self-perception of occupational health services providers, juxtaposed with customers’ interpretations and expectations of them, gives rise to gaps, or seams, between occupational health services providers and their customers. Thus, various ‘edges’ and ‘endings’ emerge, where the seams become visible (Vertesi, 2014: 269). Occupational health services providers work at the seams, endeavouring to bring together diverse organizational and conceptual perspectives to attain specific objectives. Thus, their role encompasses engaging in relational work to find viable solutions that benefit both parties in the business relationship. This approach remains consistent regardless of whether the customer seeks a closely interconnected partnership or a more distant affiliation. Occupational health services providers work to enhance the appeal of their expertise and offerings to customers, encouraging investment and contractual agreements. As described above, one strategy to attain this goal encompasses aligning their business relationships in accordance with the specific demands articulated by the customers.

By aligning the business relationship in accordance with the customers’ preferences, occupational health services providers acknowledge the ‘seamfulness’ (Vertesi, 2014) that exist between different organizational and conceptual perspectives – i.e., incompatibilities and constraints making customer interests a pivotal consideration in their engagement within business relationships. That is, the services offered to customers deemed as not viable matches are confined to a basic scope, whereas for customers perceived as viable matches, occupational health services providers endeavour to enhance and intensify the business relationship. This underscores the fact that the seamfulness between occupational health services providers and customers exerts influence not solely on the nature of the business relationship, but also on the level of engagement and exertion expended by occupational health services providers.

Another, related part of cultivating these good relations was getting to know the customer, not only in terms of whether or not they constitute a viable match but also in terms of their needs and capabilities. My interlocutors used the term kundskap, derived from the combination of “kund” (customer) and “kunskap” (knowledge), as a creative play on the concept customer knowledge, and described as

…to know about the platforms the customers have for various matters, the conditions they operate under, to understand the resources available, how financially constrained they are within their industry, and all the factors that need to be considered when providing advice. (Interview)
However, acquiring such customer knowledge demands not only the engagement of the occupational health services provider but also the customer’s confidence in disclosing information about the company – data concerning both financial matters and work safety, along with the work environment, may encompass sensitive content. This information is indispensable for occupational health services providers to effectively utilize their expertise in occupational health and safety. It allows them to identify the specific needs of the customer in collaboration with the customer, and consequently, to be able to propose appropriate solutions to work environment issues. Thus, building trust is an important part of establishing the “good relations” that are the foundation for moving knowledge within occupational health services.

Relational work, and thus, by extension, the movement of knowledge finds support in the continuous dialogue between occupational health services providers and customers. These persistent dialogues establish “points of contact” that act as bridges, legitimizing diverse perspectives and fostering mutual understanding among actors with different approaches to addressing work environment problems. In these points of contact, knowledge is also shaped through various processes such as making it attractive, explaining it, and adapting it. By gaining understanding about one another’s perspectives and understandings, the seam between them can be bridged more easily.

Managing matters related to profitability and dependencies

Schmidt et al (2015: 233) use the idiom “it takes two to tango” to describe the process of establishing a collaboration between an occupational health services provider and a customer. However, while it indeed requires two parties to engage in the collaboration, it is still ultimately the decision of the customer and the company to purchase and utilize occupational health services. In other words, it is the customer and the company that must initiate and decide on the scope of the collaboration with an occupational health services provider.

This dynamic shapes both the scope of alignment work achievable by occupational health services providers and the nature of the relationship itself. This is especially pertinent for external occupational health services providers, who are reliant on marketing and selling their services. Thus, as one of my interlocutors pointed out, occupational health services professionals do not,

> get up in the morning, thinking about occupational health services as “Today, I’m going to be an independent expert resource.” That’s not how you think! You think you’re going to work out February’s budget. (Interview)

That is, for him, economic considerations occupy a central position in his work, not his legally mandated role as an “independent expert resource” (SFS, 1977; my translation) – i.e., delivering expertise according to professional standards. Within the market-oriented context, prioritizing the fulfilment of customer demands constitutes a much more rational approach than adopting the stance of an “independent expert,” whose advice might diverge from the (paying) customer’s interest. In other words, putting the employer in the role of a customer also puts the occupational health services provider into a specific relationship with them, and part of that relationship is the occupational health services provider’s dependence on the customers good graces.

That is, the relational work conducted by occupational health professionals operates from a position of significant dependence. This dependency is particularly pronounced in smaller towns, where the loss of even a single customer among a limited pool could not only endanger the occupational health services provider’s profits but also its overall existence. Therefore, the emphasis placed by my interlocutors on cultivating “good relations” needs to be understood in the context of this dependency. It involves the endeavour to turn a viable match into a trustful relationship, a crucial step in establishing a productive and enduring collaboration.

This observation is particularly evident in the case of external occupational health services providers. In-house occupational health services units – like the different professions in the criminal
justice system described by Kruse (2021) – already have a relationship with their “customer” through being part of the same organization. Thus, it is not surprising that an occupational health nurse operating within an in-house occupational health services unit might contrast her current situation favourably against a previous experience with an external occupational health services provider:

Sure, we are required to create billable hours and things, too, but it’s not quite like …. we don’t discuss at every meeting “but how are we going to bring in money doing this?” (Interview)

In other words, from her perspective (though she did not explicitly phrase it in these terms), concerns related to budgets and profitability held a less prominent position within the in-house occupational health services unit compared to their significance for an external occupational health services provider.

For her, the in-house occupational health services unit offered her greater latitude to do her job well. However, at the external occupational health services provider, balancing the proficient execution of her duties with contributing to the company’s profitability was not always compatible. The pursuit of excellence in her role could potentially demand more time than was financially advantageous or fell within the scope of what the customer was willing to pay for.

In all the examples above, the occupational health professional in question was confronted with the requirements of being efficient and profit oriented. This places the occupational health professional in a challenging position. On the one hand, they aim to uphold medical expertise, while on the other hand, they need to generate profit for the occupational health services company.

The pursuit of profitability prompts some of my interlocutors to explicitly seek positions within in-house occupational health services units. However, even in-house occupational health services units remain constrained by allocated resources. This might render it equally challenging to propose certain measures, address specific inquiries, or raise issues that could benefit the employees. In other words, the customer’s control over the available resources for occupational health services empowers them to shape the encounter as well as the movement of knowledge between occupational health professional and employees. This effectively provides the customer with the final say, particularly in matters concerning workplace adaptations.

To illustrate this, an occupational health nurse recounted an assignment she had recently completed, where the customer showed reluctance to make investments based on her recommendations. She elaborated, “I was tasked with conducting noise measurements at a company and assessing the presence of hazardous noise levels. However, the customer chose to provide individual employees affected by these levels with ear protection, rather than investing in new, quieter machines that would prevent the recurrence of the workplace issue.” In this case, the customer opted not to follow the occupational health professional’s guidance, potentially waiting until the existing machines were worn out and needed replacement. In other words, the professional knowledge of the occupational health nurse clashed with the customer’s willingness to allocate their company’s financial resources for the recommended interventions.

As previously stated, the relationship between occupational health professionals and their customers is complex. The occupational health professional assumes the role of an expert equipped with specialized knowledge in occupational health and safety. The customer, i.e., the employer, on the other hand, typically holds a layperson’s perspective (though possessing vital insights into their company and its operations), placing them in a relatively less authoritative position. As demonstrated by research in STS, the intricate tensions inherent in the complex expert position influence the relations between medical professionals and patients (Åkerman et al., 2020), in addition to shaping the mediating role of the expert (Egher, 2020). This clear division of authority in favor of the occupational health professional lends weight to their words and has the potential to foster trust. Thus, this inherent inequality might, in theory, facilitate the movement of knowledge. However, given that the employer also assumes the role of the customer in occupational health services, the occupational health professional is tasked with offering not just expertise and
occupational health services, but also a service experience. Coupled with the financial dependency of occupational health services providers on their customers, this situation further tilts the relationship in favour of the customer. In other words, the relational work conducted by occupational health professionals is deeply entwined with power dynamics (cf. Tilly, 2006; Bandelj, 2009, 2012; Roscigno, 2011) as well as with emotions, i.e., the customer’s willingness. As Bandelj (2012: 180) asserts, power is an integral part of relational work. Although occupational health professionals work at the seam between their defined mission and financial dependencies of their customers, it’s important to acknowledge that in certain instances, the misalignment between these two aspects makes it impossible to achieve successful alignment. That is, there are cases where certain gaps cannot be bridged due to the customer’s lack of interest in the knowledge being offered, consequently impeding the movement of knowledge (cf. Davis, 2019; Egher, 2020; Hillersdal et al., 2020).

Thus, it is important to acknowledge that the occupational health professionals’ relational work does not always contribute to positive outcomes. To elaborate, the central requirement for occupational health services providers to be financially profitable, coupled with their reliance on customer satisfaction, gives rise to inequalities and dependencies that significantly influence which knowledge is moved or not moved. Ultimately, these factors contribute to shaping the knowledge that in the end reaches the employees.

Relationships and the movement of knowledge

As previously mentioned, the relationship between the occupational health services provider and the customer provides a foundation for the movement of knowledge. According to my interlocutors, a good – i.e., deep and trustful – relationship made it possible to move knowledge in a way that a superficial relationship cannot achieve. As a business development manager and psychologist at a large external occupational health services provider explained,

It happens that we receive requests like, “We need conflict management.” Then, when we start asking questions … it might emerge that the main issue isn’t necessarily the conflict itself but perhaps the manager’s struggle to clarify their role as both a leader and a manager. There’s ambiguity about what this group should work on, uncertainty about when they have achieved their goals, and then we might say, “But step one isn’t conflict management; step one might be to reflect on how you, as a manager, ensure that this group knows what they need to do. Because the foundation of what you perceive as a conflict might be that they don’t know what they’re supposed to do, for instance.” (Interview)

In other words, a good relationship enables the occupational health services provider to offer knowledge that the customer may not explicitly ask for. In this specific case, conflict management is not the primary emphasis. Instead, the emphasis is on how she and her colleagues can strengthen and support the manager’s leadership, possibly through measures such as a management course. This is rooted in the recognition that the leader or manager serves as the central figure in matters of health, work environment, and rehabilitation. Thus, providing support to the manager contributes to facilitating employees’ task execution, thereby enhancing the work environment.

Another example provided by the business development manager and psychologist was that customers frequently ask for interventions that she and her colleagues had previously implemented and which had yielded results that the customers had found satisfactory. However, the same interventions may not inherently align with effectively addressing the current problem. “I have the expertise to ascertain what the customer needs in this specific issue,” she explained, and “through a dialogue with the customer, we frequently come to agreements regarding the most effective approach in each individual case.” What made these agreements possible, the examples illustrate, was the “good relation” with the customer. In other words, as previously mentioned, the movement of knowledge relies on establishing a relationship of trust with the customer. In this case, the customer felt trust in the knowledge provided by the occupational health professional.
and her expertise. This trust could be attributed to emotional factors, as previous research has indicated that perceiving empathetic responses from another person tends to foster greater levels of trust in that person (Ickes, 1993).

In both cases, the “good relation” allowed the occupational health services provider to perform alignment work. The customer’s trust was what made it possible to align the customer’s perception of the issue with the occupational health services provider and the occupational health services provider’s expertise with the customer’s circumstances. That is, the customer trusted the occupational health services provider to solve their problem efficiently.

The relational work undertaken by the occupational health professional in these cases shares similarities with the concept of emotion work observed in Gleisner’s (2023) study involving midwives. Gleisner highlights how midwives engage in emotion work by adapting parental education to “increase the willingness among parents-to-be to embrace the knowledge embedded in the program” (Gleisner, 2023: 9), thus enhancing the attractiveness of attendance and fostering greater receptiveness among expectant parents to the knowledge integrated within the antenatal care program. Likewise, Arlie Russell Hochschild ([1983] 2012) and Annelieke Driessen (2018) explore the utilization of this specific form of emotion work to align the will of others (Driessen calls this work sociomaterial will-work), whether it entails managing challenging or concerned flight passengers or attending to the moods and emotions of individuals in dementia care. Emotion work, will-work and relational work thus address the inherent “tension between opposing desires” (Driessen, 2018: 112).

Thus, relationships have the capacity to resolve tensions that arise between different sites and opposing desires, thereby contributing to bridging the gaps (cf. Vertesi, 2014) between them. Through establishing trust in the individual offering knowledge, the knowledge becomes more trustworthy, rendering it more amenable to mobility (cf. Davis, 2019). While relational work might not directly facilitate movement of knowledge, it does create conditions conducive to the movement of knowledge. Thus, relational work cultivates positive emotional associations and interpersonal connections, prompting the intended recipients of knowledge to develop a desire for the knowledge being offered. In other words, a well-established and positive relationship contributes to facilitating a smooth and seamless movement of knowledge.

However, the facilitation of the movement of knowledge in occupational health services is not solely contingent upon a good business relationship. That is, the act of moving knowledge, particularly when it is carefully aligned to the customer’s requirements, contexts, and preferences, can also serve as a means of fostering and deepening the relationship with the customer. This is achieved, in part, by the careful selection of which knowledge to move or not to move. In other words, the movement of knowledge in occupational health services and the relational work (Zelizer, 2005, 2010, 2012) of establishing and maintaining good relations is intertwined with alignment work.

My interlocutors underlined the importance of giving the customer the feeling that their services were useful to them. To be perceived as valuable, the advice and services offered must align with the customer’s capacity and willingness to implement changes: that is, advice perceived as unhelpful has the potential to undermine a previously good relationship.

For example, a behavioural scientist talked about tailoring services and advice to accommodate the financial situation of individual customers. As she explained, “many evidence-based methods are costly, making them less affordable for smaller companies.” To circumvent this, she adopted a modified strategy by integrating components from diverse methodologies, offering a solution she thought more financially viable for the customer. This, she acknowledged, diverged from standard protocol. Nevertheless, prioritizing alignment with the customer’s financial constraints took precedence for her.

Such accommodation could also extend to refraining entirely from suggesting standard measures. A physiotherapist, for example, described this in relation to an assignment for a company whose employees were suffering from lower back pain. In such cases, standard protocol is to issue employees with adjustable desks,
as alternating between standing and sitting is deemed the most efficient strategy for addressing lower back pain in office settings. However, the physiotherapist was well aware that the customer lacked the resources to procure new desks for the entire workforce. As a result, she proposed a more cost-effective alternative: advocating for regular physical activity and stretching among the employees. In other words, she adapted her recommendations in accordance with her knowledge of the customer’s circumstances and constraints, to avoid coming across as offering unhelpful advice.

In this way, occupational health professionals engaged in relational work by aligning their recommendations and interventions with the financial circumstances of their customers, thus rendering them valuable and beneficial. This relational work, in turn, enabled occupational health professionals to perform alignment work – to resolve the discrepancies between standard protocols and the unique circumstances of individual customers. Aligning services to each customer’s specific situation entails working at the seam of standard protocols and the financial constraints faced by customers. More specifically, occupational health professionals combine, adapt and patch together various methods and strategies to accommodate the customers’ financial limitations, resulting in the creation of “fleeting moments of alignment suited for particular tasks” (Vertesi, 2014: 268). Thus, when occupational health professionals resolve the tension between the standard protocol and the individual situation of the customer, they perform alignment work that rests on their relationship with and knowledge about the customer. However, it should not be overlooked that the movement of knowledge within occupational health services is closely intertwined with commercial considerations: occupational health services providers, much like their customers, are also driven by the need to maintain profitability. That is, when occupational health services providers cultivate and sustain “good relations,” they facilitate not only the movement of knowledge and workplace well-being but also their own sales. A customer who trusts their ability to propose effective solutions is more likely to invest further in their services.

This process facilitates the establishment of momentary seamlessness between different operational aspects, enabling the provision of services even when customers encounter financial constraints.

Establishing and maintaining a good relationship may also involve providing services that the occupational health services provider feels lack justification but are desired by the customer. For example, a company might express the intention to provide comprehensive health check-ups for all its employees. While this gesture is indeed generous, the occupational health nurse who discussed this scenario admitted that there was no medical imperative for such evaluations. Nevertheless, by accommodating the customer’s demand and conducting the check-ups, even if she considered them unnecessary, the occupational health services provider underscore their amicability and willingness to collaborate, thereby strengthening the relationship.

Even though occupational health services providers’ work of establishing and maintaining relationships rests on relational work and on being perceived as useful, it resembles the flight attendants’ emotion work (Hochschild [1983] 2012) to be accommodating and complaisant. In Hochschild’s example, the flight attendants’ primary asset is their smile, which helps them manage situations involving passengers who fear flying or those who are anxious about delays, thereby creating a sense of calm and safety. Similarly, occupational health services providers leverage their ability to align services with each customer’s unique situation and their willingness to offer services that may deviate from their core mission, all with the aim of being accommodating and cooperative.

Similar to what the occupational health nurse mentioned in the previous example, other interlocutors recounted instances of providing services that deviate from their core mission of improving work environments and preventing health issues and accidents. These instances encompassed medical treatments or counselling typically offered by public primary health care, aiming to avoid potential delays; the promotion of health initiatives and wellness programs; addressing individual lifestyle concerns; and the delivery of rehabilitation and other interventions linked to sick
leave. While these measures may yield benefits for employees, they do not directly contribute to the occupational health services core mission of workplace safety and the work environment, nor do they align with the occupational health services’ mission to work preventively.

However, even though my interlocutors did not see a medical value in these services, they still saw value in them. As a consultant manager put it, “We wouldn’t get assignments within our core mission, unless the other things worked.” In other words, demonstrating to customers the efficacy of the occupational health services provider in addressing concerns deemed important by the customer – the “other things” she mentions – lays the groundwork for persuading them that the occupational health services provider can be useful in identifying and managing issues related to work environment and workplace health.

Thus, occupational health services providers compromise certain aspects of their core functions to establish the favourable relationships they anticipate will pave the way for shaping future collaborations with customers more in line with their mission. This may involve activities such as preventive ergonomic assessments before acquiring new machinery, evaluations of workplace environments, leadership development initiatives, and management support.

In other words, the movement of knowledge and the alignment work it requires in occupational health services is deeply intertwined with the relationship between the occupational health services provider and the customer – the relationship is both the foundation on which the movement of knowledge rests and is shaped by that movement. However, good relations and the relational work that nurtures them does not replace alignment work in occupational health services – they provide the foundation that makes it possible for occupational health services providers to align standard protocols for occupational health with each customer’s desires, needs, circumstances, and capabilities.

To achieve this, occupational health services providers engage in patchwork as they tailor contracts and align services according to each customer’s specific demands. They skilfully combine and ‘mend’ different perspectives and goals, bridging the gaps, working at the seams, shaping that fleeting seamlessness between sites. Recognizing customers’ needs and expectations and, more importantly, responding to these needs and expectations by aligning contracts and services is thus crucial for achieving successful collaborations (cf. Schmidt et al., 2012, 2015). By attentively addressing customers’ demands, occupational health services providers can maintain the smooth operation of their work and attract customers who value their expertise and services.

Conclusion: Relational work, alignment work, and the movement of knowledge

The occupational health services providers’ relational work is not only about establishing and maintaining structures and relationships between occupational health services providers and their customers by dealing with the seams (Vertesi, 2014) between the legal mission and self-perception of occupational health services providers, on the one hand, and the customers’ interpretations, expectations, and unique circumstances on the other. It is about creating the necessary conditions for the movement of knowledge. One aspect of relational work involves identifying ‘viable matches’ (Zelizer, 2012) – customers interested in genuine collaborations – and cultivating trustful relationships with them. Further, relational work acknowledges the influence of the market-driven context in which occupational health services providers operate, engendering a dependence on their customers. This dependence is crucial in cultivating productive and trustworthy relationships. In other words, “good relations” and the relational work that nurtures them provides the foundation that make it possible to perform alignment work. To put it differently, the movement of knowledge, relational work and alignment work is deeply intertwined with each other.

Thus, I argue that the concept of alignment work needs to expand its analytical scope beyond the knowledge objects themselves, encompassing the structures and relationships that constitute the foundation facilitating their movement. Kruse (2021) introduced the concept of alignment work within a framework characterized by clearly defined relationships among professionals, under-
pinned by mutual institutional trust in the criminal justice system. In the Swedish criminal justice system, there are well-defined institutionalized relationships between groups of professionals. These relationships delineate distinct expectations for each professional role and delineate its interconnectedness within the broader criminal justice system. Further, clearly delineated pathways exist for the passage of forensic evidence-to-be, and interprofessional standards are in place to facilitate this process. The movement of knowledge through the criminal justice system necessitates concerted effort, including alignment work (Kruse, 2021), but there are well-defined roles with well-defined relationships to each other that facilitate this movement. Further, within the framework of the criminal justice system, all professionals share a common goal: ensuring the lawful and reliable movement of forensic evidence. However, Kruse’s concept of alignment work does not sufficiently help understand the movement of knowledge in less organized structures.

In less organized structures, like occupational health services, which involve interorganizational collaborations while also operating in a market-driven environment, the business relationships between representatives of different companies must be established and maintained for knowledge to be moved. In other words, in occupational health services there is a need for the occupational health services provider to establish a working relationship to their customer for a movement of knowledge to become possible. Further, in interorganizational collaborations, the involved parties do not always share the same goal with the collaboration. As I have demonstrated in my analysis, in occupational health services the occupational health services provider and their customers frequently harbour different objectives regarding the collaboration. They are also both driven by the need to maintain profitability.

Looking at the movement of knowledge in occupational health services through the lens of relational work makes it possible to see how structures and relationships facilitate and shape the movement of knowledge in a different way than alignment work. My analysis shows that relational work operates to shape the structures and relationships that support and facilitate the movement of knowledge across the seams between different interests, goals, and conflicting demands. Thus, I contend that relationships possess a pivotal function in bridging the seams, and through the promotion of shared objectives facilitated by custom-tailored contracts and services, the cultivation of “good relations” and conducive conditions can be achieved. In other words, I argue that recognizing the primacy of relationships and the continuous endeavour of relational work in upholding these relationships is paramount when discussing the movement of knowledge.

This article contributes to STS discussions on the movement of knowledge (cf. Kruse, 2021, 2023; Morgan, 2011; Gleisner, 2023) by emphasizing the crucial role of relationships in establishing the necessary conditions for facilitating the movement of knowledge. It highlights the relational nature of structures and emphasizes the continuous creation of conditions that enable the movement of knowledge. The argument put forth is that relational work, aimed at building trust, promoting collaboration, and creating value for all parties involved (Zelizer, 2005, 2010, 2012), is essential for facilitating the movement of knowledge.

The importance of relationships and the contributive role of relational work in making the movement of knowledge smooth, suggests that relationships can function as infrastructures. Scholarship within the field of STS has highlighted that infrastructures are not solely composed of material elements, such as rails and power lines, but are constituted through relationships (e.g., Bowker et al., 2009). In fact, the relationships between human and non-human actants are as important, if not more, to the functioning of an infrastructure as its physical elements. As demonstrated in this article, the structures and relationships between occupational health services providers and their customers hold greater significance for the collaboration’s effectiveness than its tangible elements. That is, the relationships and structures that sustain and harmonize interorganizational collaboration, thereby rendering it func-
tional, hinge on continuous relational work and may fluctuate in line with factors like willingness and capability to engage in such work.

To conclude, while the relational work discussed in this article is specific for occupational health services in Sweden, it draws attention to how underlying structures and relationships not only shape the movement of knowledge but also the knowledge itself. Using the notion of relational work to capture how knowledge is moved (or is not moved) across different contexts, locations, or epistemic cultures enables an understanding of the interplay between inequalities and dependencies, and their interconnections with the movement of knowledge. Thus, I argue that it is important to understand the conditions under which knowledge can be successfully disseminated or encounter obstacles, not only in this context but also in other contexts.

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References


An alternative conceptualization of alignment work exists, which builds upon Joan Fujimura’s (1987: 258) notion of ‘doability’. This conceptualization emphasizes the active alignment of different ‘levels’ within an organization, where problems doability depends on the effectiveness of alignment efforts. The core of such work lies in adequately meeting the demands of different stakeholders or actors (see for example Grankvist, 2011). Gröndal and Holmberg (2021) utilize the concept of alignment work to describe the discursive strategies employed in managing interventions related to antimicrobial resistance policy, their impact on professional practices, and patient-doctor relations. Steven Jackson and colleagues (2011) emphasize the need to reconcile diverse temporal structures or ‘rhythms’ arising from different organizations, infrastructures, phenomena, and researchers’ individual biographies. They term these actions as alignment work, aiming to bring disparate rhythms together in heterogenous and locally feasible forms of collaborative research. Similarly, Helene Sorgner (2022) applies the concept of alignment work to examine the construction of doable doctoral dissertations within experimental high-energy physics settings. Thus, the concept of alignment work offers a framework for understanding how multiple considerations are simultaneously managed, emphasizing the necessity of aligning disparate organizations, infrastructures, elements, and actors with one another.

Throughout this article, the term “customer” (as used by my interlocutors to refer to their customers and where their obligations lie) will be used to denote the dependence of occupational health services providers on their customers, namely the employers.

Access to occupational health services is governed by the European Council Directive 89/391/EEC, which stipulates that employers have an obligation to ensure the safety and health of employees in all work-aspects. Employers are also required to consult employees and their representatives, allowing them to participate in discussions regarding workplace safety and health. If the employer lacks the necessary expertise, they must engage competent external services (Council Directive 89/391/EEC, 1989).

It is important to underscore that the success of a collaborative endeavor does not hinge upon a particular ownership structure of the occupational health services. This holds true regardless of whether these services are provided by an external occupational health services provider or managed internally through an in-house occupational health services unit (Schmidt et al., 2017).