

TEAMING IN THE PUBLIC SECTOR

Investigating the responses of cross-boundary collaborations to the paradoxes of teaming

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Abstract

The wicked problems with which the public sector is confronted ask for cross-boundary collaborations to come up with innovative solutions for tackling them. Therefore, these collaborations have to go through a process of bringing together skills and ideas from disparate areas to produce something new, which is referred to as 'teaming'. Interestingly, some collaborations succeed, while others fail to do so. Recent literature suggested that this depends on how cross-boundary collaborations balance between the seemingly opposite sides of the three so-called teaming paradoxes: playful chaos and focused discipline, deep experts and broad thinkers, and high standards and high failure tolerance. This study therefore investigated what variation in responses to the teaming paradoxes can be recognized between collaborations, and how this variation can be explained. In doing so, a comparative case study was conducted on six cross-boundary crime-fighting collaborations involved in a field lab setting. Three different responses to the teaming paradoxes – no serious, unbalanced, and balanced responses – were found. These responses seemed to arise of whether or not a conflict between the collaborators was going on and whether or not a common ground was created to start from. Furthermore, the empirical research provided some first indications that responses of cross-boundary collaborations can change over time, which presents an interesting new avenue for follow-up longitudinal comparative case study research.

Keywords: cross-boundary collaborations, teaming, public sector, field lab setting, comparative case study.

1. Introduction

The wicked problems with which the public sector is confronted over the past decades (Head and Alford, 2015; Koppenjan and Klijn, 2004; Rittel and Webber, 1973) ask for innovative solutions (Sørensen and Torfing, 2011). As a result, quite some effort has been invested in cross-boundary collaborations, which aim for “engag[ing] people constructively across the boundaries of public agencies, levels of government, and/or the public, private, and civic spheres in order to carry out a public purpose that could not otherwise be accomplished” (Emerson et al., 2012, p.2). The assumption underlying this tendency to collaborate is that these cross-boundary collaborations have a broader perspective on wicked problems (Emerson et al., 2012; Ansell and Gash, 2008), and are therefore better able to develop innovative solutions for tackling them (Torfing, 2019; Crosby, 't Hart and Torfing, 2016; Hartley, Sørensen and Torfing, 2013; Sørensen and Torfing, 2011; Bommert, 2010).

More specifically, cross-boundary collaborations work across institutional, sectoral or jurisdictional boundaries to solve wicked problems, resolving emerging conflict, or creating public value (Emerson et al., 2012, p.10), as the term already suggests. Interestingly, these collaborations are, in contrast to more bureaucratic structures, fluid and flexible by nature, which means that the involvement of the collaborators and the duration of these collaborations are temporary (Emerson and Nabatchi, 2015). This then implies that mutual trust, understanding and commitment need to be built in a relatively short period of time (Emerson et al., 2012). The fluid and flexible nature of cross-boundary collaborations causes uncertainty, and constant communication and coordination are required to properly deal with this (Emerson and Nabatchi, 2015).

Despite the fact that cross-boundary may look alike based on these characteristics, it turned out that their capacity to come up with innovative solutions for tackling wicked problems differs greatly (Cels, De Jong and Groenleer, 2017). A recent study argued that this may have to do with their ability to adopt a ‘both/and’ instead of an ‘either/or’ mindset in dealing with the challenges with which these cross-boundary collaborations are confronted (Waardenburg et al., 2019). However, recent research conducted in the field of public management and collaborative governance also indicated that knowledge about these collaborations, its

challenges and its responses to these challenges is still limited within this specific scientific field (Cinar, Trott and Simms, 2019; Wegrich, 2019).

However, in business management literature somewhat more is known about cross-boundary collaborations, its challenges and its responses (e.g., Edmondson, 2013; Edmondson, 2012a). There it is argued that these go through a “process of bringing together skills and ideas from disparate areas to produce something new – something that no one individual, or even a group in one area of expertise, could do alone” (Edmondson, 2013, p.1). This process is called ‘teaming’ and is considered to be crucial to innovation (Edmondson, 2013; Edmondson, 2012a). In doing so, cross-boundary collaborations are confronted with the three paradoxes of teaming: playful chaos and focused discipline, deep experts and broad thinkers, high standards and high failure tolerance (Edmondson, 2013). The first paradox concerns the challenge of moving back and forth between developing, designing and testing while disciplining this iterative process. Then, the second paradox concerns the challenge of sharing theoretical and practical insights into the problem while bringing these insights together with an eye on the general goal. Ultimately, the third paradox concerns the challenge of setting standards that aim for innovation while tolerating that reaching for these standards requires iteration. As a result, Edmondson (2013) suggested that cross-boundary collaborations are challenged to constantly balance between the seemingly opposite sides of these teaming paradoxes.

This study then starts from the assumption that cross-boundary collaborations operating in the public sector are also confronted with these teaming paradoxes derived from business management literature. Besides, it assumes that variation in the responses of these collaborations to these paradoxes will be found. However, no previous scientific research has been conducted on what variation in the responses to the teaming paradoxes can be recognized nor on how this variation can be explained. Hence, this study raises the following research question:

What variation in responses to the paradoxes of teaming can be recognized between cross-boundary collaborations operating in the public sector, and how can this variation be explained?

To answer this question, this study used a comparative case study method complemented with causal process tracing to investigate and compare the responses of six cross-boundary

collaborations to the teaming paradoxes (Blatter and Haverland, 2012). These collaborations took part in the fifth edition of the Organized Crime Field Lab, which is a one-year development trajectory organized by a consortium of the Public Prosecution Service and National Police Force of the Netherlands, and the universities of Harvard and Tilburg (Waardenburg et al., forthcoming). This setting provided the opportunity to follow these collaborations closely (Gascó, 2017), and to obtain a plethora of both quantitative and qualitative data, which led to new insights into responses of cross-boundary collaborations to the teaming paradoxes, which are relevant for scholars and practitioners interested or involved in these collaborations alike.

This research proceeds as follows. First, a brief review of the state of the art of the literature on teaming in cross-boundary collaborations is presented (section 2). Thereafter, the methods used in the empirical research are described (section 3). Subsequently, the observed responses to the teaming paradoxes are shown (section 4). Then, a typology of potential responses is presented (section 5). Ultimately, this study provides an answer to the research question, and discusses its implications and limitations (section 6).

2. Theoretical framework: cross-boundary collaborations and the teaming paradoxes

Recent literature suggested that cross-boundary collaborations are challenged to constantly balance between the seemingly opposite sides of the teaming paradoxes. Here, a brief review of this literature on teaming is given, and an overview of its paradoxes is provided in table 1.

Team versus teaming

First of all, not all collaborations operating in the public sector practice ‘teaming’. Therefore, building upon the scholarly work of Edmondson (2016; 2013; 2012a; 2012b), a preliminary distinction between what is called ‘team’ and ‘teaming’ has recently been made (Groenleer, 2019). The former concerns ‘operational collaborations’ that do routine work. In doing so, these collaborations stick to bureaucratic structures which lead to simple solutions for common problems. The latter, in contrast, concerns ‘cross-boundary collaborations’, which go through a “process of bringing together skills and ideas from disparate areas to produce something new – something that no one individual, or even a group in one area of expertise, could do alone”, as defined as ‘teaming’ by Edmondson (2013, p.1). In doing so, more fluid

and flexible structures are needed (Edmondson, 2012b), which in practice means that the involvement of the collaborators and the duration of these collaborations are temporary. Besides, collaborations that practice ‘teaming’ are expected to create innovative solutions for wicked problems (Edmondson, 2016). An overview of the preliminary distinction between ‘team’ and ‘teaming’ is provided in figure 1.

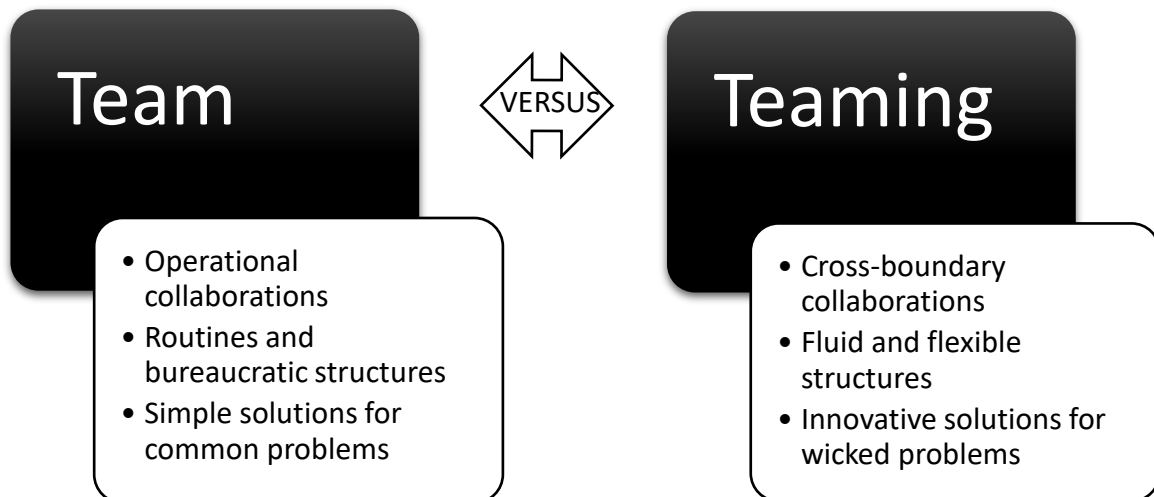


Figure 1. Team versus teaming (based on Groenleer, 2019).

Then, starting from the literature of Edmondson (2013), cross-boundary collaborations that practice ‘teaming’ are confronted with three pairs of seeming opposites, which are the so-called ‘teaming paradoxes’. The first paradox, playful chaos and focused discipline, concerns the challenge of moving back and forth between developing, designing and testing innovative solutions while disciplining this iterative process (Edmondson, 2013, p.5). The second paradox, deep experts and broad thinkers, concerns the challenge of sharing theoretical and practical insights into the problem while bringing these insights together (Edmondson, 2013, pp.6-7). Ultimately, the third paradox, high standards and high failure tolerance, concerns the challenge of setting standards that aim for innovation while tolerating that reaching these standards requires iteration (Edmondson, 2013, pp.7-8). An overview of these paradoxes is given in table 1, which is presented after a brief elaboration of the three different teaming paradoxes.

Playful chaos and focused discipline

“[Collaborations] that innovate, [...] know how to focus on an important problem. At the same time, innovation is an all-too-human process – inherently unpredictable and often chaotic” (Edmondson, 2013, p.5).

Chaos comes in various shapes and sizes. The one that is meant here is ‘playful chaos’, which is referred to as the ongoing process of moving back and forth between developing, designing and testing ideas (Edmondson, 2013; Brown, 2008; Quinn, 1985). This kind of chaos fosters creativity and sparks innovation (Edmondson, 2013). It is important to be clear about this for embracing chaos must not be used as an excuse for the lack of proper planning and control (Edmondson, 2018). Chaos that arises from inadequacy is not the same as playful chaos and should therefore not necessarily be seen as beneficial for cross-boundary collaborations.

However, playful chaos needs some structure and control too (Rasulzada, 2017; Brown and Eisenhardt, 1998; Quinn, 1985). In fostering creativity and sparking innovation playful chaos is useful, but this chaos should ultimately lead to some concrete innovative solutions to solve the problem at stake. In doing so, focused discipline is needed to keep track on all impulsive ideas that emerge from the process of moving back and forth (Edmondson, 2013). A quite conventional way to control chaos is, for instance, note-taking (Liedtka and Ogilvie, 2011; Brown, 2008). Other less conventional methods, such as journey mapping and cartoon drawing, can be found in literature too (Liedtka and Ogilvie, 2011). These methods show how playful chaos can be disciplined in cross-boundary collaborations.

Deep experts and broad thinkers

“Innovation happens when diverse experts [...] and broad, general thinkers come together” (Edmondson, 2013, p.6).

Knowledge diversity is crucial for innovation (Edmondson and Harvey, 2018; Alexander and Van Knippenberg, 2014; Owen, 2007). This kind of diversity is achieved by involving a variety of people from across an array of disciplines in cross-boundary collaborations (Edmondson, 2016; Edmondson, 2013; Brown, 2008), who bring diverse knowledge to the table (Edmondson and Harvey, 2018). Deep experts, then, are those who have theoretical and

practical insights into the problem at stake (Edmondson, 2016; Edmondson, 2013; Owen, 2007).

However, deep experts may get hung up on the details. Broad thinkers are therefore needed to keep an eye on the general goal (Edmondson, 2013). They oversee the various steps in the process and take responsibility for its progress. Besides, they can reach across disciplines and bring them together in a coordinated way (Owen, 2007). This is quite the opposite from the role that deep experts play, and therefore recent literature argued that a mix of both deep experts and broad thinkers is needed in cross-boundary collaborations (Edmondson, 2013; Owen, 2007).

High standards and high failure tolerance

“Innovation happens when [...] high standards and high tolerance of failure [are promoted] at the same time” (Edmondson, 2013, p.8).

Inherent to innovation is the aspiration to change something (Edmondson, 2013). To create and concretize this aspiration, setting standards is helpful (Hoeffler, Herzenstein and Ginzburg, 2016; Katzenbach and Smith, 1993). These standards should be high as this motivates collaborations to challenge the status quo. However, high standards must be challenging, but not impossible to reach for (Edmondson, 2013). Previous research showed that setting standards that are seemingly impossible to reach for, cause demotivation, which turns out to be counterproductive (Sitkin et al., 2011).

These high standards, however, can often not be reached at once (Edmondson, 2013). The innovative solutions that are developed and designed to reach these standards need to be tested in practice (Edmondson, 2013; Garvin, Edmondson and Gino, 2008). This requires the courage to fail (Edmondson, 2018; Edmondson, 1999). Therefore a different mindset is needed, in which failure is framed as a learning process (Shepherd, Patzelt and Wolfe, 2012; Edmondson, 2011; Baumard and Starbuck, 2005; Cannon and Edmondson, 2005), and thus as a key to rapid innovation (Edmondson, 2013). However, this should only apply to ‘intelligent failures’, which are defined as carefully thought through failures that aim for testing innovative solutions in practice (Cannon and Edmondson, 2005). In recent business

management literature it is argued that this kind of failures should be tolerated for innovation requires iteration (Edmondson, 2013; Cannon and Edmondson, 2005).

Table 1. The paradoxes of teaming

Teaming paradoxes	
Paradoxes	Descriptions
<i>Playful chaos and focused discipline</i>	The challenge of moving back and forth between developing, designing and testing innovative solutions while disciplining this iterative process.
<i>Deep experts and broad thinkers</i>	The challenge of sharing theoretical and practical insights into the problem while bringing these insights together with an eye on the general goal.
<i>High standards and high failure tolerance</i>	The challenge of setting standards that aim for innovation while tolerating that reaching these standards requires iteration.

Cross-boundary collaborations are then challenged to seek for a constant balance between the seemingly opposite sides of the teaming paradoxes (Edmondson, 2013). To do so, a recent study argued that collaborations that are confronted with contradictory challenges have to adopt a ‘both/and’ rather than an ‘either/or’ mindset (Waardenburg et al., 2019). Interestingly, this study also showed that some collaborations succeed in doing so, while others fail. For this reason, this study starts from the assumption that variation in the responses to the teaming paradoxes between collaborations will be found. However, no explanations for this variation were given in previous scientific literature and these are therefore examined in the empirical research.

3. Methods: comparative case study conducted in a field lab setting

To investigate the variation in responses to the paradoxes of teaming between collaborations, six cross-boundary crime-fighting collaborations involved in a field lab setting were observed, using a comparative case study method.

Cross-boundary collaborations involved in the Organized Crime Field Lab

The collaborations under study participated in the fifth edition of the Organized Crime Field Lab, which took from June 2018 till June 2019. This one-year development trajectory, which is organized by a consortium of the Public Prosecution Service and the National Police Force of the Netherlands and the universities of Harvard and Tilburg, is “a design environment [...] to facilitate collaborations in the process of designing innovative solutions to wicked organized-crime problems” (Waardenburg et al., forthcoming, p.13). A recent study argued that a field lab setting provides the ideal opportunity to closely investigate real-life phenomena and processes (Gascó, 2017), and was therefore considered as an appropriate setting for studying variation in real-life responses to the teaming paradoxes between collaborations (see also Appendix II).

After a call for proposals was sent to various public agencies (e.g., Public Prosecution Service, National Police Force, local and regional governments, tax authorities) (Waardenburg et al., forthcoming), twelve collaborations submitted a proposal. Only six of them could be selected. The main selection criteria were that collaborations should at least have a public prosecutor, a police officer, a policy maker and a tax officer involved, and that they were willing to tackle a wicked organized-crime problem (e.g., drug or human trafficking, money laundering) by designing innovative solutions (Waardenburg et al., forthcoming). An overview of the compositions and crime problems of the collaborations selected is provided in table 2.

Table 2. Overview of the cross-boundary crime-fighting collaborations selected

Cross-boundary crime-fighting collaborations		
Collaborations	Crime Problems	Participants
<i>Collaboration A</i>	Drug-related crimes and money laundering	Police officer, police officer, policy maker, public prosecutor, social worker, tax officer
<i>Collaboration B</i>	Outlaw motorcycle gang	Police officer, policy maker, policy maker, public prosecutor, regional security coordinator, tax officer

<i>Collaboration C</i>	Drug trafficking and drug-related crimes	Police officer, police officer, policy maker, public prosecutor, social worker, tax officer
<i>Collaboration D</i>	Drug trafficking	Customs officer, customs officer, financial analyst, police officer, police officer, public prosecutor, regional security coordinator, tax officer
<i>Collaboration E</i>	Drug trafficking and money laundering	Financial analyst, police officer, policy maker, policy maker, public prosecutor, tax officer
<i>Collaboration F</i>	Vehicle crime and money-laundering	Data analyst, data analyst, officer of the Chamber of Commerce, police officer, policy maker, regional security coordinator, tax officer

Comparative case study method complemented with causal process tracing

To investigate these collaborations, a comparative case study method was used (Blatter and Haverland, 2012). This methodological approach enabled me to thoroughly investigate and compare multiple units of analysis in a real-life context (Yin, 2009). The units of analysis were the six cross-boundary crime-fighting collaborations (see also table 2). By investigating multiple cases and using this comparative method, the number of observations increased, and controlled comparisons could be made. Use of this method enabled me to compare the real-life responses to the teaming paradoxes of multiple collaborations and to draw valid causal inferences based on the data obtained (Blatter and Haverland, 2012).

To do so, a most similar case design was used (Pzeworski and Teune, 1970). The collaborations under study were similar in that sense that all were involved in the Organized Crime Field Lab. As a result, these collaborations were of the same size, with an average of six collaborators involved, and consisted of a similar mix of collaborators with various professional background,

with at least a public prosecutor, police officer, policy maker and tax officer involved (see also table 2). Besides, these collaborations had the same objective, namely tackling a wicked organized-crime problem by designing innovative solutions (Waardenburg et al., forthcoming). In doing so, all received the same training and coaching in the development trajectory (Waardenburg et al., forthcoming). These similarities made the six cross-boundary crime-fighting collaborations were thus as similar as possible in their compositions, objectives and development trajectories, controlling for these variables not to be the explanations for the variation observed (Blatter and Haverland, 2012). Use of this method therefore helped me to focus on the real-life responses to the teaming paradoxes and enabled me to identify preliminary explanations for variation in these responses between the six collaborations.

The comparative case study method combined with the most similar case design thus enabled me to draw causal inferences on the bases of controlled cross-case comparisons (Blatter and Haverland, 2012). A strength of this methodological approach is that it increases the generalization towards populations of similar cases, or in other words, the external validity of this research (Blatter, 2012). However, this methodological approach lacks the ability to trace causal mechanisms within a case. To tackle this weakness, causal process tracing was used to complement to the comparative case study method (Blatter and Haverland, 2012). As a result, insights were provided into the temporal unfolding of causal processes within the multiple cases, which increased the internal validity of this research (Blatter, 2012).

Data collection and analysis

The field lab setting enabled me to obtain various kinds of data (Waardenburg et al., forthcoming), which resulted in a wealth of qualitative and quantitative insights into the similarities and differences in the responses of cross-boundary collaborations to the teaming paradoxes. An overview of the data collection and analysis process, which builds upon that of a recent study of Waardenburg et al. (2019), is provided in table 3.

To start with the main data source, participative observations were made to investigate the real-life responses of cross-boundary collaborations to the teaming paradoxes while they were actually conducting their work. In the Organized Crime Field Lab, I spent 7,5 working days with the collaborations, which led to an estimated amount of 42 hours of observation material per collaboration. Besides, ten experienced practitioners, who coached the

collaborations throughout the development trajectory (see also Appendix I), made observations about the collaborations and their responses to the teaming paradoxes too. To do so, they received observation forms that I had developed, and thereby added to my own observations.

Then, a focus group was held with every collaboration to get more in-depth insights into the experiences of the collaborators in responding to the teaming paradoxes. These focus groups were held during the weeklong workshop and were recorded. Besides, all individual collaborators filled in a survey on this same issue at three different moments in time: at the beginning of the workshop (39 of the 40 completed the survey), at the end of the workshop (39 of the 40 completed the survey), and at the first reflection session in March (22 of the 40 completed the survey: one collaboration did not attend this session for it was testing its innovative solutions in practice).

Furthermore, the documents submitted (e.g., proposals and revisited versions) and the presentations held (e.g., PowerPoint presentations) were collected to gain some background information about the actual wicked organized-crime problem the collaborations under study aimed to tackle and the innovative solutions developed, designed and tested to do so.

After every moment of data collection, the data was processed and analyzed. For instance, the documents and presentations were read, and the quantitative data derived from the surveys was transformed into descriptive statistics. Then, the recordings of the focus groups were verbatim transcribed, and the observations were brought together in one document. This qualitative data was analyzed according to a coding and counter-coding approach (Strauss and Corbin, 2015), thereby using NVivo Qualitative Data Software (version 12). Building upon this grounded theory approach, I thus coded and counter-coded the data into the three teaming paradoxes thereby focusing on the responses of the collaborations to these paradoxes.

To conclude this section, an important comment to be made is that the data collection and analysis process was characterized by non-linearity. This meant that there was a continuously moving back and forth between collection and analysis (Strauss and Corbin, 2015), which made that previous steps in this process gave inspiration for follow-up steps (see also table 3). This non-linear iterative process gave the opportunity to gain a thorough examination of the

real-life responses of cross-boundary crime-fighting collaborations to the teaming paradoxes over the 12-month period of time observed.

Table 3. Overview of the data collection and analysis process

Data collection and analysis process			
Moment in time	Collection	Analysis	Purpose
<i>Call for proposals June 2018 – September 2018</i>	Written documents	Read the various documents	Gaining background information about the collaborations
<i>Selection session September 2018</i>	Observation notes, and presentations	Read and summarized the various notes, and looked at the various presentations	Gaining background information about the collaborations
<i>Kick-off sessions October 2018</i>	Observation notes, observation forms, and revisited versions of the written documents	Processed the notes and coded them, read the various documents and compared them with the previous ones	Gaining background information about the collaborations
<i>Weeklong workshop November 2018</i>	Observation notes, observation forms, pre- and post-surveys, recordings of the focus groups, and presentations	Processed the notes and coded them, made descriptive statistics, transcribed the focus groups and coded them, looked at the presentations and compared them with the previous ones	Getting insights into the responses to the teaming paradoxes
<i>Reflection sessions March – April 2019</i>	Observation notes, observation forms, and survey	Processed the notes and coded them	Getting insight into the reflections on the responses to the teaming paradoxes

<i>Stock take session June 2019</i>	Observation notes, and presentations	Processed the notes and coded them, and looked at the presentations and compared them with previous ones	Getting insight into the reflections on the responses to the teaming paradoxes
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4. Results: the observed responses to the teaming paradoxes

The empirical research provided insights into the responses of cross-boundary collaborations to the teaming paradoxes. As assumed, variation between the collaborations in their responses to these paradoxes was observed. An overview of these various responses is provided in table 4.

Collaboration A

This collaboration was started by two initiators of different parent organizations. They composed the collaboration by inviting various people from their own professional network. Except from the one who worked for a social work organization, all of them already knew each other from previous crime-fighting projects. Remarkably, the initiators got in conflict with each other early on in the trajectory, which influenced the responses to the teaming paradoxes.

Playful chaos and focused discipline

Collaboration A began energetically with moving back and forth between developing and designing innovative solutions for the wicked problem that it aimed to tackle, as observed by its coach. However, this iterative process got stuck because of a conflict between its two initiators. They turned out to have conflicting attitudes towards the collaborative process. One of them wanted to keep it light and fun, while the other took it very seriously. Most collaborators then used every means at their disposal to distract themselves from this conflict. They did so for they believed that was the best thing to do to not make the situation any worse, as argued by two of its collaborators. All these distractions caused that there was no playful chaos nor focused discipline anymore. Some of them, however, still tried to convince

the others of the added value of creating playful chaos but they received very little support. The following short conversation during the focus group showed how the attempts of some to embrace playful chaos were not taken seriously:

- Collaborator 1: “I like to understand the various phases of this concept [i.e., process of moving back and forth], so I have studied them, and I understand what to do. Thinking outside the box. Just do it!”
- Collaborator 2: “I do understand the concept too, but you can use such a model for everything.”
- Collaborator 3: “Yes, even for my ordinary life.”
- Collaborator 2: “Yes, and [the concept] may be thought through, [...] but I am not convinced by the model.”
- Collaborators 4, 5 and 6 – who were secretly watching a football match on their phones: “YEAH! [Football team] scored!”

Deep experts and broad thinkers

As a result of the conflict, there was no one who was able to keep an eye on the general goal anymore. Some collaborators still tried to share their theoretical and practical insights into the problem with the others. However, without a broad thinker, Collaboration A failed to take this knowledge-sharing serious or to bring together diverse insights. On this last issue, two collaborators wrote in the after-survey: “We are lost” and “I do not see where we are going to”.

High standards and high failure tolerance

Furthermore, the conflict caused that setting standards was ridiculed. One collaborator, for example, sneeringly remarked during the focus group that “World Peace” was the standard the collaboration set. Ridiculing the standards became worse and worse over time, which showed that the collaborators were not taking seriously their ability to aim for something more than the status quo. Besides, this may also imply fear for failure, but this was not explicitly mentioned by the collaborators as such.

Turning point

At the end of the period observed, Collaboration A had a restart, as discussed during the reflection sessions. This was only possible after one of the two initiators left. At the stock take session, its collaborators confirmed that they were willing to continue the collaboration now that the conflict was resolved, which according to them opened the door to change.

Collaboration B

After some words of encouragement of a chief public prosecutor of one of the district courts in the Netherlands, the collaborators of Collaboration B submitted a proposal for participation in the development trajectory. They were encouraged to do so for another collaboration was already working on the same wicked problem but did not have it down yet. Interestingly, the collaborators argued that they did not need innovative solutions right from the start. When one of the collaborators asked the others early on in the 12-month period of time observed: “If we tackle the problem without being innovative, then we would not care. Would we?”, all others replied: “No.”

Playful chaos and focused discipline

To start with, it was observed that the collaborators moved back and forth between developing, designing and testing solutions and disciplined this process by using conventional methods, such as note-taking. In addition, as shown by the written documents and the presentations, the solutions for tackling the wicked problem at stake gradually changed over time, which indicated that some sort of iterative process was going on. However, these solutions were not perceived as innovative by the collaborators themselves, as discussed in the focus group and the reflection sessions.

Deep experts and broad thinkers

Then, collaborators shared their theoretical and practical insights into the problem with each other but doubted whether these would contribute to tackling the problem in an innovative way, as discussed in the focus group. The broad thinker, who brought the diverse insights together, was also skeptical about whether they would succeed in doing so: “If I have a look at what we [...] now have come up with, then I have to conclude that there is nothing innovative to be found.”

High standards and high failure tolerance

Furthermore, the collaborators set standards and tested some solutions in practice in order to realize some 'quick wins' and to learn from these. Again, they argued that they did not set high standards, for they were not interested in aiming for innovation, as discussed in the focus group and during the reflection sessions. One of the collaborators said mockingly: "In [this] part of the Netherlands everything new is innovative." Nevertheless, some standards were set, and some solutions were tested.

Collaboration C

Collaboration C was, in contrast to the other collaborations under study, not initiated by its collaborators, but by some of their supervisors. These supervisors submitted a proposal and presented it to the selection committee of the development trajectory. However, after selection, the composition of the collaboration was completely changed. The collaborators thus had not written the proposal nor composed the collaboration themselves. Therefore, they did not know what wicked problem they were going to tackle nor who the others involved where when they started.

Playful chaos and focused discipline

Collaboration C was confronted with a lot of chaos but not the playful one. At the beginning of the trajectory, the collaborators felt that they had to account to their supervisors for every single step that they would take, as was observed by the coach. This interfered with their ability to move back and forth between developing, designing and testing innovative solutions. Besides, this made that they developed different views on the wicked problem at stake and on potential innovative solutions to tackle this problem. During the various sessions throughout the weeklong workshop it was observed that all individual collaborators developed their own ideas, but a collaborative process of moving back and forth between developing, designing and testing innovation solutions was lacking, as was confirmed by them in the focus group. This caused increasing frustration between the various collaborators involved.

Deep experts and broad thinkers

Next, the supervisors who composed Collaboration C selected the collaborators for their in-depth insights into a specific part of the wicked problem at stake. For that reason, there was

not one obvious broad thinker who kept an eye on the general goal. Most of the times, all collaborators shared their own insights without listening to those of the others, as discussed in the focus group. This caused frustration. Halfway the trajectory one collaborator remarked that: "I had the feeling that we went off at half-cocked when we started. And I still doubt whether we know what we are doing, and where we are going to, for I have no overview." This feeling of missing some overview was confirmed by the other collaborators.

High standards and high failure tolerance

Then, at the beginning of the 12-month period of time observed, the collaborators tried to reach for the standards set by their supervisors. However, during the weeklong workshop, it was observed that all collaborators had formulated their own standards. This led to a plethora of standards and it turned out to be challenging to bring all these different views together, as discussed in the focus group. This caused even more frustration between the collaborators, as was observed by the coach. Because of all these frustrations, Collaboration C came in an impasse that took several months, in which no innovative solutions were tested in practice.

Turning point

Halfway through the period of time observed, Collaboration C had a turning point, as discussed at the reflection sessions. This point was reached when its collaborators had another frustrated dispute about the impasse in their collaborative process. This was the moment that an additional session with the coach was organized to bring the different views together. This intervention led to an agreement on the follow-up, which in this case meant that subgroups were created within Collaboration C and that a model was developed in which various projects could be adopted.

Collaboration D

Collaboration D was started by an initiator who was on a daily basis confronted with several aspects of the wicked problem that this collaboration aimed to tackle. This initiator gathered other collaborators who were also confronted with this specific problem in their daily work. All of them knew at least one other collaborator at the start of the trajectory. This was so for some of them worked for the same parent organization or had previously been involved in

other crime-fighting projects. They, however, had never worked in this composition before, but closely bounded up with one another during the period of time observed.

Playful chaos and focused discipline

According to the after-survey, this collaboration was characterized by a rapid development of innovative solutions. Throughout the weeklong workshop an ongoing iterative process of developing and designing innovative solutions was observed. This was so for the collaborators saw this approach as a new opportunity to solve a problem with which they were confronted on a daily basis, as discussed in the reflection sessions. To discipline this playful chaos, notes were taken of the various discussions and a comprehensive overview of all different perspectives on the problem was made.

Deep experts and broad thinkers

Furthermore, one collaborator in particular kept an eye on the general goal. In doing so, this broad thinker summarized the different ideas about the wicked problem and potential innovative solutions at various moments in time and brought these ideas together in a new shared perspective. According to the after-survey, this added to the mutual understanding within the collaboration. The broad thinker was thereby helped by two other collaborators, one that made notes of the various discussions and another that visualized a comprehensive overview of all different ideas and perspectives. As a result, the collaborators felt that they were heard and indicated that this made them willing to share their theoretical and practical insights with the others. The in-depth insights of the collaborators into the problem at stake was mentioned as one of the strengths of Collaboration C in both the pre- and after-surveys.

High standards and high failure tolerance

The collaborators argued that they succeeded in setting standards that were challenging but not impossible to reach for. Besides, they recognized that reaching these standards required iteration. In the focus group, one of them said: “The problem that we aim to tackle is quite a big problem. Therefore we just start somewhere to have a quick win first.” In doing so, the fear for failure was little because the collaborators felt that they had developed and designed proper innovative solutions. Collaboration D, then, was the first collaboration of those under study that tested its innovative solutions in practice.

Collaboration E

Collaboration E was started by two initiators who worked for the same parent organization. They had the idea to tackle a relatively new wicked problem of which the nature and scale were largely unknown. To better understand this specific problem, the initiators invited various deep experts to join the collaboration. The other collaborators did not know each other on beforehand and that cleared the way for the initiators to take the lead. This, however, was not automatically accepted by the others.

Playful chaos and focused discipline

Right from the start, the initiators and the other collaborators disagreed about whether or not they needed to move back and forth between developing, designing and testing their innovative solutions. The former argued that it was best to structure the iterative process as much as possible. One of them said: "I think that [our challenge] is to develop a structured approach instead of just starting somewhere." Therefore, a model with three circles (e.g., what is the problem, what is the context of the problem, and what are potential solutions) was developed so that everyone could add to this visualized overview in a structured way. The latter, however, felt that their impulsive ideas were not taken seriously because of this structured approach, as discussed in the focus group. One of them later said: "[The initiators] think that they can determine all steps in the process, but we can think for ourselves. They have to listen to us." These different views on how to embrace and discipline playful chaos caused frustration between the initiators, on the one hand, and the other collaborators, at the other hand.

Deep experts and broad thinkers

Then, for the reason that little was known about the nature and scale of the wicked problem at stake, the initiators invited various deep experts to join the collaboration to share their theoretical and practical insights with them. They thus had strong ideas about the added value of the other collaborators, but these ideas did not always correspond with what those collaborators saw as their added value themselves, as was observed throughout the weeklong workshop. The initiators, who tried to bring together the diverse insights, were therefore not accepted in the role as broad thinker by the others, as observed by the coach. As a result,

diverse theoretical and practical insights were shared but that these were not brought together for there was no jointly accepted broad thinker. This caused even more frustration.

High standards and high failure tolerance

Then, the standards set were not the product of a joint proposal, and the other collaborators again felt not taken seriously, as turned out of the after-survey. Because of this and the other above-mentioned frustrations, Collaboration E came in an impasse that took a few months. During this impasse no innovative solutions were tested in practice.

Turning point

At the end of the period of time observed, Collaboration E had a turning point, as presented at the stock take session. This point was reached when its collaborators had to submit a flight plan for the last part of the development trajectory. This was the moment that the collaborators, and in particular the initiators, realized that remaining in this deadlock was the worst that could happen. An additional session with the coach was organized to bring the different views together. This intervention led to an agreement on the follow-up. The collaborators confirmed that they were willing to continue the collaboration now that this agreement was reached.

Collaboration F

Collaboration F had a constantly changing composition. Only its two initiators and three other collaborators stayed involved during the entire period of time observed. For example, one collaborator left even before the kick-off meeting, and two others left before and after the weeklong workshop. The composition of this collaboration was thus rather uncertain, and this was of constant concern of those who stayed involved. However, what all collaborators had in common was that they were in their daily work confronted with a specific aspect of the wicked problem at stake. The collaboration presented this as their motivation to try something new to solve this problem.

Playful chaos and focused discipline

As discussed in the focus group, the collaborators involved in Collaboration F perceived the ongoing iterative process of developing, designing and testing innovative solutions as a new

chance to solve the wicked problem that had bothered most of them for many years now. In the after-survey, two collaborators wrote that they found it sometimes challenging to move back and forth. However, most of them indicated that they had made rapid progress in developing and designing innovative solutions during the weeklong workshop. To discipline this iterative process, notes and visualizations were made and used to bring all impulsive ideas together in one comprehensive overview.

Deep experts and broad thinkers

The two initiators took the role of broad thinker in the uncertain situation of a constantly changing composition. They were accepted in this role for they were the most stable factors in Collaboration F, as discussed in one of their meetings. Then, as observed during the weeklong workshop, one of them kept an eye on the general goal, while the other made notes of the decisions that were taken at the various meetings. As a result, they were able to obtain insights from all diverse deep experts who joined the collaboration. Besides, these two brought the diverse insights into the problem together into one shared perspective, as discussed in the focus group.

High standards and high failure tolerance

Then, this collaboration set standards to break with the status quo for they were highly motivated to tackle this specific wicked problem, as they made clear in their presentation at the end of the weeklong workshop. The collaborators who stayed involved throughout the entire period of time observed perceived their innovative solutions as thought through. In the reflection sessions, they argued that they felt little fear to test these solutions in practice. One of them summarized the mentality of this collaboration in the following words: “Just DO it!” As a result, Collaboration F was the second collaboration that tested its innovative solutions in practice.

Table 4. The observed responses to the paradoxes of teaming

The observed responses to the teaming paradoxes	
Collaborations	Responses
<i>Collaboration A</i>	Paradox 1: The iterative process of developing, designing and testing innovative solutions stopped when a conflict between the

two initiators emerged. Several attempts to restart this process were not taken seriously.

Paradox 2: Several attempts to share theoretical and practical insights with each other were not taken seriously neither was there a broad thinker who could bring these insights together.

Paradox 3: Setting standards was ridiculed and no innovative solutions were tested in practice for there were no serious standards set to reach for.

Collaboration B

Paradox 1: The iterative process of developing, designing and testing (innovative) solutions was ongoing and conventional methods were used to discipline this playful chaos.

Paradox 2: Diverse theoretical and practical insights were shared, and these were brought together by a broad thinker.

Paradox 3: Some (high) standards were set and some (innovative) solutions were tested in practice to learn from.

Collaborations C

Paradox 1: The individual collaborators developed their own views on the wicked problem and potential innovative solutions.

Paradox 2: The individual collaborators shared their own theoretical and practical insights, and these were not brought together for there was no broad thinker. Besides, there was little to no listening to each other.

Paradox 3: The individual collaborators set their own standards which led to a plethora of standards, and this complicated the testing of innovative solutions in practice.

Collaboration D

Paradox 1: The iterative process of developing, designing and testing innovative solutions was ongoing and both conventional and unconventional methods were used to discipline this playful chaos.

Paradox 2: Diverse theoretical and practical insights were shared, and these were brought together by the broad thinkers.

Paradox 3: High standards that aim for innovation were set and innovative solutions were tested in practice to reach for these standards.

Collaboration E

Paradox 1: The initiators and the other collaborators had different views on how to embrace and discipline the iterative process of moving back and forth between developing, designing and testing innovative solutions.

Paradox 2: Diverse theoretical and practical insights were shared but these were not brought together for there was no jointly accepted broad thinker.

Paradox 3: High standards were set but these were not the product of a joint proposal and therefore no innovative solutions were tested in practice to reach for these standards.

Collaboration F

Paradox 1: The iterative process of developing, designing and testing innovative solutions was ongoing and both conventional and unconventional methods were used to discipline this playful chaos.

Paradox 2: Diverse theoretical and practical insights were shared, and these were brought together by the broad thinkers.

Paradox 3: High standards that aim for innovation were set and innovative solutions were tested in practice to reach for these standards.

5. Analysis: a typology of potential responses to the teaming paradoxes

The empirical findings showed variation in the responses of cross-boundary collaborations to the teaming paradoxes. This section tried to interpret this variation, thereby presenting a typology of three potential responses to these paradoxes: no serious, unbalanced, and balanced responses. This typology helped to identify preliminary explanations for this variation.

Type 1. No serious responses

To start with Collaboration A, all responses to the teaming paradoxes were overshadowed by a conflict that occurred between its initiators. These two turned out to have conflicting attitudes towards the collaborative process, whereby one of them wanted to keep it light and fun, while the other took it very seriously. This growing conflict between them hindered the collaboration from tackling the wicked problem at stake with innovative solutions. In practice,

this meant that the other collaborators used every means at their disposal to distract themselves from this conflict. This caused that attempts of moving back and forth between developing, designing and testing innovative solutions or of sharing theoretical and practical insights were not taken seriously. Besides, this collaboration did not succeed in setting standards for these were ridiculed nor did it succeed in learning from intelligent failures for no innovative solutions were tested in practice. Only after one of the two initiators left Collaboration A, the collaborators indicated that they could have a restart. This is an indicator that the lack of serious responses can be explained by this conflict. The preliminary explanation for this type of responses to the teaming paradoxes thus is a conflict between two collaborators (see also table 5, no serious responses).

Type 2. Unbalanced responses

Then, for Collaboration C and Collaboration E, it was observed that their individual collaborators had different ideas about the wicked problem and how to come to innovative solutions. This was so for the reason that others – either the initiators or their supervisors – had to a far-reaching extent decided what to do and how to do it. This caused that the collaborators had a bit of a false start in developing a shared perspective: they first had to develop their own understanding of the problem and potential solutions themselves. As a result, they had a lot of disagreement on how to embrace and discipline the process of moving back and forth between developing, designing and testing innovative solutions. Besides, they did not have (or accept) a broad thinker to keep an eye on the general goal, which made it difficult to bring diverse theoretical and practical insights together. Furthermore, they disagreed about the standards that were set for these were not the product of a joint proposal. This led in both cases to an impasse. As the frustrations about this impasse increased so that the situation became untenable, the collaborators asked for an external intervention. In these interventions, an agreement was reached on the follow-up, which was needed to continue. This indicated that the collaborators felt a sense of urgency to tackle the problem at stake, but that all different individual ideas first had to be developed before they could bring this together. The preliminary explanation for the unbalanced responses to the teaming paradoxes thus is that there was no common ground to start from (see also table 5, unbalanced responses).

Type 3. Balanced responses

Ultimately, for Collaboration D and Collaboration F, it turned out that there was a strong and shared sense of urgency to innovate. Previous attempts of their collaborators to tackle the wicked problem had failed, and they were therefore highly motivated to work across boundaries and to come up with new innovative solutions. In doing so, the collaborators moved back and forth between developing, designing and testing innovative solutions, and used both conventional and unconventional methods, such as note-taking and journey mapping, to discipline this playful chaos. Next, both collaborations had at least two broad thinkers who kept an eye on the general goal, while the others shared their theoretical and practical insights into the problem. Besides, they set standards that they perceived as challenging but not impossible to reach for. In reaching these standards, they tested innovative solutions in practice which they saw as an opportunity to learn about what works and what does not. Interestingly, these collaborations seemed to constantly balance between the seemingly opposite sides of the teaming paradoxes to reach for innovation.

Following on from this, there was another collaboration that had balanced responses to the teaming paradoxes, namely Collaboration B. This collaboration went through an iterative process of developing, designing, and testing solutions, and used conventional methods to discipline this playful chaos. Besides, theoretical and practical insights were shared and brought together by a broad thinker. Furthermore, standards were set, and solutions were tested in practice to learn from them. These responses to the teaming paradoxes thus seem to be quite similar to what is described as ‘balanced responses’ in the above. However, the collaborators of Collaboration B, in contrast to Collaboration D and Collaboration F, explicitly stated several times that they did not strive for innovation. Then, comparing these collaborations, it turned out that a preliminary explanation for the balanced responses to the teaming paradoxes was not just a strong and shared sense of urgency to innovate, but it was a common ground to start from (see also table 5, balanced responses). For Collaboration D and F, this common ground was a shared frustration about the wicked problem, and in the case of Collaboration B, this was the shared desire not to innovate.

Table 5. Overview of a typology of potential responses to the teaming paradoxes

Typology of potential responses to the teaming paradoxes

<i>Types</i>	No serious responses	Unbalanced responses	Balanced responses
<i>Definitions</i>	Collaborators avoided responding to the teaming paradoxes	Collaborators disagreed on how to respond to the teaming paradoxes	Collaborators agreed on how to respond to the teaming paradoxes
<i>Responses*</i>	<p>P1: attempts to (re)start the iterative process were not taken seriously, and therefore no disciplining was needed</p> <p>P2: attempts to share insights were not taken seriously, and no broad thinker was present</p> <p>P3: setting standards was ridiculed, and no solutions were tested</p>	<p>P1: iterative process was brought to a halt, and therefore no disciplining of this process could take place</p> <p>P2: insights were shared, but no jointly accepted broad thinker was present to bring these together</p> <p>P3: setting standards was not jointly done, and no solutions were tested</p>	<p>P1: iterative process was ongoing, and (un)conventional methods were used for disciplining</p> <p>P2: insights were shared, and brought together by various broad thinkers</p> <p>P3: setting standards was taken seriously, and solutions were tested in practice</p>
<i>Explanations</i>	No common ground to start from: conflict between two collaborators	No common ground to start from: first developing own ideas about what to do and how to do it, before bringing this together	Common ground to start from: starting from a shared idea about what to do and how to do it and refining this together
<i>Collaborations</i>	Collaboration A	Collaboration C Collaboration E	Collaboration D Collaboration F Collaboration B

*P1 = paradox 1 (playful chaos and focused discipline)

P2 = paradox 2 (deep experts and broad thinkers)

P3 = paradox 3 (high standards and high failure tolerance)

6. Conclusion and discussion

To conclude, this study investigated the variation in the responses of cross-boundary collaborations to the teaming paradoxes – playful chaos and focused discipline, deep experts and broad thinkers, and high standards and high failure tolerance – and sought thereby for preliminary explanations for this variation. To do so, a comparative case study was conducted on six cross-boundary crime-fighting collaborations involved in the Organized Crime Field Lab. As a result of the empirical research, three potential responses to the teaming paradoxes – no serious, unbalanced and balanced responses – were found. These responses seemed to arise of whether or not a conflict between the collaborators was going on and whether or not a common ground was created to start from.

Theoretical implications

To start with, the concept of teaming, and in particular its three paradoxes, were further developed in this study. In previous scholarly work of Edmondson (2013), these paradoxes were only briefly introduced and illustrated with one or two practical examples. However, bringing together diverse insights from former business management research on design-thinking (e.g., Brown, 2008; Owen, 2007), innovation (e.g., Edmondson and Harvey, 2018; Alexander and Van Knippenberg, 2014), and iteration (e.g., Shephard, Patzelt and Wolfe, 2012; Baumard and Starbuck, 2005; Cannon and Edmondson, 2005) gave the teaming paradoxes more theoretical depth. A first contribution of this study is thus that now is clear what is meant by the seemingly opposite sides – playful chaos and focused discipline, deep experts and broad thinkers, and high standards and high failure tolerance – of these three paradoxes. The theoretical framework thereby provides a new and solid starting point for research on teaming and its paradoxes.

Then, these clearly defined paradoxes paved the path for the small-N research that was conducted on six cross-boundary crime-fighting collaborations (Blatter and Haverland, 2012). As a result of the empirical research, it was observed that the responses of cross-boundary collaborations to the teaming paradoxes indeed varied. A second contribution of this study is thus that the assumption that there is variation between collaborations in their responses to the teaming paradoxes is confirmed. Besides, it showed that the concept of teaming, which

originally comes from business management literature (e.g., Edmondson, 2013; Edmondson, 2012a), can also be applied to cross-boundary collaborations operating in the public sector.

Furthermore, the variation observed was interpreted, thereby presenting a typology of three potential responses to the teaming paradoxes. First, there was one collaboration that had no serious responses. This type of responses implied that every attempt of an individual collaborator to change the responses to these paradoxes was not taken seriously by the others, and thus failed. The preliminary explanation for this first type was a conflict between two collaborators. Then, for two collaborations, unbalanced responses were observed. This second type of responses is different from the first one, in that sense, that several serious attempts were undertaken to come to balanced responses, but these collaborations did not succeed in reaching them. The preliminary explanation for this second type is a lack of common ground to start from. Ultimately, for three collaborations, balanced responses to the teaming paradoxes were observed. In contrast to the other collaborations under study, these three had found a common ground. This first version of a typology of potential responses to the teaming paradoxes and the preliminary explanations for the variation observed in these responses, is a third contribution of this study.

Practical implications

The findings showed different implications for different collaborations. First, for collaborations in which collaborators have already found a common ground, insights into the teaming paradoxes can help them to better understand the seemingly opposite sides between which they constantly have to balance. Besides, the balanced responses of the collaborations under study can give them some inspiration for their own responses to the teaming paradoxes, and indication that they are on the right track, according to Edmondson (2013).

Then, for collaborations in which no common ground has been created yet, the insights of this study can help them to recognize the lack thereof. If collaborations have unbalanced responses to the teaming paradoxes, then individual collaborators should first invest some time in developing their own views on the wicked problem and potential innovative solutions, before they could bring this together. In bringing together all individual views, an external intervention – in the case of the two collaborations under study that had unbalanced responses, this was a session with a coach – was needed. For collaborations that are not

involved in a field lab, such a session can, for example, be organized with an impartial third party, such as an external consultant or process counsellor.

Finally, for collaborations in which a conflict between two collaborators emerges, this study provides interesting ideas to. In this study, the collaboration that had no serious responses needed both an internal intervention – change in the composition of the collaboration – and an external intervention – session with a coach – to turn the tide. For collaborations that are confronted with a similar situation, can use these insights to change this. However, for those that are not involved in a field lab, it may be more difficult to address a conflict, for in most cases there will be no immediate assistance available. In this case, these collaborations can think of a similar solution as suggested above: to involve an impartial third party that can lead the difficult conversation to solve the conflict.

Limitations

These practical implications reveal a major limitation of the empirical research. The field lab setting provided an opportunity to closely study cross-boundary collaborations, but also creates circumstances that are not completely equal to the everyday reality of collaborations (Gascó, 2017). In the Organized Crime Field Lab, collaborations are for instance actively encouraged to solve wicked organized-crime problems by designing innovative solutions (Waardenburg et al., forthcoming). Besides, those involved have the opportunity to ask a coach to make an intervention, which will be more challenging for other cross-boundary collaborations. Because of the quasi-experimental character of the field lab setting (Waardenburg et al., 2009; Waardenburg et al., forthcoming), there was no control on the effect of the training and coaching on the responses of the collaborations to the teaming paradoxes. Therefore, this study gives a first indication of potential responses to these paradoxes and preliminary explanations for these responses, but carefulness is required in generalizing the findings. To increase the generalizability, or in other words external validity, of the potential responses and preliminary explanations observed, more case studies should be conducted on cross-boundary collaborations and their responses to the teaming paradoxes and reasons for these responses (Blatter and Haverland, 2012).

Future research

Ultimately, an avenue for future research may be a longitudinal case study research into the change of the responses of cross-boundary collaborations to the teaming paradoxes over time, and the explanations for this change. This study observed the cross-boundary crime-fighting collaborations for only a 12-month period. This turned out to provide the opportunity to investigate and explain the initial responses of collaborations to the teaming paradoxes. Interestingly, some turning points (e.g., internal and external interventions) in these responses were observed halfway or at the end of the development trajectory. The time frame of this study, however, was too short to observe what happened to the responses of these collaborations to the teaming paradoxes after these turning points. Therefore, a longitudinal case study research on this particular issue is considered to be an interesting pathway for follow-up research.

Appendices

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II. Ethical check

This research received an ethical check of the Tilburg Law School of Ethics Review Board (ERB). The ERB applied the Dutch Code of Ethics for Research in the Social and Behavioral Sciences, as accepted by the Deans of Social Sciences in the Netherlands on the 23rd of May 2018, to check this research. The ERB declared that no deficiencies in the research were found.

III. Disclosure statement

No potential conflict of interest was reported.

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