Interorganisational project dynamics: A longitudinal study of perceptual distance and client-contractor collaborative relationships

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ABSTRACT

Despite the importance of good collaborative relationships in interorganisational projects, clients and contractors often develop adversarial relationships due to perceptual distance about key project issues. In this case study research, we investigated how perceptual distance emerges and changes over time, and how the collaborative relationship between client and contractor develops alongside these dynamics. In this exploration, we built upon agency theory and stewardship theory as complementary perspectives for understanding client-contractor collaborative relationships. We gathered quantitative and qualitative data in two projects, conducting three assessments in about one year. We found that perceptual distance increased and decreased over time, and that a reduction was typically associated with the collaborative relationship being characterized by stewardship rather than agency. These findings suggest that a regular assessment and evaluation of partners' perceptions of critical project issues is warranted to timely detect and counteract perceptual distance. Moreover, partners would best adopt a stewardship orientation to reduce perceptual distance, although this may take considerable effort given the distributive nature of many pre-project negotiations.

1. Introduction

Interorganisational projects, in which multiple organisations work jointly on a shared activity for a limited period of time, are increasingly used across industries, including construction, energy, IT, R&D, and product development (Sydow and Braun, 2018). These projects typically involve a high degree of interdependence and a complex divisions of tasks between project partners (Bankvall et al., 2010; Eriksson et al., 2009; Fulford and Standing, 2014; Hoegl and Weinkauf, 2005). Successful completion of these complex and often lengthy projects requires a collaborative relationship in which client and contractor have mutual goals, are able to trust each other, and exchange relevant knowledge and information in a timely manner (Eriksson, 2015; Eriksson et al., 2009; Ng et al., 2002). Not infrequently, this proves to be a challenging and time-consuming task (Vaaland and Håkansson, 2003). As pre-project negotiations can have a highly distributive character (Turner, 2009; Van Weele, 2018), partners often embark on projects with incompatible goals, separate identities, and limited mutual introduction and information sharing (Ness and Haugland, 2005; Oosterhuis et al., 2013; Steller, 2019; Van der Krift et al., 2020), resulting in perceptual distance from the early onset.

Perceptual distance refers to disparity in collaborating partners' perception of key aspects of their project and collaboration (Van der Krift et al., 2020). These key aspects relate to project input (i.e. the resources in the project), process (i.e. the work that is done and how it is done), as well as output (i.e. the performance and value being delivered). Prior research indicates that perceptual distance constitutes a severe obstacle for interorganisational project success (Andersen et al., 2009; Nyaga et al., 2013; Oosterhuis et al., 2013; Van der Krift et al., 2020). Consequently, it is an important topic for supply chain research.

Despite increased attention to the topic in recent years, little research has investigated how perceptual distance between client and contractor develops over time. Although some research has shown that differences in expectation between partners in joint action projects may significantly increase and decrease over time (DeCampos, 2014), most research has approached perceptual distance as if it were a static phenomenon (e.g. Barnes et al., 2007; Chen et al., 2016; Gibson et al., 2009; Oosterhuis et al., 2013; Van der Krift et al., 2020). This constitutes an important research gap as changes in perceptual distance over time may have serious implications (Barnes et al., 2007; Kozlowski and Chao, 2012). Whereas growing perceptual distance over the duration of a project may instigate or reinforce conflict, frustration and contempt, and

thereby jeopardize project accomplishments, diminishing perceptual distance will likely reduce the risk for misunderstandings and conflict, thereby facilitating better collaboration and performance (Nyaga et al., 2013; Van der Krift et al., 2020).

To start closing the identified research gap, the aim of the current research is to investigate how perceptual distance emerges and develops over time in interorganisational projects. Additionally, we examine how the collaborative relationship between client and contractor develops alongside the changes in perceptual distance. Therefore, we conducted a longitudinal case study research on two projects in different industries, one project concerning infrastructure engineering and one project concerning IT development. In these projects, we assessed perceptual distance at multiple occasions using a validated questionnaire, and concurrently interviewed parties about developments in the client-contractor collaborative relationship and how these related to changes in perceptual distance over time. Our exploratory multimethod research contributes to the current literature by highlighting developments in perceptual distance over time and linking them with partners' orientation and behaviour toward one another in their collaborative relationship. Moreover, we provide practical insight about how project partners may stimulate positive developments in their collaborative relationship and facilitate project success.

2. Conceptual background

2.1. Perceptual distance

Client and contractor are prone to suffer from perceptual distance regarding input, process, and output factors of their collaborative project for two reasons. First, perceptions likely differ because of *information asymmetry*, i.e. when client and contractor have different information. Second, perceptions will likely differ because of separate *social identities*, i.e. when both parties strongly identify with their own organisational background, objectives and interests (Oosterhuis et al., 2013; Van der Krift et al., 2020). Prior research established that perceptual distance is associated with poorer project outcomes, especially when parties are not equally satisfied with project objectives, have disparate perception regarding the competences of the project managers (at client and/or contractor side), and when they perceive the level of trust in the project differently (Van der Krift et al., 2020).

2.2. Client-contractor collaborative relationships: an agency-stewardship continuum

In conceptualizing the client-contractor collaborative relationship, we rely on two complementary theories, i.e. agency theory (Eisenhardt, 1989; Ross, 1973) and stewardship theory (Davis et al., 1997; Donaldson and Davis, 1991; Hernandez, 2012). Although originally portrayed as conflicting perspectives, these two theories are increasingly seen as complementary (Hernandez, 2012). Together, they provide a holistic perspective on collaborative relationships which can be depicted as a continuum with an agency orientation and corresponding behaviour on the one end, and stewardship orientation and behaviour on the other (Hernandez, 2012; Toivonen and Toivonen, 2014). The position on the continuum reflects the extent to which client and contractor see the collaborative relationship as an agency relationship or as a stewardship relationship, and consequently, how they behave toward one another (Davis et al., 1997; Hernandez, 2012). Agency and stewardship relationships differ regarding several key dimensions of the collaborative relationships, in particular the type of motivation within the project (extrinsic vs. intrinsic), orientation on the short- or long-term, the basis of power in the collaboration (authority-based vs. competence-based), level of equality between project partners, level of unification or identification of project teams (separate vs. collective), the presence of trust, and the need for control (Davis et al., 1997; Hernandez, 2012). However, the presence of agency-oriented and stewardship-oriented

behaviour in a collaboration is not mutually exclusive. On the contrary, the collaborative relationship may hold characteristics of both orientations and either party may display agency and stewardship behaviour simultaneously (Van de Ven and Poole, 1995). Overall, the extent to which either orientation dominates the collaborative relationship defines the position on the continuum (Hernandez, 2012). Below we elaborate on the manifestation of agency and stewardship in more detail.

2.2.1. The agency orientation

Agency-oriented collaborations are characterized by a short-term perspective, high power distance, and control by the client (Cuevas-Rodríguez et al., 2012; Davis et al., 1997). The contractor is motivated by the short-term, financial rewards that it receives in return for its efforts (Hernandez, 2012; Ross, 1973). Consequently, the contractor will minimize its efforts and costs to deliver what has been contractually specified. Similarly, the client would try to pay as little compensation as possible. Conflicts are prone to arise because client and contractor both identify with their own, economical goals at the expense of the mission, vision and objectives of the other party. This contrast stimulates an emphasis on an 'us vs. them' mindset (Sundaramurthy and Lewis, 2003). Essentially, both client and contractor put the emphasis on their individual goals and refrain from a collective perspective and accompanying behaviour (Donaldson, 1990).

Furthermore, collaborative relationships with an agency orientation are characterized by the use of institutional, mediated power (Davis et al., 1997; Maloni and Benton, 2000). Accordingly, the client relies on rewards and punishment to stimulate the contractor (Eisenhardt, 1989; Maloni and Benton, 2000) and engages in controlling and monitoring the contractor to prevent opportunistic behaviour resulting from individual goals (Davis et al., 1997; Eisenhardt, 1989; Toivonen and Toivonen, 2014). Moreover, both client and contractor rely on contractual clauses as means to manage their relationship. For example, contract clauses will arrange for delays in the project's progress and disputes that may arise within the project (Davis et al., 1997).

Lastly, agency-oriented collaborations are characterized by high power distance (Cuevas-Rodríguez et al., 2012; Hofstede et al., 1990), such that the contractor complies with the client's decisions or requests out of fear to disagree with the client and suffer punitive measures (Davis et al., 1997; Hofstede et al., 2010).

2.2.2. The stewardship orientation

The stewardship orientation holds that the collaborative relationship between client and contractor is characterized by a focus on long-term goals (Hernandez, 2012). The contractor is motivated by non-financial rewards such as delivering value to the end-customer or by delivering quality work that can be used as a reference to obtain future work (Davis et al., 1997; Donaldson, 1990; Donaldson and Davis, 1991; Sundaramurthy and Lewis, 2003). The client will facilitate the contractor to perform its tasks and enhance the value that is delivered to build a good base for continuity in doing business together (Davis et al., 1997; Hernandez, 2012). Accordingly, the contractor identifies with the mission, vision, objectives and successes of the client and, as a result, also identifies with success stories and feedback that is received from the users and clients (Hernandez, 2012). Moreover, the contractor is given more autonomy and is invited to participate in decision-making (Donaldson and Davis, 1991). This autonomy allows the contractor to design better solutions in the interest of the client (Donaldson, 1990; Toivonen and Toivonen, 2014).

Furthermore, collaborations oriented towards stewardship are characterized by non-mediated power through mobilizing capabilities, competences, and expert knowledge that are held at either side in the collaboration. Client and contractor both derive their influence in the project from the competences and expertise they have, which increases mutual commitment (Davis et al., 1997; Maloni and Benton, 2000). There is an emphasis on equality between client and contractor, such

that the contractor has the right to speak up and to disagree with the client, although the client always will have the final say. Moreover, client and contractor will approach project goals and challenges more collectively. For instance, the contractor may assist in obtaining the necessary support from within the client organisation and the external context (Turner, 2009). Also in conflicts, client and contractor focus on collective goals and shared success, favouring harmony over conflict and confrontation (Cuevas-Rodríguez et al., 2012).

2.3. The reciprocal relationship between perceptual distance and the collaborative relationship

Neither the level of perceptual distance nor the orientation in collaborative relationships is stable. Over the span of a project, perceptual distance may increase or decrease (see also DeCampos, 2014). Likewise, the collaborative relationship between client and contractor may change, becoming more or less agency-oriented and more or less stewardship-oriented (Davis et al., 1997; Hernandez, 2012; Kozlowski and Chao, 2012). What we propose here is that these two processes may be interlinked from the very beginning (Nyaga et al., 2013).

As mentioned in the introduction, projects are likely to start with different outlooks on a project due to incompatible goals, separate identities, and limited mutual introduction and information sharing. Because of that, collaborating partners are likely to adopt an agency orientation characterized by a high power distance, control by the client, and a short-term perspective (Cuevas-Rodríguez et al., 2012; Davis et al., 1997). These characteristics emphasize separate roles for the client and the contractor, thereby increasing either party's tendency to identify with its own interests and decreasing proactive information sharing (Ashforth and Mael, 1989). The resulting separate identities and information asymmetry are the conditions that instigate perceptual distance (Oosterhuis et al., 2013; Van der Krift et al., 2020). Thus, initial perceptual distance between partners instigates agency-oriented behaviour that is likely to increase perceptual distance even further as the project unfolds (Nyaga et al., 2013). Meanwhile, perceptual distance is believed to prevent the alignment of partner's interests, goals and activities, giving rise to conflict (Andersen et al., 2009; Lambert et al., 1999; Michalski et al., 2017; Vaaland and Håkansson, 2003). As a response to conflicts, representatives from both parties may identify even stronger with their own organisation and short-term interests (Ashforth and Mael, 1989). Furthermore, client and contractor may withhold crucial information from each other because information may strengthen the position of the other party (Kembro et al., 2014), thereby increasing the likelihood of increased perceptual distance. Hence, by choosing an agency orientation client and contractor proceed in a negative, downward spiral in their collaborative relationship.

Conversely, despite initial perceptual distance, client and contractor may choose to commit to a stewardship orientation. This would imply an aim for collective goals and shared successes while relying on each other's knowledge and expertise. Client and contractor may engage in sharing their views and perceptions through interaction and meetings, and thus focus on information sharing in order to understand each other better (Andersen et al., 2009; Kozlowski and Chao, 2012). Importantly, this process will clarify the distance in perceptions to both parties, which subsequently allows client and contractor to overcome the observed distance between them through collective decision-making and aiming for a collective mission and goal (DeCampos, 2014), which is also typical for a stewardship orientation. As a result, stewardship-oriented collaborations are expected to be associated with a decrease in perceptual distance over time (Oosterhuis et al., 2013; Van der Krift et al., 2020). When client and contractor interests become increasingly aligned and perceptual distance is decreased, this will allow them to focus on collective rather than individual goals (DeCampos, 2014). By choosing a stewardship orientation client and contractor progress in a positive, upward spiral in their collaborative relationship.

Hence, although perceptual distance most likely breeds conflict, misalignment, withholding of information, and separate identities, client and contractor may choose a different path and reduce the perceptual gap.

2.4. The conceptual framework

In all, the previous paragraphs suggest a reciprocal relationship between the collaborative relationship in the project and the perceptual distance between both parties. Perceptual distance is likely to increase over the course of a project when it is met with agency-oriented behaviour, which in turn will drive parties towards more of that same behaviour. The reverse is true for stewardship. Stewardship-oriented behaviour will likely reduce perceptual distance between client and contractor, which will in turn inspire towards more stewardship behaviour. Both paths are depicted in the conceptual framework in Fig. 1, showing two spiralling effects between perceptual distance and the orientation in the collaborative relationship. Similar bifurcation processes and upward and downward spirals have been identified previously in organisational behaviour literature, such as in relation to threat responses (Staw et al., 1981), turnover intentions (G. Chen et al., 2011), and team cognition (Gevers et al., 2020). In the context of the current research it is important to emphasize that client and contractor have a choice in their response to the presence of perceptual distance. Both sides may initiate to share their views and perceptions through interaction and meetings and spend time to unify their goals and focus on their collective effort. Thus, an inclination towards stewardship may break the negative downward spiral of perceptual distance instigated by agency-oriented behaviour. At the same time, we acknowledge that reversing a relationship has gone sour is hard and may actually become increasingly difficult once the relationship starts spiralling down, due to failing trust and openness between parties (Hackman, 1987).

3. Methodology

3.1. Research design

Given the focus of this study on the reciprocal relationship between perceptual distance and the collaborative relationship, we opted for a longitudinal case study research design in which two projects were followed over a longer period of time (Yin, 2018). We gathered both qualitative (i.c. interviews) and quantitative (i.c. questionnaires) data. On the one hand, qualitative data was deemed more suitable to gain a full understanding of the projects and their contexts and the actions and developments that took place (Yin, 2016). Next, quantitative data was obtained to assess how perceptual distance evolved over time, using a validated scale (Van der Krift et al., 2020). As such, the qualitative and quantitative data were complementary in providing a comprehensive answer to the research question (Kelle, 2006). In both projects, data was obtained from both client and contractor side, representing dyadic research (Cousins et al., 2008; Lumineau and Oliveira, 2018).

3.2. Case selection

It is a challenge to find projects that are suitable for and open to real-time longitudinal dyadic research. Yet, we found two project managers that were willing to cooperate in our research. These project managers were encountered during a presentation at a project management conference and during earlier research that we had done. As such our project selection could be characterized as convenience sampling (Yin, 2016). However, the data was not available yet and the project managers were not our only source of information. Therefore, we were able to shape the research setup and prevent any bias that could be the result of this type of sampling.

The projects have several similarities and differences. Both projects concern the delivery of knowledge-intensive, expertise work. As such,
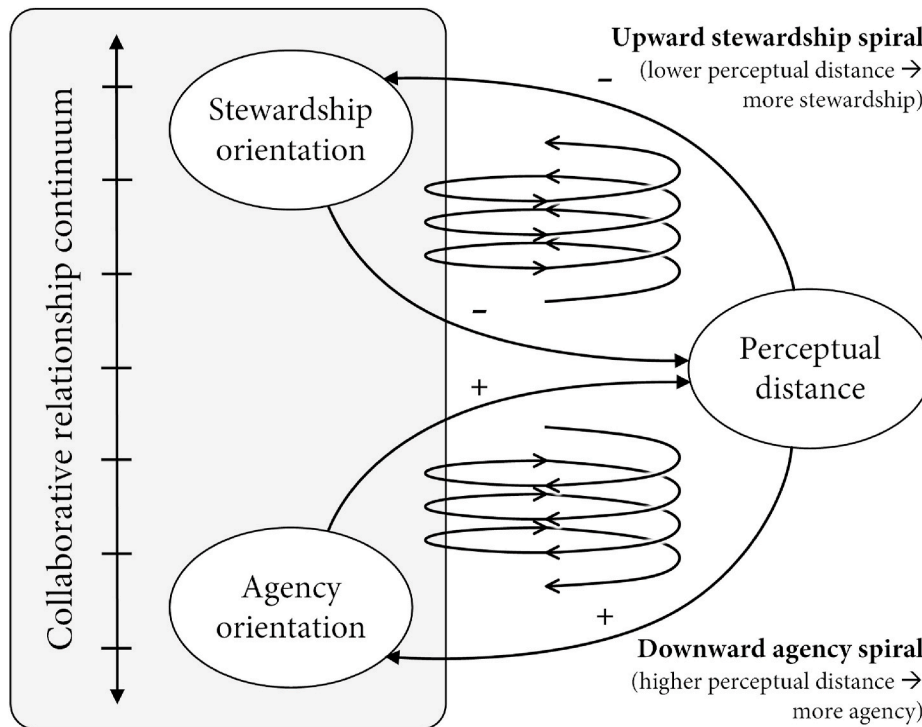
Fig. 1. The conceptual framework describing the reciprocal relationship between perceptual distance and the collaborative relationship continuum.

both projects have a similar need for a collaborative relationship that focuses on expertise and knowledge (i.e. stewardship). Furthermore, both projects are based upon a framework agreement with bonuses and penalties. Also, both projects involve a semi-public client. Hence, any differences between the projects that we find in our analyses are not attributable to the type of client, project or contract. A major difference between the two projects is that they have been executed in different industries (infrastructure, IT development). Hence, we can rule out any industry-specific effects for the findings of our study, increasing the generalizability of our findings.

3.2.1. Project Alpha

Project Alpha concerned the delivery of engineering and consultancy services to support public tenders of rail-infrastructure projects in the northern part of the Netherlands. The client in this project (from here on referred to as RailCo) is the owner of a large railway-infrastructure network in the Netherlands. Their responsibility is to maintain this network to a certain quality level, such that railway operators can safely use the network. For this purpose, RailCo spends around 700 million Euro each year on maintenance by external contractors.

In project Alpha the contractor was to deliver engineering and consulting services through the execution of analyses and the delivery of reports. The documents that are delivered by the engineering firm (i.e. the contractor in the relationship) contain crucial information for the maintenance contractors that eventually make an offer to RailCo for the execution of the maintenance. RailCo is responsible for determining what research must be done and what documents need to be delivered.

Project Alpha was publicly tendered and an important criterion in awarding the contract was the collaboration. The fit between RailCo and each of the submitting contractors was assessed by an independent firm, specialized in psychological assessments. It was the first time that RailCo used this selection method because they wanted to find a reliable, regional partner for their engineering work. The tender specifications included several requirements regarding the experience of the contractor's team members. The proposals, which RailCo received, were comparable in terms of price. Hence, the psychological assessment on the collaboration determined which contractor won the tender.

The winning contractor, from here on referred to as EngiRail, is a small engineering consultancy firm with a yearly revenue less than 10 million Euro. EngiRail exists over 10 years and, like many comparable firms, Railco is their largest customer representing over 90 percent of their business. Although EngiRail has executed many projects for RailCo, the teams at RailCo differ per project. The framework agreement was signed mid-2017 and the project activities started at the end of 2017. The contract was signed for a duration of 3 years with two possible extensions of one year. The contract stated among others that EngiRail would deliver a dedicated project team for the contract duration and that replacement of team members should be done based upon suitability. Furthermore, the contract requested EngiRail to contribute ideas and initiatives regarding sustainable solutions for the project. Moreover, it included a premium for providing internships and positions for work training, and a penalty for late delivery of the work according to agreed delivery terms.

3.2.2. Project Beta

Project Beta concerned the development of software, governance and infrastructure of an online platform including consultancy. The client, from here on referred to as A2B, is an organisation owned by several public transportation companies and is the owner of this platform. A2B has a yearly revenue of around 100 million Euro. This platform handles billions of transactions that users of public transport make per year, using a travel card. Next to handling the transactions, the platform provides the users with the ability to check their balance and any transactions that have been made. A2B regularly works with a small set of preferred partners for the updates and renewal of its platform. At the end of 2017, A2B approached one of these preferred partners, from here on referred to as Expert-IT, for a new project with the aim to make A2B 'future proof', i.e. to stay ahead of competition and remain the preferred partner for the public transport companies with regard to their transaction services. Although Expert-IT had been working for A2B for considerable time, the team compositions changed regularly over time.

Expert-IT employs several hundreds of IT professionals that support clients in the development and governance of software solutions in different industries. The yearly revenue of Expert-IT is around 50 million

Euro. The framework agreement was signed at the end of 2017 and activities started in the beginning of 2018. The contract was signed for a duration of 3 years with possible extensions. In this project, Expert-IT delivered the human resources to execute the activities according to A2B's requirements. Their consultants were located at the site of A2B. The Expert-IT team brought its own project manager but was delivering the work to a project manager from A2B, who was responsible for determining the scope and milestones and providing the necessary information and facilities for Expert-IT to deliver the work. The scope and milestones were largely settled during the project as they worked according to agile principles (Dingsøyr et al., 2012; Erickson et al., 2005; Rigby et al., 2016). The contract included a premium in case the customer satisfaction exceeded a certain threshold, and time spent was lower than budgeted. Furthermore, several KPI's on the governance of the online platform were formulated including bonuses and penalties for over- and underperformance.

3.3. Data collection

Data collection involved multiple rounds and was commenced a couple of months after the projects had started. Subsequent rounds were planned respectively three months and six months later, considering that a three month interval would be short enough not to miss any important dynamics and long enough to observe significant changes (Yin, 2018). Data collection involved both quantitative and qualitative methods.

3.3.1. Quantitative data

We used the Perceptual Distance Monitor (PDM; Van der Krift et al., 2020) to assess the level of perceptual distance that was present in the projects at each measurement point. We used the four dimensions of the PDM that were previously found to be most relevant, i.e., *satisfaction with project objectives*, *competence project manager client*, *competence project manager contractor*, and *trust*. Each dimension was assessed with six items, except for trust, which was assessed with four items. Example items are "*we were satisfied with the agreements we made with* [the partner] *regarding quality standards*" (satisfaction with project objectives), "*the project manager at* [the client] *formulates questions/problems clearly*" (competence project manager client), "*the project manager at* [the contractor] *understands and complies with the principal's requests*" (competence project manager contractor), and "*we can depend on* [the partner's] *support in matters of importance to us*" (trust). All items were answered on a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The PDM was found reliable and valid based upon a larger sample of projects, including the ones in this study (Van der Krift et al., 2020).

Table 1 provides an overview of the number of respondents that filled out the PDM. Whereas respondents remained the same in Project Alpha, those in project Beta changed considerably. As this was mainly due to role changes, representativeness was maintained. Perceptual distance was calculated following PDM guidelines (Van der Krift et al., 2020). Combining responses from client and contractor, these calculations take into account the means and standard deviations on both sides, corresponding with the standardized mean difference Hedges' g (Hedges, 1981, p. 110).

Table 1
The number of and changes in respondents for the PDM for both projects at various data collection points.

		Number of respondents				
		t_1	change	t_2	change	t_3
Project Alpha	RailCo	4	0	4	−1	3
	EngiRail	2	0	2	+1	3
Project Beta	A2B	4	−3 +3	4	−3	1
	ExpertIT	3	−2 +1	2	+1	3

3.3.2. Qualitative data

Simultaneously with the quantitative data collection, we conducted semi-structured interviews with representatives from both projects. In project Alpha we conducted in total 12 interviews, and in project Beta we conducted 16 interviews. In both projects, interviewees were selected based upon their involvement, having regular contact with the other party, and their position, having an overview of what occurs in the project. In project Alpha, interviews were held in March, July, and October of 2018. In project Beta, interviews were held in April and September of 2018, and January 2019. We aimed to interview the same respondents at the different points in time; however, due to staff changes in the projects some key informants changed position such that new respondents were interviewed over the course of the project.

Interviews typically lasted between 40 and 70 min We used a standard protocol with open questions about perceptual distance, conflicts and differences of opinion, and expectation regarding the counterpart. The collaborative relationship continuum was addressed without using explicit terminology to allow interviewees to use their own terminology and language (Yin, 2016). Follow-up questions were improvised to understand the exact meaning of what had been said. Interviews were summarized and sent to the participants for feedback, which generated minor, textual changes. Interviews were then transcribed.

The interview transcripts were coded in NVIVO 12. First, we developed operational definitions for the two ends of the collaborative relationship, (i.e. agency orientation and stewardship orientation). These operational definitions reflect either orientation in terms of motivation, conflict, identification, and power, based on academic literature. As a result, we had seven pairs of codes with one describing an agency-oriented collaborative relationship and one a stewardship-oriented collaborative relationship (see Table 2). Statements from the interviews were then assigned to these codes, where appropriate, indicating whether the collaborative relationship was better described as agency-oriented or stewardship-oriented. The first two authors independently coded a sample of two interviews from different interviewees, projects, and time points. Agreement between the codes was assessed and deviations were discussed to determine the most suitable coding. In all cases, the coding matched the general distinction between agency and stewardship.

Subsequently, the coding was used to determine the projects' position on the collaborative relationship continuum at the various time points. For each of the coded fragments we checked whether it represented an agency or stewardship orientation, and who was displaying this orientation (client or contractor). Next, we counted the number of fragments representing either orientation. Scores were added across interviewees, each interviewee had the same weight. In case the interviewee repeated the same example or topic, the fragment was counted once. Consequently, we obtained frequency tables that listed the presence of agency and stewardship at either party's side. These were translated into two-by-two matrices to represent the nature of the collaborative relationship, as used in the results section (see Fig. 2 to Fig. 7). In each quadrant five points were divided over agency and stewardship based upon the number of times interviewees of one party reported agency orientation at either side relative to the number of instances of stewardship orientation. General statements about the collaborative relationship in the project (not about one of the two parties) were divided equally over client and contractor. Hence, these matrices present the collaborative relationship displayed in the project based upon the content of the interviews.

3.4. Validity and reliability

We took several measures to ensure validity and reliability in our case study research, following guidelines by Yin (2018). First, we drew data from two cases to allow for comparison between cases. Although any case is unique, we chose our cases to be similar regarding key characteristics. As mentioned earlier, both projects related to

Table 2
Operational definitions for perceptual distance and for the collaborative relationship continuum.

Perceptual distance
"*disparity in collaborating partners' perceptions of key aspects of the project and the interorganisational collaboration*" (Van der Krift et al., 2020, para. 2)

Collaborative relationship continuum	
The agency orientation in operational terms	**The stewardship orientation in operational terms**
The contractor is motivated through "tangible, exchangeable commodities that have a measurable market value" (Davis et al., 1997, pp. 27–28). Financial rewards and compensation are the main motivator for client and contractor.	The contractor is motivated through "not easily quantified […] intangible rewards [that] include opportunities for growth, achievement, affiliation, and self-actualization" (Davis et al., 1997, p. 28), e.g. value that is delivered (to the end-customer) and how the project can be a future reference work.
There is a short-term, economic focus and business-oriented mindset. Individual successes are important (Davis et al., 1997).	The emphasis of client and contractor is on the long term, through achieving collective group goals (Davis et al., 1997).
Conflict is an opportunity to communicate malfunctioning and to work things out (Davis et al., 1997).	Conflict and confrontation is largely avoided, harmony and getting to know each other is very important, and client and contractor show consideration for each other (Davis et al., 1997).
Contractor and/or client perceive to be separate groups to which they belong. Client and contractor focus on the separate identities and are likely to attribute successes to their own party and failures to the other party (Ashforth and Mael, 1989)	"[Contractor and/or client have a] perception of oneness with or belongingness to a [common] group, involving direct or vicarious experience of its successes and failures." (Ashforth and Mael, 1989, p. 34, p. 34)
The client uses power in terms of authority and rewards to push the contractor in the desired direction. Both client and contractor can use coercion through e.g. delay of payments and legal powers they have (Maloni and Benton, 2000).	Power is based on competence, expertise, and experience and is not "*exercised or threatened to manipulate*" (Maloni and Benton, 2000, p. 55).
Control and checks by the client are the main mechanisms in order to deal with risk (Davis et al., 1997). Client holds the information, makes the decisions and allows little participation.	"[A] *highly participative* [approach] *consisting of open communication, empowerment of* [the contractor] *and the establishment of trust.*" (Davis et al., 1997, p. 32) The contractor is able to contribute ideas and participate in decision making.
Client and contractor "*expect and accept that power is distributed unequally*" (adapted from Hofstede et al., 2010, p. 61). The contractor, being dependent on the client complies (in obedience) with the client.	Client and contractor "*place greater value on the essential equality of* [them]." (Davis et al., 1997, p. 36).

consultancy services and were based upon expertise that was brought in by the contractor (i.e. stewardship). In both projects the client was mainly responsible for determining what had to be done (often with advice from the contractor), whereas the contractor determined how it had to be done. In both projects the way of working evolved as the project progressed, with the work chunked up in smaller pieces: investigations and reports (project Alpha), sprints (project Beta). As such, the way of working was largely similar across the two projects, although, as a software project, in project Beta they explicitly referred to their way of working as Agile. Also, the type of contract and companies involved were comparable across the two cases, although they came from different industries. As the literature gave no indication that our conceptual framework would be unique to a particular industry, we were interested to test it across multiple ones.

Second, we chose to follow cases longitudinally. Longitudinal case study designs allow for measuring developments in the concepts under study, which enhances the internal validity of the research (Leonard-Barton, 1990; Yin, 2018). Evidently, longitudinal research is subject to Hawthorne effects, i.e. that the study interventions influence study results (Leonard-Barton, 1990; Sekaran and Bougie, 2016). To minimize this risk, we relied on mixed methods (both qualitative and quantitative; Bryman, 2007; Kelle, 2006), indirect measures, and multiple sources in each case. More specifically, we did not ask respondents about perceptual differences directly, but calculated distance scores based on each party's multiple responses to a validated research instrument (i.e., PDM, Van der Krift et al., 2020). Moreover, in the interviews we opted for open questions without referencing to any of the concepts in the theoretical framework, allowing the respondents to reflect on project developments in their own words. We coded the interviews with two coders independently and without any knowledge of the outcomes of the quantitative analysis. The two coders largely arrived at the same codes, and key informants confirmed the correctness of our qualitative analysis as we had them check a draft of the case study report (Voss et al., 2002; Yin, 2018).

Having undertaken these measures and ultimately producing similar results across the two cases, allows us to have confidence in the internal validity and reliability of our findings and the generalizability of our results to interorganisational project collaborations in general, despite the study's small sample (Voss et al., 2002; Yin, 2018).

4. Results

In the following we elaborate on the two projects separately. For each case, we start with a discussion of the results of the PDM and subsequently provide a narrative that might explain the patterns in the development of perceptual distance that we observe. This narrative describes what occurred during that time period in the collaboration between client and contractor, thereby highlighting developments in the collaborative relationship based upon the interviews that were held. The narrative is divided in three parts corresponding with the three rounds of interviews. For each time period we start with presenting the two-by-two matrix of the collaborative relationship, and then elaborate on the most important observations from these interviews. This narrative is underpinned with quotes from the interviews.

4.1. Project Alpha

4.1.1. Development of perceptual distance

Table 3 shows the perceptual distance in project Alpha at each of the three time points. From this table we observe that perceptual distance in general was rather low at the start of the project, except for perceptual distance on trust. Related to this, EngiRail reported to perceive less trust to be present in the collaborative relationship than RailCo at t_1. However, as becomes apparent from the score at t_2 and t_3, trust was gained over the duration of the project and trust perceptions became increasingly aligned. Perceptions of competences were relatively aligned initially, but during the second time period perceptual distance emerged regarding the competence of the project manager at the client (i.c. RailCo). At that point, EngiRail representatives considered the project manager of RailCo to be much more competent than the team at RailCo itself did. Apparently, certain competences of the project manager became noticed by the EngiRail's team (e.g. communication regarding their needs and demands, thoughtful consideration in decision-making). Lastly, RailCo and EngiRail were equally satisfied with the objectives that were set. This remained the case over time. This means that for both parties the objectives that were set were equally advantageous and over time this perception did not change.

Table 3

Perceptual distance values in project Alpha, based on mean item scores at the client and contractor side, and compared with criterium perceptual distance values (Mean).

	Satisfaction with project objectives			Competence project manager client			Competence project manager contractor			Trust		
	PD	$\mu_{client.}$	$\mu_{cont.}$	PD	$\mu_{client.}$	$\mu_{cont.}$	PD	$\mu_{client.}$	$\mu_{cont.}$	PD	$\mu_{client.}$	$\mu_{cont.}$
Mean	*0.26*			*0.38*			*0.35*			*0.41*		
t_1	**0.05**	5.9	5.9	**0.14**	6.0	6.5	**0.21**	5.9	6.3	**0.62**	6.2	5.0
t_2	**0.03**	6.0	6.1	**0.60**	6.1	7.0	**0.32**	6.2	6.7	**0.35**	6.3	5.8
t_3	**0.01**	5.9	5.9	**0.08**	6.1	6.3	**0.39**	6.1	6.6	**0.26**	6.2	6.6

PD = perceptual distance, μ_{client} = average value for client, $\mu_{cont.}$ = average value for contractor.

Note. Mean item scores are based on a Likert-type scale from 1 to 7; Criterium mean perceptual distance values are based on scores found in earlier applications of the PDM (Van der Krift et al., 2020).

4.1.2. Developments in the collaborative relationship

4.1.2.1. Time period 1. Fig. 2 shows that, in general, the start of the project witnessed more stewardship orientation than agency orientation. EngiRail showed consideration and concern for the challenges that the project manager of RailCo faced. Their manager warned RailCo about the consequences of some sustainability requirements issued by another department. EngiRail's design manager reported: "*When it becomes clear that this* [i.e. sustainability requirements] *is coming* […]*, you start to think about the consequences, and you discuss them. You are open to these developments, but you do investigate: do we need to change our action plan here or do we need to take measures to minimize the consequences for the project?*" EngiRail showed concern for the project goals and joined in contemplating the consequences of this challenge. They clearly displayed a stewardship orientation, also by considering consequences beyond the current project. They planned for materials and resources to be used in future projects such that RailCo would be charged less money by maintenance contractors that would be executing those projects.

However, examples of agency orientation were also present. Specifically, within RailCo major budget cuts were made that had a significant impact on project Alpha. Barely half of the original scope could be financed. Logically, this affected EngiRail as well, having dedicated several engineers to this project that would not be needed anymore. EngiRail reported receiving very little information about the issue and being excluded from the decision making. As the design manager of EngiRail stated: "*the entire process regarding the budget cuts, like 'what do you need to cut down on, what choice is being made,' that process was entirely done inside RailCo. There we could maybe have formed more of a team.* […] *Information was hardly coming. Even though that was of major importance to us.*" The agency behaviour that is manifested in this example likely explains the perceptual distance that was measured on trust. As EngiRail was not involved and had little information, they perceived less trust to be present. RailCo also reported about agency behaviour at EngiRail, such as that they would deliver multiple reports simultaneously, leaving RailCo's engineer with insufficient time to

check all the documents. From RailCo's perspective, EngiRail did this on purpose so that their work would remain unchecked. At the same time, feeling the need to control the documents also reflects a lack of trust at RailCo.

4.1.2.2. Time period 2. The interviews at t_2 showed that the collaborative relationship was much more characterized by stewardship now, especially from EngiRail's point of view (see Fig. 3). RailCo became increasingly aware of the impact that its sister departments and higher management had on the work of EngiRail. They even took a stand against their own organisation in defence of the project's interest, as RailCo's project manager clarified: "*the past period, from March on, has been quite hectic with several tensions. Not between EngiRail and the project team of RailCo, but rather with respect to us taking a stand together against the policy of and intentions within RailCo.*" This may explain why the RailCo project manager's competences were more positively viewed by members of EngiRail than their own. Probably EngiRail's team members felt more strongly supported now. Furthermore, the project manager started referring to the two teams as "we", emphasizing the closer collaboration between the two teams.

Moreover, RailCo's project manager now increasingly involved EngiRail in the issues concerning the budget cuts. Together they found innovative solutions to mitigate the problem and get as much work done as possible. The successes that were achieved stimulated a higher level of mutual stewardship, i.e. at both sides team members focused on collective efforts and achievements rather than individual ones. This explains the increased level of trust perceived by EngiRail at t_2, and with that the decrease in perceptual distance on trust at that time. However, other departments within RailCo remained uncooperative, which explains the remaining agency orientation and perceptual distance still observed in the project.

4.1.2.3. Time period 3. The interviews at t_3 revealed that, within this period, stewardship became increasingly dominant in the collaborative relationship, whereas agency was fading away (see Fig. 4). Bonds
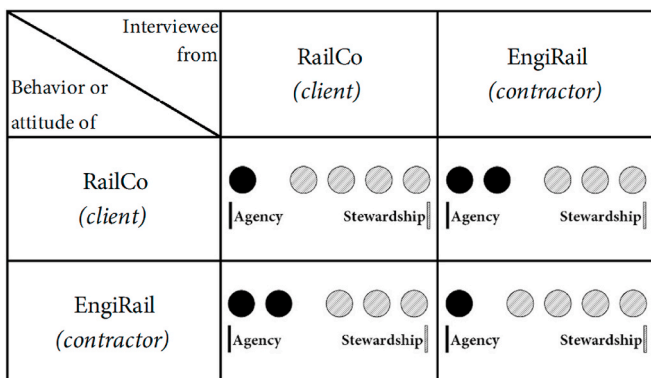

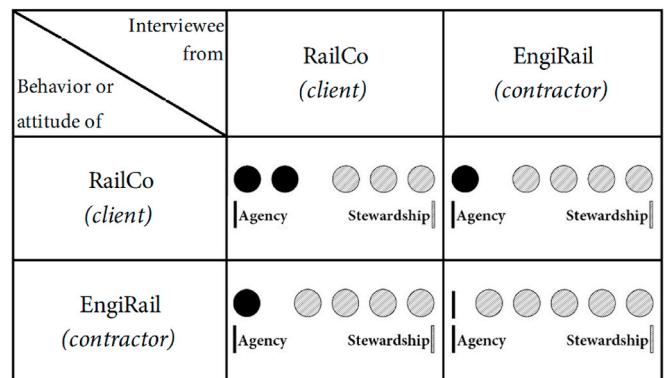**Fig. 2.** The collaborative relationship in project Alpha at t_1.

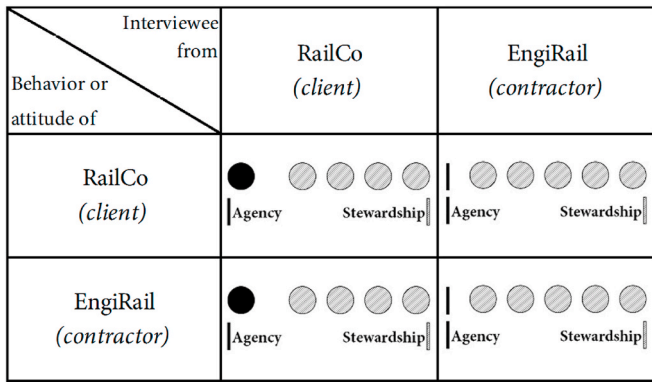**Fig. 3.** The collaborative relationship in project Alpha at t_2.

Fig. 4. The collaborative relationship in project Alpha at t_3.

between team members from RailCo and EngiRail became stronger and interviewees reported that the collaboration felt increasingly natural, as if they were colleagues. The design manager of EngiRail expressed it as "*there is a mutual trust. It has become self-evident. But you also build that. Just because you eventually know each other so well. […] The ease with which we interact, like joint forces in the project.*" Few examples of agency orientation were mentioned and in most of these cases these were minor issues and mostly had to do with other departments or higher management frustrating the project.

During this period, 'contractor involvement' was taken to the next level. RailCo shared information about future work, allowing EngiRail to dedicate the resources for the project that were most suitable on the long term. According to the design manager of EngiRail "[the project manager of RailCo] *now approaches us in advance to discuss with us the list of future work. That is something that previously was not done. Normally, the work would already have been accepted by the project manager and then it would be given to us.*" Additionally, RailCo asked EngiRail to manage a future maintenance project on their behalf. This was considered quite a unique situation portraying a considerable level of trust in EngiRail's competences on the side of RailCo. Accordingly, the PDM showed that trust increased, and that perceptual distance was reduced. In conclusion, it seems likely that the dominance of stewardship during this time period diminished the perceptual distance on trust and management competences.

4.1.3. Project outcomes

After tracking the project for over a year it was not yet finished. Still, all interviewees indicated that the performance in the project was very good. RailCo's project manager said "*I am a happy project manager. This has been one of the few projects that met the time constraints for the tender procedure* [project here refers to a subsequent maintenance project for which the tender is prepared by EngiRail]. *The planning was met and we achieved a beautiful result with the tender itself.*"

4.2. Project Beta

4.2.1. Development of perceptual distance

Within project Beta, perceptual distance was initially fairly high (see Table 4). For one thing, managers were perceived to be more competent by the members of their own team than by those of the other team. Hence, at both sides project managers were considered to lack competences that the other team expected to be present. However, over time, these perceptions became more aligned and the managers were perceived equally competent by team members from both A2B and Expert-IT. With respect to trust, perceptual distance was also rather high at the start of the project. Over the entire study representatives of Expert-IT perceived less trust than those of A2B, but particularly at t_2, members of Expert-IT perceived significantly less trust to be present in the project than the members of A2B did, resulting in high levels of perceptual distance. Lastly, A2B and Expert-IT were equally satisfied with the objectives that were set, which remained the case over time. This suggests that the objectives were perceived to be equally advantageous for both parties. Over time, this perception did not change.

4.2.2. Developments in the collaborative relationship

4.2.2.1. Time period 1. At t_1, the collaborative relationship between A2B and Expert-IT was mostly characterized by stewardship (see Fig. 5). According to representatives of A2B both parties showed a high degree of stewardship. However, interviewees of Expert-IT reported a much higher agency orientation at A2B than interviewees of A2B themselves.

Within the first time period, Expert-IT was involved in the development of plans for the future of A2B. At this stage, Expert-IT had an advisory position and A2B listened carefully to their advice, as illustrated by this quote from the internal client at A2B: "*I asked Expert-IT to give us their advice based upon their experience with us and with other parties and based upon the things they see in the market.* [The advice is on] *how we, as A2B, also in the future can be the partner-by-choice* [of our customers] *and can support their service delivery. So, they have written an advisory*
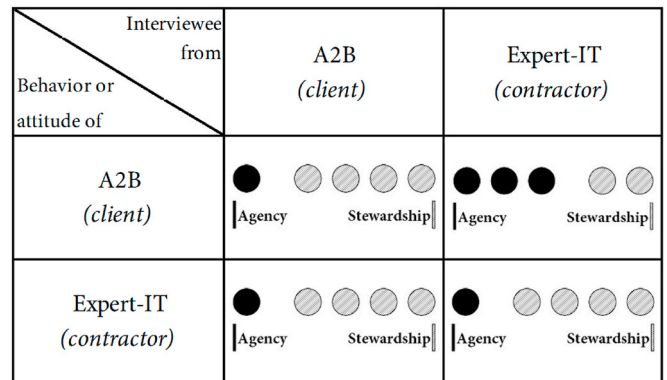

Fig. 5. The collaborative relationship in project Beta at t_1.

Table 4
Perceptual distance values in project Beta, based on mean item scores at the client and contractor side, and compared with criterium perceptual distance values (Mean).

	Satisfaction with project objectives			Competence project manager client			Competence project manager contractor			Trust		
	PD	$\mu_{client.}$	$\mu_{cont.}$	PD	$\mu_{client.}$	$\mu_{cont.}$	PD	$\mu_{client.}$	$\mu_{cont.}$	PD	$\mu_{client.}$	$\mu_{cont.}$
Mean	*0.26*			*0.38*			*0.35*			*0.41*		
t_1	**0.03**	5.1	5.0	**0.56**	5.2	4.2	**0.46**	4.8	5.6	**0.53**	5.7	4.6
t_2	**0.05**	4.8	4.9	**0.45**	4.9	4.2	**0.29**	5.7	5.2	**1.13**	6.0	4.4
t_3	**0.06**	3.5	3.6	**0.22**[a]	4.5[a]	4.0[a]	**0.39**	5.8	5.0	**0.52**	6.0	4.8

PD = perceptual distance, μ_{client} = average value for client, $\mu_{cont.}$ = average value for contractor.
Note. Mean item scores are based on a Likert-type scale from 1 to 7; Criterium mean perceptual distance values are based on scores found in earlier applications of the PDM (Van der Krift et al., 2020).
[a] Calculations based on values that were identified as multivariate outliers in the development of the PDM (see Van der Krift et al., 2020).

document [and based upon this document] *we made several choices."* Thus, stewardship is clearly visible in that A2B asked Expert-IT for input on long term plans and allowed Expert-IT to contribute in this process. This may also explain why perceptions of satisfaction with the project objectives are similar at A2B and Expert-IT.

However, at the same time, agency behaviour was witnessed in the project. A2B was facing high financial pressure internally, which resulted in quite some debates regarding the costs in project Beta. From the perspective of A2B, Expert-IT took little responsibility to manage costs. For example, in the development of part of the online platform many more hours were spent than expected, and A2B was only informed after the fact. According to the program manager at A2B: "[In our collaboration, the contractor] *should not be without responsibility. As a professional you have to understand the context of the client is what you have to work with."* Also, within A2B there were often doubts about the value that Expert-IT delivered to the project given the hours they billed. So, obviously, A2B and Expert-IT had differences of opinion about money-related issues. From Expert-IT's point of view, A2B was short-term oriented and barely involved them in discussions how to deal with the financial pressures. Their system architect reported: "*If you would fine-tune* [the budget] *together, on the one hand from the side of Expert-IT regarding 'who are dedicated to the job', on the other hand from the side of A2B* [regarding] *'how much can we actually spend'. Then you would prevent that after a couple of weeks of work you suddenly realize that it* [i.e. the expenses] *is going too fast. Subsequently, they just inconsiderately make some small cutbacks everywhere like: 'where can we cut?'."* Altogether, there was a lack of trust on the client's side about the contractors' invested effort, whereas at the contractor's side there was clear dissatisfaction about unsubstantiated cutbacks. Evidently, both sides focused on their own goals, without much of a collective orientation. A2B's focus on the short term and exercising control over the other party, according to the system architect at Expert-IT resulted in "*a feeling of micromanagement*".

This explains why perceptual distance was rather high in the early phase of the project, specifically regarding the competences of the project managers involved. Both sides perceived the project manager at the counterpart to lack responsibility and have a short-term focus. Also, these initial developments explain the perceptual distance and rather low score regarding the level of trust at this early project stage. These and other examples resulted in a separation between the two parties as evidenced in the interviews with references to 'us vs. them'.

4.2.2.2. Time period 2. Fig. 6 shows that at t_2 the collaborative relationship remained rather similar to the previous measurement. The collaborative relationship only changed at the side of Expert-IT which was perceived by both parties to be more oriented towards stewardship. Contrarily, there are no apparent changes in the orientation at A2B. Expert-IT is still reporting a higher orientation towards agency on the side of A2B then the team members of A2B themselves report. This may

explain why perceptual distance with regards to trust increased substantially during this period.

The issues discussed in the interviews seem quite ambivalent. On the one hand, a stewardship orientation was visible in several changes that happened in the project. For instance, a steering committee had been established for discussing difficulties like the earlier debates on budget. Moreover, it was mentioned that the team of A2B started sometimes to question the higher managerial layers within the internal organisation, as the project manager illustrated "*Thus I try to link honestly and fairly with two sides, like 'what is realistic in what Expert-IT brings up, the feedback that they provide, the analyses that they have executed.' And, also to educate our own organisation with 'sometimes the best is cheapest'."* Also, several successes were achieved in the market with the successful implementation of the IT services at the clients of A2B and new parties that were interested in the use of similar IT services.

On the other hand, however, several issues discussed in the interviews showed that the stewardship orientation was not so well-developed yet, and agency behaviour at A2B continued to be present. Namely, A2B was changing and rethinking its business model which would have a major impact on project Beta as it would affect the strategy and objectives of the project. Accordingly, the business model change would also affect the work of Expert-IT. This development took a very long time, and as a result, the direction for project Beta remained unclear. Because Expert-IT received little direction for their work, they decided to start working on overdue maintenance to the current IT systems. This backfired in further stimulating debates about costs and value, as Expert-IT's system architect indicated: "[People in A2B say] *'we do not exactly know what we want, and we also do not know how it has to work, and we also do not know exactly how we are going to earn money with it. But, by the way, why is it still not finished?'* […] *that feels in no way like a partnership, it feels more like an 'I am the client, you are the contractor and fix it quickly.'* […] *subsequently I am bombarded with: 'you are quite expensive, and you have to clarify where your added value is'. And then I think, well, if you first clarify what value you want."* Hence, a separation of the teams (client vs. contractor) and lack of involvement in this process clearly hints at the presence of an agency orientation at A2B.

Altogether, despite some efforts to change to stewardship in the project, the larger organisation of A2B did not match these efforts, thereby providing an explanation for the increasing perceptual distance regarding trust between the two parties.

4.2.2.3. Time period 3. Eventually, at t_3 the interviews show a rather different picture of the collaborative relationship in the project (see Fig. 7). At this point, from both the client and contractor perspective, the client is more agency-oriented than the contractor. Thus, A2B is clearly more aware of its own agency orientation and Expert-IT also observes slightly less agency behaviour on the side of A2B than at t_2.

The interviews emphasize several issues in which stewardship is manifested in this period. First, given that the team of A2B became
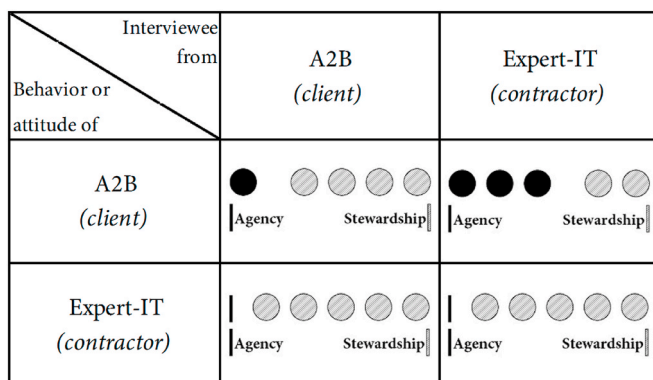

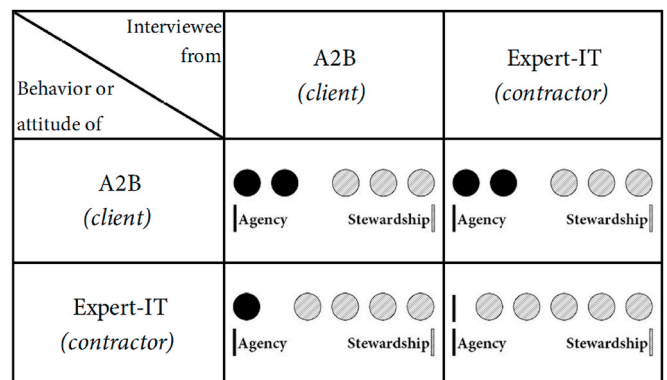**Fig. 6.** The collaborative relationship in project Beta at t_2.

Fig. 7. The collaborative relationship in project Beta at t_3.

aware of the agency orientation in their organisation they strengthened the stand they had taken against the blaming and controlling in their own organisation by questioning higher management. The teams of A2B and Expert-IT now more strongly identify with each other, understanding of each other's processes, tasks and duties better, and approach their problems and challenges collectively. As A2B's project managers stated: "*The team of A2B even says 'management, what do you want, you give a different direction each time.' In that* [i.e. making that statement] *Expert-IT is directly a part of* […] *the team.*" Consistently, the system architect at Expert-IT indicated: "*So on both sides there is more understanding for the problems that the other faces, and why his/her work is more difficult than it may look to you, as a comparative outsider.*" This shows that both sides were better able to show consideration for each other in the work they do, which is one of the ways stewardship can manifest itself. This development was supported by the fact that a strategy was decided upon allowing Expert-IT to get more involved and contribute in project Beta. According to the program manager at A2B: "*I can indicate what I need in terms of value, I can define that well on a higher level. But how exactly that value is filled in* […] *is of little interest to me. It just has to be a product with a decent quality, but they* [i.c. Expert-IT] *may decide themselves how they are going to arrange it.*"

Moreover, A2B and Expert-IT tried to take involvement to the next level. For one part of project Beta, A2B assigned a project manager who was on the payroll of Expert-IT. According to the system architect at Expert-IT this was a unique situation: "*At this moment, the project manager is somebody working at Expert-IT. But it says a lot that A2B let somebody of Expert-IT think about the planning and priorities within* [part of the overall project]. *That has never happened here, that we could think along at that level and could help to get the work done in an efficient manner.*" Hence, the collaborative relationship was increasingly built on trust and Expert-IT

was given the authority to decide based upon their expertise. Not coincidentally, at t_3, much less perceptual distance between A2B and Expert-IT is observed on all issues in the PDM.

4.2.3. Project outcomes

The project was not completed yet after it had been followed for over a year. In the final interviews that were held, interviewees at Expert-IT indicated that they had little knowledge of the project outcomes in terms of budget and planning, but that the quality of what was achieved was good. At the side of A2B, the reactions were mixed. On the one hand, the project manager indicated that the project was highly inefficient: "*in retrospective, if we would have stated everything that has been delivered the past year in a request for proposal* […] *then I think it could have been delivered in one third of the time.*" Yet, the program manager also stated that: "*We are within budget. We are exactly at what we want to achieve.*"

5. Discussion

The aim of our research was to study the development of perceptual distance in projects over time and to investigate how this related with the collaborative relationship between client and contractor. The data from the two projects that we studied showed that perceptual distance grew and shrank over time. However, the changes in perceptual distance varied for the various dimensions in the PDM. Whereas perceptual distance regarding project objectives remained rather stable over time, perceptual distance regarding competences and trust changed in both directions. In both projects, perceptual distance had decreased substantially at the last measurement point.

Next, within the two cases we observed that the development of perceptual distance corresponded with the collaborative relationship, in
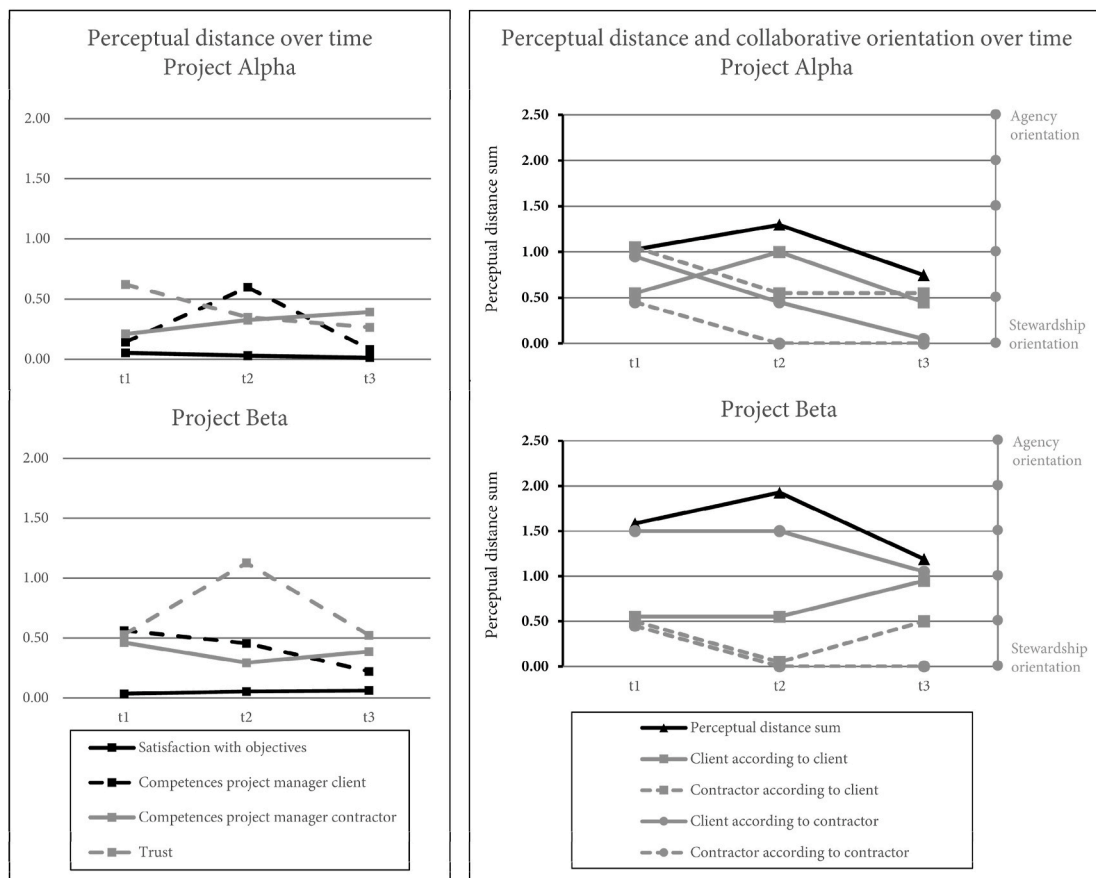

Fig. 8. The development of perceptual distance over time in both projects (left) and the overall perceptual distance compared with the collaborative orientation in both projects (right).

terms of its orientation towards agency or stewardship, especially at the side of the client (see Fig. 8). The projects studied make clear that an agency-oriented collaborative relationship is accompanied by a divergence in perceptions whereas a stewardship-oriented collaborative relationship links with the convergence in perceptions. When comparing project Alpha to project Beta, this becomes especially clear. In project Alpha, the presence of an agency orientation decreased quicker over time than in project Beta in which this process took longer. Accordingly, the quantitative data showed higher perceptual distance in project Beta than in project Alpha.

Moreover, in both projects, the awareness of agency orientation increasingly aligned over the duration of the project. In project Alpha, at t_2, the client's team members were fully aware of the agency orientation that was present in their organisation. In project Beta, the awareness within the client of its agency orientation took a while longer, until t_3. Here, we refer to the agency orientation in both projects which was manifest in other departments and higher management layers from the client organisation, resulting also in a more agency-oriented collaborative relationship within the project. A lack of clarity regarding the strategy affected both projects negatively. Subsequently, we observed that the aforementioned awareness caused the team on the client side to slowly ease away from its own organisation and take a stand against the agency orientation displayed there. Thus, both projects showed the importance of how the client team deals with agency orientation in the client organisation (Sydow and Braun, 2018). Specifically, the project manager had a crucial role in both projects to represent the interests of the contractor and with that of the overall project. Indeed, earlier research highlighted the boundary spanning role that project managers need to fulfil to support better team outcomes (Ancona & Caldwell, 1990, 1992; Marrone, 2010).

Our findings show that agency-oriented collaborative relationships coincide with an increase whereas stewardship-oriented collaborative relationships coincide with a decrease in perceptual distance. Thus, it seems reasonable to assume that the collaborative relationship and perceptual distance relate in reciprocal manner (cf. Serva et al., 2005). Hence, the data provides initial support for the conceptual framework that we presented.

5.1. Theoretical implications

The current research has several important theoretical implications. First, the findings of this research show that perceptual distance is *not* a phenomenon to study statically. Whereas perceptual distance has typically been studied cross-sectionally, the current research shows the richness of longitudinal research for gaining a better understanding of perceptual distance dynamics over time. Also, the current research shows that perceptions do not necessarily converge over the duration of a project but may also diverge, at least initially. Hence, this study highlights an often found blind spot in research, i.e. the assumption that concepts are static or evolve in a single direction over time (Lumineau and Oliveira, 2018). Our research shows that in perceptual distance research, a static approach is not recommended. Instead, researchers are advised to employ a longitudinal approach when studying collaborative relationships in general, and perceptual distance in particular.

Second, the current research shows that an agency orientation and a stewardship orientation can be present simultaneously in the collaborative relationship between client and contractor. With that we have shown that these two theories are not mutually exclusive or competing, but rather complementary and that there is value in considering both orientations when studying collaborative relationships (Toivonen and Toivonen, 2014). Currently most researchers focus on either perspective to underpin their study, most likely based upon the criticism that the other perspective receives (cf. Cuevas-Rodríguez et al., 2012). In contrast, we suggest that these theories should not be used separately but collectively to gain a better understanding of the dynamics within collaborative relationships between client and contractor, or more

generally between buyer and supplier. For this purpose, the collaborative relationship continuum that we employed may prove to be useful. Moreover, like with perceptual distance, our research highlights that collaborative relationships are not static, and that a shift in orientation can occur over the duration of a project (Davis et al., 1997). This implies that the explanatory value of either theory (i.e., agency and stewardship theory) on its own may decrease over time, and as a result, provide more room for the alternative perspective. The collaborative relationship continuum as presented in this study allows for such a dynamic approach.

Finally, our findings indicate that there is a link between the dynamics in the collaborative relationship and the dynamics in perceptual distance. In the two cases we studied, the agency end of the continuum seems associated with increases in perceptual distance, whereas the stewardship end of the continuum seems associated with decreases in perceptual distance. Considering that perceptual distance is associated with poorer project outcomes (Andersen et al., 2009; Kim et al., 2010; Oosterhuis et al., 2013; Van der Krift et al., 2020), the current study highlights the importance of the collaborative relationship in projects, and thus, the importance of the interpersonal aspect of collaborations.

5.2. Practical implications

For practitioners, this study implies that evaluating and monitoring perceptions is highly relevant in interorganisational projects. This is especially true for earlier phases in projects that are based upon a tender negotiation procedure given the incongruence in goals that is likely to result from that procedure. At the same time, it should be noted that differences in perceptions may emerge at later stages too, such as when difficulties surface, circumstances change, or agreements need to be revisited for some other reason. Our advice to practitioners is therefore to assess perceptual distance at regular intervals, also in later project stages, to make sure that the consequences of changes in the project or in the conditions under which it is performed are uniformly understood.

Furthermore, clients should be aware of conflicting interests within their own organisation and the importance of the project manager in giving a response to these conflicting interests. In the projects we studied, the response was that the project manager eventually took a stand against these conflicting interests, thereby representing the interest of the project and that of the other party. This finding corresponds with earlier research that has highlighted the project manager's role in communication at multiple levels (Stevenson and Starkweather, 2010).

Lastly, the findings of this study suggest that a stewardship orientation is necessary in interorganisational collaborations. Given that this orientation resides in the individuals within the project, organisations should be aware of the impact of their selection of human resources and the composition of their team. In one of the two projects this was done through psychological assessments as a selection criterion in the tender.

5.3. Strengths and limitations

Our study has several strengths and limitations. An important strength is that we selected cases from different industries to enhance the generalizability of results. Moreover, we used multiple methods in our approach to deepen our knowledge and understanding of the cases (Bryman, 2007; Kelle, 2006). On the one hand, qualitative data was found suitable to gather knowledge about the collaborative relationship in the project. On the other hand, the use of the quantitative PDM allowed us to assess the perceptual distance between client and contractor. Moreover, the longitudinal case study approach provided us with much information on the dynamics in the projects, on the collaborative relationship within each project, but also on the influential role of the context and stakeholders in both projects (Langley, 1999, 2007). Having multiple informants on both sides allowed us to determine the meaning of the quantitative patterns established with the PDM (Jick, 1979).

One important limitation of our research is that both projects related to consultancy services and were based upon expertise that is brought in by the contractor. This may have reinforced a stewardship orientation between the parties. Nevertheless, an agency orientation was still present at the start of the projects and with that perceptual distance. Therefore, these cases indicate that certainly in knowledge intensive projects, consistent evaluating and monitoring of perceptual distance is relevant.

Although the use of mixed methods strengthens the validity of our research, it also complicated the analyses of the various concepts studied. Specifically, to link perceptual distance with collaborative relationships, we chose to translate the qualitative data in more quantitative figures. We are aware that the counting of fragments may oversimplify the qualitative data. However, these figures did provide a useful indication for comparing perceptual distance with the collaborative relationship in both projects. To avoid a feigned accuracy, the collaborative relationship was presented on a five-point continuum. Moreover, we maintained the narrative in our analysis to support the quantification.

The longitudinal approach of our research is a strength but also implies a vulnerability to self-initiated influences on the outcomes. We have confidence in the reliability and validity of our research given the many measures we took to ensure validity and reliability. Nevertheless, our longitudinal research design may have been impaired by the fact that, although we followed the projects for a year, we finished observations before they were completed. Also, participants changed considerably across the measurement points, especially in project Beta. However, the participant changes were related to changes in roles and positions within the project team and, hence, represented actual developments that took place in the projects, thereby contributing to ecological validity. Moreover, relating the current findings to final project accomplishments was beyond the scope of the current research, and hence remains a future research need. The same goes for establishing causality between the developments in the collaborative relationship and those in perceptual distance. Whereas causality requires the change in both variables to occur sequentially, in our study the change occurred in parallel. This may, however, also indicate that both variables influence one another in a reciprocal manner as suggested by our conceptual model. In order to clarify causal links between the concepts studied, experimental setups may be more suitable (Sekaran and Bougie, 2016).

5.4. Future research

This study provides several other interesting starting points for future research. First, we recommend future research to dive into interpersonal relationships within interorganisational collaborations. While we focused on the dynamics between client and contractor teams at large, some of our findings suggest that it could be insightful to study the impact of specific individuals within these dynamics (e.g., those with a very central role, such as project managers). A stronger focus on interpersonal aspects in future studies on interorganisational collaborations may contribute to a better understanding of why certain collaborative projects fails and others succeed (Azim et al., 2010; Fisher, 2011; Pant and Baroudi, 2008).

Similarly, the current research also highlighted the relevance of the organisational context and the indisputable influence of higher management on project developments (e.g. through the strategic decisions they make that influence the project). Therefore, we recommend further investigation of the influential role of the organisational context on the project (Hällgren and Maaninen-Olsson, 2005; Söderholm, 2008), specifically the role of higher management and other departments within the client organisation.

Moreover, there are several variables that were not considered in the current research but are potentially interesting to be incorporated in future research concerning perceptual distance and collaborative relationships. Specifically, future research may consider the impact of certain mitigating or deteriorating factors impacting the likelihood and consequences of perceptual distance for the collaborative relationship and project outcomes. For example, prior research indicates that congruence of partners cultures and organisational routines will facilitate the emergence of relational mechanisms (Lavie et al., 2012), whereas an inability or unwillingness to acknowledge and accept differences in partner expectations regarding their joint action inhibits partnership interoperability and performance (DeCampos, 2014). Moreover, our current findings suggest that stewardship orientation is particularly important in this respect. Specifically, parties are more likely to understand each other's expectations regarding the joint project when their relationship is based on open communication, mutual consideration, and trust.

Related to this, another interesting variable for future research is the learning that takes place in collaborative relationships. Shared learning is often connected with collective identification, commitment, and a long-term orientation (Ojha et al., 2018). As client and contractor become more familiar with one another's customs, concerns, and expectations, they may establish better working relationships, allowing them to learn from and with one another and become better at responding to contextual factors (Khan and Wisner, 2019), potentially leading to higher performance (Adler, 1990).

6. Conclusion

The collaborative relationship between client and contractor is key for a successful project. Earlier research has shown that perceptual distance influences the quality of this collaborative relationship. So far, this relationship has mostly, if not always, been studied statically. In the current study we employed a longitudinal case study approach to investigate how developments in perceptual distance relate to changes in the collaborative relationship, as presented on a continuum characterized by an agency orientation on the one end and a stewardship orientation on the other. We found that increases in agency orientation were associated with increases in perceptual distance, whereas increases in stewardship orientation were associated with decreases in perceptual distance. Based upon these findings, we conclude that project success will likely benefit when perceptual distance is regularly monitored in projects, and parties try to avoid or close perceptual gaps by attending to the collaborative orientation they display towards one another.

Author statement

The manuscript that we submit is the original work of the authors. The manuscript has not been published, neither is it under consideration for publication in any other journal. An initial version of this manuscript was submitted to be presented as a competitive paper during the IPSERA 2020 Conference at Knoxville.

Declaration of competing interest

Regarding this manuscript, no conflicts of interest are present. There are no financial or personal interests that could affect or have affected our objectivity.

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