

# Brokers' facilitation of cross-organizational learning and working on wicked problems

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## Abstract

**Purpose** – Wicked problems like poverty, the energy transition, climate change and organized crime require interorganizational collaboration to develop novel approaches. Such collaboration across organizational boundaries does not emerge effortlessly, resulting in brokers (consultants, program managers, project leaders, coaches, etc.) being invited to facilitate. The purpose of this paper is to understand how brokers address the wickedness of societal issues via boundary work and boundary crossing.

**Design/methodology/approach** – A qualitative, explorative design was applied in which 12 brokers were interviewed. The interviews were analyzed using a thematic within- and across-case analysis.

**Findings** – The findings show how brokers address wickedness through working on six interrelated challenges. The challenges show how boundary crossing theory and boundary work theory complement each other and how this might help to develop a more fine-grained understanding of the ways brokers enable collaboration and learning across boundaries.

**Originality/value** – This study uniquely combines theory and findings from boundary crossing and boundary work, two complementary, yet thus far somewhat isolated bodies of literature, to unravel how brokers can negotiate power dynamics and promote learning processes in interorganizational collaboration on wicked problems.

**Keywords** Boundary work, Boundary crossing, Interorganizational collaboration, Wicked problems, Brokers

**Paper type** Research paper

## Introduction

Wicked problems like poverty, the energy transition, climate change and organized crime require interorganizational collaboration to develop novel approaches (Boydell, Pedler, & Burgoyne, 2019; OECD, 2017; Van Berkel & Manickam, 2020). Increasingly, studies on organizational learning have therefore been paying attention to interorganizational learning (Anand, Brøns Kringelum, Øland Madsen, & Selivanovskikh, 2021; Boydell et al., 2019; Engeström & Kerosuo, 2007). Professionals working on wicked problems need to move and collaborate across multiple professional domains, organizations and organizational units (e.g. departments, working groups, task forces). Through such movements, professionals are challenged to negotiate their existing practices to create new ways of working (Engeström, Engeström, & Kärrkäinen, 1995; Mørk, Aanestad, Hanseth, & Grisot, 2008; Wenger, 2000).



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In such collaborations, professionals might question the legitimacy of each other's knowledge and practices (Heizmann, 2011; Mørk et al., 2008). In the absence of existing guidelines, novel relationships among the different parties involved can create potentially paralyzing ambiguity (Levina & Orlikowski, 2009). Understandably, interorganizational collaboration does not self-evidently result in new, hybrid practices (Brorström & Diedrich, 2022; Jong et al., 2020; Nelen et al., 2021; Steketee, Tierolf, Lünemann, & Lünemann, 2020).

As a result, brokers (consultants, program managers, project leaders, coaches, etc.) are typically invited to facilitate interorganizational learning. Boundary crossing theory uniquely explicates how learning and development of new practices is most likely to happen at the boundaries between different practices (Akkerman & Bakker, 2011). Yet, brokers are also responsible for navigating the power dynamics that are invariably at play when different parties are confronted with ambiguity and conflicting stakes as is certainly the case in the context of wicked problems. And it is precisely such power dynamics that boundary crossing theory tends to overlook. By contrast, boundary work theory focusses on the power dynamics involved in the collaboration processes, yet underexposes the learning involved (Langley et al., 2019).

Combining both bodies of literature affords a more comprehensive understanding of the dynamics of interorganizational collaboration on wicked problems and how brokers can navigate those dynamics. This qualitative, explorative study aims to understand the challenges brokers encounter in facilitating interorganizational learning on wicked problems and contributes to actionable insights for brokers and organizations to more effectively address wicked problems.

## Theoretical framework

### *Wickedness*

“Complexity is a core feature of most policy issues today” (OECD, 2017; 3) and seems to be a challenge for a diverse array of public services. Issues like poverty (OECD, 2017), organized, undermining crime (Nelen et al., 2021), sustainability and climate change (Gulikers & Oonk, 2019; OECD, 2017; Van Berkel & Manickam, 2020) and domestic violence (Jong et al., 2020; OECD, 2017; Steketee et al., 2020) are often defined as so-called wicked problems that require an integral and systemic approach (OECD, 2017; Van Berkel & Manickam, 2020).

Although it might seem as if a problem is either wicked or not, various authors (Head, 2008; Noordegraaf, Douglas, Geuijen, & Van Der Steen, 2019; Veltman, van Keulen, & Voogt, 2024) refer to wickedness as a multidimensional concept, highlighting three dimensions of wickedness: complexity, uncertainty and value divergence. Complexity refers to the degree in which various interdependent (sub)systems and elements are involved. Uncertainty focuses on the cognitive and scientific uncertainty involved: not knowing what reliable knowledge is in these situations, continuously changing patterns and not being able to predict what the consequences and risks are of actions. And finally, value divergence points to the extent to which multiple stakeholders involved diverge in perspectives, values and strategic intentions (Head, 2008).

### *Navigating power dynamics to facilitate learning*

So-called brokers are typically invited to facilitate interorganizational learning on wicked problems. Brokers are people who work on bridging and connecting different groups and practices (Akkerman & Bakker, 2011; Akkerman & Bruining, 2016). In this study, we focus on those people who are specifically hired to act as a broker and who are supposed to enact

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boundary crossing competences (Fortuin, Gulikers, Post Uiterweer, Oonk, & Tho, 2024) to work and communicate across various fields or practices.

### *Boundary crossing*

Boundary crossing theory is often used in educational sciences to emphasize that learning and the accompanying development of new practices is most likely to happen at the boundaries between various practices or disciplines (Akkerman & Bakker, 2011; Mørk, Hoholm, Ellingsen, Edwin, & Aanestad, 2010). Here, boundaries are defined as “sociocultural differences leading to discontinuities in action and interaction” (Akkerman & Bakker, 2011, p. 133). Discontinuities might hamper ongoing learning or collaboration but, at the same time, also function as a trigger for learning (Akkerman & Bakker, 2011; Bronkhorst, van Rijswijk, Meijer, Koster, & Vermunt, 2013).

Based upon a review of literature focusing on boundary crossing, Akkerman and Bakker (2011) distinguished four learning mechanisms that brokers can identify and support: identification, coordination, reflection and transformation. *Identification* refers to the mechanism in which professionals (re)define their practice in the light of the other practice, resulting in novel understandings. By means of *coordination* professionals (try to) efficiently translate and coordinate across practices. Means and procedures are established, which help professionals to cooperate and communicate efficiently across boundaries, but which will keep the involved practices as they are. *Reflection* by means of perspective taking and making. Perspective making entails being able to explicate one’s own perspective, perspective taking refers to being able to consider one’s perspective through the eyes of others. Altogether this will lead to a better understanding of the other but also to an extended set of perspectives. In *transformation*, practices are changed fundamentally and possibly new and hybrid practices are created in which (elements of) practices are combined (Akkerman & Bakker, 2011). From the perspective of boundary crossing theory, the focus is on the role brokers play in identifying and supporting learning within and across practices. Notably less attention is paid to the power dynamics that might accompany interorganizational learning, which is where boundary work theory provides a useful complementary perspective.

### *Boundary work*

Boundary work theory in organizational sciences highlights the political dynamics in interorganizational or interdisciplinary collaboration. Boundaries, seen as demarcations between groups based on social, symbolic, material and temporal aspects (Langley et al., 2019), are conceptualized as dynamic and socially constructed (Brorström & Diedrich, 2022; Glimmerveen, Ybema, & Nies, 2020). Moreover, boundaries can be perceived as strategically significant, serving as tools for actors to uphold or undermine specific privilege systems (Glimmerveen et al., 2020; Zietsma & Lawrence, 2010). Boundary work refers to individuals’ including brokers’ and groups’ active engagement in influencing boundaries and purposefully establishing, maintaining, changing boundaries and/or moving across boundaries (Langley et al., 2019; Glimmerveen et al., 2020).

Based upon a review of literature focusing on boundary work, Langley et al. (2019) distinguish three categories of boundary work: configurational, collaborative and competitive boundary work. *Configurational boundary work* is about how organizations and people, such as brokers, from outside the directly involved practices create or rearrange boundaries with the aim to influence the behavior of others and as such can be considered as part of what brokers intend to do. Through configurational boundary work, activities are integrated or separated to facilitate collective efforts while professionals adjust the

boundaries of others to establish spaces conducive to interaction, collaboration and reflection, which may not be feasible in conventional work settings (Brorström & Diedrich, 2022; Langley et al., 2019). *Collaborative boundary work* is focused on realigning boundaries (Brorström & Diedrich, 2022; Langley et al., 2019). Possibly with support from brokers, actors navigate boundaries to accomplish a shared objective (Comeau-Vallée & Langley, 2020), using negotiations, downplaying boundaries and/or capitalizing on boundary objects or brokers to help cross and bridge boundaries (Langley et al., 2019). Finally, with *competitive boundary work*, boundaries are raised or defended to create exclusion and safeguard one's own practice (Langley et al., 2019). Here, boundaries are considered as disjunctive because they are used by professionals to favor their own concerns over those of others (Brorström & Diedrich, 2022; Comeau-Vallée & Langley, 2020). Professionals can do so by extending their own domain and infringing on that of others (Comeau-Vallée & Langley, 2020; Langley et al., 2019), defending their own domain and contesting boundaries between domains (Langley et al., 2019).

Combining educational theory's focus on learning through boundary crossing and organizational theory's focus on power dynamics via boundary work provides a more comprehensive understanding of interorganizational collaboration on wicked problems. Yet, these different bodies of literature have thus far remained somewhat isolated. Understanding how boundary work mechanisms interact with learning processes is essential to supporting brokers and professionals in these complex collaborations. Specifically, brokers play a key role in enhancing the quality of collaboration and learning. This leads to the following research question: How do brokers navigate boundary work and boundary crossing to facilitate interorganizational learning on wicked problems?

### Methods

We used a qualitative, explorative design which affords a deep understanding of interorganizational collaboration and learning on wicked problems as a multi-contextual, social phenomenon. Herein the specific contexts wherein the phenomenon of interest takes shape can be considered (Maxwell, 2004), as the learning and collaborating of professionals is embedded in their practices and (organizational) contexts they are working in.

### Participants

Twelve brokers who have developed extensive expertise in consulting and coaching processes of interdisciplinary collaboration on wicked problems across various public domains accepted our invitation for an interview. With a nested sampling design, we aimed to select key informants to make credible comparisons that could be representative for brokers working on wicked issues in general (Onwuegbuzie & Leech, 2007a). We used a purposeful sampling scheme using a maximum variation sampling strategy to capture a rich variety of perspectives aiming to exemplify the complexity of the phenomenon (Onwuegbuzie & Leech, 2007b). Participants were selected based upon the following criteria: seniority as professional (more than ten years working experience) and specific expertise on improving interorganizational collaborations on wicked problems in the public domain (at least one year experience with these kind of processes during the past three years). The participants who volunteered to participate upon our invitation represented a balanced distribution among age, gender, public sectors, wicked problems and broker roles, assuming this variation would enrich experiences and perspectives.

See [Table 1](#) for the description of participants.

### Interviews

We conducted semi-structured interviews ([Seidman, 2006](#)) focusing on the way brokers perceived the complexity of the issue(s) they work on, the way professionals and brokers involved dealt with the encountered differences and how brokers tried to deal with the complexity and the differences experienced. The interview scheme was piloted once, and no changes were deemed necessary. The interviews took place between June 2022 and February 2023. Six brokers preferred to be interviewed in pairs, as they argued that this reflected their practice better. We recorded the interviews (audio) and transcribed them afterwards. The transcripts were anonymized and participants were assigned a pseudonym. We verified with each participant if they agreed with the chosen pseudonym and the way their role and context was circumscribed as in [Table 1](#).

### Data analysis

The interview transcripts were processed into extensive summaries, closely following the set-up of the interview, paraphrasing the participant and using quotes from the transcript. We executed a member check ([Roulston, 2010](#)) on these extensive summaries to check if participants could agree with the way we captured and worded their perspective and the

**Table 1.** Overview of participants, their roles and contexts they work in

Participant	Role and context
Bart	Consultant working for consultancy agency. Working on safety issues due to gas mining. Collaboration between various semi-public and private parties
Evelien and Eline	Advisors working for a municipality. Managing and facilitating a program focusing on deprived neighborhoods in a big city. Collaboration between e.g. municipality, social work, police, local entrepreneurs, youth care, mental care
Femke	Independent consultant. Specialized in extremism and jihadism. Working on various project in the role of advisor, trainer and researcher. Collaboration between various judicial organizations, police, social work, governmental and municipal organizations
Irene	Independent consultant. Facilitating a job-rotation program in a big city between various organizations (police, parole, youth care, municipality) targeting domestic violence
Joost	Consultant working for a governmental expertise center focusing on improving collaboration between government, society and organizations on a variety of social issues. In the interview, the focus was put on a nationwide program targeting domestic violence
Lea	Consultant working for a governmental expertise center focusing on improving the collaboration between government, society and organizations on a variety of social issues
Lisa	Consultant working for a consultancy agency. Working on equal opportunities in the field of education. Collaboration between educational institutions, youth care and profit-organizations
Noor and Iris	Program managers of a regional alliance focusing on staff-shortages and the consequences of ageism in the elderly care. Collaboration between educational and healthcare institutions
Rob and Astrid	Owners of a company focusing on social innovation projects. Various projects in the healthcare – and social domain (e.g. dealing with ageism and improving living conditions through citizenship participation projects)

**Note(s):** The names of the participants presented in this table are pseudonyms

optional quotes. Some minor changes were made in the summaries, mainly further (minor) clarifications and some more textual suggestions in case the text would be used as a quote.

Based upon the extensive summaries, we identified the main topics for each interview and organized them into a template as is described in the matrices approach (Miles, Huberman, & Saldana, 2014). We chose this approach to ensure we were able to analyze the phenomenon in such a way its multi-layeredness and its context and the interaction between these aspects, stayed intact and became visible. The identification of the topics was theory- as well as data-driven (following Goldkuhl & Cronholm, 2010). After we analyzed each interview, we conducted a cross-case analysis in which the topics from individual interviews were compared and organized into a matrix. We grouped these topics into overarching themes (i.e. challenges brokers work on simultaneously), considering the emphasis given to the various topics (see Appendix), and the frequency with which they were mentioned. Several times we went back and forth between the original transcripts, individual interview matrices and the across-case matrix to ensure consistency. This process helped us to create thick descriptions of each identified challenge. Throughout the process, we had various sessions in which we as researchers triangulated the analysis of the data (Abdalla, Oliveira, Azevedo, & Gonzalez, 2018). In the end, the six challenges we identified were again member-checked by six participants who volunteered to attend reflection sessions in which we discussed the identified challenges. The importance of some aspects was emphasized by the participants during these sessions, and no alternative findings emerged.

## Results

Table 2 presents an overview of the six interrelated challenges that brokers simultaneously navigate when facilitating learning in collaboration processes on wicked problems. We should note upfront that these challenges were not tied to specific situations, nor do they have straightforward “solutions.” Instead, these challenges demand brokers’ ongoing attention and adaptive responses, with brokers describing their work as a dynamic and iterative process of creating, maintaining and bridging divides between groups, with boundaries constantly shifting and evolving.

### *(Re)establishing spatial and temporal continuity*

This challenge foregrounds the complexity dimension of “wicked issues” in collaborative settings, emphasizing the difficulties that arise from the involvement of numerous

**Table 2.** Overview of the challenges

Challenge	Essence of challenge
(Re)establishing spatial and temporal continuity	The difficulty of maintaining continuity in interactions between numerous stakeholders and systems over time and space
Capitalizing on differences	Addressing the tensions that come along with divergent values, perspectives and stakes and making differences productive
Sustaining a shared problem space	Recognizing and defining the shared problem space and keeping it “alive”
Anticipating changing complexity	Dealing with the continuously changing multiplicity and uncertainty of the issue
Fostering a brave space	Dealing with pressure, discomfort and creating room for experimenting and deviating for what is known
Attending to the process	Creating time and space for reflections on progress and the quality of the interaction

stakeholders and systems and maintaining continuity in their interactions across time and space. Although the stakeholders involved are mostly interdependent, they do not always seek each other out or know how to complement each other. To collaborate effectively, it is important though to get “the whole system in the room” (Lea, working on various projects enhancing the collaboration between government, society and organizations). To do so, and facilitate collaboration, organizational structures are created. Typically, these structures have a temporary character and take the form of, for example, programs, project groups and networks or smaller in the form of a working group or learning trajectories. Representatives of various organizations involved participate in these temporary structures [1]. These temporary structures can vary in size and level of formality, but they are all characterized by the goal of enabling various stakeholders to collaborate and develop new expertise and practices that help tackle (aspects of) the wicked issue. The brokers led temporary structures or facilitated collaboration and learning as trainers, coaches or consultants within and between these structures and regular organizations.

The creation of temporary structures is considered necessary for facilitating interorganizational stakeholders’ learning and collaboration. At the same time new, interorganizational boundaries are created between the temporary structures and the existing, regular organizations. Crossing these borders is not evident, and discontinuities in (inter)action between the temporary structure and the regular organization(s) may occur as Joost illustrates. Joost has worked intensively as an advisor for a nationwide program aimed at combating domestic violence and child abuse. The creation of the program led to resistance in the regular organizations, professionals working there felt sidelined:

In essence, these people [of the regular organizations] were told, very implicitly, that they were not performing well, and we [program team] are going to do it differently now. These people [from the program team] can handle it. So, those people come in [...] and they are allowed to solve the problem. But, of course, they are dependent on each other.

Joost noticed the program becoming isolated as ministry top management, seeking a “quick fix,” launched it but then withdrew not realizing that they play a crucial role in maintaining the connection between the program and the ministries and implementing organizations. They need to connect people, make sure the regular organizations stay involved, ensure a shared vision and keep a close eye on things.

In some cases, brokers also stressed how professionals working within a temporary structure need to be able to move back and forth between the temporary structure and their daily workplace and implement what they have created in the temporary structure. Sustainable change can only be reached by making sure newly created practices are implemented in the daily practice of organizations. The brokers try to facilitate these boundary crossing activities in various ways. For example, by working on boundary objects (like a general concept of a solution that could be adapted to local practices), creating the right infrastructure upfront enabling communication and collaboration between the temporary structure and organizations and making sure organizations are able to deal with the more iterative and unpredictable processes when working on wicked issues.

While the above examples illustrate the challenges of discontinuities across contexts, Evelien and Eline, working on improving living conditions in deprived neighborhoods, were confronted with discontinuities between past and current practices:

One quite painful example was that a few years ago, there was already a discussion with the residents about redesigning the street, and in the [...] basement of the community center [...] there were still posters with all the outlined ideas. [...]. Yes, and then everyone [...] is gone, has a

different role, and then you can hardly trace what that participation process was about. Moreover, it ultimately didn't proceed, yes, and who communicated that properly to those residents then?

Evelien and Eline consider it an important aspect in their work as brokers to ensure continuity over time, recording lessons learned and communicating about them.

The fact that numerous stakeholders and organizations are involved create challenges in maintaining continuity over time and across contexts. In addition, all these stakeholders differ in expertise, perspectives, interests, resources and working procedures, further complicating the process of creating continuity over time and across contexts, which we will discuss in the following section.

### *Capitalizing on differences*

While brokers highlight that diverse expertise and perspectives are valuable for tackling wicked problems, they also need to address the tensions that come along and find ways to make these differences productive.

Divergence in values often leads to misunderstanding and “fuss” on the relational level as Femke, working on the issue of radicalization and jihadism, illustrates:

So [...] the local police officer says to the youth worker, hey, show a bit more courage in sharing information. [To which a social worker replies] oh, I didn't know it was about courage, but I can't share [information] because I might end up before the disciplinary board. [...] and because people don't know that about each other, an appeal is immediately made to a normative framework, so then it's about courage, even though it's not about that at all. And that also causes [...], on a relational level, a lot of fuss.

In addition, brokers pointed to a range of differences, such as procedures, resources, culture, language, interests, status and hierarchical position, that complicate collaboration processes. These differences sometimes also trigger power dynamics, which shape the collaboration. For instance, professionals vary in their (perceived) influence on the collaboration process and might have different opportunities to promote their stakes. Rob and Astrid emphasize how organizational culture affects professionals' willingness to express opinions and engage with change. In some organizations, professionals are encouraged to voice their views and contribute to change efforts, while in others, they are primarily socialized as executors of policy and procedure. Bart, working on construction safety, highlights how financial insecurity limits workers' willingness to speak up. Craftsmen involved do not always have insurance and may have more difficulty making ends meet. Bart explains that from this position, it is sometimes difficult for craftsmen to discuss the working conditions: “so that means I will keep my mouth shut a little faster, I will be a little more careful, I don't want any hassle with the owner here.”

Professionals often struggle to transcend their own specific repertoire, as Noor and Iris, working on ageism in the elderly care, noticed. Some professionals cling to their knowledge, hindering them to explore and use the expertise of others:

Well, strangely enough, the more expertise I think sometimes [...] the firmer that first step becomes “I have to bring this, this is how it is”. It's not the case for everyone, but for some people it really is [...] as if their identity was connected to this ‘I come to tell this, I bring this.’”

Despite these challenges, brokers see value in bringing together diverse perspectives using these to generate new insights and practices. Mostly, brokers use differences in perspectives and expertise as a catalyst for reflection, aiming to foster mutual understanding and strengthening collaboration. In addition, knowing where to find what kind of expertise and building a network across organizations is considered as important as well. Irene facilitated a

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project targeting domestic violence in which managers changed position with managers from other organizations to better understand each other's work:

[...] and you really have no idea what to expect from the police [...] then someone will sit there and he will really [see] a completely different world [...] had no idea about the complexity and where all the snags are in that organization [...]. Why are things going the way they are in the other organization?

This firsthand experience enabled the managers to improve interorganizational collaboration by better understanding each other's constraints and decision-making processes.

The differences brokers use to steer learning and collaboration are mostly grounded in perspectives and expertise. Lisa uniquely views conflicting stakes as productive, emphasizing negotiation as key to sustainable collaboration: "You have to come up with a certain strategy [...] where everyone [...] can get as much as possible of what they want."

While brokers recognize the value of diverse perspectives, they also encounter tensions, misunderstandings and imbalances that complicate collaboration.

#### *Sustaining a shared problem space*

To deal with the above-mentioned complexity of many different stakeholders and the value divergence between them, brokers often stress the importance of recognizing and defining a shared problem space (i.e. defining the issue and shared goals to work on) and keeping it alive.

This shared problem space is considered motivating for professionals and organizations and helps steer the collaboration in a certain direction. In general, brokers noticed how professionals often acknowledge the urgency and importance of the issue and express their commitment to the shared problem space. Joost observed a, in his eyes, successful program team targeting domestic violence. Their success was partly due to a clear commitment to the shared task at hand which they prioritized over individual interests in contrast to teams:

[...] where people were clearly delegated to a team to serve a specific interest. And that is very difficult for the collaboration, because then they were collaborating in name, but in fact they were mainly coordinating, you could say, or informing each other. Really working together, that's something different (Joost).

Other brokers pointed to the way how, on a more abstract level, stakeholders can recognize and commit to the shared problem space, but when it comes to actual active involvement, existing differences in interests surface and hamper the realization of it. In other occasions, the actual problem space is lost out of sight and interorganizational meetings are more about ticking boxes than reflecting on the way people are still actually working on the shared problem. Brokers consider it their responsibility to help professionals and organizations to clearly articulate the problem space, to keep it central and alive during the collaboration process and to ensure that activities are kept in line with the essence of this shared problem space. Although articulating and sustaining a shared problem space is considered as conditional for effective collaboration, at the same time, brokers acknowledge how the issues they are working on are multilayered and constantly changing. The shared problem space is therefore not static and requires brokers to constantly anticipate the changing complexity of the issues they are working on.

#### *Anticipating changing complexity*

The complexity of issues is characterized by the continuously changing multiplicity and uncertainty of the issue. This changing complexity can make it difficult for brokers to

determine where to start and what to work on. This requires brokers to constantly think about zooming in, working on smaller aspects of the issue that can be dealt with, and zooming out, overseeing the bigger picture and how various aspects are related to each other. Most brokers stress the importance of zooming in and focusing on smaller aspect that can be dealt with, on the other hand, Noor and Iris, point out that zooming out should not be omitted:

If you define something as very small with a kind of intervention and an outcome, then you of course ignore the fact that it was a very complex issue, which means that there is not already a solution.

The process of zooming in and zooming out creates uncertainty, amplified by the changing complexity of issues. Noor and Iris highlight how their work constantly evolves with little to no data to guide decisions. Their program aims to prepare enough people for elderly care well, but defining “sufficient” and “well” is challenging, what works today maybe obsolete in five years.

The multiplicity and changing complexity of the issues imply there are no simple solutions or a single “best” solution at hand. This can cause fear of making mistakes which might lead to passivity, sticking to routines or reactive, small-scale actions. As Lea notes, this fear can cause people to “choose the inward path, the shutters are really closed, because we are afraid of making mistakes.” Femke, working on radicalization and jihadism, illustrates how the changing complexity of the issue can lead to an unbridled desire for information:

And that is of course also based on the idea that if you work with a changing complexity, then it always becomes different, so it keeps changing and that creates a lot of uncertainty. And what are you going to do when you become insecure? Then you start looking for something to hold on to. [...] then you think I need more information. [...] that desire for information can also be a false form of control.

To address the issue uncertainty of a wicked problem, brokers stress the need to acknowledge complexity and multiplicity and to focus on a specific aspect to address while also being transparent about what can and cannot be tackled, and why. You must be able to say that something is not feasible and “discuss the consequences of not doing certain things. Or not to know” (Lea)

Due to the changing complexity of issues, learning processes are mostly based upon learning from experiments and learning by doing. In that way, brokers help professionals to develop, step by step, new ways of working. Rob and Astrid, working in the domain of healthcare and citizen participation, view learning as something that happens along the way, “by simply doing together.” They pay a lot of attention to successes and treat failures as insights into the system, emphasizing that “everything is information, you could say, and as a result there is learned.” Experiencing and seeing that you are on the right track is also a form of learning and can give confidence, and in such way, addresses the insecurity professionals can be confronted with. By taking a look at another project you confirm your own learning: “That confirmation is a learning moment to maintain your route or even become stronger in your process. So those are really benchmarks to also look [...] where am I now [...].”

#### *Fostering a brave space*

A brave space refers to the space brokers need to create for actors involved to deal with pressure and discomfort and being able to experiment and deviate from what is known. While brokers stress the need for learning by doing and experimenting by the professionals involved, this does not happen on its own accord since people need to feel they can safely do so and this not a given. Irene, working on a project fighting domestic violence, notes that a

lack of psychological safety can prevent professionals from embracing change and experimentation. When the consequences of their actions are significant, they may avoid taking risks and stick to traditional methods or protocols. In addition, professionals may be working in organizations with a “better safe than sorry culture” (Irene), socializing professionals into strict adherence to guidelines and protocols.

Additionally, brokers stress that political and societal pressures exacerbate the complexity of the issues and the constraints on experimentation. Wicked problems, perceived as urgent with significant consequences for mishandling, come under scrutiny from politics, media and society, as Joost explains:

Certainly when you look at those complex tasks such as nitrogen and so on, these are of course very serious, they are very political topics. And these are also topics that receive a lot of media attention. So the work of people who are working on those kinds of tasks is very strongly influenced by what happens in the media, by what happens in the House of Representatives, what ministers consider important. So actually quite a political environment.

This attention creates pressure on professionals “to perform, to run, to keep coming up with something new” (Joost). These issues also evoke strong societal emotions, increasing the demand for effective solutions. However, professionals often feel constrained by the expectation to solve these complex issues quickly while avoiding mistakes. This fear can lead to a tendency to remain within safe, familiar practices, as Lisa notes: “Everyone there stays in that little box, because then you know for sure that you are doing well there.”

Creating a brave space helps professionals find the courage to deviate from what is known, to open up and to experiment, thereby easing collaboration tensions. Brokers invest considerable effort in creating such a space and consider building personal connections with and between all stakeholders as foundational for such a space. As Lisa says, it is easier to give in a bit more on the difficult points coming from trust and connection. Bart, working on safety issues arising from gas extraction, illustrates how it starts with building rapport:

Safety is not necessarily something that craftsmen are passionate about [...] building beautiful things, that is where their fun lies. So first follow that up and then make a connection.

Next to building rapport, Bart and his colleagues organized work meetings in which they tried to create an atmosphere that made it easier for professionals to talk to each other:

We just tried things out [...] like [...] safety breakfasts. [...] we invited all the managers, and that was at a construction company, and they liked that because then they suddenly came to the competitor that they normally didn't talk to. Or half-talked along. Or only saw with a tender. So then they suddenly came to have breakfast in the shack in the morning, and heaters were put up so that it was warm. And then the construction company in question provided some eggs and sandwiches, and we sat there with the managers.

Rob and Astrid stress the need to create room early on by engaging organizational leadership. As they explain, managers must provide professionals with the space “to do something not and to be allowed to something else,” enabling them to take risks and experiment.

### *Attending to the process*

Throughout dealing with the interrelated challenges, brokers also stress the need to keep room for reflection on progress and the quality of the interaction between the stakeholders involved. This process does not happen automatically; it often clashes with regular agendas focused on completing actions and managing practical matters. Professionals may also avoid it due to discomfort or time constraints. In the long term though, most brokers consider investing time in reflection on the collaboration process as time-saving and quality-

enhancing. Brokers facilitate moments where stakeholders are actively encouraged to reflect on the process. Lea, for example, organizes workshops where administrative leaders, program directors and civil society representatives discuss bottlenecks. She deliberately seeks out discomfort and fosters productive tension:

They [participants of the learning workshops] are trained to be harmonious, to withhold emotions, or to make judgments about emotions. So you're a good director if you don't sweat on your brow and don't let things drive you crazy. While you may wonder, is that really what's needed, if you look at what is being asked of us at the moment.

These workshops provide leaders from diverse backgrounds a space to practice reflective conversations. Since collaboration issues often become personal, focusing on the other, Lea applies a systemic perspective, helping participants to identify underlying patterns. These reflective conversations require time and space, which often lack in daily life. Besides, these conversations require reflective capacity and, as Lea notes, while people mean well they tend overestimate their reflective capability. Proper reflection, she says, is “a muscle that needs to be trained”.

Brokers differ in their views on how explicit reflection should be. Some, like Astrid and Rob, see reflection as an ongoing, more implicit process where learning through experimentation reinforces effective behaviors. Others, consider reflection more as a monitoring progress (are we making progress), while others consider reflection on deeper lying patterns as crucial for realizing change.

## Discussion

### *Theoretical implications*

This study contributes to theory by integrating perspectives from boundary crossing (Akkerman & Bakker, 2011) and boundary work (Langley et al., 2019) to deepen our understanding of how brokers address wicked problems. Our findings highlight how the perspectives of boundary work and boundary crossing can complement each other in our understanding of broker's challenges.

For one, temporary structures exemplify configurational boundary work, where boundaries are rearranged by third parties to influence the behavior of others (Langley et al., 2019). While designed to facilitate boundary crossing and create continuity across boundaries, these temporary structures can also generate new discontinuities when their integration with existing organizations is hindered. This can happen when stakeholders raise or maintain boundaries to safeguard their own practices, known as competitive boundary work (Langley et al., 2019), when they feel excluded or unnecessary due to the establishment of the temporary structure. This highlights the paradoxical character of boundary work: creating continuity or boundary opening at one hand can lead to boundary raising and the other way round (see also Brorström & Diedrich, 2022; Glimmerveen et al., 2020).

Another example where boundary theories complement each other concerns the importance of an active shared problem space, which precedes the process of hybridization toward transformation in boundary-crossing theory (Akkerman & Bakker, 2011). However, our findings show how competitive boundary work can obstruct this transition, as differing perspectives and interests often hinder hybridization (see also Brorström & Diedrich, 2022). This illustrates how notions of boundary work can refine our understanding of learning processes in boundary-crossing theory.

In addition, we introduced the idea of the “magnifying glass” effect, where the social and political urgency of wicked issues fosters caution to experiment, often exacerbating competitive boundary work and complicating boundary crossing. To overcome this, brokers engage in configurational boundary work, creating what can be called *brave spaces*, adapted

from social justice dialogue facilitation (Arao & Clemens, 2023). The literature addresses various notions of “spaces,” such as experimental spaces (e.g. Cartel, Boxenbaum, & Aggeri, 2019; Zietsma & Lawrence, 2010), reflexive spaces (e.g. Sol, Van der Wal, Beers, & Wals, 2018), physical meeting spaces (Hudson & Rockenbach, 2024) or relational spaces (e.g. Kellogg, 2009). These spaces aim to facilitate learning and innovation by allowing actors to experiment freely and enabling them to resist pressure to stick to existing practices (Cartel et al., 2019; Kellogg, 2009; Zietsma & Lawrence, 2010) and engage in dialogue (Sol et al., 2018) to drive change (Cartel et al., 2019; Kellogg, 2009; Sol et al., 2018; Zietsma & Lawrence, 2010). Brave spaces are distinctive because they emphasize the value of discomfort and risk-taking (Arao & Clemens, 2023). Confronting rather than masking differences is key to addressing wicked problems (Beadle, Thorp, Mattes, Vondette, & Rozeboom, 2024; Veltman et al., 2024; Vuojärvi et al., 2024). These confrontations prompt deeper reconsideration of entrenched practices (Arao & Clemens, 2023). However, power dynamics, triggered by, for example, hierarchy and socio-economic status, can limit participation, leading to competitive boundary work. As such, addressing these inequalities is crucial to drive real change and innovation.

A further contribution lies in our findings on the boundary crossing mechanisms of identification and reflection. These mechanisms are often seen as prerequisites for effective collaboration, as they involve recognizing and understanding differences in expertise and practices. Building on Veltman et al. (2024), who show that awareness of boundaries (identification and reflection) should alternate and interact with transformation and coordination activities for effective boundary crossing, our findings illustrate how successful identification and reflection alone may not guarantee coordination and transformation, if competitive boundary work arises from conflicting stakeholder interests or when professionals are unable to move their own expertise. Such adherence to existing practices may not always be strategic but instead stem from limited capacity to cross boundaries. This nuances our understanding of competitive boundary work and suggests that brokers should account for varying boundary crossing capacities across professionals (see also Zhang, Liu, & Chen, 2024), tailoring their support accordingly.

Finally, while our focus has been on individual brokers, it also points to broader implications for organizational learning. Brokers initiate changes in practices, but organizational learning is required for sustainable change (Engeström & Kerosuo, 2007). Brokers help establish infrastructures that connect temporary structures to the wider organizations. At the same time, they ensure that organizations can cope with the more iterative and unpredictable processes involved in addressing wicked issues. In this sense, brokers exemplify to the development of learning organizations that are able to generate interdependent responses for complex problems that surpass single organizations (Boydell et al., 2019).

### *Practical implications*

Interorganizational collaboration on wicked problems is inherently complex, dynamic and context-dependent, rendering universal, prescriptive models ineffective (Bryson, Crosby, & Stone, 2015). Wickedness lies not only in the structural features of these issues but also in how actors interpret and experience them differently (Termeer, Dewulf, Breeman, & Stiller, 2015; Noordegraaf et al., 2019). Therefore, brokers operate situated wickedness, contexts marked by ambiguity and competing perspectives (Noordegraaf et al., 2019). In these settings, brokers must rely on context-sensitive judgment rather than standardized tools (Bryson et al., 2015; Noordegraaf et al., 2019; Termeer et al., 2015). Furthermore, the paradoxical nature of boundaries requires brokers to coordinate and manage boundary permeability to mitigate unintended consequences.

As such, the challenges identified in our study are not intended as a step-by-step guide for resolving wicked problems, neither do they seem to be confined or related to specific contexts. Instead of decontextualized, top-down solutions, the identified challenges can serve as reflective prompts to help brokers navigate wicked issues and to challenge both their own assumptions and those of others (e.g. Bryson et al., 2015; Termeer et al., 2015). By articulating potential challenges brokers may face, we aim to support brokers in negotiating the micro-dynamics of boundary work and boundary crossing.

Importantly, learning across boundaries is not linear and tension-free. Brokers need to consider strategies for negotiating conflicts and preventing competitive boundary work. In that process, it should be taken into consideration how professionals can diverge in their capacities to cross boundaries (e.g. Zhang et al., 2024). Hence, brokering in these processes requires tailormade support and continuous reflexivity. Rather than fixed solutions, it should be seen as an ongoing learning journey shaped by tensions, negotiations and shifting contexts.

#### *Limitations and directions for further research*

Our findings draw on retrospective accounts from brokers, which may overlook the more implicit knowledge and expertise they have developed throughout their careers. Moreover, focusing exclusively on brokers' perspectives limits our understanding of real-life interactions, as it excludes the viewpoints of other actors involved who also exercise agency and (actively) navigate these challenges. The role of the broker is dynamic, brokering activities are probably not limited to those assigned to such a role. This raises new questions about how different (formal and informal) brokers, operating from varied positions, interact and influence one another, which future studies could explore. Nevertheless, our study allowed us to speak with brokers across various domains, which helped us to identify challenges that supersede specific contexts. Future research could provide more detailed insights by observing and analyzing long-term interactions between brokers and other actors, allowing for a deeper understanding of how brokers and other actors effectively navigate the six challenges we identified.

While combining the lenses of boundary crossing, boundary work and wickedness theory in our study enhances our understanding of the dynamic complexity brokers must navigate, additional theoretical perspectives could further enrich this understanding. For instance, literature on boundary spanning (e.g. Van Meerkerk & Edelenbos, 2018) and collaborative leadership (e.g. Ansell & Gash, 2012) could enrich the analysis of brokers' activities. Expanding research to include a more culturally and geographically diverse set of sources would further illuminate the evolving strategies brokers might use to navigate the dynamics of interorganizational collaboration and learning in wicked issues.

#### **Conclusion**

In this study, we explored how brokers address the wickedness of societal issues through boundary crossing (Akkerman & Bakker, 2011) and boundary work (Langley et al., 2019). We identified six interrelated challenges brokers simultaneously navigate in this process:

- (1) (re)establishing spatial and temporal continuity;
- (2) capitalizing on differences;
- (3) sustaining a shared problem space;
- (4) anticipating changing complexity;
- (5) fostering a brave space; and
- (6) attending to the process (see also Table 2).

By integrating different bodies of literature, we deepened our understanding of the dynamics of interorganizational collaborations on wicked problems and how brokers can effectively navigate these complexities. The findings can serve as reflective tool for brokers to sharpen their thoughts and further refine their tailor-made approaches. By recognizing and engaging with the complexities of boundary dynamics, brokers can support interorganizational learning and contribute to the development of organizations that are able to address complex, societal issues.

## Note

- [1.] Despite being temporary in nature, some structures were meant to have a more lasting role in connecting various stakeholders. Since only one example of this type was (shortly) discussed in the interviews, we will mostly focus on the more temporary structures.

## References

- Abdalla, M. M., Oliveira, L. G. L., Azevedo, C. E. F., & Gonzalez, R. K. (2018). Quality in qualitative organizational research: Types of triangulation as a methodological alternative. *Administração: Ensino e Pesquisa*, 19(1), 66–98, <https://doi.org/10.13058/raep.2018.v19n1.578>.
- Akkerman, S. F., & Bakker, A. (2011). Boundary crossing and boundary objects. *Review of Educational Research*, 81(2), 132–169, <https://doi.org/10.3102/0034654311404435>.
- Akkerman, S., & Bruining, T. (2016). Multilevel boundary crossing in a professional development school partnership. *Journal of the Learning Sciences*, 25(2), 240–284, <https://doi.org/10.1080/10508406.2016.1147448>.
- Anand, A., Brøns Kringelum, L., Øland Madsen, C., & Selivanovskikh, L. (2021). Interorganizational learning: A bibliometric review and research agenda. *The Learning Organization*, 28(2), 111–136, <https://doi.org/10.1108/TLO-02-2020-0023>.
- Ansell, C., & Gash, A. (2012). Stewards, mediators, and catalysts: Toward a model of collaborative leadership. *The Innovation Journal*, 17(1), 1–20.
- Arao, B., & Clemens, K. (2023). From safe spaces to brave spaces: A new way to frame dialogue around diversity and social justice. In L. M. Landreman, (Ed.), *The art of effective facilitation. Reflections from social justice educators*, Routledge, 135–150.
- Beadle, J., Thorp, L., Mattes, S., Vondette, E., & Rozeboom, D. (2024). Pedagogical pigs: Experiential learning for boundary crossing. *Journal of Agricultural Education*, 65(2), 112–128, <https://doi.org/10.5032/jae.v65i2.2389>.
- Boydell, T., Pedler, M., & Burgoyne, J. (2019). The future of the learning organization. In A. Örtenblad, (Ed.), *The oxford handbook of the learning organization*, Oxford University Press, 461–475.
- Bronkhorst, L. H., van Rijswijk, M. M., Meijer, P. C., Koster, B., & Vermunt, J. D. (2013). University teachers' collateral transitions: Continuity and discontinuity between research and teaching. *Infancia y Aprendizaje*, 36(3), 293–308, <https://doi.org/10.1174/021037013807532972>.
- Bronström, S., & Diedrich, A. (2022). Boundaries of collaboration – the case of a temporary housing complex for refugees in Sweden. *Public Management Review*, 24(4), 536–557, <https://doi.org/10.1080/14719037.2020.1846767>.
- Bryson, J. M., Crosby, B. C., & Stone, M. M. (2015). Designing and implementing cross sector collaborations: Needed and challenging. *Public Administration Review*, 75(5), 647–663, <https://doi.org/10.1111/puar.12432>.
- Cartel, M., Boxenbaum, E., & Aggeri, F. (2019). Just for fun! how experimental spaces stimulate innovation in institutionalized fields. *Organization Studies*, 40(1), 65–92, <https://doi.org/10.1177/0170840617736937>.

- Comeau-Vallée, M., & Langley, A. (2020). The interplay of inter-and intraprofessional boundary work in multidisciplinary teams. *Organization Studies*, 41(12), 1649–1672, <https://doi.org/10.1177/0170840619848020>.
- Engeström, Y., & Kerosuo, H. (2007). From workplace learning to inter-organizational learning and back: The contribution of activity theory. *Journal of Workplace Learning*, 19(6), 336–342, <https://doi.org/10.1108/13665620710777084>.
- Engeström, Y., Engeström, R., & Kärkkäinen, M. (1995). Polycontextuality and boundary crossing in expert cognition: Learning and problem solving in complex work activities. *Learning and Instruction*, 5(4), 319–336, [https://doi.org/10.1016/0959-4752\(95\)00021-6](https://doi.org/10.1016/0959-4752(95)00021-6).
- Fortuin, K. P. J., Gulikers, J. T., Post Uiterweer, N. C., Oonk, C., & Tho, C. W. (2024). Developing a boundary crossing learning trajectory: Supporting engineering students to collaborate and co-create across disciplinary, cultural and professional practices. *European Journal of Engineering Education*, 49(2), 212–235, <https://doi.org/10.1080/03043797.2023.2219234>.
- Glimmerveen, L., Ybema, S., & Nies, H. (2020). Engaged yet excluded: The processual, dispersed, and political dynamics of boundary work. *Human Relations*, 73(11), 1504–1536, <https://doi.org/10.1177/0018726719875494>.
- Goldkuhl, G., & Cronholm, S. (2010). Adding theoretical grounding to grounded theory: Toward multi-grounded theory. *International Journal of Qualitative Methods*, 9(2), 187–205, <https://doi.org/10.1177/160940691000900205>.
- Gulikers, J., & Oonk, C. (2019). Towards a rubric for stimulating and evaluating sustainable learning. *Sustainability*, 11(4), 969–989, <https://doi.org/10.3390/su11040969>.
- Head, B. W. (2008). Wicked problems in public policy. *Public Policy*, 3(2), 101–118.
- Heizmann, H. (2011). Knowledge sharing in a dispersed network of HR practice: Zooming in on power/knowledge struggles. *Management Learning*, 42(4), 379–393, <https://doi.org/10.1177/1350507610394409>.
- Hudson, T. D., & Rockenbach, A. N. (2024). “We met in a place that fostered exploring”: Campus environments that influence boundary-crossing friendships. *Innovative Higher Education*, 50(2), 1–25, <https://doi.org/10.1007/s10755-024-09743-3>.
- Jong, A., Kellenaers, A., Vaan, D K., Hijkoop, T., & Dijkstra, W. (2020). Geweld hoort nergens thuis. Integrale sturing op de aanpak van huiselijk geweld en kindermishandeling. [violence has no place anywhere. Integrated management of the approach to domestic violence and child abuse] ministeries van VWW en JenV en de VNG. Rapport integrale sturing GHNT | rapport | huiselijk geweld.
- Kellogg, K. C. (2009). Operating room: Relational spaces and microinstitutional change in surgery. *American Journal of Sociology*, 115(3), 657–711, <https://doi.org/10.1086/603535>.
- Langley, A., Lindberg, K., Mørk, B. E., Nicolini, D., Raviola, E., & Walter, L. (2019). Boundary work among groups, occupations, and organizations: From cartography to process. *Academy of Management Annals*, 13(2), 704–736, <https://doi.org/10.5465/annals.2017.0089>.
- Levina, N., & Orlikowski, W. J. (2009). Understanding shifting power relations within and across organizations: A critical genre analysis. *Academy of Management Journal*, 52(4), 672–703, <https://doi.org/10.5465/amj.2009.43669902>.
- Maxwell, J. A. (2004). Causal explanation, qualitative research, and scientific inquiry in education. *Educational Researcher*, 33(2), 3–11, <https://doi.org/10.3102/0013189X033002003>.
- Miles, M. B., Huberman, M. A., & Saldana, J. (2014). *Qualitative data analysis: a methods handbook*, 3rd ed., Sage.
- Mørk, B. E., Aanestad, M., Hanseth, O., & Grisot, M. (2008). Conflicting epistemic cultures and obstacles for learning across communities of practice. *Knowledge and Process Management*, 15(1), 12–23, <https://doi.org/10.1002/kpm.295>.

- Mørk, B. E., Hoholm, T., Ellingsen, G., Edwin, B., & Aanestad, M. (2010). Challenging expertise: On power relations within and across communities of practice in medical innovation. *Management Learning*, 41(5), 575–592, <https://doi.org/10.1177%2F1350507610374552>.
- Nelen, H., Wingerde, K. V., Moerland, R., Bisschop, L., Geurtjens, K., Thelen, A., & Servaas, L. (2021). Procevaluatie en actieonderzoek versterking aanpak ondermijnende criminaliteit. Tussenrapportage. [process evaluation and action research to strengthen the approach to undermining crime. Interim report.] WODC. Retrieved from <http://hdl.handle.net/20.500.12832/3075>
- Noordegraaf, M., Douglas, S., Geuijen, K., & Van Der Steen, M. (2019). Weaknesses of wickedness: A critical perspective on wickedness theory. *Policy and Society*, 38(2), 278–297, <https://doi.org/10.1080/14494035.2019.1617970>.
- OECD. (2017). *Systems approaches to public sector challenges: Working with change*, OECD Publishing, <https://doi.org/10.1787/9789264279865-en>
- Onwuegbuzie, A. J., & Leech, N. L. (2007a). Sampling designs in qualitative research: Making the sampling process more public. *Qualitative Report*, 12(2), 238–254.
- Onwuegbuzie, A. J., & Leech, N. L. (2007b). A call for qualitative power analyses. *Quality & Quantity*, 41(1), 105–121, <https://doi.org/10.1007/s11135-005-1098-1>.
- Roulston, K. (2010). Considering quality in qualitative interviewing. *Qualitative Research*, 10(2), 199–228, <https://doi.org/10.1177/1468794109356739>.
- Seidman, I. (2006). *Interviewing as qualitative research: a guide for researchers in education and the social sciences*, 4th ed., Teachers College Press.
- Sol, J., Van der Wal, M. M., Beers, P. J., & Wals, A. E. (2018). Reframing the future: the role of reflexivity in governance networks in sustainability transitions. *Environmental Education Research*, 24(9), 1383–1405, <https://doi.org/10.1080/13504622.2017.1402171>.
- Steketeer, M., Tierolf, B., Lünemann, K., & Lünemann, M. (2020). Kwestie van lange adem. [A matter of patience]. Verweij-Jonker Instituut. Retrieved from [https://www.verweij-jonker.nl/wp-content/uploads/2021/02/216037\\_Kwestie\\_van\\_lange\\_adem-WEB.pdf](https://www.verweij-jonker.nl/wp-content/uploads/2021/02/216037_Kwestie_van_lange_adem-WEB.pdf)
- Termeer, C. J., Dewulf, A., Breeman, G., & Stiller, S. J. (2015). Governance capabilities for dealing wisely with wicked problems. *Administration & Society*, 47(6), 680–710, <https://doi.org/10.1177/0095399712469195>.
- Van Berkel, K., & Manickam, A. (2020). Wicked world. *Complex challenges and systems innovations*, Noordhoff Uitgevers.
- Van Meerkerk, I., & Edelenbos, J. (2018). Facilitating conditions for boundary-spanning behaviour in governance networks. *Public Management Review*, 20(4), 503–524, <https://doi.org/10.1080/14719037.2017.1302248>.
- Veltman, M. E., van Keulen, J., & Voogt, J. M. (2024). Teacher strategies that foster students' boundary-crossing expertise when addressing problems with wicked tendencies. *Journal of Vocational Education & Training*, 76(4), 963–990, <https://doi.org/10.1080/13636820.2022.2138509>.
- Vuojärvi, H., Vartiainen, H., Eriksson, M., Ratinen, I., Saramäki, K., Torssonen, P., ... Pöllänen, S. (2024). Boundaries and boundary crossing in a multidisciplinary online higher education course on Forest bioeconomy. *Teaching in Higher Education*, 29(5), 1197–1214, <https://doi.org/10.1080/13562517.2022.2122791>.
- Wenger, E. (2000). Communities of practice and social learning systems. *Organization*, 7(2), 225–246, <https://doi.org/10.1177/135050840072002>.
- Zhang, H. M., Liu, J. Y., & Chen, J. W. (2024). The double-edged sword effect of performance pressure on employee boundary-spanning behavior. *Journal of Chinese Human Resource Management*, 15(3), 86–103, <https://doi.org/10.47297/wspchrmWSP2040-800507.20241503>.
- Zietsma, C., & Lawrence, T. B. (2010). Institutional work in the transformation of an organizational field: the interplay of boundary work and practice work. *Administrative Science Quarterly*, 55(2), 189–221, <https://doi.org/10.2189/asqu.2010.55.2.189>.

**Table A1.** Overview of topics and themes identified in the analysis

Topics identified in interviews	Identified themes (challenges)
<ul style="list-style-type: none"> <li>• Many different organizations and stakeholders need to get involved</li> <li>• Unclearly about the distribution of roles and responsibilities between the various stakeholders</li> <li>• New temporary (micro)systems are developed to convene the different stakeholders</li> <li>• New temporary (micro)systems lead to new discontinuities</li> <li>• Overcoming the discontinuities due to new temporary (micro)systems</li> <li>• Bridging past and present activities and systems</li> </ul>	(Re)establishing spatial and temporal continuity
<ul style="list-style-type: none"> <li>• Encountered differences among stakeholders challenging the interorganizational collaboration (differences in procedures, resources, culture, language, interests, status, hierarchical position)</li> <li>• Inability of stakeholders to transcend their own practice</li> <li>• Brokers joining forces (combining their expertise as duo)</li> <li>• Brokers initiating activities to make differences productive</li> </ul>	Capitalizing on differences
<ul style="list-style-type: none"> <li>• A shared problem space is there and has unifying power</li> <li>• The brokers needs to keep on working on keeping the shared problem space alive</li> </ul>	Sustaining a shared problem space
<ul style="list-style-type: none"> <li>• Issues cannot be demarcated or defined, consist of multiple, intertwined problems</li> <li>• The issue is continuously changing</li> <li>• No hard data is available or it is difficult to obtain</li> <li>• There is not one best solution</li> <li>• It is difficult to come into action</li> </ul>	Anticipating changing complexity
<ul style="list-style-type: none"> <li>• Initiatives of brokers to deal with the changing complexity (step-by-step approaches; facilitating experiential learning; enhancing learning capabilities of organizations and individuals)</li> <li>• Stakeholders experience pressure to prevent errors</li> <li>• Creating trusting connections and relations</li> <li>• Creating a safe environment</li> <li>• Facilitating room to experiment</li> </ul>	Fostering a brave space
<ul style="list-style-type: none"> <li>• Enabling reflection on progress of project</li> <li>• Enabling reflection on quality of interaction among stakeholders</li> </ul>	Attending to the process

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