The strength of reciprocity:

Exploring horizontal psychological contracts in work groups

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Abstract

The purpose of this thesis is to develop a horizontal psychological contract (HPC) perspective that can help inform coworker relationships in organizations and work groups. Employees spend more time with other coworkers than with anyone else at work. However, coworker relationships have received much less attention in the literature than the hierarchical relationship between an employer and an employee.

This study builds on a traditional psychological contract perspective by introducing an HPC perspective between group members. The study consists of three articles (one review study and two empirical studies) along with an overview that integrates the articles. The aims of the three articles were to (1) review the current psychological contract literature, address key challenges, and propose a process model as a way to advance the research agenda; (2) explore contract-like agreements between group members, identify the content and features of HPCs in groups, and examine the linkages between HPCs and group cooperation and coordination; and (3) identify the HPC content between group members, explore HPC breach and fulfillment perceptions between group members, and examine how such perceptions are tied to HPC content and how HPCs influence cooperation, commitment, viability, and performance in groups.

The findings from article 1 (review) suggest that researchers should approach the psychological contract by considering new ways of defining the contracting parties, treat the psychological contract as a process, and challenge the taken-for-granted notion that psychological contract breach is always negatively related to work-related outcomes. The findings from article 2 (case study 1), which consists of data from 26 participants in four groups, show that group members exhibit HPC-like agreements along the dimensions of obligations, exchanges, and expectations. Furthermore, the HPCs are *task oriented*, *relationally oriented*, or both. The data also suggest that group HPCs are either *tight* or *loose*. These two main types vary along several dimensions and influence group cooperation and coordination. *Tight* HPCs involve a high level of cooperation, a low need for leadership coordination, and group loyalty, while *loose* HPCs are associated with a low level of cooperation, a high need for leadership coordination, and organization loyalty. The findings from article 3 (case study 2), which consists of interview data from 24 participants in 12 groups, demonstrate that HPCs are either task oriented or both task oriented and relational

oriented. The findings also show that task-oriented HPCs are typically more often breached than relational-oriented HPCs. Finally, the findings indicate that members in groups with relational-oriented (vs. task-oriented) and fulfilled (vs. breached) contracts are more likely to have good cooperation, high commitment, high team viability, and, to some extent, high performance.

These studies are among the first to provide empirical evidence in support of an HPC perspective. They also show that new insights into group functioning can be gleaned by applying an HPC perspective. Implications for theory and practice are discussed, and avenues for future research are presented.

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1 Introduction

"A team is more than a collection of people. It is a process of give and take"
—Glacel and Robert

Employees spend more time with other coworkers than with anyone else at work. Because organizations are undergoing shifts toward more decentralization, team organization, and employee involvement (Allen & Hecht, 2004; Flynn, 2003), understanding coworker relationships is likely to become increasingly important. Despite this, coworker relationships have received much less attention in the literature than the hierarchical relationship between an employer and an employee (Sias, 2009).

One of the most common areas for interaction between coworkers is work groups/teams. In the team literature, researchers have long been interested in understanding how teams become effective and how teams' potential can best be employed. For example, team composition (e.g. personality, competencies, diversity), team processes (e.g. coordination, motivation, conflict), and emergent states (e.g. cohesion, climate, trust) have all been linked to team performance (Mathieu, Maynard, Rapp, & Gilson, 2008). Because interaction is at the core of teams (M. A. Marks, Mathieu, & Zaccaro, 2001), theories that explain the motivation behind team member interaction are vital for understanding team performance. However, few theories in the team literature address why and how coworker relationships develop in teams. Other literature—including *team member exchange (TMX) research*, which emphasizes relationships between group members; *social network research*, which examines relationships among individuals, groups, and organizations; and *peer relationship research*, which focuses on coworker relationships in organizations—all address the interactions between coworkers or team members but fail to consider what happens when the exchanges are imbalanced or breached.

However, one theory that addresses imbalance and breach between individuals is *psychological contract theory.* Psychological contract theory views relationships as consisting of informal contract-like agreements (anticipated exchanges) and considers what happens when obligations and anticipated exchanges between the contracting parties are breached

(Conway & Briner, 2009; Coyle-Shapiro & Conway, 2004). The psychological contract builds on a fundamental element of human behavior—namely, the norm of reciprocity—which dictates that people treat others as they have been treated. Although the theory has been applied primarily to the vertical relationship between an employer and an employee, the definition of the psychological contract—*"an individual's belief regarding the terms and conditions of a reciprocal exchange agreement between that focal person and another party"* (Rousseau, 1989, p. 123)—suggests that it can be applied to horizontal relationships as well. Thus, the overall objective of this dissertation is to explore a horizontal psychological contract (HPC) perspective and to probe if and how the HPC approach can explain the development and functioning of relationships between coworkers and group members.

The overarching purpose of this dissertation is to develop an HPC approach between group members, which provides input to knowledge about how work groups function. In particular, the empirical foundation of the dissertation is work groups, which, by definition, consist of group members working interdependently to reach a common goal (Thompson, 2008). To understand how and why relationships between group members develop, I suggest that psychological contract theory, which has successfully helped expand knowledge on employment relationship, can be applied to the knowledge development of group functioning. In general, the *psychological contract* has been used to explain employee behavior in two ways: (1) by exploring how and what employees reciprocate when perceiving themselves as under an obligation and (2) by considering employees' reactions when they perceive such obligations as being broken (Conway & Briner, 2009). Because the psychological contract has predominately been applied to the relationship between an employer and an employee, one of the purposes of this dissertation is to broaden psychological contract theory to include a horizontal perspective as well.

Thus, the objectives of this dissertation are twofold. First, I broaden the traditional vertical perspective of psychological contract theory by developing a conceptual understanding of the HPC perspective. This perspective is then applied empirically in two organizational contexts in which I explore whether group members develop contract-like agreements with each other and also what such contract-like agreements entail. Second, I apply the HPC perspective to understand group functioning, in particular, the relationship between HPCs and cooperation and coordination, commitment, viability, and performance in work groups. Therefore, a key contribution in this dissertation is to develop new insight into how work groups function through an HPC perspective.

The dissertation consists of one conceptual and two empirical articles. The three studies are integrated into this overview, which also attempts to (1) explain the theoretical background and research questions of the study; (2) discuss methodological choices, strengths, and limitations associated with the chosen approaches; (3) synthesize the findings of the separate studies; and (4) discuss theoretical, practical, and research implications of the dissertation's overall findings. Finally, the three articles are presented. Article 1—*Reviewing and extending the psychological contract literature: A process model*—presents a review of the current literature of the psychological contract, addresses key challenges, and proposes a process model to move the research agenda forward. Article 2—*Horizontal psychological contracts in groups: A case study*—broadens and explores HPCs in work groups with the purposes to develop a content and feature approach of HPCs and relate this newly developed HPC approach to the cooperation and coordination in work groups. Article 3—*The power of reciprocity: Horizontal psychological contracts and group functioning*—replicates and refines the content approach developed in article 2 and further explores the breach and fulfillment perceptions of HPCs. In addition, the relationships between HPCs and cooperation, commitment, viability, and performance in work groups are examined.

2 Theoretical background and research questions

In the following section, I present literature pertaining to the relationships between coworkers and team members and the theoretical background of the psychological contract. Next, I provide a brief review of psychological contract theory along with suggestions on how to broaden this to an HPC approach[1]. Finally, I present the research questions of the dissertation.

2.1 Team and coworker relationship literature

Many definitions of groups, teams, and other forms of collectives have been proposed over the years. Given that my focus is on work groups and that the terms "team" and "group" are often used interchangeably in the literature (Guzzo & Dickson, 1996), I rely on the following definition: "*A team is a group of people that are interdependent with respect to information,*

[1] For a more thorough presentation of the psychological contract literature see article 1.

resources and skills and who seek to combine their efforts to achieve a common goal" (Thompson, 2008, p. 4). For the purposes of the current work, the terms "team" and (work) "group" are used interchangeably. For some researchers, "team" has a stronger connotation than "group" (Katzenbach & Smith, 2005), implying that there is a stronger relationship between members of a team than members of a group. However, I argue that it is how the collection of people is defined that is important, not the specific term applied. Therefore, in this dissertation the element of *interdependence* between group members and their collaborative effort to reach a common goal is central. Working interdependently means interacting with each other. Thus, knowledge on interaction and how group members perceive that interaction with other group members are important elements for understanding group functioning.

In general, team/work group researchers have been interested in how teams perform to their full potential and beyond (Mathieu, et al., 2008), thus searching for key variables that can contribute to team effectiveness. Various topics have been examined in this respect, and the input–process–output framework introduced by McGrath (1964) has been used to examine team effectiveness. In general, the framework contends that various input factors affect how team members interact, which ultimately affects how the team performs. Researchers often use various criteria to evaluate team effectiveness, but Hackman (1987) has identified three key criteria in his model of team effectiveness: productivity, cohesion, and learning. In the following paragraphs, I briefly describe the most commonly studied linkages between the various input and process variables to effectiveness (output).

Overall, *inputs* describe antecedent factors that enable or constrain group members' interactions and further influence team effectiveness. The most commonly studied input factors include (1) characteristics of the individual team member, (2) team-level factors, and (3) organizational and contextual factors. First, research has examined personality and competencies as individual team member characteristics. In her meta-analysis, Bell (2007) found that with the right team composition, team performance can be enhanced. In particular, she tested the impact of personality factors, values, and abilities and found the combinations of these factors that benefited team performance. Second, the most studied team-level factors are interdependence (Langfred, 2005), leadership (Carson, Tesluk, & Marrone, 2007), team design (Stewart, 2006), virtuality (Gibson & Gibbs, 2006), and training conditions (Kirkman, Rosen, Tesluk, & Gibson, 2004). In general, these studies show that team performance is affected by the level of task interdependence, shared leadership, level of virtuality, and

training proficiency. Third, few studies have examined organizational and contextual factors compared with individual- and team-level factors (Mathieu, et al., 2008), though Gladstein (1984) was among the first to study groups in their context and found that external organizational variables influenced group effectiveness. In short, various input factors have been shown to be of crucial importance for understanding how team members interact as well as the influence on team performance and effectiveness.

During the past decade, researchers have paid more attention to mediating variables that explain why certain inputs affect team performance (Ilgen, Hollenbeck, Johnson, & Jundt, 2005). Originally, these mediating variables were referred to as process variables. However, Marks et al. (2001) suggested dividing the "process" element into two categories: *process* and *emergent states.* Team processes involve member actions and have traditionally been categorized as "taskwork" or "teamwork" (Mathieu & Rapp, 2009). Taskwork describes functions that team members must perform to obtain the goal of the team, and teamwork refers to the interactions between team members. Many process variables have been examined in relation to team performance, and thus I do not go into any detail about these studies but rather present the findings of a recent meta-analysis that showed that various types of team processes (i.e. mission analysis, goal specification, team monitoring, coordination, motivation building, conflict management, and affect management) are positively related to team performance and member satisfaction (Lepine, Piccolo, Jackson, Mathieu, & Saul, 2008). Thus, team processes play a key role in team effectiveness.

Marks et al. (2001, p. 357) define emergent states as *"constructs that characterize properties of the team that are typically dynamic in nature and vary as a function of team context, input, processes, and outcomes"*. Thus, emergent states are products of team experiences and become new inputs to subsequent processes and events. Examples of emergent states that have received significant attention during the past decade include team confidence, empowerment, team climate, cohesion, trust, and collective cognition (Mathieu, et al., 2008). However, Mathieu et al. (2008) called for studies of teams that embrace concepts or frameworks that can capture the day-to-day experiences and episodes of the team, because this is lacking in the team literature.

I aim to contribute to this dearth in the literature by developing an HPC perspective, because the psychological contract has been shown to hold capacities that capture daily experiences and episodes (Conway & Briner, 2002). Therefore, I suggest that the psychological contract,

which can be characterized as an emergent state, can help inform how relationships develop in teams. Thus, team members' interactions and interdependence form the basis of developing contract-like agreements that occur through everyday interaction. In particular, perceptions of whether these contract-like agreements are fulfilled or breached can provide valuable insights into how and why relationships develop in teams.

In the following paragraphs I outline three existing perspectives that can be linked to the relationships between co-workers in organizations and teams: TMX, social network theory, and peer relationship research. TMX refers to team members' perceptions of the quality of their exchange relationships with the team or group (Ford & Seers, 2006; Seers, 1989; Seers, Petty, & Cashman, 1995), evaluated as either high- or low-quality relationships. Research has attempted to distinguish between contributions and receipts in the team (Ford & Seers, 2006). More specifically, TMX contributions refer to a member supporting other group members when they are busy, recognizing other members for their ideas, and communicating openly. TMX receipts involve acts that reciprocate these actions, such as other members supporting the member when he or she is busy, recognizing his or her ideas, and communicating openly with him or her. The TMX perspective can to some degree shed light on contract-like agreements between team members. However, the TMX approach represents a narrow focus on the exchange relationship (Shore et al., 2004) because the scope of reciprocity in TMX has been limited to three aspects of the exchange relationship: support, recognition, and communication. However, there are reasons to believe that exchanges in teams include more aspects than these three. In addition, TMX is a measure of evaluated actions, rather than anticipated future exchanges, which are important for employees' willingness to perform (Montes & Zweig, 2009). Finally, knowledge about why TMX is evaluated as either high or low in quality is limited.

Social network theorists have provided answers to how *structures* of social ties between coworkers help or hinder team effectiveness (Balkundi & Harrison, 2006). In particular, they have argued that in teams in which members have strong ties to one another (i.e. high-density teams), cooperation increases, compared with low-density teams in which team members engage in little interaction. Thus, dense configurations of ties have a positive impact on the attainment of team goals and team viability (willingness to stay together in the team). However, social network theory has offered little on "why" a team becomes a high-density or low-density team. Thus, it is important to obtain knowledge on what lies behind strong ties and high-density teams.

Peer relationship research has focused on relationships between employees who operate at the same hierarchical level (Sias, 2009) and have found that these relationships include mentoring (Kram & Isabella, 1985), information exchange (Sias, 2005), and social support (Cahill & Sias, 1997). In addition, several studies (Flynn, 2003, 2005; Flynn & Brockner, 2003) have addressed how employees exchange favors and the impact of this exchange on individual employees' productivity. Though focusing directly on exchanges, these peer relationship approaches would benefit from being broadened and included in an overarching theoretical framework that not only addresses what is being exchanged (the content) but also considers what happens to the relationship if exchanges are imbalanced or unsuccessful.

In summary, the theories of TMX, social network, and peer relationships have provided important insights into the development of relationships between team members but have failed to consider the impact of anticipated exchanges, what happens if the relationship is imbalanced, and the underlying mechanisms explaining why and how coworkers develop relationships with each other. In this dissertation, I suggest that the HPC approach provides insights into the underlying psychological mechanism for social network theory and TMX research and also that peer relationship variables should be incorporated into an overarching HPC approach.

2.2 Theoretical background of psychological contract theory

The origins of psychological contract theory can be traced back to the exchange models presented by theorists such as Barnard (1938), March and Simon (1958), and Blau (1964). Barnard (1938) examined organizations as systems of cooperation of human activity and claimed that to encourage cooperation among subordinates, executives needed to focus on providing them with inducements that were both intangible and tangible. March and Simon (1958), in their review of organization literature, followed up by introducing the concept of *organization equilibrium*, which refers to the perceived balance between contributions from the employees and inducement offered from the organization; when in balance, the employees continue to participate. Likewise, social exchange theory is based on the assumption that people feel obligated to reciprocate if they are given a tangible or an intangible benefit (Blau, 1964). Social exchange theory builds on the norm of reciprocity, which, according to Gouldner (1960), is one of the most basic elements of human behavior.

Several theorists in social exchange theory, including Gouldner (1960), Blau (1964), and Homans (1958), emphasized exchanges between group members. For example, Homans (1958, p. 606) suggested that researchers should return to one of the oldest theories of social behavior when carrying out small group research—that is, social behavior as exchange—and described the propositions of such a theory as follows:

> *Social behavior is an exchange of goods, material goods but also non-material ones, such as symbols of approval and prestige. Persons that give much to others try to get much from them, and persons that get much from others are under pressure to give much to them. This process of influence tends to work out at equilibrium to a balance in the exchanges*.

Thus, Homans characterized a theory of social exchanges as trying to balance the exchanges and achieve equilibrium. Nevertheless, in the continued work in social exchange theory, it was the employment relationship between the employer and the employees that obtained the primary focus. Social exchange theory focuses on the inducements provided in the employment relationship but fails to consider the employees' expectations for future organizational outcomes, which is central to psychological contract theory (Coyle-Shapiro, 2002). The work in social exchange theory shares some common elements with psychological contract theory but is also distinct in other respects (Coyle-Shapiro & Parzefall, 2008). First, both theories view tangible and intangible resources as being part of an exchange relationship, governed by the norm of reciprocity. Second, the theories assert that both parties bring to the exchange relationship a set of expectations/obligations that they will provide in return for what is received. However, the distinction between social exchange theory and psychological contract theory pertains to the attention given to the other party to the exchange (e.g. the organization or employer). The employer side has received more explicit attention by psychological contract researchers than social exchange researchers. In addition, the psychological contract involves anticipated future exchanges, which have received less attention in social exchange research (Coyle-Shapiro & Parzefall, 2008). Considering the increased focus on team organization and decentralization in which horizontal relationships have become highly salient, I argue that researchers should return to the original horizontal focus of social exchange theory.

2.3 Psychological contract theory

Although research on the psychological contract has increased rapidly during the past few years, the concept was introduced more than 50 years ago (Argyris, 1960; Levinson, Price, Munden, & Solley, 1962). The first 30 years of research on the psychological contract was characterized by relatively few contributors and with no consensus on how to define a psychological contract. However, there was general agreement that expectations were central to the psychological contract. Levinson et al. (1962, pp. 21-22) devoted a whole book on the subject and defined it as follows:

> *A series of mutual expectations of which the parties to the relationship may not themselves be even dimly aware but which nonetheless govern their relationship to each other…. The psychological or unwritten contract is a product of mutual expectations. These have two characteristics: (a) They are largely implicit and unspoken, and (b) they frequently antedate the relationship of person and company.*

Thus, expectations were argued to be at the core of the employment relationship; they were most likely implicit and were suggested to regulate the employment relationship. Schein (1980) further suggested that the parties to the contract formed their expectations from inner needs, past experience, and traditions and norms.

The reason reviews of the psychological contract literature (see e.g. Conway & Briner, 2005, 2009; Roehling, 1997) divide the literature of psychological contract research into two periods is due to the pioneering work of Rousseau (1989), who redefined the psychological contract to include a more contractual focus, relying on promises as being central to psychological contract beliefs. Rousseau also introduced the element of violation as a mechanism that links the psychological contract to work-related outcomes. This way of defining the psychological contract has been adopted by most researchers when examining various aspects of the psychological contract.

In general, researchers have examined how psychological contracts are formed, their content, and their consequences. In particular, research on the psychological contract has predominately focused on the impact of psychological contract breach on work-related outcomes. Findings show that psychological contract breach is negatively related to job satisfaction, commitment, trust, organizational citizenship behavior, and organizational performance and positively related to turnover intention, deviant behavior, and actual turnover (Bal, De Lange, Jansen, & Van der Velde, 2008; Cantisano, Dominguez, & Depolo, 2008;

Conway & Briner, 2005; Zhao, Wayne, Glibkowski, & Bravo, 2007). Recently, research examining the mediators and moderators of the relationship between psychological contract breach and outcome variables has escalated, contributing to expanding knowledge of the impact of psychological contract breach (see e.g. Bordia, Restubog, & Tang, 2008; Cantisano, Dominguez, & Garcia, 2007; Jensen, Opland, & Ryan, 2010; Orvis, Dudley, & Cortina, 2008).

In contrast, studies that have addressed the formation of the psychological contract are fewer but have provided well-founded knowledge of which antecedents pertain to the psychological contract. In general, researchers have found that both individual (e.g. personality, exchange orientation, previous experience) and situation (e.g. organizational culture, performance review, recruitment) factors are vital for how psychological contracts are formed (Bal & Kooij, 2011; De Vos, 2005; De Vos, De Stobbeleir, & Meganck, 2009; Kim & Choi, 2010; Richard, McMillan-Capehart, Bhuian, & Taylor, 2009).

Finally, the content of the psychological contract has received modest attention, compared with psychological contract breach studies. Instead, the psychological contract content, as introduced by Rousseau (1990) as incorporating transactional and relational contracts, has been widely accepted and applied as a valid approach in psychological contract breach studies and studies of outcomes of particular types of psychological contracts. Recently, a few studies have suggested broadening the content approach by including an ideological type of contract (Bal & Vink, 2011; Bunderson, 2001; O'Donohue, Sheehan, & Hecker, 2007). In addition, instead of examining the specific content, several researchers have focused on key features of the psychological contract, such as explicitness, scope, flexibility, and time frame (Janssens, Sels, & Van Den Brande, 2003; McInnis, Meyer, & Feldman, 2009; McLean Parks, Kidder, & Gallagher, 1998; Sels, Janssens, & van den Brande, 2004).

Although a solid research foundation has been established and high-quality studies have been carried out, the challenges related to measuring the psychological contract deserve a brief remark. According to Conway and Briner (2005), the most common method when measuring the psychological contract is questionnaire surveys, with 90% of the studies applying such a method (of these, 70% are cross-sectional and 20% are longitudinal). This trend has not changed recently, which leaves only 10% of the studies applying a qualitative approach. The reason this is controversial is related to how the psychological contract is defined. Because the psychological contract can be viewed as an unfolding process driven by events, a cross-

sectional survey design is hardly appropriate to grasp such a phenomenon (Conway & Briner, 2009). In addition, the preoccupation with measuring the effects of breaches with a cross-sectional survey design is problematic because of the failure to examine causality. Thus, according to Conway and Briner (2009), the common approach of applying surveys is fundamentally inappropriate when examining psychological contracts.

2.4 Horizontal psychological contracts

The predominance of the vertical perspective in the psychological contract literature is undisputable; however, Levinson et al. (1962, p. 38) explored the psychological contract both between employees in groups and between employees and managers, as the following quote elucidates:

> *As we have seen, there are also, in effect, many psychological contracts of lesser proportions between people in the organization, within work groups, and between groups and the organization. These may be viewed as collateral agreements which have a bearing on the man-organization relationship*.

Nevertheless, the primary focus has been on the psychological contract between the organization and the employees. The initial definition of the psychological contract, as described by Rousseau (1989), refers to a contract between an individual and another party, thus indicating that almost any party can hold perceptions of a psychological contract. This is further described by Shore et al. (2004, p. 300), who contrast the psychological contract with other employer–employee related theories:

> *Just as individuals tend to form multiple social exchange relationships in organizations, they may develop corresponding psychological contracts pertaining to each of these exchange partners. Thus, individuals may establish psychological contracts outlining the expected reciprocation with immediate superiors, teammates, and the organization, as well as perceptions of the actual resources and support received from each of these exchange partners*.

It is therefore intriguing that the HPC approach has largely been neglected in the psychological contract literature, though a few studies have touched on this approach. First, in a conceptual study, Marks (2001) argued that psychological contracts should be investigated from a broader perspective and suggested that employees develop multiple psychological

contracts with various constituencies. She further claimed that a preferred empirical area to study such contracts is in a team setting because team members are part of one unit, which makes it possible to avoid the agency problem. Second, Seeck and Parzefall (2008) carried out a qualitative interview study in which they primarily investigated what *employee agency* entails for psychological contract theory. More specifically, they examined the role of employees in shaping the psychological contract instead of being a passive receiver of organization inducements. Employee agency is the capacity of an agent to act in the world and to be capable of exerting some degree of control over the social relationships in which he or she is involved. Seeck and Parzefall's findings indicate that employees are active parties to their psychological contract, consciously modifying and constructing it. As a spin-off result, they found that employees shape the psychological contracts not only vertically with employer representatives but also horizontally with other employees, colleagues, customers, and stakeholders involved. Third, Svensson and Wolvén (2010) conducted a cross-sectional survey design among temporary agency workers to test Marks's (2001) propositions of whether horizontal as well as vertical psychological contracts exist. The results showed that the temporary agency workers perceived approximately the same type of psychological contracts with the management and with colleagues in the client companies in which they worked. Finally, in a conceptual study, Sverdrup, Brochs-Haukedal, and Grønhaug (2010) discussed the potential of managing teams by applying both a vertical and a horizontal psychological contract perspective. However, they did not outline what HPCs entail.

2.5 Research questions

Before outlining the research questions of this dissertation, I present a brief summary of the arguments for an HPC approach, which represents the foundation for the research questions. In summary, research on the psychological contract has primarily focused on the vertical relationship between an employer and an employee, and in general, findings suggest that psychological contract breaches are related to work-related attitudes and behavior. A horizontal relationship between employees has been neglected in most psychological contract research. However, from the early studies of social exchange theory (Blau, 1964; Gouldner, 1960; Homans, 1958), early psychological contract research (Levinson et al., 1962), suggestions of psychological contract researchers (A. Marks, 2001; Seeck & Parzefall, 2008; Shore, et al., 2004; Svensson & Wolvén, 2010), examples of how employees are organized today (teamwork and decentralization), and the recent calls for new coworker relationship

theories (Sias, 2009) and emergent state team research (Mathieu, et al., 2008), a broadening of the HPC theory seems to be occurring. Thus, this dissertation's overall aim is to explore the HPC perspective (one review study and two empirical studies) with the following research questions pertaining to each of the articles.

The goals in article 1 (review) were to review the current psychological contract research and address key challenges that researchers face when studying the psychological contract. I aimed to meet these challenges by introducing a process model, which served as a research agenda for the dissertation.

In article 2 (empirical), the overall purpose was to explore the HPC approach by examining the following three research goals:

1. Explore contract-like agreements between group members.
2. Identify the content and features of HPCs in groups.
3. Examine the linkages between HPCs and group cooperation and coordination.

In article 3 (empirical), my overall aim was to further develop the HPC content approach developed in article 2 and expand knowledge on HPC breach and fulfillment perceptions between group members. The following three research goals were investigated:

1. Identify the content of HPCs between group members.
2. Explore members' perceptions of HPC breach and fulfillment and how such perceptions are related to HPC content.
3. Examine how HPCs influence cooperation, commitment, viability, and performance in groups.

3 Methodological choices

The following section presents the philosophical perspective on which this dissertation rests. In addition, it provides a discussion of the design and methodological choices, along with the quality of the methodological choices.

3.1 Research paradigm

At the core of choosing a research approach is answering questions such as (1) How is knowledge about reality obtained? and Is there an objective reality? The way researchers approach these questions guides their philosophical perspective. Positivism, which has been a preferred research paradigm in the social sciences, rests on the assumption that the external world can be accurately described and causally explained (Bisman, 2010). Conversely, a social constructionist perspective asserts that meanings of the cultural world and context are created in human social interaction (Alvesson & Sköldberg, 2009). Thus, these perspectives are at opposite ends in terms of how knowledge is obtained and how reality is viewed. My point of departure lies in between these two approaches, resting on the so-called *critical realist* approach, which asserts that there is a reality independent of knowledge of it and that research offers an opportunity to obtain more or less truthful knowledge by constructing concepts and theories that mirror this reality (Danermark, Ekström, Jakobsen, & Karlsson, 2002). The critical realist approach is situated under the umbrella of post-positivism (Bisman, 2010) and posits that it is impossible to make neutral observations of "facts" about reality. Therefore, observations are always theory laden. The methodological implication of this perspective is that *conceptualization* is one of the most central social scientific activities. Moreover, according to Danermark et al. (2002), the concepts researchers apply to describe phenomena and processes in reality are constantly being developed.

Because the critical realist approach asserts that an overall aim in social science research is to explain events and processes through description and conceptualization, the collection of rich data is essential. The overall research aim of the current project is to explore HPCs in groups, and thus a case study approach is appropriate. Case studies are central to theory building (Eisenhardt & Graebner, 2007), and one or several cases are typically investigated to generate theoretical constructs, propositions, and/or midrange theory from empirical evidence (Eisenhardt, 1989).

3.2 Research design and sampling

According to Yin (2003, p. 13) a case study *"is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident"*. Case study research contains both single- and multiple-case studies and can be based on any mix of quantitative and qualitative evidence. An essential feature of the case study approach is the emphasis on collecting rich empirical data, often accompanied by a mixed method design. When designing a case study, the goal is to create a logical sequence that connects the empirical data with the study's research question and, ultimately, with its conclusions (Yin, 2003).

The following elements guided the process of designing the current study. First, the overall research aim of the dissertation is to explore an HPC perspective. According to Yin (2003), the case study approach is appropriate for exploratory purposes, which means that the current study can benefit from being designed as a case study. Data were collected by interviewing group members who belonged to particular groups; thus, the group was the primary unit of analysis. However, the psychological contract is an individual-level phenomenon, which means that it is difficult to measure the psychological contract at the group level. Therefore, the psychological contract was explored by interviewing individual group members, with the purpose of identifying the types of contract-like agreements that existed between members. Furthermore, the HPCs were compared across groups, and thus there was a mix of individual- and group-level analyses.

This dissertation contains two separate case studies, which together form a multiple-case study approach. In addition, the various groups in the two cases were compared with each other. Article 2 is based on a case study of four groups in a media organization (the media case), and article 3 consists of a case study of 12 joint operations in the farming industry (the farming case). The media organization was selected because a team structure was recently implemented, with the objective of increasing knowledge sharing and cooperation among journalists. Thus, a change from more vertical to horizontal lines of communications was encouraged. This structural change formed the basis of investigating whether any developments in HPCs occurred. The farming industry was selected because of its rare organizational form. The joint operations consisted of two or more farmers, which had decided to form a group that functioned as an organization. Because the farmers were not part of a larger organization, the setting made it possible to study the HPCs without the

interference of vertical psychological contracts. The joint operations thus represented a pure form of organizational groups.

In both the media and farming cases, groups were selected on the basis of a sampling technique referred to as "polar types", in which the researcher samples extremes (e.g. very low- or very high-performing cases) to observe contrasting patterns in the data (Eisenhardt & Graebner, 2007). Thus, the cases were selected because they were particularly suitable for illuminating and extending relationships and logic among constructs. This has been emphasized as an appropriate technique when little is known about the phenomenon in question (Meredith, 1998).

The media case was used to develop a framework for HPCs, which was then replicated in the farming case. The media case consisted of groups varying in size from six to 23 group members, and the farming case was selected because the groups were all quite similar in size, ranging from two to five members.

3.3 Data collection methods

To obtain rich data, which enables exploration of HPC content, a qualitative approach to data collection was applied. A qualitative research approach provides in-depth understanding of the phenomenon of inquiry and helps gain answers to "why" and "how" questions, a major strength of this approach. Nevertheless, gathering rich data about a specific set of cases challenges the generalizability of the results to other settings (McGrath, 1981). However, generalizing to a predefined population is rarely the goal of case studies (Eisenhardt, 1989); rather, case studies strive to generalize to theories (Eisenhardt & Graebner, 2007).

In the media case, data were collected by means of in-depth, semi-structured interviews, supplemented with key informant data, non-participant observation, and document reviews. Overall, 22 group members and four group leaders were interviewed, some of whom were interviewed two or three times, for a total of 39 interviews. The initial interviews lasted approximately one hour, though the follow-up interviews were shorter in duration. The interviews were based on an interview guide, which included questions about group members' perceptions of expectations, obligations, and exchanges with other group members. In addition, the group members' perceptions of cooperation, coordination, and group functioning were examined. All four groups were observed during regular meetings as well as during their

workday. One key informant representing the management was interviewed several times to provide background data and input on how the groups functioned overall. During the observations, field notes were kept, and impressions of cooperation and atmosphere, among other things, were recorded. The media organization provided different types of documents for analysis, such as background data of the implemented change initiative; surveys, which measured the groups' functioning; and group contracts, which the management encouraged the groups to write when implementing the change initiative.

In the farming case, in-depth, semi-structured interviews were conducted with group members from 12 joint operations (24 farmers in total). In addition, the researchers toured the farming grounds to gather impressions of how the joint operations were organized. The interviews lasted between one and two hours. As with the media case, an interview guide was prepared and applied. The HPCs were more indirectly measured in the farming case, by asking questions about group functioning and encouraging the farmers to tell stories about cooperation incidents and other group activities that had functioned both well and not so well. This process enabled the researchers to uncover critical incidents that could explain how the groups functioned and also to obtain access to contract-like perceptions. Two or more researchers conducted the interviews together, so that impressions and reflections could be immediately discussed. On completion of the interviews, the general results were presented to representatives from the farming industry (advisers, consultants, and managers), enabling further verification and interpretations of the data.

3.4 Data analysis

Interviews from both case studies were transcribed verbatim and plotted into the software analysis program Atlas.ti. Two interviews from the farming case were not transcribed verbatim because of technical problems with the recorder. Instead, the interviews were hand written and later transcribed for computer use and included in the analysis. Both case studies underwent the same type of data analysis process, following the within-case and cross-case analysis approach (Miles & Huberman, 1994). That is, in the within-case analysis approach, the purpose is to understand each case. Although this dissertation consists of two case studies, it is possible to find cases within the case. The various groups that were the focal unit of analysis were therefore treated as individual cases. Each group (four in the first study and 12 in the second study) was searched for perceptions of contract-like agreements. HPCs were

operationalized as group members' perceptions of expectations of, obligations to, and exchanges with other group members. I also searched the data for various statements about or evidence of group functioning. This process followed a content analysis approach in which the main objective was to apply codes to the data to generate categories that fit the content of the data (Ryan & Bernard, 2000). Thus, the data were coded by first applying some rough categories that indicated contract-like agreements (HPCs). Next, when the rough categories were established, they were further fine-tuned with the purpose of establishing categories that clarified the HPC content across the various groups[2].

A cross-case analysis looks across the various cases (here, groups) to identify common themes or aspects that are shared between the participants. Furthermore, patterns that can describe variations of the accounts are also of importance in a cross-case analysis (Barker, Pistrang, & Elliott, 2002). The cross-case analysis was carried out in two steps. The first step involved conceptualizing HPC perceptions across groups as well as recognizing various elements of group functioning. The second step involved linking HPC perceptions with group functioning across the various groups.

One of the objectives of article 3 was to replicate and refine the HPC content framework developed in article 2, and thus the coding of the interviews from the media case and the farming case were carried out in different periods. This was to ensure that the codes established in the media case were not enforced on the data set in the farming case. Rather, the two data sets were coded separately and later compared by establishing an HPC content approach based on the data set from the media case. The HPC content approach was based on dimensions found in traditional psychological contract theory and further adapted to fit the data in the two case studies. Thus, two main categories labeled task- and relational-oriented HPCs emerged through this analysis. These two dimensions were further composed of four themes each. When the data of the farming case were analyzed, the coded data were compared with the two categories and eight themes developed from the media case and further refined.

In addition, the data of the media case were analyzed in relation to HPC features—namely, the features of scope, explicitness, flexibility, strength, and breach handling. Together, the analyses of the features and content were used to develop various types of HPCs. That is, a tight and loose type of HPC was applied to describe differences in HPCs within and across the

[2] A more thorough explanation of the coding process appears in article 2 for the media case and in article 3 for the farming case.

groups. Furthermore, the data of the farming case were analyzed with respect to breach and fulfillment perceptions.

In the second step of the analysis, the goal was to link the HPCs recognized for each of the groups to various elements pertaining to group functioning—that is, group cooperation, coordination, commitment, viability, and performance. This represented a cross-case analysis in which the goals were to identify patterns that linked various types of HPCs to various elements of group functioning, compare these patterns across cases (groups), and search for patterns and contradictions to these patterns.

3.5 Data quality

In the following section, I discuss the limitations and weaknesses associated with the chosen approaches. There is a lack of agreement about which quality criteria should be applied when evaluating results from qualitative research (Bryman, 2006). The reason for this may be due to the challenges in applying traditional criteria (e.g. reliability, validity, generalizability, replicability) that have largely been associated with quantitative research to a qualitative approach. To overcome the methodological challenges, I considered the scientific approach on which the research study rests, which further influenced the quality criteria applied in the evaluation of research quality. In the current study, in which a critical realist approach was exerted, the researcher's subjective interpretations are a threat to the quality of the findings. However, such an approach also means that it is the researcher's task to interpret the reality. Thus, there is a division between perceiving subjectivity as problematic in reproducing the reality, and producing knowledge and perceiving subjectivity as the primary method of attaining knowledge. The findings presented in this dissertation, therefore, should be judged in line with an interpretative and subjective knowledge approach.

According to Alvesson and Skjöldberg (1994) the researcher's individual interpretive repertoire limits the possibility of and reinforces a tendency to interpret the data in certain ways. This is also known as "biased interpretation" (Kvale, 1996) or "researcher bias" (Johnson, 1997). Thus, a researcher's subjective perceptions are a threat to the quality of the data, and in particular, the researcher's preconceptions can limit the credibility of the findings. In the current study, an influential preconception involves my conscious search for HPCs. That is, when analyzing the data I searched for HPC perceptions to confirm my initial assumptions that an HPC approach is viable. According to Alvesson (2011), the key strategy

to cope with researcher bias is *reflexivity*, which means that the researcher consciously and consistently views the subject matter from different angles, while acknowledging the uncertainty of all empirical material and knowledge claims. In short, reflexivity attempts to inspire a dynamic, flexible way of working with empirical material.

I attempted to overcome the researcher bias and, thus, to exert reflexivity by applying the following six procedures. First, when interpreting the data, I used Atlas.ti, a software program that allows for a structured and transparent coding process, such that other researchers can see which quotes were coded as HPCs. I also kept reflection notes to ensure that the patterns that emerged during the analysis phase were recorded and could be discussed with other researchers. Second, some of the informants were interviewed twice to ensure that initial impressions and conceptualizations were accurate. Third, in collecting multiple sources of data, the phenomenon in question should be analyzed from different viewpoints. Fourth, to present the data, a show-and-tell technique (Golden-Biddle & Locke, 2007) was applied. This technique enables readers of the data to make up their own minds about the data analysis and to decide whether the conceptualizations are appropriate interpretations of the data. Fifth, the procedures for exploring the phenomenon also served to overcome the researcher bias challenge. Recall that in the media case, the interviewees were explicitly asked about the exchanges, obligations, and expectations they perceived of other group members to help identify HPC perceptions, and in the farming case, critical incidents involving cooperation and group functioning served as the foundation for interpreting HPCs. Thus, by interpreting HPCs from both direct and indirect sources, a broader perspective of HPCs could be established. Sixth, in the farming case, interviews were carried out by two or more researchers, allowing for cross-checks of observations and impressions from the interviews.

In addition to evaluating the researcher bias, a type of validity referred to as theoretical validity should be addressed (Johnson, 1997). Theoretical validity means ensuring that the theoretical explanation developed from a research study fits the data and therefore is credible and defensible. A strategy for promoting theoretical validity is extended fieldwork (Johnson, 1997), in which the researcher spends a sufficient amount of time studying the participants and the relationships under investigation. In the media case, a large amount of time was spent with the participants in both formal settings and more informal settings. In addition, some participants were interviewed several times. As mentioned previously, one key informant was interviewed several times to provide information about recent developments in the groups and in the organization in general. This allowed me to constantly evaluate the patterns that

emerged in the data-analyzing process. Furthermore, the farming case served as a replication study, such that the patterns that emerged in the media case were further tested and refined in the farming data. In addition, the results from the farming case were presented to the representatives of the farming industry (advisers, consultants, managers) so that they could comment on interpretations and patterns. In this way, the theoretical validity was addressed and improved.

Furthermore, with regard to the generalizability of the results, as mentioned previously, the goal of a case study is seldom to generalize results to a predefined population. Rather, the goal is to provide insight into a phenomenon in a particular setting and/or to generate theory. This was also the overall goal of the dissertation. However, the generated theory may be tested and further refined in studies in which the requirements of generalization can be met. In this dissertation, I applied replication logic, which Yin (2003) claims helps generalize from qualitative research. This is similar to replication logic, which experimental researchers commonly use when generalizing beyond the participants in their studies, even when they do not have randomized samples (Yin, 2003). Thus, according to replication logic, the more times a research finding is proved to be true with different sets of participants, the more confidence researchers can place in the finding and the more the finding can be generalized to people beyond the participants of the study (Cook & Campbell, 1979). In the current study, the findings and content framework developed in article 2 were replicated and refined in article 3. The content framework was applicable to both cases and also to the groups in each case. Although the two cases represent quite different research settings (media organization and farming industry), the results of the replication study indicate that the findings can be applied more broadly.

To conclude the data quality section, a few comments should be made about how I attained reliability. First, I ensured reliability by conducting thorough audits of research processes and findings. I kept a research diary to comment on the analysis and findings as they progressed. Second, observations were recorded in field notes, and interviews were mainly transcribed verbatim. During the coding process, I kept a coding manual and applied the memo function in Atlas.ti to comment on emerging patterns. Finally, I discussed the coding and findings with other researchers.

4 Presentation of articles

This section presents the three articles, with emphasis on summarizing the findings in each article. As I asserted in the introduction, this research study focused thematically on psychological contracts between group members with the overall aim to explore HPCs in work groups. The three articles are independent but related, and various aspects of the overall research aim are addressed.

4.1 Article 1: Reviewing and extending the psychological contract literature: A process model

The purpose of article 1 was to review the current psychological contract literature and identify some key challenges in the literature, as well as to propose a way to move the research agenda forward. The review of the psychological contract literature was organized into the following six categories according to Whetten's (1989) criteria for theory development: (1) definition and critique of the psychological contract, (2) content of the psychological contract, (3) antecedents of the psychological contract, (4) studies of psychological contract breach, (5) studies of psychological contract fulfillment, and (6) boundary conditions for psychological contract theory. From these, three key challenges in the literature were identified. The first challenge involved defining the contracting parties, the second involved studying the psychological contract as a process, and the third regarded the taken-for-granted notion that psychological contract breach is always negatively associated with work-related outcomes. A process model of the psychological contract was introduced as an approach to meet these three challenges. The process model laid the foundation of the two empirical studies. In particular, the process model suggests that psychological contracts develop between interdependent and interacting parties, thus indicating that psychological contracts can emerge between parties at all levels (vertical and horizontal). Furthermore, the process model proposes that not all breaches have a negative impact on work-related outcomes; rather, breached psychological contracts can lead to a renegotiation of the contract, which may further improve the relationship between the contracting parties. Finally, the process model proposes that the psychological contract should be treated as an unfolding process in which events (interactions) between contracting parties form the content and reactions of the psychological contract.

4.2 Article 2: Horizontal psychological contracts in groups: A case study

The goals of article 2 were to empirically explore contract-like agreements between group members, identify the content and features of such contracts, and examine the linkages between HPCs and group cooperation and coordination, thus following up on the finding in article 1 that psychological contracts develop horizontally, between employees as well. Data from a case study of four groups were collected and analyzed to examine these questions. In total, 22 group members and four group leaders were interviewed and observed, and data were analyzed and compared through the so-called within-case and cross-case analysis approach. The findings suggest that group members in the four groups perceived HPC agreements along the dimensions of expectations, obligations, and exchanges. In addition, the findings showed that the HPC content could be categorized as task oriented, relational oriented, or both. Furthermore, each of the two HPC content dimensions was represented by four themes. The task-oriented HPC involved the themes of knowledge/idea sharing, work effort, feedback, and high-professional quality, and the relational-oriented HPC involved the themes of social interaction, adaptation, support, and recognition. The HPC features of scope, explicitness, flexibility, strength, and breach handling resulted in the development of two main types of HPCs: tight and loose. These types varied both within and across groups. Furthermore, these two HPC types were related to cooperation, coordination, and loyalty in different ways. Groups or constellations in groups with tight HPCs cooperated more, were less dependent on the group leader for coordination, and had higher group loyalty than the groups and constellations with loose HPCs. In addition, groups with tight HPC relationships tended to renegotiate breached contracts, thus improving the relationships between the contracting parties; in contrast, in loose HPC relationships, breached contracts more often led to violation and negative perceptions of the relationship.

4.3 Article 3: The power of reciprocity: Horizontal psychological contracts and group functioning

Article 3 followed replication logic in which the goals were to further develop the content framework developed in article 2 and to explore more thoroughly whether various types of HPC breaches existed. In addition, the HPCs were linked with group functioning across groups. The data in article 3 provided three times as many cases (groups) as in article 2, thus representing a larger base for exploring the content and state (breach vs. fulfillment) of the HPCs. The groups' sizes were also smaller and more consistent than the groups in the media

case. The findings supported the content approach developed in article 2, but with some refinements, and further showed that group members perceived more breaches related to task-oriented than relational-oriented HPCs. The two dimensions of task- and relational-oriented HPCs were refined from previous research (article 2) such that one of the themes in the task-oriented HPC was relabeled from high-professional quality to work quality, and two of the themes within the relational-oriented dimension (i.e. support and recognition) were less prevalent in the current research setting. As in article 2, the results showed that HPCs were related to group functioning. That is, groups with relational- (both task- and relational-) oriented HPCs and primarily fulfilled HPCs had higher commitment to the group, higher team viability, and better cooperation than groups with primarily breached and task-oriented HPCs. The relationship between performance and HPC content and state (breach vs. fulfillment) was more ambiguous, but the findings mildly suggested that groups with relational-oriented HPCs and primarily fulfilled HPCs have higher performance.

5 Overall contributions and implications

The main purpose of this dissertation was to explore HPCs in groups. The objective in this section is to discuss theoretical and practical implications and to consider limitations and future research directions.

5.1 Theoretical implications

From the findings outlined previously, this section illuminates how this dissertation contributes to existing knowledge on team and coworker relationships. With the how's and why's of HPCs still in the initial phase of exploration, the theoretical implications should be interpreted with caution. In the following paragraphs, I elaborate on six theoretical contributions. In short, the contributions include how coworker and team relationships develop, the definition of HPCs, the content and features of HPCs, breach perceptions of HPCs, and the relationships between HPC types and group functioning.

First, one goal of this dissertation was to contribute to knowledge about how and why coworker relationships develop in organizations and teams. Although social network theory asserts that employees develop strong and weak ties with each other, it is less clear how and why these types of ties evolve. The HPC approach developed in this dissertation suggests that

tight HPCs (broad, flexible, strong, fulfilled, and renegotiating) can explain why team members form strong ties. In contrast, loose HPCs (narrow, static, weak, breached, and violating) tend to lead to weak ties. Furthermore, peer relationship research has found that information exchange and favor exchange can provide further understanding of how and why coworker relationships develop (Flynn, 2003; Sias, 2009). The HPC approach confirms these findings but goes beyond the elements of information and favor exchange to claim that several other aspects of exchanges between coworkers (i.e. exchanges involving work quality, social interaction, feedback, recognition, adaptation, and work effort) are important. Thus, this study suggests that the HPC approach expands the peer relationship perspective and may act as an overarching theoretical framework. In addition, the findings pertaining to perceived breached and fulfilled HPCs help explain why some team members develop low-quality and others high-quality TMX relationships. In particular, it is assumed that team members who perceive low-quality TMX relationships do so because of perceptions of breached HPCs. Conversely, high-quality TMX relationships are perceived between team members with primarily fulfilled HPCs.

Second, article 1 outlines the challenges of defining the psychological contract; in particular, beliefs about obligations, promises, and expectations were discussed. Recent research has suggested that *exchanges* are important when studying the psychological contract and that promises may not be as important to understanding the psychological contract as has been previously assumed (Bankins, 2010; Montes & Zweig, 2009). Thus, on the basis of the conclusions drawn from article 1, I suggested that obligations and exchanges are vital when studying the psychological contract. I did not include promises here mainly because the Norwegian translation does not transfer well to the meaning of promises overall. Thus, to ensure that aspects of the HPC were captured in this explorative study in a Norwegian context, I examined group members' perceptions of obligations, exchanges, and expectations in terms of HPCs. Although some researchers have criticized expectations for not having a contractual focus, Roehling (2008) concludes that expectations can serve well as an indicator of the psychological contract.

Third, another goal of this dissertation was to broaden the traditional vertical perspective of the psychological contract to a horizontal perspective. Therefore, it was important to explore what HPCs entail. That is, the exploration of the content of HPCs was based on the traditional psychological contract theory, and further adapted to correspond to the relationships between employees. Thus, the dimensions of transactional and relational contracts in the psychological

contract between an employer and an employee seemed less pertinent for horizontal relationships. Rather, a task-oriented and relational-oriented contract emerged as dimensions that better suited horizontal relationships. There were similar aspects of the relational contract for both types of relationships (vertical and horizontal); however, the social interaction and adaptation themes seemed to be highly important parts of the HPC. Although the content of a transactional (vertical) and task-oriented (horizontal) psychological contract differed, the foundation of the two dimensions seemed to overlap. In particular, a transactional contract rests on the assumption of a balanced reciprocity norm; that is, the exchanges are monitored by the contracting parties (Rousseau, 1995). The results from the breach analysis in article 3 showed that the task-oriented HPCs were more often perceived as breached than the relational-oriented HPCs, indicating that task-oriented HPCs undergo a monitoring of reciprocity. In addition, the content of the HPC can vary from being primarily task-oriented to being both task-oriented and relational-oriented. The findings further indicated that relational-oriented contracts are related to task-oriented exchanges, expectations, and obligations. That is, some participants indicated the importance of having good social relationships before explicitly stating to their coworkers what they expected of them.

Fourth, various psychological contract features were examined within and across groups. Overall, the features of scope, explicitness, flexibility, and strength, which were adopted from the traditional psychological contract literature, were suitable for describing the HPCs in the media case. In addition, a feature called *breach handling* emerged from the data, a term that described whether the HPCs were leading to renegotiation or violation. That is, in some instances, a breached HPC led to a renegotiation of the contract, such that the contracting parties developed their relationship in a positive direction; in other instances, a breached HPC led to violation—that is, feelings of frustration, anger, disappointment, and so on. Thus, breach handling helps deepen understanding of HPCs and avoid the unidimensional focus on breach perceptions that has characterized breach studies in the traditional psychological contract literature (Conway & Briner, 2005, 2009). Furthermore, the way breaches are handled is important, not whether a breach has been perceived. Although this assumption is based on findings in horizontal relationships, it could also be relevant for vertical psychological contract breaches.

Fifth, the farming case further contributes to knowledge about breach perceptions by investigating whether different parts of the contract are typically breached. The findings showed that some themes within the task- and relational-oriented HPCs were more breached

and fulfilled than others. In particular, in the data set, work effort, feedback, and work quality (task-oriented HPCs) were more frequently breached, while adaptation and social interaction (relational-oriented HPCs) were more often fulfilled. These results indicate that employees are more concerned with balance and reciprocity in the task-oriented HPC, while there is less monitoring in the relational-oriented HPC. This implies that in this particular data set, the groups perceived less breaches of relational-oriented HPCs specifically because these HPCs are more task oriented. An important observation from the data showed that in groups in which both task- and relational-oriented HPCs were prevalent, the HPCs were primarily perceived as fulfilled, while the groups that primarily perceived task-oriented HPCs had more breach perceptions. This finding indicates that it is beneficial to develop both relational- and task-oriented HPCs.

Finally, the HPC content and features were analyzed both within and across groups and related to various group function variables. In article 2, the cross-case analysis resulted in two types of HPCs: tight and loose. These two types were further related to cooperation and group coordination. The tight HPC was applied to HPCs that were considered broad, flexible, strong, and renegotiating, while the loose HPC encompassed narrow, static, weak, and violating HPCs. Furthermore, the findings showed that tight HPCs pertain to higher levels of cooperation and group coordination than loose HPCs. In addition, the results suggest that group members exhibiting a tight HPC type perceived their loyalty as targeted primarily toward the group. Conversely, group members with loose HPCs were first and foremost loyal to the organization. These findings indicate that when cooperation, group coordination, and group loyalty is important, forming tight HPCs should be encouraged. Conversely, when it is important for employees to work more individually, be coordinated by a leader, and be loyal to the profession or the organization, a loose HPC type should be stimulated. Next, in article 3, HPC content (task vs. both task/relational) and HPC state (breach vs. fulfillment) were linked to cooperation, commitment, team viability, and performance. The findings suggest that groups with both relational- and task-oriented HPCs and with primarily fulfilled HPCs cooperate better, have higher commitment, and have higher team viability than groups with breached and task-oriented HPCs. However, the link between HPCs and performance was less clear. This is also the case in traditional psychological contract research, in which psychological contract breach is more strongly related to attitude outcomes than behavior outcomes (Rigotti, 2009; Zhao, et al., 2007). Nevertheless, the findings suggest that groups with both task- and relational-oriented HPCs and fulfilled HPCs have higher performance. In

summary, whether HPCs are studied by type, content, or state, there are some indications that HPCs can inform researchers about how groups function.

5.2 Practical implications

The implications for business and practice are manifold and pertain not only to how groups can be managed but also to how managers can improve coworker relationships. In the following paragraphs, I outline these implications. First, in relation to group development, a group leader should be aware that HPCs develop between group members. To enhance cooperation and coordination in groups, a group leader should promote the establishment of tight HPCs and ensure fulfillment of HPCs. Although research is lacking on how to manage psychological contracts, recent studies in the team literature have discussed how group members can form tight HPCs—for example, the task work/teamwork approach suggested by Mathieu and Rapp (2009). Taskwork involves developing common goals and strategies for achieving them, while teamwork refers to how the team works together, in particular with regard to clarifying roles and norms (Mofoss, Nederberg, Schei, & Sverdrup, 2012). To enhance teamwork, group members should develop a team contract whose purpose is to discuss how group members should work together and clarify expectations to one another (Mathieu & Rapp, 2009; Norton & Sussman, 2009). Thus, in the development of such a team contract, the group members may have the opportunity to develop tight HPCs.

Second, because the findings from this dissertation suggest that not all breaches lead to negative reactions, the group leader should encourage a renegotiation of the contract when breaches have occurred. HPCs are more likely to be renegotiated than violated when tight HPCs are developed. However, breach handling means that either the group leader or the group members must be able to renegotiate the contract and should let breaches serve as input to improve the relationship. Furthermore, the results from article 3 indicate that task-oriented HPCs—that is, work effort, feedback, and work quality—are more often perceived as breached, which provides a signal to the group leader about parts of the HPCs that deserve special attention, in both the formation and the life span of the group. Thus, these three themes in task-oriented HPCs should be discussed when forming a team contract.

To enhance coworker relationships in general, managers should promote cooperation between employees and encourage the development of both tight and relational HPCs. However, tight

HPCs may lead to loyalty toward other coworkers, which in some instances can come at the expense of organization loyalty.

5.3 Limitations

First, the primary limitation of this dissertation is researcher bias. Because I collected and analyzed data with the HPC approach in mind, I might have been prone to focus on evidence that confirmed my initial perspective. Another researcher with a different theoretical lens might have weighted the evidence and interpreted the data differently. However, I dealt with this limitation by collecting multiple sources of data, keeping a research diary, discussing findings with other researchers, and interviewing some of the respondents several times for confirmation of interpretations. The interviews were also transcribed verbatim, and all interviews and secondary data were available for repeated analysis. In addition, the two cases were approached differently when interviewing participants, such that in the media case, the respondents were asked directly about HPC perceptions, while in the farming case, HPC perceptions were gathered by eliciting stories about group functioning.

Second, the level of analysis is a limitation in the empirical studies. That is, psychological contracts were measured from individuals' perspectives, and assumptions were made about the overall perceptions of the psychological contracts in the studied groups, even though not all members were interviewed or all relationships examined. However, some data were collected by observing group members interacting in meetings and in work settings, and inconsistencies in the data did not emerge. However, this limitation should be addressed in future research.

Finally, respondent bias can limit the trustworthiness of the findings; that is, the respondents might have reported what they thought the researcher wanted to hear and might have been overly positive in more negative situations. I dealt with these situations by spending a lot of time with the participants in the media case, and by touring the grounds in the farming case, in addition to the actual interview setting. The purpose was to promote a positive atmosphere with the respondents so that they would be familiar with the researchers and to create a safe environment for honesty when reflecting on the interview questions. In addition, the respondents were ensured anonymity and confidentiality in the presentations of the results.

In summary, precautions were taken to increase validity and reliability of the study. However, there is always a risk that other researchers would come to different results and conclusions when analyzing the data.

5.4 Directions for future research

This study should be considered a first step in understanding how HPCs emerge in groups and between coworkers. Future research could pursue a multitude of avenues, six of which are discussed here.

First, the study offers insights into the content and features of HPCs but does not provide knowledge on how such contracts are formed. Although article 1 (review) suggests that interdependence and interaction are important contributors to the formation of HPCs, I did not explicitly test this in the two empirical articles. According to traditional psychological contract theory, individual and situational factors are contributors in terms of how the psychological contracts develop. Thus, examining how HPCs form would be an important avenue for future research.

Second, a major area that future research should continue to investigate is reactions to HPC breaches. Traditionally, the majority of studies in the traditional psychological contract literature have focused on the negative impact of psychological contract breach on work-related outcomes. This dissertation offers a first step toward exploring which aspects of HPCs are typically breached and also whether all breaches are negatively linked to work-related outcomes. Although the methodological choices limit the opportunities for generalizations (Pratt, 2012), future research has much to gain from exploring more thoroughly the consequences of psychological contract breaches. Furthermore, future research might probe whether breaches based on broken obligations elicit stronger reactions than breaches based on broken expectations.

Third, the tight and loose types of HPCs emerged by analyzing the content and features of the HPCs. Future research is encouraged to expand on which types of HPCs, other than tight and loose HPCs, describe the various relationships that exist between group members and coworkers outside a group structure. In addition, the link between tight and loose HPCs and group functioning variables was demonstrated by searching for underlying patterns in the data, not by performing any experiments that provide causal conclusions. As such, the direct

relationships also were not tested. This dissertation suggests that HPCs affect group functioning, but the opposite might be the case as well. Thus, future research should explore and strengthen the link between HPC types and work-related outcomes.

Fourth, future research should explore how HPCs and vertical psychological contracts are related and whether they affect each other in any way. In particular, in change processes in which employees might be skeptical of management because they are uncertain about the future, or in cases in which employees have a negative relationship with the leader, studying whether this leads to stronger horizontal relationships and, thus, tighter HPCs would be worthwhile.

Fifth, one of the theoretical implications of this dissertation is the suggestion that the HPC approach contributes to other theories of coworker relationships. Social network theory (Balkundi & Harrison, 2006), peer relationship research (Sias, 2009), and TMX research (Seers, et al., 1995) were compared with the HPC approach. However, they were not compared empirically. In general, this study suggests that HPCs serve as underlying psychological mechanisms for social network theory and TMX and function as an overarching framework for peer relationship variables. Future research should therefore pursue studies that link the HPC approach with these coworker relationship theories and explore how they are related to and distinct from one another.

Finally, I make a general request for future research in terms of the design and method approach. The review article (article 1) suggests that the psychological contract should be studied as a process of unfolding events. Thus, a longitudinal approach that collects rich data would be useful. For example, a diary study in which employees are encouraged to write down perceptions of HPCs and breaches/fulfillment of HPCs over time would provide data on the process of how psychological contracts form and develop. In addition, alternative methods and design studies that can provide rich data are encouraged.

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Article 1

Reviewing and extending the psychological contract literature: A process model

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Abstract

This article reviews the current literature on psychological contracts, addresses key challenges, and proposes a process model of the psychological contract as a way to advance the research agenda on the topic. The psychological contract literature has increased profoundly during the past decade, resulting in a multitude of rather fragmented, albeit high-quality, research studies. This study synthesizes the extensive research on psychological contracts and provides an overview of the current state of the literature. Furthermore, the study identifies three key challenges: (1) defining the *contracting parties*, (2) treating the psychological contract as a *process*, and (3) exploring the taken-for-granted notion that psychological contract breach is always negatively associated with work-related outcomes. A process model of the psychological contract is presented to address these challenges and to shed new light on the field. Theoretical, methodological, and practical implications related to adopting a process perspective on psychological contracts are discussed in the concluding sections of the article.

The notion of a psychological work contract has been introduced as a way to capture the implicit expectations and obligations between employees and their employer (Argyris, 1960; Levinson, Price, Munden, & Solley, 1962; Schein, 1980). In the past 10 years, a proliferation of publications has examined the psychological contract with respect to its antecedents, content, and outcomes. In particular, the majority of studies have focused on the relationship between psychological contract breach and various work-related outcomes (See e.g. Bal, De Lange, Jansen, & Van der Velde, 2008; Cantisano, Dominguez, & Depolo, 2008; Zhao, Wayne, Glibkowski, & Bravo, 2007). In general, the findings show that psychological contract breach is negatively related to job satisfaction, commitment, organizational citizenship behavior (OCB), and performance and positively related to turnover intention and counterproductive work behavior. Thus, the psychological contract can provide important information about employees' attitudes, feelings, and behavior at work.

A goal of research in the organizational behavior literature is often to prescribe the behavior of employees. A popular topic within this domain is the motivation literature, which asks whether employees are primarily extrinsically or intrinsically motivated. The goal is to find the perfect mix of extrinsic and intrinsic motivation. In contrast, the psychological contract, which can also be regarded as a motivational theory, considers what motivates each individual in relation to another party. Thus, the psychological contract allows individual differences to be considered, as well as how various relationships evolve.

The popularity of psychological contract research is evidenced by the rapid increase in published studies in the past decade, including critical works that have contributed with new insight into and limitations of the topic (Conway & Briner, 2005, 2009; Cullinane & Dundon, 2006; Meckler, Drake, & Levinson, 2003). However, a systematic overview of the current literature on psychological contracts is lacking. Therefore, this article attempts first to review and synthesize the current literature and, second, to identify the challenges researchers face when studying the concept. One recursive critique is the predominance of cross-sectional survey studies applied to measure a concept that most researchers agree is a dynamic and ongoing process. In addition, how the contracting parties have been defined has been criticized. The third goal of this article is to suggest how researchers can advance the field of psychological contracts. I propose a process model of the psychological contract to address some of the key challenges in the current literature.

The remainder of this article proceeds as follows: First, I present a brief introduction of psychological contract research. Second, a method section is included that describes the strategies for retrieving relevant studies for the review, together with a description of six categories applied to organize the selected studies. Third, I present a review of the current literature, together with central challenges. Finally, I present a process model along with the theoretical, methodological, and practical implications of adopting such a perspective.

Psychological contract research

The concept of a psychological contract was introduced by Argyris (1960) and further discussed in the works of Levinson and Schein (Levinson, et al., 1962; Schein, 1965, 1980). However, it was not until Rousseau (1989) examined the concept more systematically that it developed into a scientific and measurable construct. The definition often referred to in Rousseau's work is: *"A psychological contract is the individual's belief regarding the terms and conditions of a reciprocal exchange agreement between that focal person and another party"* (Rousseau, 1989, p. 123). At the core of the definition are the elements of *reciprocity* and perceptions of *mutual obligations* between the parties involved. Almost all researchers have adopted this definition. Rousseau has made an extensive contribution to the psychological contract literature both by narrowing the definition of the psychological contract and by investigating the phenomenon empirically (see e.g. Bal, Jansen, Van der Velde, de Lange, & Rousseau, 2010; Rousseau, 1995, 1996, 1998, 2001, 2003, 2004, 2011).

According to the definition of the psychological contract, an employer and an employee are engaged in a contractual relationship in which both parties feel they owe each other something. This "something" can refer to training, promotion, recognition, trust, fair pay, and a good working environment. The important part of the contract is that in exchange for good work, the employee can expect something in return (e.g. training, promotion). Thus, a psychological contract implies that there is a *reciprocal relationship* between the parties to the contract. The whole idea underlying the psychological contract theory is the notion that without the promise of a future exchange, neither party to a contract has incentives to contribute anything to the other, which may result in a termination of the relationship (Robinson & Rousseau, 1994). Thus, the psychological contract type and the state of the

psychological contract (breached or fulfilled) may have an impact on both the future relationship between the contracting parties and the attitudes and behaviors of the contracting parties.

The complex part of the reciprocal relationship is whether the employee and the employer agree on the terms of what is being exchanged. Because people tend to assume that others believe as they do, they act as though the terms of the agreement are shared, even if this is not the case (Turk & Salovey, 1985). Therefore, the relationship may be a weak form of mutuality because agreement in the psychological contract is in the eye of the beholder (Rousseau, 2011). Both researchers and practitioners use psychological contracts as an explanatory framework for the employment relationship or, more precisely, to predict and comprehend the attitudes, feelings, and behaviors of employees (see e.g. Conway & Briner, 2002a; Coyle-Shapiro & Kessler, 2000; Herriot, Manning, & Kidd, 1997; Rousseau & Tijoriwala, 1998; Tekleab & Taylor, 2003). Thus, the psychological contract literature has come a long way but is also faced with critiques regarding the definition, measurement issues, and the excessive focus of breach perceptions, to name just a few.

Method for retrieving and categorizing psychological contract research

The following retrieval strategies were used to identify relevant empirical and conceptual studies for the current review. First, the search term "psychological contract" was used to search for peer-reviewed articles in scientific journals and conference proceedings in the ISI web of knowledge and Google Scholar. Second, books and edited books were identified through library search engines. Third, reference lists of review articles, meta-analysis articles, and books were examined thoroughly. This process resulted in 348 articles, chapters, and books that contained the phenomenon of psychological contract. The studies were further evaluated according to their relevance to the current review analysis, in which the goal was to obtain a comprehensive view of the main topics that have been studied in psychological contract research. Studies then were selected to obtain extensive comprehension of how the psychological contract has been *defined* and *critiqued*, how it is *formed*, what the *content* is, and what the *outcomes* are. Thus, in the current review some studies were excluded because

of saturation effects, meaning that the overall aim was to include enough studies to unfold the main research topics found in psychological contract research.

Six categories, based on Whetten's (1989) criteria for theory development, were applied to systemize the current review. According to Whetten, six questions should be clarified when evaluating a theoretical contribution—namely, *what*, *how*, *why*, *who*, *when*, and *where.* In short, when asking the *what* question of theory development, the answer should contain the factors (variables, constructs, concepts) that should be included when explaining the phenomenon. Studies that pertain to the *what* question were organized into the following two categories: (1) definition and critique of the psychological contract and (2) content of the psychological contract. Next, the *how* question concerns the relationship between factors (variables, constructs, concepts) or what is referred to as causality. Studies that pertain to the *how* question were categorized into the following three categories: (3) antecedents of the psychological contract, (4) studies of psychological contract breach, and (5) studies of psychological contract fulfillment. The third question of *why* involves accounting for the underlying assumptions of the theory (psychological, economic, or social dynamics) and is answered in category 1 (definition and critique of the psychological contract). The final three questions of *who*, *when*, and *where* involve placing limitations on the propositions in the theoretical model and accounting for the stability and boundaries of the theory. Therefore category 6 was labeled "boundary conditions for psychological contract theory".

Figure 1 illustrates the relationships between the variables that were recognized in the current review and is inspired by the framework of Guest (2004). Guest's framework includes five conditions of the psychological contract: the context, the antecedent conditions, the content, the state, and the outcomes. The "state of the psychological contract" refers to *breaches* or *fulfillment* of the psychological contract. In the current review, the framework was extended by including moderator and mediator variables and exchanging the *context* variable with a *boundary condition* variable. Figure 1 elaborates on and discusses the six aforementioned categories.

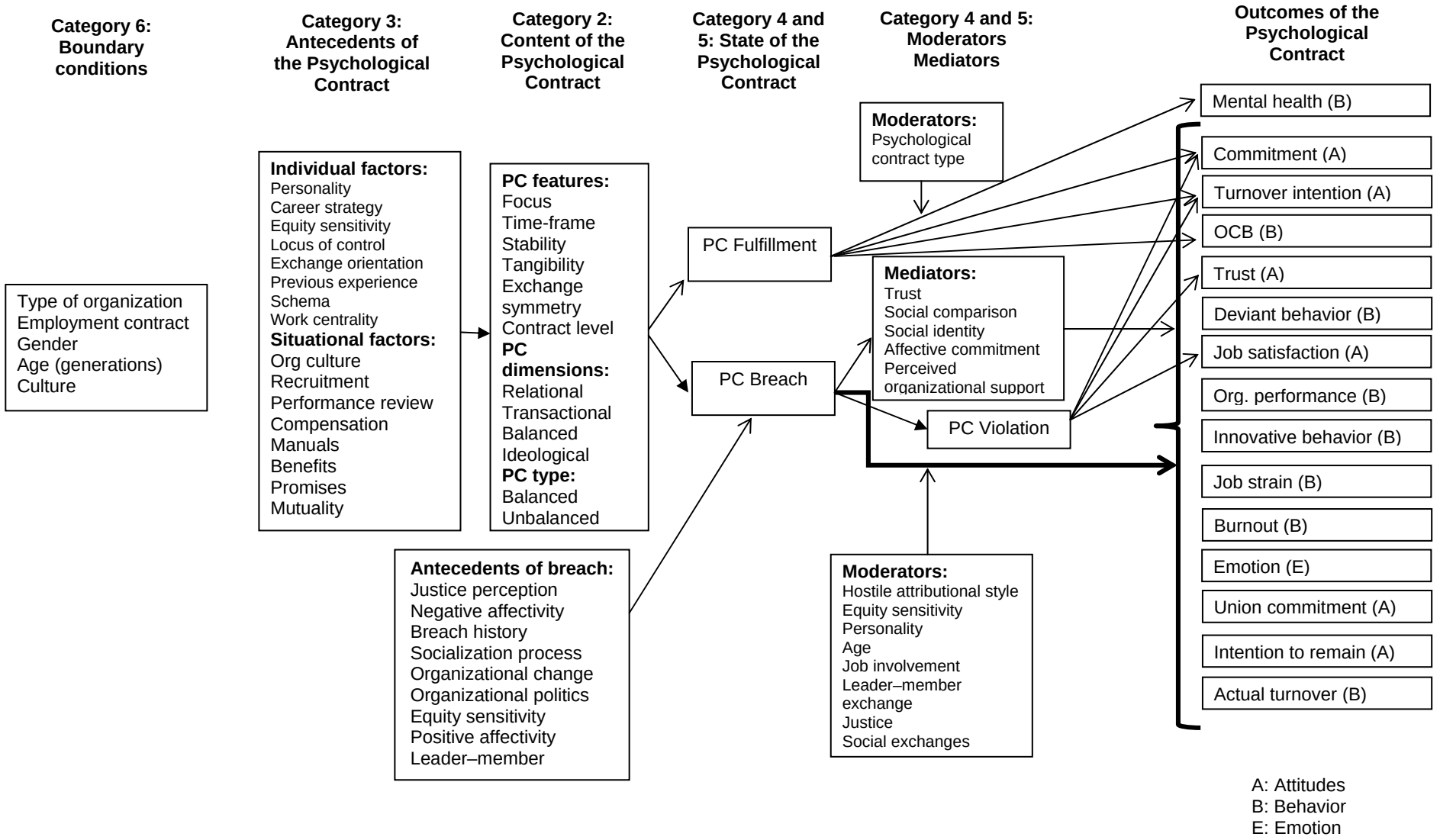

Figure 1: Psychological contract model

Review of psychological contract research

The following review begins by discussing how the psychological contract has been *defined* and *critiqued*, before presenting studies that address the *content* of the psychological contract. Next, I present studies that pertain to the *antecedents* of the psychological contract, followed by a presentation of studies that concern psychological contract *breach* on the one hand and psychological contract *fulfillment* on the other hand. The section ends with a presentation of studies that have specifically examined the *boundary conditions* of the psychological contract. In addition, each section ends with a summary of the relevant challenges for each of the six categories.

Definition of the psychological contract and critique of psychological contract research

Two controversies surrounding the concept are discussed: (1) which *beliefs* constitute the psychological contract and (2) who are the *parties* to the psychological contract. Before discussion of these issues, a reiteration of the commonly used definition is appropriate: *"A psychological contract is the individual's belief regarding the terms and conditions of a reciprocal exchange agreement between that focal person and another party"* (Rousseau, 1989, p. 123). This definition emphasizes the perceptions of the individual, not the firm, and highlights *mutual obligations* as the focal belief in the psychological contract.

The underlying theories on which the psychological contract is built include *social exchange theory* (Blau, 1964, 1986), the *norm of reciprocity* (Gouldner, 1960), and *equity theory* (Adams, 1963). *Social exchange theory* is tied to rational choice theory and posits that when a person perceives the cost as outweighing the benefits of a relationship, he or she will leave the relationship. The *norm of reciprocity* is the social expectation that people will return favors to each other or respond with hostility to harm. The essence of *equity theory* lies in its view of working human beings as rational accountants. One issue in equity theory is the ratio of input to result (what is being invested in the work, and what outcomes in the form of pay, perks, and so on, follow). If there is an unbalance (inequity), action will be taken to change the situation. In summary, the elements of *reciprocity*, *social exchange*, and *equity* are some of the building blocks of the psychological contract.

The beliefs constituting the psychological contract

The beliefs that constitute the psychological contract vary from obligations, to expectations, to promises, and there is still no agreement about which beliefs best grasp the core of the psychological contract (Roehling, 2008). Some research claims that promises and obligations offer a more contractual focus than expectations (Conway & Briner, 2005; Rousseau, 1989). These studies argue that the consequences of not meeting expectations are of a different nature than failing to meet promises or obligations. The challenge, however, is that few studies have addressed this issue or concluded empirically what is at the core of the psychological contract. There are a few recent exceptions though. In his study, Roehling (2008) applied all three beliefs (expectations, promises, and obligations) in three different surveys with three different samples. The results indicate that the beliefs (expectations, obligations, and promises) are not fully interchangeable but still elicit the same general conceptual or mental framework from participants. The study therefore does not offer any firm conclusions about which belief element (expectations, obligations, or promises) should be the focal belief when defining the psychological contract. However, Roehling concluded that researchers should use definitions that explicitly emphasize which belief is studied rather than rely on a definition that defines the psychological construct as involving general beliefs about the terms of exchange between the employer and the employee.

Furthermore, in their comprehensive work, Conway and Briner (2005) suggest that the psychological contract beliefs concern *implicit promises* because of the link to contract theory in general and because it represents a distinction from other related ideas, such as *met expectations* and *fairness perceptions*. However, Montes and Zweig (2009) investigated the role of promises in psychological contract breach. Because the majority of studies have found that breached promises have an impact on work-related outcomes, they tend to focus specifically on the role of *promises* and *delivered inducements*, particularly because promises and delivered inducements are confounded in most research. In an experimental design, Montes and Zweig manipulated promises and delivered inducements separately and found that breach perceptions did not represent a discrepancy between what employees believed had been promised and what was given, which is how research has traditionally operationalized a psychological contract breach. Rather, they found that breach perceptions existed in the absence of promises. From these findings, the authors suggest that employees are concerned primarily with what the organization *delivers* and not so much with what has been *promised*. Likewise, Bankins (2010) criticized the promise-based belief framework, claiming that it is

too restrictive. In particular, she argued that employees believe that their employers are obligated to them regardless of a promise made, which instead is based on social, cultural, moral, or legal requirements that compel the employer to act in a certain way. In brief, she claimed that further research must address the role of both promise- and non-promise-based beliefs together with the role of context and perceptions to better understand the psychological contract.

Thus far, this discussion makes it difficult to firmly conclude whether the psychological contract consists of expectations, obligations, or promises. However, the beliefs clearly constitute *obligations* between the parties. Moreover, when examining the psychological contract the actual perceived *exchanges (delivered inducements)* of the parties should be included when evaluating whether the obligations are met or not.

The contracting parties

The second controversy addressed in the literature concerns the definition of the contracting parties. The development of the psychological contract has followed a *vertical* perspective, as proposed by March and Simon (1958), that is, the exchange relationship between the employees and the employer. In addition, Rousseau's (1989) definition emphasizes the individual's beliefs and not the beliefs of the other party, the employer. This emphasis has been criticized because studying only one party fails to consider the contractual focus of the concept (Conway & Briner, 2005; Cullinane & Dundon, 2006; Guest, 1998). Instead, research has argued that there should be a two-way exchange agreement and that the employer side needs to be considered as well. However, the challenge with including the employer side of the contract is the aspect of agency; that is, who represents the employer or the organization? This raises the problem of anthropomorphizing, which indicates that it is challenging to treat the organization as a single human contract maker. Research has attempted to overcome this challenge by including the supervisor or direct manager as the other party to the contract (see e.g. Chen, Tsui, & Zhong, 2008; Coyle-Shapiro & Kessler, 2000, 2002b; Dabos & Rousseau, 2004; Herriot, et al., 1997; Lester, Turnley, Bloodgood, & Bolino, 2002) as well as executives as representing the organization (Porter, Pearce, Tripoli, & Lewis, 1998). However, attention has not been paid to whether these agents represent the organization's overall perspective. A way to overcome this obstacle is to study small business, in which the employer and the manager is the same person. In a recent study Nadin and Williams (2012) examined the employer side of the contract by interviewing small business owners and their perceptions of

breaches committed by their employees, thus contributing to the much-neglected study of employers' experiences with psychological contact violation. However, large businesses make up a huge part of organizational life, which means we have to approach the dilemma of defining the employer in the future. In addition, employees interact with various agents in organizations and thus can engage in several contracting relationships.

In summary, according to the definition presented previously *mutual obligations* occur between an individual and "another party". However, thus far the other party has been defined as the employer. With the challenges of anthropomorphizing, a solution to this issue is to broaden the employee–employer perspective and let the individual employee define the opposing contract party. I argue that the contracting parties could even be broadened to include horizontal relationships. In their early study, Levinson et al. (1962) recognized that there are psychological contracts between people within the organization and within work groups.

In summary, when defining the psychological contract, the literature is faced with two unresolved challenges. First, which *beliefs* constitute the psychological contract, and second, who are the *parties* to the contract?

Content of the psychological contract

The content of the psychological contract broadly refers to the exchanges the parties believe they owe each other (e.g. employees offering *contributions* such as skills and knowledge, flexibility, and effort and employers offering *inducements* such as promotion, training, and respect). In the early stage of the psychological contract research (Argyris, 1960; Levinson, 1962; Schein, 1980), little emphasis was put on the actual *content* of the psychological contract. Rather, the content of the contract exchange was inspired by the inducement-contribution model put forth by Barnard (1968) and March and Simon (1958), which asserts that individuals continue to participate as long as they perceive the inducements as outweighing their contributions.

Although previous research did not lend a systemized focus on the content of the psychological contract, this changed in the early 1990s when Rousseau (1990) established a content approach based on MacNeil's (1980, 1985) relational and transactional contracts. She

argued that the content of the contracts could be (1) *transactional*, which refers to highly specific exchanges that can be found in a written contract and are often concerned with an economic agreement, or (2) *relational*, which are broader and more subjective contracts and concern exchanges in trust, fairness, values, and so forth. Later, *balanced* contracts were included as a type of contract that combines relational and transactional aspects (Rousseau, 1995). In essence, it was proposed that transactional and relational represent different dimensions. The vast majority of researchers have adopted the relational/transactional approach when explaining what the contract is about. However, the content of the psychological contract is still debated, and at least *four* issues can be raised in relation to the content approach.

First, the two dimensions of transactional and relational contracts have been criticized for not being two-dimensional. In particular, empirical studies indicate that items such as job training and security can cross-load on both dimensions (Coyle-Shapiro & Conway, 2005; Taylor & Tekleab, 2004). Thus, these studies indicate that the distinction is not as clear-cut as previously suggested.

Second, dimensions other than the transactional/relational approach have begun to emerge. In particular, the dimension of an *ideological* contract has been suggested as an important aspect of psychological contract content. The dimension of an ideological contract was first introduced by Thompson and Bunderson (2003, p. 574) in their conceptual study as "*credible commitments to pursue a valued cause or principle (not limited to self-interest) that are implicitly exchanged at the nexus of the individual-organization relationship*". This means that employees are not only working for monetary rewards (transactional) or social exchange (relational) but also to fulfill moral ideals. In their qualitative study of 10 research scientists, O'Donohue, Sheehan, and Hecker (2007) found that they were more concerned with ideological- and societal-based contracts than with transactional and relational contracts. Furthermore, in a recent study of middle managers in education, Bal and Vink (2011) found that *ideology* constituted separate aspects of the psychological contract. Although this perspective is in an early phase of development, the studies are promising in broadening and deepening the understanding of the *content* of the psychological contract.

Third, a few studies have examined the relationship between psychological contract *types* and work-related outcomes. Psychological contract *type* is distinct from psychological contract

content because the content (transactional/relational) does not address issues of perceived balance in exchanges between employee and employer. Thus, in a *balanced-type* relationship the employee and the employer are perceived as equally obligated to each other, while in an *unbalanced-type* relationship either the employee or the employer is perceived as more obligated than the other party to the exchange (Shore & Barksdale, 1998). Thus, subsequent studies have empirically examined the link between unbalanced and balanced psychological contracts and work-related outcomes and found that a *balanced* psychological contract is beneficial for the attitudes and behavior of the employees compared with the *unbalanced* contract (De Cuyper, Rigotti, De Witte, & Mohr, 2008; Shore & Barksdale, 1998; Tsui, Pearce, Porter, & Tripoli, 1997). As such, the perceived psychological contract *type* might have a direct influence on work-related outcomes.

Fourth, some researchers have questioned the transactional and relational contract approach for lacking consistency over time and place and therefore have argued that it is insufficient to fully comprehend the content of the psychological contract (Janssens, Sels, & Van Den Brande, 2003; McInnis, Meyer, & Feldman, 2009; Sels, Janssens, & van den Brande, 2004). Instead, they argue that a *feature-based* approach should be applied. The feature-based approach was initially introduced by McLean Parks, Kidder, and Gallagher (1998) and focuses on how psychological contracts can be evaluated along dimensions such as implicit/explicit or long-term/short-term. In their study of 1106 employees, Sels et al. (2004) identified six dimensions as capturing the content of psychological contracts: tangibility, scope, stability, time frame, exchange symmetry, and contract level. However, few empirical studies have adopted the feature-based approach when examining the relationship between the psychological contract and work-related outcomes.

In summary, the transactional/relational contract approach has helped deepen the understanding of the *content* of the contractual relationship; however, these *four* issues show that the transactional/relational approach is insufficient when studying the content of the psychological contract. Thus, future studies should explore further which dimensions constitute the content of a psychological contract, how *features* and *dimensions* are related, and how *balanced* and *unbalanced types* of psychological contracts are related to other dimensions of the psychological contracts as well as work-related outcomes.

Antecedents of the psychological contract

In general, various *dispositional* and *situational* factors have been proposed and studied as antecedent variables. In her seminal work, Rousseau (1995) referred to two sets of factors that operate in the formation of a psychological contract: (1) external messages and social cues and (2) the individual's internal interpretations, predispositions, and transactions. Moreover, in their conceptual article, Rousseau and Greller (1994) identified human resource (HR) activities, such as recruitment, performance review, compensation, manuals, and benefits, as important factors that shape the psychological contract. More recently, Rousseau (2001) refined these assumptions by claiming that schemas, promises, and mutuality are relevant in the formation of psychological contracts. More precisely, she claimed that "*the psychological contract is formed by the mental models or schemas people hold regarding employment, the promises employers convey, and the extent of agreement between the parties involved*" (Rousseau, 2001, p. 511).

Various researchers have empirically tested and extended the assumptions that Rousseau puts forth. Table 1 provides a summary of these studies, and I present the overall findings next.

Table 1: Antecedents of the psychological contract

Authors*	Antecedent variable(s)	Dependent variable	Sample	Design: method
Bal & Kooij, 2011	Work centrality	Psychological contract	465 employees	Cross-sectional: survey
De Vos, 2005	Work values, career strategy, work locus of control, exchange orientation	Psychological contract	1361 employees (newcomers)	Longitudinal: survey
De Vos, De Stobbeleir, Meganck, 2009	Career strategy, individual career management, work importance	Psychological contract	722 graduates	Cross-sectional: survey
Kim & Choi, 2010	Breach history	Psychological contract	32 employees 172 employees	Interview (pre-study) Longitudinal: survey
Maley, 2009	Performance appraisal	Psychological contract	18 inpatriate managers	Cross-sectional: interviews
Pate & Malone, 2000	Breach history	Psychological contract	20 employees	Case study: interviews and archival data
Raja, Johns, Ntalianis, 2004	Personality, equity sensitivity, locus of control, self-esteem	Psychological contract	197 employees	Cross-sectional: survey
Richard, McMillan-Capehart, Bhuian, & Taylor, 2009	Organizational culture	Psychological contract	200 MBA students	Cross-sectional: survey
Rousseau, 2001	Schema, promises, mutuality	Psychological contract		Conceptual study
Rousseau & Greller, 1994	Recruitment, performance review, compensation, manuals, benefits	Psychological contract		Conceptual study
Shahnawaz & Hassan Jafri, 2011	HR practices	Psychological contract	95 employees	Cross-sectional: survey
Thomas, Au, & Ravlin, 2003	Cultural orientation	Psychological contract		Conceptual study

*The articles are organized alphabetically.

The presentations of the studies are divided into individual dispositions and situational factors. First, the following individual difference variables were identified as shaping the psychological contract: *breach history* (Kim & Choi, 2010; Pate & Malone, 2000), *work values*, *career strategy*, *work locus of control, individual career management, work importance* and *exchange orientation* (De Vos, 2005; De Vos, De Stobbeleir, & Meganck, 2009), *personality*, *equity sensitivity*, *locus of control*, *self-esteem* (Raja, Johns, & Ntalianis, 2004), and *work centrality* (Bal & Kooij, 2011). Second, the following situational factors were identified as antecedents of the psychological contract: *organizational culture*, specified by clan cultures and hierarchical cultures (Richard, McMillan-Capehart, Bhuian, & Taylor, 2009), *cultural orientation* (Thomas, Au, & Ravlin, 2003), *HR practices* (Shahnawaz & Hassan Jafri, 2011), and *performance appraisal* (Maley, 2009). The majority of studies examining the antecedents of the psychological contracts have applied a cross-sectional survey design, which makes it difficult to offer conclusions about causal effects.

Two of these studies are worth elaborating further because of their unconventional methodological approaches compared with the cross-sectional survey design commonly applied. First, De Vos (2005) carried out a five-wave longitudinal process study, in which she demonstrated that the idiosyncratic nature of the psychological contract plays a role in the formation of the psychological contract and that changes occur in the perceptions of contributions and inducements from the employees' perspective. In addition, she found that *exchange* is more important in determining change in the psychological contract than *promises*. Second, in their case study, Pate and Malone (2000) interviewed 20 employees about their experience with the same work contract termination and its influence on entering new employment relationships. The findings show that in new employment relationships, they formed transactional rather than relational contracts and had problems trusting and being committed and loyal to their new employers. In addition, the outcomes of the previous breach were enduring. These studies are rich in that they allow conclusions to be made on how changes occur and are perceived over time by employees.

In summary, although many studies have not examined the antecedents of the psychological contract, the contributions of the conceptual and empirical work enhance knowledge about how psychological contracts are formed. In particular, the studies of Pate and Malone (2009) and De Vos (2005) are promising because of the methodological approaches conveyed. Thus,

such approaches should be further encouraged, in addition to an integration of the various types of individual difference variables and situational factors.

Studies of psychological contract breach

As I discussed in the Introduction section, the research on psychological contracts has predominately focused on the relationship between psychological contract breach/violation and work-related outcomes. Furthermore, research has claimed that the most important contribution of the psychological contract to the employment relationship is that of *breach* (Coyle-Shapiro & Conway, 2004). In the literature, both breach and violation of the psychological contract have been studied to indicate a discrepancy between what an individual perceives to be promised by the employer and what he or she actually receives from the employer. However, there is a distinction between psychological contract breach (PCB) and violation (PCV). In short, perceived breach refers to the *cognition* that there is a discrepancy between what the organization has promised and what is being delivered, while violation refers to the *emotional* and *affective state* that may or may not follow from the perception of breach (Morrison & Robinson, 1997). In the following two sections, I discuss the studies that have examined the association between PCB and work-related outcomes because this is by far the most commonly studied association. In the first section, I present studies that have been conducted between 1990 and 2000. In the second section, I review research from 2000 up to 2012. I then present antecedents of psychological contract breach and finally elaborate on studies that have included moderators and mediators of the effects of breach on outcomes. Table 2 summarizes the selected studies.

Table 2: Studies of psychological contract breach

Authors*	Moderator(Mo)/Mediator(Me)	Outcome variables	Sample	Design: method
Bal, Chiaburu, & Jansen, 20120	Social exchanges(Mo)	Work performance(-)	266 employees	Cross-sectional: survey
Bal, De Lange, Jansen, Van Der Velde, 2008	Age(Mo)	Trust(-), job satisfaction(-), commitment(-)	60 studies	Meta-analysis
Bordia, Restubog, & Tang, 2008	Feelings of violation(Me), revenge cognitions(Me)	Workplace deviance(+)	153 employees 355 supervisor-subordinate dyads	Longitudinal: survey Cross-sectional: survey
Cantisano, Dominguez, & Depolo, 2008		Job satisfaction(-), trust(-), commitment(-), OCB(-), performance(-), neglect in role duties(+), intention to leave(+)	41 studies	Meta-analysis
Cantisano, Dominguez, & Garcia, 2007	Social comparison(Me)	Burnout(+)	401 teachers	Cross-sectional: survey
Cassar & Briner, 2011	PC violations(Me), Perceived exchange imbalance(Mo)	Affective(-) and continuance commitment(+)	103 employees	Cross-sectional: survey
Chambel & Oliveira-Cruz, 2010		Burnout(+)	387 employees	Longitudinal: survey
Chiu & Peng, 2008	Hostile attributional style(Mo)	Interpersonal and organizational deviance(+)	233 supervisor-subordinate dyads	Cross-sectional: survey
Conway & Briner, 2002a		Daily mood(-), emotions(-)	45 employees	Longitudinal: diary study
Conway & Briner, 2005		Job satisfaction(-), organizational commitment(-), intention to quit(+), OCB(-), performance(-), actually quitting(+)	26 studies	Meta-analysis
Coyle-Shapiro & Kessler, 2000		Commitment(-), OCB(-)	703 employers 6953 employees	Cross-sectional: survey
Dulac, Coyle-Shapiro, Henderson, & Wayne, 2008	PC violation(Me)	Commitment(-), trust(-)	152 employees	Longitudinal: survey
Gakovic & Tetrick, 2003b		Job strain(+)	161 employees	Cross-sectional: survey
Jensen, Opland, & Ryan, 2010	Organizational policies, personality(Mo)	Counterproductive work behavior(+)	357 employed undergraduate students	Cross-sectional: survey
Kickul, 2001	Procedural and interactional justice(Mo)	Workplace deviance(+)	322 employees 165 supervisors	Cross-sectional: survey
Kickul, Neuman, Parker, & Finkl, 2001	Procedural and interactional justice(Mo)	Anticitizenship behavior(+)	322 employees 165 supervisors	Cross-sectional: survey
Ng, Feldman, & Lam, 2010		Innovation-related behavior(-)	329 employees	Longitudinal: survey
Orvis, Dudley, & Cortina, 2008	Conscientiousness(Mo)	Turnover intention(+), loyalty(-), job satisfaction(-)	106 employees	Longitudinal: survey
Restubog, Bordia, & Tang, 2006	Affective commitment(Me)	Civic virtue(-), in role performance(not supported)	137 supervisor-subordinate dyads	Cross-sectional: survey
Restubog, Bordia, & Tang, 2007	Equity sensitivity(Mo)	Workplace deviance(+), OCB-O(-), OCB-I(-)	162 supervisor-subordinate dyads	Cross-sectional: survey
Restubog, Bordia, Tang, & Krebs, 2010	Leader–member exchange(Mo)	OCB(-), in role performance(-)	322 supervisor-subordinate dyads 162 supervisor-subordinate dyads	Cross-sectional: survey Longitudinal: survey
Restubog, Hornsey, Bordia, & Esposo, 2008	Trust(Me), identification(Me)	OCB(-)	137 supervisor-subordinate dyads 240 supervisor-subordinate dyads	Cross-sectional: survey Longitudinal: survey
Rigotti, 2009		Job satisfaction(-), affective org. commitment(-), intention to quit(+), violation(+), trust(-)	592 employees	Cross-sectional: survey
Robbins, Ford, & Tetrick, 2012		Job strain(+)	83 studies	Meta-analysis

Authors*	Moderator(Mo)/Mediator(Me)	Outcome variables	Sample	Design: method
Robinson, 1996	Trust(Me, Mo), unmet expectations(Me)	Employee performance(-), civic virtue behavior(-), intentions to remain(-)	126 alumni MBA	Longitudinal: survey
Robinson, Kraatz, & Rousseau, 1994		Commitment(-), OCB(-)	96 alumni MBA	Longitudinal: survey
Robinson & Morrison, 1995		Civic virtue behavior(-)	126 alumni MBA	Longitudinal: survey
Robinson & Rousseau, 1994		Turnover intention(+), trust(-), job satisfaction(-), intention to remain(-)	128 alumni MBA	Longitudinal: survey
Singh, Suar, & Leiter, 2012		Burnout	372 employees	Cross-sectional: survey
Stoner & Gallagher, 2010	Job involvement(Mo)	Depressed mood at work(+), turnover intention(+)		Longitudinal: survey
Suazo, 2009	PV violation(Me)	job satisfaction(-), organizational commitment(-), intention to quit(+), perceived organizational support(-), service delivery(-), service-oriented OCB(-), participation service-OCB(-)	196 employees	Cross-sectional: survey
Suazo & Stone-Romero, 2011	PC violations(Me)	Employee behaviors(-)	1013 employees (supervisor-rated employee behaviors)	Cross-sectional: survey
Suazo, Turnley, & Mai-Dalton, 2005	PC violation(Me)	Intention to quit(-), professional commitment(-)	234 employees	Cross-sectional: survey
Topa, Morales, & Moriano, 2009	Social identity(Me)	Job satisfaction(-)	153 employees	Longitudinal: survey
Turnley, Bolino, Lester, & Bloodgood, 2004	Union instrumentality(Mo)	Union commitment(+)	109 employees	Cross-sectional: survey
Turnley & Feldman, 1998	Procedural justice(Mo), future violations(Mo), quality of working relationships(Mo)	Exit(+), voice(+), loyalty(-), neglect(+)	541 managers and managerial-level personnel	Cross-sectional: survey
Turnley & Feldman, 1999	Availability of attractive employment alternatives(Mo)	Exit(+), voice(+), loyalty(-), neglect(+)	804 managerial-level personnel	Cross-sectional: survey
Zhao, Wayne, Glibkowski, Bravo, 2007		Violation(+), mistrust(+), job satisfaction(-), commitment(-), turnover intention(+), actual turnover(+), OCB(-), in-role performance(-)	51 studies	Meta-analysis
	Antecedent			
Arshad & Sparrow, 2010	Justice perception, negative affectivity	Psychological contract violation	281 employees	Longitudinal: survey
Lo & Aryee, 2003	Organizational change, history of breach	Psychological contract breach	152 employees	Cross-sectional: survey
Robinson & Morrison, 2000	Low organizational performance, low self-reported performance, bad socialization process, breach history	Psychological contract breach	147 employees	Longitudinal: survey
Rosen, Chang, Johnson, & Levy, 2009	Organizational politics, procedural justice	Psychological contract breach	265 employed undergraduates	Longitudinal: survey
Suazo, 2002	Positive affective dispositions, equity sensitivity, leader–member exchange	Psychological contract breach	237 employees	Cross-sectional: survey

*The articles are organized alphabetically.

From 1990 to 2000: limited research on the relationship between breach and outcomes

The variables that were studied and found to be related to psychological contract breach in the period between 1990 and 2000 were *commitment*, *OCB*, *job satisfaction*, *turnover intention*, *trust*, *neglect behavior*, and *intention to remain*. Beyond Rousseau's (1989) seminal article, relatively few studies have examined the relationship between breach and work-related outcomes, as compared with the rapid increase from 2000 onward. I selected six studies that represent the overall findings from the first decade. In particular, breached psychological contracts were positively related to *turnover intention* and negatively related to *trust*, *satisfaction*, and *intentions to remain* (Robinson & Rousseau, 1994). Furthermore, in a longitudinal study, an employer's failure to fulfill its obligations affected organizational *commitment* and *OCB* negatively (Robinson, Kraatz, & Rousseau, 1994). Moreover, employees surveyed three times over a 30-month period reported that when their employers failed to fulfill employment obligations, they were less likely to engage in *civic virtue behavior* (Robinson & Morrison, 1995). In a follow-up study, Robinson (1996) investigated the mediating effect of trust along with unmet expectations on the relationship between psychological contract breach and employees' *performance*. She found that the initial trust in the employer at the time of hire moderated the relationship between psychological contract breach and subsequent trust. In two related studies, Turnley and Feldman (1998, 1999) found a significant relationship between psychological contract breach and exit, voice, loyalty, and *neglect behaviors* among managers and employees.

From 2000 to 2012: research strengthens and expands the relationship between breach and outcomes

Broadly speaking, the years after 2000 have confirmed but also extended these results. In total, I identified 14 outcome variables in the review process (see model 1 for a summarized presentation of the variables). Space limitations prevent a thorough elaboration of all breach studies; therefore, I present a selection of studies that unfold the development of the relationship between PCB and outcome variables. Furthermore, in the same period many moderator and mediator variables were included when studying the relationship between PCB and work-related outcomes. I present several of these subsequently.

The review revealed four meta-analyses on the relationship between PCB and work-related outcomes (Bal, et al., 2008; Cantisano, et al., 2008; Conway & Briner, 2005; Zhao, et al., 2007). More specifically, the meta-analyses all confirm the relationship between

psychological contract breach and attitude variables, such as *trust*, *job satisfaction,* and *commitment*. In addition, behavioral outcomes such as *employee turnover*, *actually quitting*, *OCB*, *in-role performance*, and *performance* were significant, but lower in significance than attitudes (Cantisano, et al., 2008; Conway & Briner, 2005; Zhao, et al., 2007). Moreover, in a recent study applying a threshold model of psychological contract breach, Rigotti (2009) found that previous research has underestimated the impact of psychological contract breaches on work-related attitudes. These findings firmly reveal that psychological contract breach is strongly related to attitudinal-related variables on the workplace.

In the following section, I present the studies that have included work-related outcomes other than the aforementioned variables. First, in one of the few studies to explicitly measure *emotions* as an outcome variable, Conway and Briner (2002a) found that broken and exceeded promises could describe everyday fluctuations in emotion and daily mood. Second, in their recent longitudinal study, Ng, Feldman, and Lam (2010) found that increased perceptions of psychological contract breaches were associated with decreases in *innovation-related behavior*. Third, psychological contract breach was positively related to *commitment to the union* (Turnley, Bolino, Lester, & Bloodgood, 2004). Fourth, building on the previously mentioned studies, a stream of research has been carried out on outcomes of psychological contract breach that can be labeled *negative behavior* (Turnley & Feldman, 1998, 1999). More specifically, *anticitizenship behavior* (Kickul, Neuman, Parker, & Finkl, 2001), *workplace deviance* (Bordia, Restubog, & Tang, 2008; Restubog, Bordia, & Tang, 2007), *organizational deviance* (Chiu & Peng, 2008), and *counterproductive work behavior* (Jensen, Opland, & Ryan, 2010) are all associated with psychological contract breach. In general, these studies suggest that when employees experience a psychological contract breach, they engage in deviant behavior. Fifth, employee experience of *job strain* was related to psychological contract breach (Gakovic & Tetrick, 2003b; Robbins, Ford, & Tetrick, 2012). Finally, recent results show that there is an association between psychological contract breach and *burnout* (Cantisano, Dominguez, & Garcia, 2007; Chambel & Oliveira-Cruz, 2010; Singh, Suar, & Leiter, 2012).

In summary, differences exist in how frequent some of the outcome variables have been studied, and therefore firm conclusions about some of the relationships cannot be drawn. In addition, because most studies of psychological contract breach have applied a cross-sectional

survey design, it is difficult to draw conclusions about causality between contract breach and some of the outcome variables.

Antecedents of psychological contract breach

A fair number of studies have examined antecedent variables of psychological contract *breach*. For example, Arshad and Sparrow (2010) showed that *justice perception* and *negative affectivity* at time 1 predict psychological contract violation at time 2. In addition, in their longitudinal study, Robinson and Morrison (2000) found that perception of contract breach at time 2 was more likely when *organizational performance* and *self-reported employee performance* were low, the employee had not been through a formal *socialization process*, and the employee had a *history* of psychological contract breach with former employers. Likewise, *organizational change* and *history* of contract breach were related to psychological contract breach in a study of employees in Hong Kong (Lo & Aryee, 2003). Furthermore, the organizational context represented by *organizational politics* and *procedural justice* had unique effects on psychological contract breach (Rosen, Chang, Johnson, & Levy, 2009). Moreover, Suazo (2002) found that dispositional variables such as *equity sensitivity* and *positive affectivity* together with *leader–member exchange* were strongly related to psychological contract breach.

Moderators and mediators of the relationship between PCB on outcomes

A general trend in recent years has been the inclusion of various types of moderator and mediator variables that supposedly interact with the relationship between psychological contract breach and work-related outcomes. The following moderator variables were located in the review process and divided into two categories. The first category is called "situational moderator variables", and variables identified were *procedural* and *interactional justice* (Kickul, 2001; Kickul, et al., 2001), *social exchanges* (Bal, Chiaburu, & Jansen, 2010), and *leader–member exchange* (Restubog, Bordia, Tang, & Krebs, 2010). The second category pertains to individual disposition moderators and included *equity sensitivity* (Restubog et al., 2007), *hostile attributional style* (Chiu & Peng 2008), *conscientiousness* (Orvis, Dudley, & Cortina, 2008), *job involvement* (Stoner & Gallagher, 2010), and *age* (Bal et al., 2008).

As mentioned previously, there is a distinction between PCB and PCV, and violation has for the most part been included as a mediating variable of the relationship between PCB and work-related outcomes. For example, in their longitudinal study, Dulac, Coyle-Shapiro, Henderson, and Wayne (2008) found that *violation* fully mediated the effects of breach on

commitment and trust. Likewise, PCV mediated the relationship between PCB and job satisfaction, commitment, intentions to quit, and perceived organizational support (Suazo, 2009; Suazo & Stone-Romero, 2011; Suazo, Turnley, & Mai-Dalton, 2005). Furthermore, PCV mediated the relationship between PCB and continuance and affective commitment (Cassar & Briner, 2011). Overall then, empirical evidence shows that the distinction between PCB and PCV should be incorporated when studying outcomes of breached psychological contracts. An appropriate question in this respect is whether the *cognition* of a breach is interrelated with the *affective* perception of a violation.

In addition to PCV, other mediating variables have been studied as interacting with the relationship between breached psychological contracts and outcomes. For example, Restubog, Hornsey, Bordia, and Esposo (2008) found that *trust* and *identification* mediated the relationship between breach and OCB. In addition, *social identity* (Topa, Morales, & Moriano, 2009), *affective commitment* (Restubog, Bordia, & Tang, 2006), and *social comparison* (Cantisano, et al., 2007) all mediated the relationship between PCB and work-related outcomes.

In summary, recent research has strengthened the link between psychological contract breach and attitudinal, behavioral, and emotional outcomes. However, three essential critiques should be raised. *First*, the myriad moderators, mediators, and outcome variables that have recently been added indicate that researchers still have a way to go to establish a comprehensive and parsimonious model of the psychological contract. Many of the moderator and mediator variables have only been studied once and thus need to be replicated and tested by means of various designs and methods. *Second*, when investigating the effect of psychological contract breach on outcome variables, researchers have predominately applied a cross-sectional survey design. Some exceptions include longitudinal studies and qualitative studies, but scientific rigor to conclude about causal effects is lacking. *Third*, because breach is a central element of the psychological contract literature, it is intriguing that there has been little focus on aspects of breach other than its relationship to work-related outcomes. As Conway and Briner (2005) suggest, other approaches to breach should be employed. For example, how often a breach occurs, where and when it happens, why it happens, and what moderates employees' reactions to breach should be examined. In addition, a pertinent question to ask is whether all outcomes of breach are negative. Therefore, studies that address breach in new ways should be encouraged. In particular, qualitative studies that deepen the understanding of how breaches

occur, how they are dealt with, and whether they are always negatively related to work-related outcomes would be worthwhile.

Studies of psychological contract fulfillment

As explicated previously, research has long been interested in the outcomes of psychological contract breach, while largely ignoring the outcomes of psychological contract fulfillment. This might be due to the traditional conception of the association between breach fulfillment and outcomes as a linear relationship, such that whichever negative consequences are found from a psychological contract breach will result in positive consequences when fulfilled. However, in challenging this view, Lambert, Edwards, and Cable (2003) found that the relationship between breach and fulfillment is far more complex than first assumed. In particular, employees were more concerned with inducements *delivered* than with *perceived* promises, and further there was no linear relationship between breach and fulfillment. Montes and Irving (2008) replicated this study and found that breach can be perceived as both underfulfillment and overfulfillment of contract terms and that the nature of the outcomes for employees are dependent on contract type. In line with these views, the results from two studies reveal the employees' evaluations of fulfillment are dependent on the social influence of their co-workers (Ho, 2005; Ho & Levesque, 2005). Overall then, researchers must be careful when concluding about outcomes of fulfillment when studying outcomes of breach. Instead, to gain knowledge about the relationship between fulfillment and work-related outcomes, researchers should examine specific measures of fulfillment.

A few studies, however, have applied explicit measures of fulfillment and the relationship to work-related outcomes. Table 3 provides a summary of the studies, and I present the overall findings next.

Table 3: Studies of psychological contract fulfillment

Authors*	Moderator(Mo)/ Mediator(Me)	Outcome	Sample	Design: method
Chi & Chen, 2007		Turnover intention(-), commitment(+)	135 repatriates	Cross-sectional: survey
Collins, 2010		Turnover intention(-)	328 managers	Cross-sectional: survey
Conway & Briner, 2002a		Affective commitment(+)	1944 employees	Cross-sectional: survey
De Jong, Schalk, De Cuyper, 2009	Psychological contract type(Mo)	Job satisfaction(+), fairness(+), turnover intention(-)	789 employees	Cross-sectional: survey
Guerrero & Herrbach, 2008	Perceived organizational support	Workplace affect	249 managers	Longitudinal: survey
Hess & Jepsen, 2009	Psychological contract type(Mo)	Job satisfaction (+), commitment(+), turnover intention(-)	287 employees	Cross-sectional: survey
Ho, 2005	Social influence	Psychological contract fulfillment		Conceptual study
Ho & Levesque, 2005	Social influence(Mo)	Psychological contract fulfillment	99 employees	Cross-sectional: survey
Lee, Liu, Rousseau, Hui, & Chen, 2011		Change in the psychological contract	143 employees	Longitudinal: survey
Parzefall, 2008	Form of reciprocity(Me)	Affective commitment(+), turnover intention(-)	118 employees	Cross-sectional: survey
Parzefall & Hakanen, 2010	Work engagement(Me)	Turnover intention(-), mental health(+)	178 employees	Cross-sectional: survey
Shih & Chen, 2011	Psychological contract type(Mo)	OCB(+)	485 supervisor-subordinate dyads	Cross-sectional: survey
Turnley, Bolino, Lester, & Bloodgood, 2003		OCB-O(+), in role performance(+)	134 supervisor-subordinate dyads	Cross-sectional: survey
Van den Heuvel & Schalk, 2009	Type of change(Mo)	Resistance to change(-)	208 employees	Cross-sectional: survey

*The articles are organized alphabetically

Prior research has shown that psychological contract fulfillment is related to decreased *turnover intention* (Chi & Chen, 2007; Collins, 2010; Parzefall, 2008), increased *organizational commitment* (Chi & Chen, 2007; Coyle-Shapiro & Kessler, 2000), increased *OCB* toward the organization (OCB-O), increased *in-role performance* (Turnley, Bolino, Lester, & Bloodgood, 2003), increased *affective commitment* (Conway & Briner, 2002b; Parzefall, 2008; Parzefall & Hakanen, 2010), decreased *resistance to change* (Van den Heuvel & Schalk, 2009), and increased *mental health* (Parzefall & Hakanen, 2010). In addition, in their longitudinal study, Guerrero and Herrbach (2008) found that psychological contract fulfillment is fully mediated by *perceived organizational support* with respect to *workplace affect*.

Furthermore, several studies have examined the relationship between fulfillment of various dimensions of the contract and work-related outcomes. In particular, fulfillment of balanced contracts was more strongly related to *job satisfaction*, *commitment*, and *intention to leave* than was fulfillment of transactional and relational contracts (Hess & Jepsen, 2009). Likewise, fulfillment of balanced contracts was associated with higher *OCB* than were relational and

transactional contracts (Shih & Chen, 2011). Furthermore, in their study of permanent and temporary contract workers, (De Jong, Schalk, & De Cuyper, 2009) found that a type called "mutual high fulfillment of promises" was associated with higher levels of *job satisfaction* and *fairness* and lower levels of *intentions to quit.* In their three-year longitudinal study of newcomers entering their first job, Lee, Liu, Rousseau, Hui, and Chen (2011) found that contract fulfillment was central to how newcomers reacted to conditions of employment, so that employer fulfillment and perceived inducements predicted changes in employee obligations.

In conclusion, studies that have examined the relationship between fulfillment of the psychological contract and various work-related outcomes are more limited than breach–outcome studies. Because the goal of much organizational research is to enhance employees' performance, studies that examine the link between fulfillment and employees' outcomes should be encouraged. In particular, a more thorough examination of what fulfillment means, how it is moderated, and how fulfillment is related to employee performance should be pursued.

Boundary conditions for psychological contract theory

Thus far, the categorization of studies has identified psychological contract research without considering the temporal and contextual limitations of the phenomenon in question. Because interest in the phenomenon of the psychological contract is growing, studies have begun examining the *boundary conditions* of the psychological contract. I identified the following boundary conditions through the review: *organization type* (public vs. private), *contract type* (temporary vs. permanent and full-time vs. part-time), *gender*, *age* (generation) and *culture*. Table 4 provides a summary of these studies, and I elaborate on them next.

Table 4: Boundary condition studies*

Authors	Variables examined	Boundary condition	Sample	Design: method
Coyle-Shapiro & Kessler, 2003	PC fulfillment's relationship to commitment(+), OCB(not supported)	Public sector	5709 UK public sector employees	Cross-sectional: survey
Knights & Kennedy, 2005	PC violation's relationship to job satisfaction(-), commitment(-)	Public sector	251 Australian public managers	Cross-sectional: survey
Guest & Conway, 2001	The state of the psychological contract and relationship to attitude and behavior outcomes	Public vs. private sector employees	UK employees: 500 private sector, 500 central government, 502 health sector, 503 local government	Cross-sectional: survey interview
Willem, De Vos, & Buelens, 2010	PC breach and fulfillment	Public vs. private sector employees	4976 Belgian employees in private and public sector	Cross-sectional: survey
Coyle-Shapiro & Kessler, 2002a	PC fulfillment and breach	Permanent vs. temporary employees	6953 UK public sector employees	Cross-sectional: survey
De Cuyper, Rigotti, De Witte, & Mohr, 2008	Development of pc typology	Permanent vs. temporary employees	German and Belgian employees: 687 permanent workers, 580 temporary workers	Cross-sectional: survey
De Jong, Schalk, & De Cuyper, 2009	Balance in mutual promises and fulfillment of promises	Permanent vs. temporary employees	Dutch employees: 489 permanent workers, 290 temporary workers	Cross-sectional: survey
Isaksson, De Cuyper, Bernhard Oettel, & De Witte, 2010	PC content and fulfillment	Permanent vs. temporary employees	Psycones sample: 3354 permanent workers, 1980 temporary workers	Cross-sectional: survey
De Cuyper & De Witte, 2006	PC breach's relationship to job insecurity	Permanent vs. temporary employees	Belgian employees: 396 permanent workers, 148 temporary workers	Cross-sectional: survey
Millward & Brewerton, 1999	Transactional and relational PC	Permanent vs. temporary employees	UK employees: 117 contractors, 86 fixed-term employees	Cross-sectional: survey
Conway & Briner, 2002b	PC fulfillment and relation to attitudes	Part-time vs. full-time employees	UK employees: 1406 part-time employees 568 full-time employees	Cross-sectional: survey
Gakovic & Tetrick, 2003a	Work status and relationship to perceived organizational support and psychological contract	Part-time vs. full-time employees	US students: 319 part-time employees 282 full-time employees	Cross-sectional: survey
Scandura & Lankau, 1997	Content of PC and impact on commitment and job satisfaction	Gender differences	80 male, 80 female	Cross-sectional: survey
Bellou, 2009	Impact of age, gender, and education on PC content	Gender differences Generation differences	642 female, 523 male	Cross-sectional: survey
Blomme, Van Rheede, & Tromp, 2010	PC breach and impact on turnover intention	Gender differences	157 male, 90 female	Cross-sectional: survey

Authors	Variables examined	Boundary condition	Sample	Design: method
De Hauw & De Vos, 2012	Effect of generational, contextual, and individual influences on PC expectations	Generation differences	Two matched samples 787 graduates 2006 825 graduates 2009	Cross-sectional: survey
Hess & Jepsen, 2009	PC obligations, job satisfaction, affective commitment, and turnover intention	Generation differences	345 employees	Cross-sectional: survey
Lub, Bijvank, Bal, Blomme, and Schalk, 2012	PC perceptions, commitment, and turnover intention	Generation differences	359 employees, hospitality industry	Cross-sectional: survey
Rousseau & Schalk, 2000	Cross-national perspectives on the psychological contract	Culture	France, Hong Kong, India, Israel, Japan, the Netherlands, New Zealand, Singapore, Mexico, UK, US	Edited book
Hui, Lee, & Rousseau, 2004	PC content (relational, transactional, and balanced)	Culture: Difference in PC content between the US and China	107 MBA students (China and Shanghai), 605 matched employee–employer scores (China),	Cross-sectional: survey
Kickul, Lester, & Belgio, 2004	PC content, PC breach, and outcomes of breach	Culture: Difference between Hong Kong and US employees	60 US employees, 76 Hong Kong employees	Cross-sectional: survey
Cassar & Briner, 2009	PC content	Culture: Malta	22 employees (Malta)	Cross-sectional: interview
Raeder, Wittekind, Inauen, & Grote, 2009	Validation of PC scale in Swiss setting	Culture: Switzerland	287 permanent contracts, 82 temporary contracts, 138 portfolio workers	Cross-sectional: survey
Sehic, 2011	PC content	Culture: Austria and Bosnia-Herzegovina	4 case studies: managers, employees	Cross-sectional: interview
Thomas et al., 2010	Impact of national culture on PC	Culture: France, Canada, China, Norway	57 participants	Cross-sectional: interview

*The articles are organized alphabetically on the basis of the boundary conditions.

First, a few studies have found differences in the psychological contracts between private and public organizations. In general, employees in the public sector experience lower fulfillment of the psychological contract than employees in the private sector (Guest & Conway, 2001; Willem, De Vos, & Buelens, 2010). Furthermore, in a large-scale survey, Coyle-Shapiro and Kessler (2003) examined the extent to which the psychological contract is a viable framework for studying public servants' commitment to the organization and found a relationship between the psychological contract on the one hand and commitment and OCB on the other hand. Furthermore, a study of public administration managers reveals a negative relationship between psychological contract violation and job satisfaction and organizational commitment (Knights & Kennedy, 2005). Studies examining the distinction between the psychological contracts of full-time versus part-time employees are fewer and more inconclusive. For example, Gakovic and Tetrick (2003a) found no differences in the psychological contracts between full-time and part-time employees, while Conway and Briner (2002b) reported indications of some differences between part-time and full-time employees.

Second, several studies have shown that there is a distinction between permanent and temporary workers' perception of their psychological contracts. A general trend is that temporary employees perceive fewer promises as being delivered than permanent employees and that they experience less breaches of the psychological contract than permanent employees (Coyle-Shapiro & Kessler, 2002a; De Cuyper, et al., 2008; De Jong, et al., 2009; Isaksson, De Cuyper, Bernhard Oettel, & De Witte, 2010). This tendency also occurred in a study of temporary and permanent workers of the effect of breaches of psychological contracts on job insecurity. This effect was more prominent for permanent employees than for temporary employees (De Cuyper & De Witte, 2006). In addition, temporary employees tend to perceive transactional rather than relational psychological contracts compared with permanent employees (Millward & Brewerton, 1999). Third, research has examined gender differences in perceptions of the psychological contract as well as the relationship to outcome variables. For example, Scandura and Lankau (1997) found that female managers reported higher organizational commitment and job satisfaction if they perceived the psychological contract as allowing flexible work hours. Furthermore, in a study of Greek employees, Bellou (2009) found that women had greater expectations from their employer and also that both men and women perceived different content of the psychological contract as important. Moreover, Blomme, Van Rheede, and Tromp (2010) found that promotion

opportunities and work-family balance were related to turnover intentions for women, while for men clarity of the job description was an important predictor for not leaving.

Fourth, a recently studied boundary condition is age or generational differences. More particularly, such studies have focused on differences in perceptions of the psychological contract (its content) for different generations. For example, Bellou (2009) found that the "new generation" emphasizes balance in personal life; the "old generation" is rather indifferent, while the "desert generation" is the most demanding generation. Further, Hess and Jepsen (2009) also examined differences in perception of the psychological contract between three generational cohorts, but only found small but significant differences. Conversely, Lub, Bijvank, Bal, Blomme, and Schalk (2012) found that opportunities for development and challenge, variation and responsibility were more important for younger generations compared to older generations. Likewise, De Hauw and De Vos (2010) studied generational differences by focusing on the generation Y (new or young generation), and reported that generation Y perceived different psychological contract content compared to older generations. In sum, there are some diverging results, but overall the studies indicate that generational differences should be considered in the study of psychological contracts.

Finally, a pertinent question when studying psychological contracts is whether findings from psychological contract research in one country is valid in all countries or cultures. An assumption of the psychological contract is that employment relationships are to some degree based on personal freedom and social stability. However, the personal freedom and social stability that exist across cultures or countries may vary. Nevertheless, in an edited book in which 13 cross-national studies were presented, the results indicate that the psychological contract as a promise-based exchange agreement is generalizable to a variety of societies (Rousseau & Schalk, 2000). However, some differences exist between Asian and Western countries in how relationships are established. In Asian countries, relationships tend to be established before transactions are carried out, while in Western countries a relationship is built through transactions. In addition, in their study of psychological contracts in China, Hui, Lee, and Rousseau (2004) found that transactional contracts were more pertinent than relational contracts when anticipating the level of OCB. Moreover, a cross-cultural study between American and Hong Kong employees revealed that they differed in terms of perceived psychological contract importance and breach. In particular, US employees placed

greater importance and perceived less breach of both intrinsic and extrinsic psychological contract outcomes than the Hong Kong workers (Kickul, Lester, & Belgio, 2004).

Furthermore, the results from a study of the psychological contracts in a European country, Malta, suggest that some findings are similar to other settings (e.g. acknowledgment of an exchange relationship in employment) but that others are more context bound (e.g. the meaning of obligations for predicting future reciprocal behaviors compared with promises) (Cassar & Briner, 2009). In addition, (Raeder, Wittekind, Inauen, & Grote, 2009) explored the psychological contract in a Swiss setting and argued that the Swiss context offers a distinct employment relationship compared with US and UK settings. That is, fewer employees work as temporaries, resulting in larger populations of permanent employees. A questionnaire was developed on the basis of interviews with 64 managers and HR managers to capture the employment situation in Switzerland. In summary, the findings from studies in different culture and countries suggest that there is an exchange perception in the employment relationship but that the context regarding how the *content* of the psychological contract is perceived and which parts of the content (relational, transactional, or balanced) affect the outcome variables should be considered.

As a consequence of these cultural differences, careful attention should be given when analyzing the survey results from many studies carried out in countries outside Western countries, because a large portion of cross-cultural studies have adopted and translated the surveys from English to native languages. As the examples from Malta and Switzerland show, other elements of the psychological contract may be viable in various cultures. For example, in a qualitative study exploring and comparing the content of the psychological contract in Austria (Western country) and Bosnia-Herzegovina (southeast European country), large differences occurred between the perceptions of content, such that in Bosnia-Herzegovina uncertainty avoidance, subjugation, and power distance had a greater impact on perceptions of the psychological contract than in Austria (Sehic, 2011). Furthermore, a cross-cultural qualitative study shows that cultural variations exist in the psychological contract among China, France, Canada, and Norway (Thomas et al., 2010).

In summary, the studies presented in this section show that attention should be paid to whether the samples being studied work in a public or private company, have a temporary or permanent contract, are female or male, belong to a specific generation, or come from a

Western or Asian culture, because these conditions may affect how the psychological contract is perceived and, ultimately, how it is related to outcomes.

Summary of review and challenges for future research

The past 20 years have witnessed an impressive amount and quality of research examining the phenomenon of psychological contract. Thus far, this review has presented an overview of current research topics and highlighted some of the key challenges facing the psychological contract literature. In the remainder of this article, I further elaborate on three key challenges, together with a new perspective of the psychological contract seeking to meet these challenges. *First*, the challenge of defining the employer side of the contract calls for a revitalization of a broader perspective of the contracting *parties*. I therefore suggest that researchers return to the social exchange theory from whence the psychological contract derived and identify new ways of approaching the contracting parties. Second, the psychological contract phenomenon is an ongoing and dynamic *process*. However, with the majority of research carried out through cross-sectional survey designs, the field is far from understanding how the psychological contract forms, evolves, and changes, as is the case with a process perspective. Therefore, a new perspective should emphasize the psychological contract as a process. The final challenge involves the recurring focus on the relationship between psychological contract *breach* and work-related outcomes. Instead, new approaches to breach perceptions should be raised—for example, are all breaches negatively related to work-related outcomes? In the next section, I address these challenges by introducing and presenting a process model of the psychological contract.

A process model of the psychological contract

Figure 2 represents an attempt to incorporate and meet the key challenges presented previously. Basically, the model suggests that the psychological contract should be perceived as a *process* that evolves between two contracting parties A and B. The contracting party A or B can represent an individual, a team, or an organization. Moreover, one of the basic tenets of the model is that perceptions of a psychological contract emerge from *interdependence* and *interaction* between the contracting parties. In addition, the two-sided arrows in Figure 2 illustrate that the various components of the model mutually influence each other through the process of *renegotiation*. The model is further elaborated by addressing the three key challenges put forth previously. I first discuss *the contracting parties*, then elaborate on the *psychological contract as a process*, and, finally, present *a new approach to breach perceptions*.

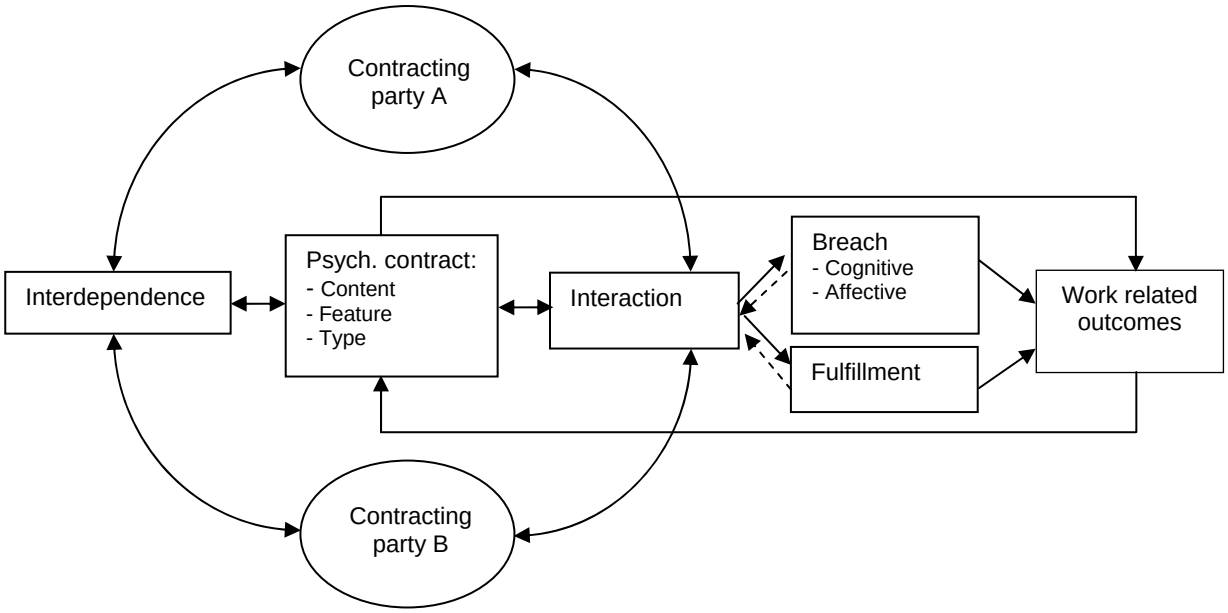

Figure 2: A process model of the psychological contract

The contracting parties

The first key challenge of defining the *contracting parties* can be solved by returning to the basic assumptions in social exchange theory and the theory of social interaction. Social exchange theory posits that *interdependent* actors engage in recurring exchanges with each other over time (Hydén, 2006), and the theory of social interaction suggests that *interaction* involves a situation in which the behaviors of one actor influence the behaviors of another actor, and vice versa (Turner, 1988). As a result, the process model proposes that *interdependent parties* and parties that engage in *interaction* have the potential of developing perceptions of a psychological contract. As mentioned previously, the parties can be individuals, teams, or organizations. However, as discussed in the review part, only individuals can hold perceptions of a psychological contract. Therefore, one of the parties A or B must be an individual who perceives a psychological contract with another individual (colleague or leader), a team, or an organization. This is in contrast with the assumptions in the current psychological contract literature, which has focused solely on the psychological contract between an employee and an employer (a vertical perspective). Thus, a horizontal perspective of the psychological contract is introduced.

A horizontal perspective of the psychological contract is a rather unexplored phenomenon in the current psychological contract literature. Considering that many organizations today are moving toward a team-based work approach, shared leadership, and decentralization, do individual employees only perceive psychological contract relationships upward when a manager acts as an agent of the employer? Do employees, with increased horizontal commitments, engage in psychological contracts with colleagues as well? Several of the original social exchange scholars focused on a horizontal perspective of exchanges, that is, exchanges between *group members* (Blau, 1964; Homans, 1958) and individuals in *dyads* (Kelley & Thibaut, 1978). Thus, the basic assumption put forth in the process model is that perceptions of a psychological contract emerge based on the *interdependence* between individuals.

For example, an employee may be working interdependently with a colleague or several team members but may at the same time be interdependent on feedback and promotion opportunities from the leader. As a result, the *interdependence* gives rise to perceptions of a psychological contract with the colleague, with the team, or with the leader based on the

interdependence with the other party(ies). In addition, the perceptions of a psychological contract that have emerged through interdependence may influence the interdependence level with the other party. It is therefore suggested that the interdependence level and the perceptions of a psychological contract mutually influence each other.

In addition, the process model suggests that the *interaction* between the contracting parties shapes the perceptions of a psychological contract. According to Turner (1988), *social interaction* is the process by which the overt movements, covert deliberations, and basic physiology of one individual influence those of another, and vice versa. In organizations, employees interact with colleagues, team members, leaders, and so on, which may give rise to psychological contract perceptions. This notion is related to the discussions about the beliefs constituting the psychological contract put forth previously. It was stressed that the employees are concerned with the actual *exchange* and not as much with the perceived *promises*. Thus, *interaction* that involves *exchanges* between parties should give rise to perceptions of psychological contracts. Moreover, the psychological contract that evolves between the parties should have an impact on the willingness to engage in future interaction with the other party.

In summary, the *contracting parties* emerge from *interdependence* and *interaction* between each other, which further give rise to psychological contract perceptions. The psychological contract perceptions are defined as *obligations* and *exchanges* between the parties as elaborated in the review.

The psychological contract as a process

As explicated previously, the process model represents an attempt to recognize the psychological contract as a *process*. In general, process models involve feedback loops and/or show how sequences of an actual process unfold (e.g. an organizational change process). In the following, I elaborate on and exemplify the relationships in the process model. In the previous section, I discussed the relationships among the elements of contracting parties, interaction, interdependence, and psychological contract perceptions; therefore, I do not reiterate their relationships in this section. Rather, I stress that because they all mutually influence one another, they take the form of a *process*. In addition, as the current literature has shown, psychological contracts have various contents, features, and types.

Next, in line with the previously mentioned studies, which have examined the link between psychological contract *types* and work-related outcomes, the psychological contract is directly associated with work-related outcomes. That is, these studies have found that *balanced* contracts represented by high mutual obligations (relational contracts) between employees and the employer lead to greater commitment than *unbalanced* contracts. Therefore, from these studies, the psychological contract *type* has a direct impact on the work-related outcomes of the contracting parties. For example, consider an interdependent relationship between team members in which "Ann" has developed a perception of high mutual obligations with another team member "Bob". Ann's perception of such a contract should directly influence her commitment to Bob, such that she is more committed to Bob because of a high mutual obligation contract, and vice versa.

In addition, the model suggests that there is a feedback loop from work-related outcomes to perceptions of a *psychological contract*, which again affects *interdependence* and *interaction*. This can be explained by extending the previous example: If Ann is committed to Bob, her perception of such a commitment may trigger a *renegotiation* of the psychological contract on the one hand and an adjustment of the interdependence level and willingness to interact on the other hand. Most likely, Ann will continue to interact or increase her interaction with Bob, working interdependently or even increasing her interdependence with Bob. Thus, Ann will actively *renegotiate* her perceptions of the psychological contract, such that the contract with Bob includes more elements of high mutual obligations. The model suggests that this is an ongoing cycle, in which the *type* of psychological contract Ann perceives will influence the work-related outcomes, which in turn will affect which type of psychological contract Ann perceives.

Is psychological contract breach always bad?

The next relationships explained involve alternative ways of studying breach perceptions, along with the process perspective of the psychological contract. The model suggests that the link between the psychological contract and breach moves through *interaction.* Recent studies have highlighted the importance of exchanges in relation to breach perceptions (e.g. Bankins, 2010; Montes & Zweig, 2009; Roehling, 2008). Exchanges take place through interactions. Therefore, the model depicts a two-way relationship between *interaction* and *breach.*

According to the model, *breach* has two possible outcomes. The reason for including two outcomes of breach perceptions comes from the distinction between psychological contract breach and violation explicated in the review. That is, breach refers to a *cognitive* registration of a breach and an *affective* reaction to a breach. Depending on whether the individual perceives a cognitive or affective reaction to breach, different outcomes may be activated.

First, breach of the psychological contract is linked to both work-related outcomes and interaction. The link between breach and work-related outcomes can be explained as follows: Both a cognitive and an affective response (referred to as violation in the literature), such as anger, resentment, or other strong emotional reactions, have a negative impact on work-related outcomes. This is in line with the majority of research that has been conducted on the phenomenon of the psychological contract. However, few studies suggest that there is a feedback loop from work-related outcomes to the psychological contract. An exception is Taylor and Tekleab (2004), who propose a model in which feedback loops are incorporated from work-related outcomes to the nature of the psychological contract. They suggest that negative consequences of a violated contract tend to increase the transactional nature of the exchange, which will also affect the perceptions of exchange balance. This view is adopted here, such that an individual's perceptions of a violated contract, which has an impact on work-related outcomes, will result in both a renegotiation of the psychological contract and a change in the level of interdependence and interaction with the opposing contracting party.

Second, the link between breach and *interaction* indicates that not all breaches have a direct effect on work-related outcomes. For example, in a diary study, Conway and Briner (2002a) found that employees perceive breaches regularly (on a weekly basis) and in relation to nearly all aspects of the job. With so many breaches occurring, the outcomes should vary depending on the type of breach, the type of psychological contract on which the relationship is based, and how the breach is managed. Because studies examining this more thoroughly are lacking, I suggest here that the perception of breach, when not affecting work-related outcomes, triggers the employee to engage in a *renegotiation* phase of the psychological contract. This again is illustrated by extending the previously mentioned example: Ann perceives a high mutual obligation type of contract with Bob. Ann is collaborating with Bob on a work task but perceives a breach (e.g. Bob fails to deliver his part of the job within deadline, and therefore they are not able to finish the job). In Ann's perceived type of contract with Bob, she conceptualizes a team as one in which team members follow up on obligations with each

other. Thus, the breach represents something unexpected, a *cognitive* registration of a breach. This may further result in an *affective* reaction to the breach (violation). However, because Ann has previously had positive experiences working with Bob, she may be triggered to *interact* with Bob to find out what happened. If she cannot discover the reason for Bob's breach, she may reinterpret the psychological contract and/or the interdependence with Bob, such that in the future, she may both reduce the interdependence with Bob and revise her perception of a high mutual obligation type of contract with him. However, the interaction and attempt to determine what happened may also result in a strengthening of the contract because both parties may find ways to improve the collaboration. This example also appears in the team conflict literature, which has shown that when conflict is dealt with constructively, teams make better decisions, and commitment is enhanced (Cosier & Dalton, 1990).

Finally, the model depicts a link between psychological contract perceptions and fulfillment through interaction. This means that through interaction, the contracting parties may perceive a psychological contract fulfillment, which might further result in two outcomes. First, fulfillment might have an impact on work-related outcomes, such that a perception of a fulfilled psychological contract positively affects various work-related outcomes (in line with findings from previous research). Second, a perception of a fulfilled psychological contract might also influence the level of interaction between the contracting parties, such that a fulfilled psychological contract causes the contracting parties to engage in an increased level of interaction in the future, which again influences the perception of the psychological contract.

Though a rough presentation, the process model is an attempt to build on previous research, while also proposing a new perspective that addresses some of the key challenges facing the current psychological contract research. The intention is to encourage future areas of research as well as to support continuing efforts to model the relationships relevant for understanding the nature of the psychological contract.

Discussion

The aims of this article were threefold. The first goal was to review the current state of the psychological contract literature to provide a systematic overview of the field, the second was to address key challenges facing the literature, and the third was to suggest a process model that addresses these challenges. In total, 115 studies were systemized into six categories to shed light on the current state of the literature. The six categories can be linked to Whetten's (1989) key questions for theory development. Through the review, each category was summarized by highlighting specific challenges. Furthermore, three main challenges that formed the basis for a development of a process model were identified. These challenges included (1) defining the *contracting parties*, (2) treating the psychological contract as a *process*, and (3) exploring the taken-for-granted notion that psychological contract breach is always negatively associated with work-related outcomes. An alternative model was elaborated by addressing and finding solutions to the three challenges raised.

Theoretical implications and future research opportunities

The alternative model presented herein suggests that the psychological contract can be approached in new ways. First, the model suggests that perceptions of a psychological contract emerge from interdependence and interaction between *contracting parties*. This means that the traditional vertical focus on the psychological contract between employees and their employer should be broadened to include psychological contracts between various parties on both a horizontal and a vertical level. This is because organizational members are interdependent and interact with each other on all levels. By adopting such a view, researchers should examine whether the psychological contracts between employees, between employees and groups, and so forth, are similar to what other studies have discovered about the psychological contract between employees and their employer. Most likely, the content of a psychological contract with a team member or colleague differs from that with a manager. Therefore, researchers should examine the psychological contracts on a horizontal level.

Second, the process model suggests that the psychological contract represents a *process* by which psychological contracts are renegotiated on the basis of the *interaction* between the contracting parties. The feedback loops are an important aspect of the model because they reflect the dynamic nature of the psychological contract. The model suggests that the

psychological contract is renegotiated according to the perceptions of the breach and fulfillment, as well as work-related outcomes. Further research should empirically investigate whether these relationships are viable and if they extend knowledge of the psychological contract.

A third theoretical implication involves approaching *breach* perceptions in new ways. Traditionally, a large number of studies have examined the consequences of breach on work-related outcomes. However, little is known about how often breaches occur, where and when it happens, why it happens, whether all breaches are negatively related to work-related outcomes, and whether there are differences in the parts or content of the contract breached. The alternative model presented herein suggests that not all breaches have a negative impact on work-related outcomes; rather, breaches may represent an opportunity to renegotiate the psychological contract to the other party(ies) to the contract, so that they obtain a better understanding of their relationship. Further research should examine whether various types or content of psychological contracts affect the perceptions of breach.

Methodological implications

This study has identified the methodological challenges facing psychological contract research. In particular, the excessive use of correlational designs has prevented obtaining new insight into the nature of the psychological contract (Conway & Briner, 2005, 2009; Taylor & Tekleab, 2004). The process model presented herein emphasizes a process perspective, which means that methodological approaches other than cross-sectional survey designs should be applied. In particular, qualitative methods that focus on gaining depth and longitudinal data should be encouraged. In addition, field experiments with a combination of diary studies, interviews, or observations are recommended. In summary, more creative use of alternative measures that map how psychological contracts are formed, altered, and renegotiated should be initiated.

Practical implications

The ideas put forth in this article also have implications for practice. First, managers should be aware that various psychological contracts can emerge in the organization, both between their employees and themselves and between employees who work interdependently and interact with each other. Thus, managers need to handle various types of psychological

contracts between various parties. Second, the new approach to breach perceptions means that managers must encourage a renegotiation process so that the parties to a breached contract can improve their relationship with each other, rather than withdraw from the relationship or experience a negative effect on work-related outcomes. Third, managers should also understand which types of psychological contracts are constructive for promoting good working relationships not only between themselves and their employees but also between employees.

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Article 2

Horizontal psychological contracts in groups:

A case study

By

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Abstract

This study examines group processes through the lens of psychological contract theory. It is argued that new insights into cooperation and coordination can be gained by exploring horizontal psychological contracts (HPCs) in groups. The study begins by arguing that psychological contracts, which have traditionally been applied to vertical relationships, can also inform horizontal relationships, such as those between group members. This perspective is then developed by drawing on data from a case study of four groups. Group members were interviewed and observed, and data were analyzed and compared through a within-case and cross-case analysis. The results show that the group members exhibit HPC-like agreements along the dimensions of expectations, obligations, and exchanges. Furthermore, the HPCs are *task oriented*, *relationally oriented*, or both. The data also suggest that the HPCs in the groups are either *tight* or *loose*. These two main types vary along several dimensions and influence group cooperation and coordination. *Tight* HPCs involve a high level of cooperation, a low need for leadership coordination, and group loyalty, while *loose* HPCs are associated with a lower level of cooperation, a higher need for leadership coordination, and organization loyalty. Theoretical and practical implications are discussed.

The essence of teamwork is the interactive and cooperative activities of team members. Groups that work cooperatively have less tension, fewer conflicts, and fewer verbal confrontations (Tjosvold, 1995). Being part of a group should encourage people to act cooperatively, but often team members find themselves in mixed-motive situations, in which they compete as well as cooperate (Levi, 2011). When some team members begin to compete, others tend to respond in the same way, resulting in poor group performance (Wall & Nolan, 1987). Conversely, team members are more likely to act cooperatively if they believe that other team members will act in the same way (Dawes & Kagan, 1988). Overall then, for a team to reach a common goal, team members must cooperate, and cooperative behavior is likely to increase when they believe that the others in the team will also cooperate. A large number of social dilemma studies have examined the willingness to reciprocate cooperative behavior (e.g. prisoner's dilemma). In general, the findings show that "strong reciprocity" leads to higher cooperative behavior (see e.g. Carpenter, Bowles, Gintis, & Hwang, 2009; Fehr, Fischbacher, & Gächter, 2002). Yet refined procedures on how to measure strong reciprocity between group members are lacking.

Coordination is another key factor for superior team performance (Cohen & Bailey, 1997). Coordination ensures that the team performs as a unit and involves the effective management of dependencies among sub-tasks, resources, and people (Malone & Crowston, 1994). Coordination activities can be executed by a group leader and/or by the group members. When team members interact over time, they often develop a transactive memory system, which helps eliminate coordination loss that can have a negative impact on team performance (Moreland, Arggote, & Krishnan, 1998). Thus, teams that work well are able to coordinate their activities without being dependent on the leader to coordinate. However, more insight is required into what motivates the willingness to coordinate activities other than a shared knowledge base.

This article argues that the *psychological contract* perspective can provide insight into how and why group members *cooperate* and *coordinate*. The psychological contract seeks to understand *"the individual's belief regarding the terms and conditions of a reciprocal exchange agreement between that focal person and another party"* (Rousseau, 2011, p. 192). Therefore, *reciprocity* is at the core of the psychological contract definition. This suggests that the psychological contract can provide insight into "strong reciprocity," which in turn leads to cooperation. Previous research has traditionally applied the psychological contract to

understand the relationship between the employer and the employees and therefore has predominately focused on the impact of a psychological contract breach on various work-related outcomes. In particular, a recent meta-analysis shows that a psychological contract breach is related to job satisfaction (-.54), organizational commitment (-.38), turnover intention (.42), in-role performance (-.24), and organizational citizenship behavior (OCB) (-.14) (Zhao, Wayne, Glibkowski, & Bravo, 2007). Overall then, there is agreement that the psychological contract is important for predicting the attitudes and behaviors of employees in organizational life (see e.g. Conway & Briner, 2009; Guest, 2004; Rousseau, 1995). This article argues that the traditional vertical perspective between the employer and the employee should be broadened to include horizontal relationships between employees for the purpose of understanding how and why they cooperate and coordinate in groups. At least four arguments emerge in favor of such a perspective.

First, a shift from hierarchical to decentralized organizations as well as a shift from mass production to specialization has led to flatter structures with increased horizontal lines of communication (Vettori, 2007). This means that organizations must rely more on the coordination and cooperation between employees. Second, psychological contract theory was originally derived from social exchange theory, in which the emphasis was on the reciprocity between group members rather than that between the employer and the employees. (Blau, 1964; Gouldner, 1960; Homans, 1958). It therefore can be argued that as a result of the changing organizational conditions, the original perspective of social exchange theory should be revitalized. Third, the nature of contracting is based on the premise of voluntarism (Barnard, 1938; MacNeil, 1980). As Rousseau (2011, p. 213) recently asked: *"Is the psychological contract truly a voluntary commitment to a set of obligations in circumstances where employees are very low in power relative to their employer?... At the very least, power differences can function as a boundary condition, limiting the circumstances in which the construct of psychological contract might apply"*. Instead, it can be argued that horizontal relationships (that between employees), in which both voluntarism and power balance is more in line with the nature of contracting, apply to the psychological contract. Fourth, in an employment relationship there is often a formal contract that describes obligations between the parties in terms of duration of the contract, pay, working hours, and other collective agreements that form the employment relationship (Hasselbalch, 2010). This is in contrast with horizontal relationships in which there are no formal contracts but rather informal

elements that may take form as a psychological contract. Thus, it can be argued that horizontal relationships represent a pure form of psychological contracts without any interference from a formal contract.

According to research on the (vertical) psychological contract between the employees and the employer, employees' perceptions of breached contracts influence various work-related outcomes, including job satisfaction, OCB, turnover intention, performance, and commitment. Therefore, a horizontal perspective of the psychological contract (HPC) implies that breached psychological contracts also have consequences for the relationship between the employees. In particular, it is suggested that breaches in HPCs affect employees' willingness and motivation to collaborate with each other.

An important element in the development of a psychological contract includes the aspect of *interdependence* (Sverdrup, 2012). Therefore, the current study examines interdependent teams or groups. The terms "team" and "group" are used interchangeably herein and reflect collections of individuals that are interdependent of each other to reach a common goal (Thompson, 2008). Three research goals are addressed in the current study. First, I explore contract-like agreements between group members. Second, I aim to identify the content and features of HPCs between group members. Third, I examine the linkages between HPCs and group cooperation and coordination.

The findings suggest that the level of cooperation, coordination, and loyalty within groups pertain to the HPCs with other group members and that various types of HPCs unfold within and across groups. First, the article provides a theoretical presentation of the traditional psychological contract literature with suggestions on how to broaden this to a horizontal psychological contract perspective. Second, the design and methods of the study are discussed. Third, the findings are presented in three sections following the structure of the research questions. The article concludes with theoretical and practical implications.

Theoretical background

The theoretical foundation is presented in two sections. Section one describes the traditional psychological contract theory, and section two addresses the broadening of psychological contract theory to an HPC perspective.

Psychological contract theory

Research on the psychological contract has increased significantly over the past two decades after Rousseau (1989) reintroduced the concept. However, the concept was first introduced 50 years ago as the *psychological work contract,* which described the relationship between the foremen and the manual workers at a factory (Levinson, Price, Munden, & Solley, 1962). Other researchers, such as Argyris (1960), Kotter (1973), and Schein (1980), have discussed and employed the concept, but not to the same extent as after its reintroduction in 1989. The reintroduction of the concept came at a time when the organizational life was changing from being stable and local to being more unstable and global. In addition, organizations experienced a shift in the employment relationship from being long-term committed to being short-term committed (Kissler, 1994; Sharkie, 2005). This caused researchers to focus on each individual relationship between an employer and an employee, which in essence was embraced by both practitioners and researchers as a viable approach to describe this change in the employment relationship.

As presented in the introduction section, the psychological contract refers to an individual's beliefs about a reciprocal exchange agreement with another party. This means that the psychological contract exists in the mind of an individual and that the individual perceives an exchange agreement with another party. Traditionally, the other party has been defined as the employer or the organization; however, it is difficult to measure the employer side of the contract because the employer or the organization does not consist of one individual. Thus, the issue of anthropomorphism is prevalent. Nevertheless, a substantial amount of research has been carried out on the antecedents, content, and consequences of the psychological contract.

Rousseau and Tijoriwala (1998) distinguished between two approaches with regard to psychological contracts. First, the *content-oriented* approach focuses specifically on the terms

to which individuals are presented, and second, the *feature-oriented* approach focuses on specific dimensions of the psychological contract. Findings from the content approach have resulted in three different contracts—namely, transactional, relational, and balanced contracts (Rousseau, 2000). *Transactional* contracts refer to highly specific exchanges of limited duration with characteristics such as low ambiguity, low member commitment, weak integration, and freedom to enter new contracts. *Relational* contracts are more open ended and relationship oriented with little specification of performance requirements, high member commitment, high affective commitment, high integration, and stability. The *balanced* contracts consist of a mix of transactional and relational contracts in which the relationship can be long term but with highly specified performance terms, high member commitment, high integration, ongoing development, and mutual support.

Research addressing the content of the psychological contract has focused mainly on three areas. First, studies have examined the distinction between transactional and relational contracts and have generally found that they are two distinct dimensions (see e.g. Coyle-Shapiro & Kessler, 2000; Herriot, Manning, & Kidd, 1997; Millward & Hopkins, 1998; Raja, Johns, & Ntalianis, 2004). A second stream of research has focused on the consequences of different types of psychological contracts. For example, one study showed that transactional contracts had a direct effect on OCB, while the effects of relational contracts on OCB were mediated by instrumentality (Hui, Lee, & Rousseau, 2004). Another study showed that relational contract terms were associated with stronger violation–outcome relationships than transactional contracts (Raja, Johns, & Bilgrami, 2011). Third, studies have examined the differences between permanent and temporary employees' perceptions of the psychological contract. Findings show that compared with permanent employees, temporary employees perceived transactional rather than relational contracts (Millward & Brewerton, 1999; Schalk et al., 2010) .

Janssens, Sels, and Van Den Brande (2003), Sels, Janssens, and Van Den Brande (2004), and McInnis Meyer, and Feldman (2009) have contributed to the *feature-oriented* approach by identifying several dimensions that capture the nature of psychological contracts. First, *scope* (narrow vs. broad) reflects the degree to which only employment relationships are included or if other aspects of one's life are included. Second, *flexibility* (flexible vs. static) refers to the extent to which the terms of the contract can evolve and adapt in response to changing conditions versus being static and fixed at the time of formation. Third, *explicitness* (explicit

vs. implicit) refers to whether the terms of the contract are stated explicitly either in writing or orally or must be interpreted from policies and practices. Other researchers have also proposed a fourth dimension—namely, *strength* (Janssens, et al., 2003; Willems, Janvier, & Henderickx, 2006). A *strong* psychological contract implies that the employee has high expectations of the organization and is also willing to offer a lot in return, especially loyalty. In contrast, a *weak* contract implies that an employee has low expectations of the organization and is willing to offer less in return. These four dimensions could help identity, describe, and analyze various types of HPCs.

Regardless of the content and features of the psychological contract, this research is by far outnumbered by studies of consequences of breached psychological contracts. Previous studies have claimed that breach is the most important idea in psychological contract theory (Conway & Briner, 2005). Many studies have shown that psychological contract breach has serious consequences for various work-related outcomes. In particular, empirical studies have found that breach is related to lower well-being, negative attitudes toward the job and the organization (e.g. job dissatisfaction), lower organizational commitment, lower job performance, reduced levels of OCB, and increased withdrawal behaviors (e.g. leaving the organization) (see e.g. meta-analysis by Bal, De Lange, Jansen, & Van der Velde, 2008; Cantisano, Dominguez, & Depolo, 2008; Zhao, et al., 2007). A general finding is that breach has stronger effects on attitudes than behaviors. However, extant studies cannot make firm causal conclusions because of the lack of both longitudinal studies and applications of alternative methods, such as experiments and qualitative studies, when studying the effects of psychological contract breach. Extant research clearly points to the negative influences of breach on various outcomes. This study, however, considers breach in terms of both its impact on the HPC and the relationship between HPC breaches and group functioning.

In summary, research on the psychological contract shows that a psychological contract can be transactional, relational, or balanced in nature and can exhibit various features, including flexibility, scope, explicitness, and strength. Furthermore, research suggests that there is a strong relationship between psychological contract breach and work-related outcomes.

Horizontal psychological contracts

Research has recently suggested that psychological contracts should be broadened to include the relationship between employees. Three studies have addressed the horizontal perspective of the psychological contract. First, Marks (2001) suggested that the psychological contract should be reconceptualized as a concept with multiple foci, meaning that employees hold psychological contracts with many organizational constituents. She argues that psychological contracts develop within work groups and that the strength is determined by the proximity of the employee to the other party. Second, a recent study of temporary agency workers and their psychological contracts found that the workers formed a psychological contract with both management and co-workers in the client companies for which they worked (Svensson & Wolvén, 2010). Third, a qualitative study of employee agency and its relationship to psychological contract theory found that employees became active parties to the psychological contract, consciously modifying and constructing it with both managers and team members (Seeck & Parzefall, 2008). These studies suggest that the psychological contract should be broadened to include horizontal perspectives. However, they do not go as far as to define an HPC between employees.

An HPC can be conceptualized as an employee's perception of some set of reciprocal obligations between him or her and another party, such as a colleague. Thus, the psychological contract can be examined as a two-way exchange because a colleague (employee) can hold perceptions of an exchange relationship unlike an employer or an organization. The beliefs constituting an HPC include expectations, exchanges, and obligations.

The arguments for including expectations, exchanges, and obligations are threefold. First, according to the definition presented previously, an HPC includes an employee's perception of some set of reciprocal *obligations* (Rousseau, 1989). Thus, *obligations* are at the core of an HPC. The Oxford English Dictionary (2012) defines obligation as *"an act or course of action to which a person is morally or legally bound"*. Second, expectations tend to be related to obligations or, more precisely, *normative expectations* (i.e. beliefs about what "ought" to or "should" be done). Normative expectations are argued to be attached to all beliefs about obligations (Roehling, 2008). Third, *exchanges* are included in line with a recent study of the role of promises in psychological contract breach, which found that employees are concerned with what the organization delivers regardless of whether a promise was made in advance

(Montes & Zweig, 2009). Thus, studying what the employees actually exchange with each other is important for understanding an HPC. The Oxford English Dictionary (2012) defines an "exchange" as *"an act of giving one thing and receiving another (especially of the same kind) in return"*. In short, an HPC is operationalized herein as comprising *normative expectations, obligations*, and *exchanges* between coworkers.

For an HPC to develop between employees, I suggest that the parties must perceive some sort of interdependency between them. This is in line with the assumptions presented by Marks (2001), who claimed that the strength of the psychological contract between team members is related to the proximity between the parties. By definition, team members are interdependent, but the degree and kind of interdependency varies. Task interdependence is *"the extent to which team members cooperate and work interactively to complete tasks"* (Stewart & Barrick, 2000, p. 137). Overall, highly interdependent group members produce solutions faster, complete more tasks, and perform better than group members that are not very dependent on one another (Thompson, 2008).

Method

This section is divided into three parts. The first part describes the research design, sample, and data collection; the second elaborates on the analysis of the data; and the third discusses the quality of the data.

Data collection

A case study approach was applied because it allows for exploring new phenomena as well as answering questions pertaining to how an HPC unfolds (Yin, 2009). The study took place in a Norwegian media organization that had implemented team organization two years before the data collection took place. One of the main reasons for introducing group/team work was to introduce new ways of working, which were believed to facilitate collaboration and coordination. The study was conducted from fall 2008 to fall 2010. Contact with the media organization was established in summer 2007, and after several meetings and presentations

for the management, union representatives, and employees, the data collection started late autumn 2008. Data were collected by interviewing and observing a selected sample of group members in four groups. In addition, I obtained access to secondary data (documents and surveys). Because the start of the data collection took place two years after implementation, it was possible to uncover how the groups had implemented the change and developed during the two-year period. I selected four groups that varied in size, tasks executed, and how they had implemented the change. More particularly, I followed a sampling approach called "polar types" in which both high performing and low performing cases were selected (Eisenhardt & Graebner, 2007). The interviews were conducted from November 2008 to January 2009 and lasted from 60 to 90 minutes. Follow-up interviews were conducted from December 2009/January 2010 to autumn 2010 and lasted approximately 30 minutes. Altogether, 39 interviews were conducted with 26 respondents. A sample from each group was interviewed as well as the four group leaders. The sample was a mix of a so-called convenience and judgment sample. That is, I interviewed the employees who were present on the days I visited the organization. In addition, I selected employees that had worked at the organization for a long time and knew its history. In addition, one key informant was interviewed 8 times providing me with background data, performance data, and information about which changes and plans the groups were subject to in the data collection period.

Table 1: Characteristics of the four groups

Group	Desk group	Web group	Large journalist group	Small journalist group	Total
Group size (2008) Group size (2010)	12 10	15 23	12 11	6 5	**45**
Respondents	7	7	7	5	**26**
Number of interviews	9	12	8	10	**39**
Observations (days)	4	3	6	3	**16**

Table 1 presents a summary of the group size, the number of respondents, the number of interviews carried out, and the number of observation days. The groups changed in size during the period studied; three groups experienced reductions in size due to the global finance crisis, while one group expanded.

The interview data were collected by means of a semi-structured interview guide, and data were recorded and transcribed verbatim. This process resulted in approximately 600 pages of

text material (single spaced). I used similar interview guides for all the group members, but for the group leaders, leadership issues were discussed as well. First, I asked the interviewees to specify what they expected of the other group members when carrying out the job, as well as what they believed the other group members expected of them. Second, I asked the interviewees whether they felt an obligation to the group or to the group members and then to describe the essence of that obligation. Third, I asked the respondents to specify the exchanges between themselves and their group members (e.g. "If you think of your relationship with the other group members as a give-and-take relationship, what do you feel you give them, and what do you receive in return?"). The respondents also specified whether they experienced individual expectations or expectations toward the whole group and the expectations they perceived from and to their group leader. Other topics discussed included trust, OCB, creativity, coordination, cooperation, and knowledge sharing. In the follow-up interviews, I asked the respondents whether there had been any changes in the obligations they perceived in the groups, how they perceived the functioning of the groups, and how the cooperation between the group members had functioned since the last interview. Before the follow-up interviews, I sent a transcribed version of the first interview to some of the respondents and asked them to read through it. In the second interview, I used the first interview to identify any changes and to clarify elements from the first interview. In particular, I wanted the respondents to elaborate more thoroughly on their perceptions of the HPC agreements.

In addition to interviewing group members and group leaders, I observed the groups. All groups had daily meetings, and I attended at least two group meetings per group to grasp the atmosphere and to observe how they communicated about the work tasks. The meetings were not tape-recorded, but impressions from the meetings were written down in field notes. Observation can only give a partial picture, but it enables researchers to observe how communication is initiated and by whom, to discern how much the leader decides compared with the group members, and to grasp a sense of the general atmosphere within the groups. In addition, I spent several days in different areas of the office landscape together with the four groups in between the interviews. I brought my own work to the office and joined the employees and worked beside them, which gave me an opportunity to observe their daily working life. I spent 16 days all together in the office landscape. Mostly, I worked there during the day, but I also followed some of the night shifts.

The secondary data consisted of different sorts of documents, including documents that clarified the background and goal of the change process and written contracts that the groups had created, which stated the goal and work process of each group. I also had access to survey data collected by the organization on several topics, such as how the group members perceived the cooperation in the groups, knowledge sharing, and the quality of the work. The survey data enabled me to derive a general picture of differences among the groups and how they functioned.

Data analysis

The analysis followed a content analysis approach (Ryan & Bernard, 2000) , in which the goal is to condense raw data into categories or themes on the basis of valid inference and interpretation. Furthermore, the analysis used a combination of deductive and inductive reasoning. This means that some concepts or variables from theory were applied in the initial coding process, and then an *inductive* approach was used to allow themes to emerge from the data. Inductive analysis involves discovering patterns, themes, and categories in one's data (Patton, 2002). The data were analyzed by applying the qualitative software program Atlas.ti 6, which enabled the coding process as well as increased traceability of the findings.

The data were analyzed in three steps. First, in a first-order (Van Maanen, 1979) and within-case analysis the goal was to capture key issues of the HPC within the four groups. The HPC was operationalized as *exchanges*, *normative expectations,* and *obligations.* An example of an exchange is, *"When I do boring work I do it so that the others feel that it is ok to also do the boring work".* Furthermore, illustrations of normative expectations are, *"I expect that the others in the group give me feedback on the job I'm doing"* and *"I feel that they expect me to take more responsibility than the others".* Finally, a quote that involves obligations to other group members or the group is, *"I feel an obligation to be a positive driving force when it comes to idea development".* In summary, the HPC was coded for quotes comprising obligations, normative expectations, and exchanges in the groups.

In the second and third steps of the analysis, the data were compared across groups, in a so-called second order and cross-case analysis (Miles & Huberman, 1994). In the second step, the content and features of the HPC were explored within and across groups. First, the *content* of the HPCs were identified by coding various themes that emerged from the data but also by

constantly comparing the data with existing theory on content of vertical psychological contracts. Two categories of HPCs emerged from this process: (1) a task-oriented HPC and (2) a relational-oriented HPC. These two categories build on existing research but have been further developed for the group context and the horizontal relationships between the group members. Each of these categories is presented along with empirical evidence in the Results section. Second, the *features* of the HPCs were also identified by coding themes that emerged from the data as well as relying on existing theory. Five categories were identified through this process: *explicitness, scope, flexibility, strength*, and *breach handling.* Four of the features were inspired by vertical psychological contract theory, while *breach handling* was developed inductively. Each feature is presented together with quotes from the data in the Results section. Furthermore, the features were compared within and across groups, which resulted in two *types* of HPCs labeled tight HPCs and loose HPCs.

In the third step of the analysis, the content and types of the HPCs were linked to group cooperation and coordination. This analysis was carried out by combining the perceptions of the group leaders with the group members' perceptions of group cooperation and coordination.

Data quality

Lincoln and Guba (1985) have suggested four criteria for evaluating interpretive research work, which they explicitly offered as an alternative to more traditional quantitatively oriented criteria: credibility, transferability, dependability, and confirmability. *Credibility* refers to the fit between participants' views and researchers interpretations and has been compared with *interpretive validity* in the quantitative research approach. Several steps were made to ensure credibility. First, multiple sources of data collection were applied when exploring the HPCs. A combination of interviews, observations, and document data was applied, which allowed for testing the consistency of the findings with the various methods (Patton, 2002). Second, interviews were carried out twice with many of the interviewees, which made it possible to ensure the accuracy of the interpretations in the first interview. Third, by being present in the organization both while observing the respondents and working beside them, I got to know them on a more informal level, which may have led to greater feelings of safety when being interviewed.

Transferability refers to the extent to which the researchers' working hypotheses can be applied to other contexts, or what has been referred to as *generalizability* in quantitative research. According to Lincoln and Guba (1985), it is not the researcher's task to provide an index of transferability; rather, the researcher is responsible for providing rich descriptions of the data set so that other researchers can make judgments about the transferability of the findings. This study established transferability by explaining the data collection process, the coding process, and the context of the study and also by presenting many quotes from the interviews, which is in line with the recommendation to make a "thick" description (Geertz, 1973). Together, these techniques can be used to replicate the study in other organizational contexts.

The third and fourth criteria of *dependability* and *confirmability* resemble what is referred to as *reliability* in quantitative research. The major technique to establish these criteria is to conduct thorough audits of the research process and findings. In this study, I kept a research diary, which enabled me to comment on data collection and findings during the study. I also kept field notes, raw data, and coding manuals. While coding the data in Atlas.ti, I used the memo function to summarize thoughts and ideas for interpretation. Along with this, several other researchers read the findings and conclusion and provided feedback on the analysis and rigorousness of the study.

Results

The results are presented in three sections reflecting the three research questions. The first section argues and shows that psychological contracts unfold not only in vertical relationships between employer and employee but also in horizontal relationships between members of a group. The second section proceeds to demonstrate two types of HPCs reflecting the content around which contracts are formed. In this study, the contracts were particularly framed around tasks, relationships, or both, with various themes within each of these two dimensions. The features of the contracts also vary across groups, with some groups exhibiting tight contracts and others exhibiting loose contracts. The third section links the types and forms of HPCs to group cooperation and coordination.

Exploring the horizontal psychological contracts in groups

The goal of the first research question was to explore contract-like agreements between group members. The findings show that group members of all four groups exhibit HPCs along the three dimensions of exchanges, expectations, and obligations. Table 2 presents a summary of selected quotes for these dimensions. In the following sections, I describe the four groups by applying an HPC perspective.

Group 1: Desk group

The desk group consists of two professions: copy editors (journalists) and typographers. The main objective of this group is to produce the newspaper. The copy editor edits news articles written by various journalists, and then the typographer combines and composes the appearance of the newspaper. The desk group works shift hours, and during the evening shift, they work as teams consisting of one copy editor and one typographer. The two-by-two teams are responsible for different topics in the newspaper, such as sports, culture, economy, foreign affairs, and so on. At the time of the study, there were five two-by-two teams together with one group leader and one leader for the typographers. During the evening shift, the teams sit in close proximity, which enables frequent communication and cooperation within the teams.

Table 2: HPCs: expectations, obligations, and exchanges

Group	Examples of exchanges	Examples of expectations	Examples of obligations
Desk group	"I am involved in the others job as well as my own, and for that I receive trust, in the sense that colleagues ask me to help them with a title or something similar, and I feel that they expect that I can accomplish it. So I feel appreciated". "If I do my job properly, the others will accept me and not sanction me".	"I feel I have different expectations to the two professions (copy editors and typographers), and I expect that they do their best all the time…the day you start thinking is it really that important if not everything is perfect, you might as well find yourself a new job". "The most important thing is that no one shirks while working".	"I feel an obligation to do a good job, both for my employer and my colleagues". "I feel an obligation to make the group more social".
Web group	"You give time, effort, and that little extra … we have things in our job that are not that fun to do, and things that are. If you do some of those not so fun things, then others will also do it". "I feel I give a lot when it comes to the journalistic discipline, but I don't give much when it comes to the technical part, I really need help there".	"I expect to get feedback on my work, and also some practical help or tips about the article I am writing". "I expect that my colleagues deliver an article or pieces of an article fast and without mistakes … if someone publishes two lines and there are four spelling mistakes, I fly off the handle".	"I feel an obligation to the leaders first and foremost … of course it's nice to get good feedback from colleagues, but it means more to me when it comes from my leaders". "I feel that the ownership to the group and to the web is very strong … the obligation is very strong for me … the web is my first priority".
Large journalist group	"I come up with ideas that according to my leader are a bit off track, but can be a positive contribution, because I see things from a different angle, and in return the others approve of the ideas I have". "What I give? I feel that I am strongest in the idea making phase. I come up with ideas that the others haven't thought about … and what I receive from the others? It is not that they are very generous or praise your work. So I have spent some time figuring out what silence means, and what does a word like 'ok' mean. It is a lot of implicitness in these expressions: ok enough, good, should have had another angle".	"I guess we have the same kind of expectations to each other about being alert and reflected about what is being said in meetings, and try to come up with an idea". "I think they expect of me that I put important topics on the agenda, topics that they hadn't thought about themselves. Exactly the same as I expect of them … but there are also someone that you don't expect anything of".	"I feel an obligation to be prepared before the morning meeting…. I have read the news and have some sort of a working plan … and I think that people to a larger degree should feel obligated to show up at the meetings more prepared". "I guess I feel some sort of an obligation. I have been very generous with sharing ideas for articles and I also feel obligated to contribute to establish a good atmosphere, even though I at the same time am the one that turns the table and embitter the atmosphere".
Small journalist group	"When you come to work and your colleague says she struggles, and that we need to get this out today, then you experience the group feeling kicking in … then the mechanisms are there; cooperation and a feeling of responsibility, and a willingness to be best in tomorrow's newspaper. I think this is our motivation". "I feel that the whole group is good at giving direct feedback, very clear messages, both positive and negative".	"I expect that the others join in for idea-development … share their knowledge, and tell me up front if there is something I am doing that is not good enough". "I don't have any problems with telling people in a direct way what we expect in this group, but I think it is easier if we like each other and have spent time with each other first…. because if it is a mutual feeling that we like each other, then the other person won't take it so hard or feel it as an attack when I am very direct in the communication about expectations in the group".	"You feel a sense of personal obligation and a social bond, as much as a market place where things are exchanged…. I think we are the group in the editorial office that has done most things together, and we have a strong focus on both work and social meetings". "Socially I feel an obligation … there is no use in hiding, or I think that would be negative for both the group and myself".

The following quote is representative of what was reported in the desk group: *"I have different expectations to the different individuals in the group, very much based on the overall competence each person has and also what you can expect from them socially. I can expect more from one typographer than another"*. A general perception is that group members have different expectations of each other based on each member's competence level. For example, at the group level the members felt obligated to do a good job for their work colleagues and employer, and some also reported that they felt obligated to maintain a social profile in the group. Because they work in two-by-two teams, some informants reported different HPCs toward the other party in the team than toward the overall group. In particular, one two-by-two team differed from the others by reporting less breaches in the HPCs and also feeling more obligated to the other person than to the overall group. Another common theme that emerged during the interviews was the perceptions of the social interaction in the group. The quote *"I feel an obligation to make the group more social"* illustrates this point. This was confirmed by the observations conducted during the night shift. In particular, I observed how the group worked to reach the deadline of the newspaper production. During the working hours, there was a hectic atmosphere, but it was easy to observe how members all contributed with humor and jokes so that they would have fun as well.

An important aspect of the desk group is that the nature of the work requires some form of cooperation. The copy editor and typographer are dependent on each other to execute the work task. The following quote illustrates this: *"We have always been dependent upon helping each other out"*. Nevertheless, during the observations some differences occurred between the sub-teams; for example, some of the two-by-two teams discussed the appearance of the newspaper pages with each other, while other teams just delivered material between each other without communicating much about the work. Thus, the level of cooperation ranged from medium to high. This finding was confirmed by the group leader, as the following quote illustrates: *"They work in two-by-two teams … they work really well together, however I would want to see more cooperation between the two-by-two teams"*. This quote indicates that the level of cooperation could still improve.

The desk group seems more dependent on the group leader's coordination during the evening shift than the day shift. This is because there is more time pressure for reaching the deadline during the evening shift. For example, the group leader sometimes needed to interrupt and decide on the appearance of titles and text. Thus, there is a combination of high- and low-

coordinating activities from the group leader, depending on whether respondents worked the day shift or the evening shift. In addition, some differences occurred between the two-by-two teams during the evening shift. The two-by-two team that exhibited a high level of cooperation also needed less coordination from the group leader.

Group 2: Web group

The web group consists of both journalists and photographers who produce articles for the online newspaper. Moreover, there is a mix of people working the day and evening shifts. The group members that work shift hours sit in close proximity to each other because they are responsible for updating the online news from early morning until late at night. This sub-group within the web group is referred to as the "newsgroup".

When members of the web group were asked about the exchange relationships, expectations, and obligations within the group, there was a clear distinction between the perceptions of the newsgroup members and those of the group members that worked outside the newsgroup. For example, the following quote is representative of the members in the newsgroup: *"I feel that I contribute with many ideas ... and in return I feel that the others are positive and help me further to develop the ideas".* This is in contrast with a quote from one of the group members outside the newsgroup: *"I am quite disillusioned about the expectations towards my colleagues…. They don't understand the importance of the professional quality in what I do…. I am only here because they pay me to, and choose to have my social life outside this job".* Thus, the newsgroup elicited more examples of an HPC than the two group members that worked outside the newsgroup. In addition, the group members who were not part of the newsgroup reported more breaches in HPCs than fulfilled ones. Finally, the newsgroup perceived an obligation to the group itself, while the members outside the newsgroup perceived an obligation to the readers (or performing a good job). In summary, there was a distinction in the perceptions of HPCs of the members of the newsgroup and the members outside the newsgroup. The observational data supported these findings, in that the newsgroup would sit in close proximity facing each other on a round table, while the members outside the newsgroup sat further away. I did not observe much communication between these two parties, whereas members in the newsgroup communicated frequently about the work.

Regarding the level of cooperation, there was also a distinction between the newsgroup and the two members outside the newsgroup. The following quotes illustrate these differences: *"We cooperate a lot…. I seldom sit alone with a project that lasts for days"* (employee,

newsgroup) and *"Hard to tell how much cooperation there is, but I feel that I mostly do my own things, and sometimes I get a question or a message from someone"* (employee outside the newsgroup). Thus, the newsgroup exhibited a higher level of cooperation than the two members outside the newsgroup.

Group members characterized the group leader of the web group as very hands on, and this was also confirmed by my observational data. Every morning he would lead the meetings and distribute the tasks, and during the day, members would check and coordinate with the leader about which articles should be published. Thus, the group leader coordinates much of the work in the web group.

Group 3: Large journalist group

The large journalist group consists of journalists who write articles for the newspaper. The group members sit more separately than the other groups I observed. Quite a few of them have kept their single offices, and only four group members sit in an open landscape.

The group members do not seem to have an explicit sense of the expectations of each other; many quotes contained phrases such as *"I guess, I think, I hope,* or *I try"*, which suggests ambiguity in and uncertainty about the HPCs. The following quote illustrates this further: *"I guess we have the same kind of expectations to each other about being alert and reflected about what is being said in meetings, and try to come up with an idea"*. Furthermore, the obligations in the group are primarily directed toward the organization or themselves as journalists rather than the group, as the following quote illustrates: *"I feel an obligation to be prepared and have a working plan for myself."* In addition, some of the respondents perceived breaches in HPCs, as the following quote illustrates: *"They comment that I always have to pick up the kids in the kinder garden, implying that I am sneaking away from my job.... That really provokes me"*. Group members seem to work individually, and there are several perceptions of breaches in HPCs in the group. The observational data confirm these findings. In particular, I observed limited social interaction between the group members; for example, they did not eat lunch together.

The following dialogue between me and a group member from the large journalist group illustrates the leader's coordination activities: I asked: "*Are you dependent upon someone to coordinate information on a daily basis?"* The interviewee replied: "Y*es, with the little communication there is between us, we are very dependent on someone to coordinate.* This

was confirmed by the observation data, in that the group leader coordinated the work tasks during every morning meeting and followed up during the day if they had questions or inquiries. Thus, the group depended on the group leader for coordination.

When asked about cooperation, the majority of the group members reported that there was limited cooperation between the group members. The following quote exemplifies this: *"Each individual is very independent, and sits and works with his/her own things. I feel that there is very little cooperation, compared to what I am used to from my former job in a different organization".* This was confirmed by the group leader, as the following quote illustrates: *"There is a culture of holding on to separate areas of interest, and that they are afraid of stepping on each other's toes".* The group leader had tried to make members cooperate more and had lately observed a few changes. For example, one of the respondents had recently begun cooperating with another group member and found that this worked well. When asked about the perceptions of the relationship with this other group member, she felt more obligated toward him than to the other group members, indicating that she perceived a different HPC in relation to that colleague than the others.

Group 4: Small journalist group

The small journalist group is the smallest of the groups studied and consisted of 6 people during the initial data collection. The group consists of journalists who publish articles for the newspaper. When data collection started, the small journalist group exercised shared leadership, in which two of the group members divided the leadership tasks between them in an informal way. However, during the period of the study, one member was made a formal cell leader and the other began working in another group. The cell leader is considered a colleague rather than a leader because the group has a senior leader that deals with personnel issues. Overall, the responsibility of the cell leader is to coordinate the activities together with the group members. The senior leader sometimes discussed the goals of the group or future projects, but the group worked more or less independently.

In general, the findings indicate that there is a strong sense of obligation to each other and the group. The following quote illustrate this: *"You feel a sense of personal obligation and a social bond, as much as a market place where things are exchanged…. I think we are the group in the editorial office that has done most things together, and we have a strong focus on both work and social meetings".* The findings from the group, from both the interviews and the observations, show that the obligations are directed toward the group and that both task

work and social bonds are valued. Furthermore, members all agreed that they had different expectations of the group members based on their experiences with working together. Overall, however, the obligations they felt were directed toward the group and based on individual expectations.

The observational data confirmed these findings. I attended several morning meetings characterized by discussions of which articles to write and who would cooperate with whom, as well as the overall goal of the group and whether members were close to reaching the goal of the week. The meetings ended with members agreeing on who would work together on the different articles, and after the meetings they sat down and began working on the articles. They all sat in an open landscape, and at one point, one employee sat on the floor next to another group member to agree on an article they were working on together because there was no room by the desk. They were very engaged in each other's work. In other words, it was easy to observe how closely they worked on various tasks.

As indicated previously, a high level of cooperation exists between all the group members. The following quote is representative of the findings from the group: *"We cooperate a lot, it is more the exception than the rule that we work alone"*. Thus, by cooperating closely, members are able to coordinate their work tasks, such that they are less dependent on the senior group leader for coordinating their work.

Summary

The results show that the group members of the four groups exhibit HPCs along the dimensions of exchanges, expectations, and obligations. Some important differences emerge as to how the HPCs are perceived. In addition, the groups vary in terms of how much cooperation group members engage in, and how much coordination is required from the group leader. It is therefore relevant to distinguish among different types of HPCs because doing so may help explain why some group members cooperate more and are less dependent on a group leader for coordination. In the next section, I use the content and features of the HPCs within and across the groups to develop various types of HPCs.

HPC content and HPC features

The HPCs studied could be divided into two main categories—*task-oriented* and *relational-oriented* HPCs—according to the nature of the contracts. The HPCs also vary in their main features. While some group members form tight HPCs, other HPCs seem looser. In this section, I first describe the content of the contracts before moving on to the features of the HPCs.

Task-oriented horizontal psychological contracts

In general, a task-oriented HPC involves members' expectations, exchanges, and obligations about the execution of work tasks in the groups. In particular, four themes emerged as representing a *task-oriented* HPC: knowledge/idea sharing, work effort, feedback, and high professional quality.

First, *knowledge/idea sharing* was the most frequently mentioned theme. In general, sharing knowledge/ideas means providing relevant information, tips, and ideas to other group members so that the tasks are executed or improve in quality. The following quote illustrates this: *"We share a lot of information … if I know something that could become an article I give it to someone else in the group if my work day is over…. The most important thing is that the news is published, not who writes the news … but that it comes from someone in our group"*. This quote demonstrates not only that is it important to share information and ideas but also that the obligation to do so is targeted toward the group, such that the group delivers higher-quality articles than other groups.

Second, *work effort* emerged as a task-oriented theme based on members' expectations, obligations, and exchanges about how tasks are distributed between group members, that the work tasks are evenly distributed, and who volunteers to work extra when needed. This is demonstrated by the following quote: *"The most important thing for the work group to function well is that everybody is ready to make an effort…. However, not everybody is set to make an effort, and I notice that they contribute to embitter the atmosphere"*. Perceptions of work effort emerged regarding both breaches in perceptions and fulfilled perceptions.

Third, *feedback* refers to members' expectations, obligations, and exchanges about getting feedback on the work they do, together with a critical evaluation of specific work tasks. The following quote illustrate this: *"I think the whole group is characterized by giving very direct feedback, both negative and positive, and when they criticize me I have to accept it and really reflect on how I executed the job"*. *Feedback* is distinct from *knowledge sharing* in that the

aim of feedback to group members is often to contribute to the development of the group member's performance, and therefore it can be both negative and positive, while *knowledge sharing* involves assisting each other in improving a particular task by providing relevant information.

Fourth, *high professional quality* reflects members' expectations, obligations, and exchanges about being prepared to execute the job in the best way possible without taking any short cuts. In general, the theme arose from what can be characterized as breaches in HPCs in terms of *high professional quality*, as the following quote illustrates: *"I am disappointed professionally when you have a plan with the work you will execute together with a colleague, and you feel that the result is of poorer quality than it should be. And I follow up by pointing this out in a nice way and receive a response from my colleague that he doesn't feel like doing it over again"*. Thus, *high professional quality* demonstrates that colleagues can have different perceptions of what constitutes a good job delivered and that discrepancies between what is expected and what is delivered are considered a breach of such a contract.

Relational-oriented horizontal psychological contracts

In general, the themes that emerged as comprising *relational-oriented* elements involve members' expectations, obligations, and exchanges about *social interaction, adaptation, support,* and *recognition.*

First, *social interaction*, the theme that emerged most frequently in the data, involves members' expectations, obligations, and exchanges about interacting socially either at work or outside work. The following quote shows how one of the respondents perceives social interaction: *"I think the reason why we function so well together is that we can joke with each other, and have a really good time at work. I believe having fun at work is the most important aspect of doing a good job"*. A general finding was that the majority of the respondents reported some sort of expectation and obligation about being social; however, there were a few exceptions to this perception. The interviewees representing the exceptions seemed to have experienced breaches in HPCs and therefore had withdrawn socially.

Second, *adaptation* involves members' expectations, obligations, and exchanges about being able to adapt to new situations and being flexible about work tasks. For example the following quote shows how one group member perceives this aspect: *"I am really happy after this meeting now that everyone has work tasks to execute, because sometimes you yourself feel a*

bit low in productivity, or that the only appointment you had for the day failed, then it's good to know that we are a group and that the whole system does not collapse, that there are others that can do their share". Although *adaptation* also pertains to work tasks, it is viewed herein as a relational-oriented HPC because it includes how group members cooperate and cover for each other when needed, rather than with how the task is executed.

Third, *support* involves providing assistance to colleagues on personal matters or work tasks. The following quote shows how one of the groups perceives support: *"It is important with cohesion in the group, that people support each other if for example conflicts should arise…. It is important to have good relations with each other".* Thus, employees seem to value more general support from their colleagues, as well as support during difficult times (e.g. conflicts). In addition, support seems to require a good relationship.

Fourth, some groups were concerned with *recognition*, which refers to members' expectations, obligations, and exchanges about receiving or providing acknowledgment or praise for doing a good job. An example of a perception of recognition is as follows: *"if there is a difficult task that should be executed, I am willing to use every method; to be there and I don't take no for an answer…. I do that to get that 'pat on the shoulder' from the others".* *Recognition* is similar to *feedback* but distinct in that recognition pertains to an overall acknowledgment of a job well done, while feedback can be both negative and positive and most often involves a specific task that has been executed.

Summary of HPC content

HPCs can be *task oriented* or *relationally oriented* or both. Within these two broader categories of contract content were more specific themes, including knowledge sharing, work effort, feedback, high professional quality, social interaction, adaptation, support, and recognition. The *task-oriented* and *relational-oriented* HPCs were inspired by the dimensions of *transactional, balanced,* and *relational contracts* elaborated on previously (Rousseau, 1995), which also appear in studies of vertical psychological contracts. In the vertical psychological contracts literature, the *relational contract* between an employer and an employee includes themes such as support/help and recognition. In contrast, in HPCs the *relational-oriented HPC* also contains *social interaction* and *adaptation.* Furthermore, in the vertical psychological contracts literature, the *transactional contract* has been referred to as an exchange of *a fair day's work for a fair day's pay*, which is more relevant in a relationship

between an employer and an employee. Thus, in a psychological contract within groups (HPCs), *task-oriented HPC* seems more relevant.

Table 3 shows the number of quotes that were identified for each of the eight themes and further depicts how many quotes were coded for each of the four groups. The number of quotes includes perceptions of actual exchanges, expectations, obligations, and perceptions of breaches in HPCs.

Table 3: The content of the HPC

HPC content	Desk group	Web group	Large journalist Group	Small journalist group	Sum	Dimension
Knowledge/idea sharing	17	17	27	28	**89**	Task-oriented HPC
Work effort	20	10	7	16	**53**	Task-oriented HPC
Feedback	19	4	11	15	**48**	Task-oriented HPC
High prof. quality	11	4	8	13	**36**	Task-oriented HPC
Social interaction	10	3	3	16	**32**	Relational-oriented HPC
Adaptation	5	5	3	12	**25**	Relational-oriented HPC
Support/help	7	5	-	6	**18**	Relational-oriented HPC
Recognition	3	2	2	4	**11**	Relational-oriented HPC
Sum	**110**	**60**	**77**	**120**	**367**	
	Extensive number of HPCs Both types of HPCs	Fewer HPCs Task-oriented HPCs	Fewer HPCs Task-oriented HPCs	Extensive number of HPCs Both types of HPCs		

Table 3 displays some differences between the four groups that should be noted. First, the small journalist group and the desk group had the largest number of quotes regarding HPCs, indicating that the group members exhibit more HPCs than those in the web group and the large journalist group. Second, the desk group and the small journalist group exhibited both relational- and task-oriented types of HPCs compared with the web group and the large journalist group, in which the group members were identified by predominately task-oriented HPCs. In the next section, I explore the *features* of the HPCs before connecting the various types of HPCs with the level of group cooperation and coordination.

HPC features

In this section, the contract features are explored in terms of *explicitness, scope, flexibility, strength,* and *breach handling.* First, e*xplicitness* refers to whether the terms of the contract are stated explicitly or must be interpreted. The following quote is an example of an HPC that was termed *explicit: "When a new person enters the group we explicitly communicate the working methods of the group as well as the expectation that we are supposed to cooperate"*. An example of an implicit contract is the following: *"Everybody is supposed to come up with ideas for potential articles for every morning meeting, and implicitly it is expected that you should work on your own idea"*.

Second, s*cope* refers to how broad the HPCs are in terms of the contracts' content, such that a *broad* contract includes both task- and relational-oriented HPCs while a *narrow* contract includes predominately task-oriented HPCs. In the previous section, I analyzed the scope for each of the four groups such that two groups had *broad* HPCs (desk group and small journalist group) and the other two groups had *narrow* HPCs (web group and large journalist group).

Third, *flexibility* refers to the extent to which the terms of the contract evolve in response to changing conditions or remain static. The following quote is an example of a *flexible* HPC*: "The typographer had planned the outline of an article, but I didn't think it worked, so I changed it completely, which meant that I interfered with the typographer's job. But he saw it as an idea sharing and I feel we have a climate where we can interfere with each other's work"*. This is in contrast with an example of a *static* HPC*: "If you have a plan with one of the pages, and the other party delivers a different and in my opinion worse result … and when I express that in a nice way, the answer is often that 'I don't have time', or 'I am already finished and I don't feel like doing it over again'"*. Thus, the respondent would like the other party to change and be flexible when executing the work but perceives the other party as having difficulties in changing.

Fourth, a *strong* contract is exemplified by the following quote: *"I am very happy after a meeting where we see that everybody has things to do, because there can be days when you feel low, because of a stressful family life, and it is Monday and January, and the one appointment I had felt through. Then it is good to know that you are a group, and you know that the whole system doesn't fall through, because the others can contribute"*. The quote shows that the respondent is confident that he can trust the others to deliver when he feels

unproductive and that he can contribute to the others later. In contrast, the following quote is an example of a *weak* contract: *"I think they expect of me that I put important topics on the agenda, topics that they hadn't thought about themselves. Exactly the same as I expect of them … but there are also someone that you don't expect anything of"*. The quote indicates that the respondent is unsure of what the others expect of him and also that what he expects from the other group members varies.

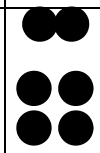
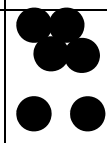
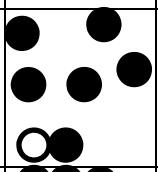
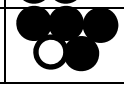
Fifth, b*reach handling* emerged as a feature that varied across the groups. In particular, *breach handling* was identified as ranging from *renegotiating* to *violating. Renegotiating* occurred when the party that perceived an HPC breach and was able to work out the breach with the other party. In contrast, *violating* occurred when the party that perceived the breach in HPC did not work out what had happened with the other party and instead reported feelings of violation (e.g. disappointment, anger, frustration). The following quote shows an example of *violation* after a contract breach: *"It really irritates me when they do other things than what they are supposed to do, for example playing computer games, checking the gambling results and so on…. It makes you irritated and also makes you lose your concentration"*. In contrast, the following story shows how a breach can lead to a renegotiated contract, which again can lead to a better relationship between the contracting parties. Two respondents shared their side of the same story in which one of them had failed to follow the procedures they had agreed on when interviewing people for an article. Both contracting parties experienced this as a breach in HPC; one side felt that the other had breached a promise of executing the job in a certain way, and the other party perceived a breach when he was accused of being disloyal to the procedures. The following quote illustrates this: "*I felt that I had been a super loyal guy that had worked a lot of extra hours, and they accused me of being disloyal, I was very disappointed … but we had a good talk about it, and every time we plan a bigger project now I say in a humoristic tone that 'I promise to be loyal to the plan'"*. Thus, the group members now talk of the episode as something they had learned from and that had made them aware of how important it is to be explicit about what is expected of each other before working together on a project. In other words, the incident made them transform the HPC to be more explicit to avoid incidents of breach and misunderstanding.

Summary of the features of horizontal psychological contracts

Table 4 displays the HPC features and shows that the pattern of HPCs varies not only across groups but also within groups. Furthermore, the column called *breach handling* depicts how many quotes indicated a breach in HPCs for each of the groups as well as how the breaches were typically handled. The characteristic features of the HPCs can be collapsed into two main types of HPCs, which I label as *tight* and *loose*. The two types of HPCs were graphically illustrated (column two, black dots), such that group members who exhibit a tight HPC were displayed in close proximity, while group members with a loose HPC were displayed farther apart. A *tight* HPC includes contracts that can be either *explicit* or *implicit* but are *strong* and *flexible*, meaning that group members had high expectations and obligations to each other and also perceived the contracts as being flexible to undergo changes. Though not a consistent pattern, the *tight* HPC appeared to include both task- and relational-oriented elements, such that group members perceived exchanges of knowledge/ideas, feedback, and high professional quality and social interaction and adaptation among others. Furthermore, in the *tight* HPCs, breaches in contracts emerged as being handled with renegotiation. However, for some of the *tight* HPCs, no breaches were reported, meaning that it was not possible to identify how breaches were handled. Thus, more data need to be obtained to provide further conclusions. Nevertheless, the findings suggest that in the *tight* HPC, renegotiating a breach in contract implied that the contracts underwent changes in terms of both content and features.

In contrast, a *loose* HPC pertained to group members who exhibited less obligations to other group members and more obligations to the newspaper, the group leader, or the work itself. In addition, a *loose* HPC referred to *implicit* contracts, in which little development or changes in the contracts occurred (*static*). Furthermore, breaches seemed to more often lead to *violation* rather than renegotiation. In particular, in the *loose* HPCs breaches in contracts led to feelings of frustration, irritation, and anger, implying that breaches had a negative effect on the relationship between the parties of the contract. As with the *tight* HPCs, no consistent pattern in *scope* could be concluded, but the findings suggest that in the *loose* HPCs, the group members predominately engaged in task-oriented HPCs rather than relational-oriented HPCs.

Table 4: The features of the HPC across the four groups

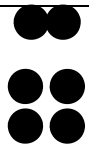
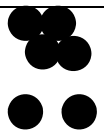
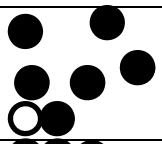
Group	HPCs illustrated	HPC type	Explicitness	Scope	Flexibility	Strength	Breach handling: number of breaches
Desk group		**Tight**	Implicit	Broad	Flexible	Strong	-
		Loose	Implicit	Broad	Static	Weak	Violating: 20 quotes (breaches)
Web group		**Tight**	Implicit	Narrow	Flexible	Strong	-
		Loose	Implicit	Narrow	Static	Weak	Violating: 10 quotes (breaches)
Large journalist group		**Loose**	Implicit	Narrow	Static	Weak	Violating: 17 quotes (breaches)
		Tight	Implicit	Narrow	Flexible	Strong	-
Small journalist group		**Tight**	Explicit	Broad	Flexible	Strong	Renegotiating: 10 quotes (breaches)

● Interviewed group member ○ Not interviewed group member - : Lack of data

Linking horizontal psychological contracts to group cooperation and coordination

This section explores the linkages between HPCs and group functioning. I demonstrate that the horizontal psychological contract perspective can be applied as an analytical tool for understanding differences within and across groups in terms of group functioning. Recall that the organization studied had recently shifted from a hierarchical structure to a team-based structure. The overall goal of this change was to increase cooperation and knowledge sharing between employees. However, both the group members and the group leaders reported that the cooperation level varied both within and across groups. I argue that the HPC lens can serve as an indicator of high and low cooperation between individuals as well as the level of leadership coordination. Thus, the goal of this analysis is to explain why the cooperation level varied within and across the groups, by linking the two types of contracts (*tight* and *loose)* to level of cooperation and coordination. I also argue that *tight* HPCs lead to cooperation and an ability to coordinate activities without a leader, while *loose* HPCs imply more individually oriented work in which group members become more dependent on the group leader for coordinating their activities. Table 5 forms the basis for the discussions presented and depicts the HPC content, HPC types, and group cooperation and coordination for the various HPC constellations that emerged within and across the groups.

Table 5: HPC content and type, group cooperation, and leadership coordination

Group	HPCs illustrated	HPC content	HPC type	Level of Cooperation	Leadership coordination
Desk group		Task/relational Task/relational	Tight Loose	High Medium	Low Medium
Web group		Task Task	Tight Loose	High Low	Medium High
Large journalist group		Task Task	Loose Tight	Low/ Medium High	High Low
Small journalist group		Task/relational	Tight	High	Low

● Interviewed group member ○ Not interviewed group member

The relationship between a tight HPC and group functioning

Tight HPCs seem to be linked to a high level of cooperation and group coordination. This is in line with suggestions from the literature on cooperation and coordination. Recall that the literature on cooperation suggests that "strong reciprocity" leads to higher cooperative behavior. I suggest here that a *tight* HPC sheds light on how "strong reciprocity" emerges, thus clarifying why group cooperation is either high or low. Furthermore, coordination tends to run smoothly when group members have worked together for a while and know each other. Thus, a tight HPC indicates that the group members know what to expect from each other, which can be related to how well they know each other. A tight HPC could shed light on how well the group members are able to coordinate their work tasks. These linkages are further explored in relation to the empirical findings.

In the desk group, one of the teams was perceived as having a higher cooperation level than the others. As demonstrated previously, the members of this particular two-by-two team exhibited a *tight* HPC, in that they perceived high obligations to each other. They also reported that they could interfere with each other's work, as they called it, meaning that they were flexible and alert to the other person's ideas and feedback. Likewise, in the web group the newsgroup reported higher cooperation levels than the two members outside the newsgroup and were also less dependent on the leader for coordinating their activities. The newsgroup engaged in *knowledge sharing* with each other and felt obligated to each other and

the web group in general. In addition, they perceived an adaptive and flexible type of contract. In the large journalist group, the majority of the group members were recognized as working more individually than in a group. However, one of the group members described a relationship with another group member that exhibited a *tight* HPC. In particular, the group member was explicit about feeling more obligated to this colleague than the others. For example, the group member said that it meant a lot to her when this colleague praised and gave feedback on her work. The group members also talked about how they had developed a high level of cooperation in which it was easy for them to know what the other one expected because of their experience working together. Thus, a *tight* HPC seemed to be related to cooperation for this particular relationship.

As indicated previously, the small journalist group seemed to possess one type of HPC, that is, *tight* HPCs. Likewise, the high level of cooperation and low need for leadership coordination were acknowledged by all the group members and the group leader. The HPCs that emerged in the small journalist group were distinct from the other *tight* HPC relationships in two ways. First, the HPCs were primarily *explicit* rather than *implicit,* and there were more examples of *renegotiation* of breached contracts. Second, the small journalist group had the broadest content of contracts, in particular relational-oriented contracts. These distinctions are worth elaborating on further because the small journalist group distinguished itself from the others by exhibiting a unified, high level of cooperation. In addition, the other groups and group leaders pointed out that this group had incorporated the change initiative in the best possible way. In particular, *explicitness* and *social interaction* were highlighted in one of the quotes in Table 2: *"I don't have any problems with telling people in a direct way what we expect in this group, but I think it is easier if we like each other and have spent time with each other first…. I think it is important to go out and have a beer together and talk about other things and get to know each other … because if it is a mutual feeling that we like each other, then the other person won't take it so hard or feel it as an attack when I am very direct in the communication about expectations in the group".* This quote illustrates the importance of *social interaction* before being explicit about what the group expects from the group members. This importance was also reflected in some of the quotes regarding the obligations perceived in the small journalist group. That is, several group members emphasized the obligations to be social and personal.

In addition, the small journalist group was the only group identified as renegotiating breaches in HPCs. That is, instead of withdrawal behavior and feelings of frustration when breaches occurred, in several incidents, members renegotiated the breached contracts. For example, one group member referred to an episode in which he received very negative feedback from another group member on an article he had written. Because the nature of the contract in the small journalist group concerns giving negative and positive feedback, this was something he was used to. However, his colleagues perceived the person criticizing the article as too harsh, implying that the contract had been breached. Instead of being angry or frustrated about this, the group member posted an e-mail to all the group members, in which he apologized for stepping over the line. This episode is now used as a reference for when someone has been too harsh when giving feedback. In a humoristic tone, they might say things such as *"I expect you to send me an apologetic and self-critical e-mail now"*. This example shows how breaches in HPCs can lead to a renegotiating of the contract instead of worsening the relationship through violation. When linking this to theory of cooperation and the meaning of *strong reciprocity* for cooperation, the *tight* type of HPC is suggested to be a measure of strong reciprocity.

Similar to coordination, a *tight* HPC seemed to be associated with a low need for leadership coordination. That is, a *tight* HPC indicated that the group members were able to coordinate their work task without the assistance of a group leader. The following quote illustrates this: *"When you are used to working together, you know what the other one likes, and then you are quickly done, so that you can start the next task"*. The observation data supported these findings as well. In particular, the group members in the small journalist group coordinated their work tasks without much assistance of the group leader. Likewise, during observations of the desk group during the night shifts, the two-by-two teams discussed and agreed on how to coordinate their work tasks without much intervention from the group leader. The same could be observed for the newsgroup (web group). They faced each other at a large desk and therefore communicated and coordinated well without much interruption from the leader.

The findings also suggest that the group members who were recognized with a *tight* HPC primarily felt loyal to the *group* or other group members. A couple of quotes illustrate this: *"The group comes first, then other colleagues, then the organization",* and *"My loyalty is targeted towards the group and then to my closest leader"*. Loyalty toward the group can be positive for the group's performance; however, it is important that the loyalty toward the

group is not in conflict with the goals of the organization. Thus, the target of the group members' loyalty is an area that should be further explored.

The relationship between a loose HPC and group functioning

Loose HPCs seem to be linked to lower levels of group cooperation and coordination than *tight* HPCs. The explanation for this emerges in the arguments on how groups gain high cooperative behavior and coordinating activities. That is, *loose* HPCs indicate "weak reciprocity" between group members and also that the group members do not know each other well enough to coordinate their activities without the assistance from a group leader. I elaborate on these assumptions next.

First, in the desk group the group members fully cooperated with each other as a result of the interdependent nature of their work (labeled as medium cooperation). However, both the group leader and some of the respondents reported that there was room for more cooperation. Overall, these group members felt more obligated to the group in general than to the other team member in the two-by-two team. In addition, some of the group members reported breaches of *feedback, work effort*, and *high professional quality*, and instead of contract renegotiation, feelings of irritation and frustration were prevalent (violation). Thus, the type of HPC that developed between the two-by-two teams seemed to influence the level of cooperation, such that the *loose* HPC, in which several breaches had led to violation, had a negative impact on the cooperation level.

Likewise, two members of the web group exhibited little cooperation with the other group members. Both these group members appeared to have *loose* HPC; however, they also had some distinct perceptions of the HPCs. In particular, one reported a breach in HPCs related to *high professional quality*, which resulted in withdrawal behavior. In addition, he reported that he felt obligated to the newspaper readers rather than to the group members or the group itself. The other group member also exhibited a *loose* HPC simply because he reported few contract-like perceptions. He reported being less interdependent of the others, and this might explain why he developed few HPC perceptions. In conclusion, the two group members exhibiting a *loose* type of HPC cooperated little with the other group member.

A general finding from the large journalist group was that members worked more individually than collaboratively. The following quote illustrates how the group leader perceived the collaboration: *"There is a culture of holding on to separate areas of interest, and that they*

are afraid of stepping on each other's toes". The majority of the group members seemed to have a *loose* HPC. For example, the HPCs seemed weak in obligations to each other, as the following quote illustrates: *"I feel an obligation to be prepared and have a working plan for myself."* In addition, there were quite a large proportion of perceived breaches in the large journalist group. For example, the following extracts of quotes indicate that group members wanted to change aspects of the relationships, in line with *static HPCs*: *"The others should prepare more; we don't give each other much feedback; they think more about themselves than the article"*. The breaches, which were not dealt with, have likely led to withdrawal behavior and thus can explain why there is less cooperation between the group members. Findings from the observations and the interviews showed that little interaction occurred between the group members beyond the group meetings, which may explain the *loose* type of HPC in this group.

The *loose* HPC was also associated with a greater need for leadership coordination than the *tight* HPC. This was confirmed by the observation data. For example, the group leader in the large journalist group coordinated the work tasks during every morning meeting and followed up during the day if members had questions or inquiries. In addition, the group leader in the desk group spent more time coordinating the two-by-two teams that exhibited a *loose* HPC. This was also the case for the two members of the web group who also exhibited a *loose* HPC.

With regard to loyalty, the *loose* HPC respondents considered their loyalty first and foremost in relation to the newspaper, the profession, and the organization before considering the group. This is shown in the following quotes: *"My loyalty is targeted towards the newspaper", "My loyalty is related to the profession and myself as a journalist",* and *"I am first and foremost loyal towards the organization"*. Some of the group members in the *loose* HPC category also mentioned loyalty to the group, but seldom as the primary source of loyalty.

In summary, these relationships indicate that HPCs can increase the understanding of how much group members cooperate and also how dependent they are on the group leader to coordinate their activities. In addition, the findings suggest that the type of HPC, *tight* or *loose*, is related to group members' loyalty.

Contributions and implications

The purpose of this study was to explore contract-like agreements between group members, identify what such contracts consist of and the form they take, and examine their impact on the group's functioning. Psychological contracts have previously been studied in vertical relationships, with few studies examining them at the horizontal level. From a case study of four groups, it is argued that group members exhibit HPCs along three dimensions: expectations, obligations, and exchanges. These HPCs are typically *task oriented*, *relationally oriented, or both.* Moreover, the cross-case analysis gave rise to two types of HPCs: *tight* and *loose*. A *tight HPC* pertains to a high level of cooperation, low need for leadership coordination, and group loyalty, while a *loose* HPC is associated with a lower level of cooperation, higher need for leadership coordination, and organization loyalty.

Implications for theory

Because psychological contract theory has predominantly focused on the vertical relationship between an employer and an employee, this study is a first step toward understanding the hows and whys of HPCs between group members. Previous research has indicated that psychological contracts develop between colleagues, but to my knowledge no systematic study has investigated this topic until now. Therefore, this article serves as a starting point to build a theory of HPCs. From the findings of the study, I can make some preliminary assumptions about the content and features of HPCs, the types of HPCs, how breaches are handled, and the implications of breaches for the different types of HPCs.

First, this study advances knowledge of the content of HPCs. The content was explored through a qualitative approach, and eight themes emerged as constituting an HPC. These themes were further categorized into two separate dimensions: *task-oriented* and *relational-oriented* HPCs. *Relational-oriented* HPCs share similar elements with the traditional *relational psychological contract*. That is, a vertical relational psychological contract involves support, recognition, and an emotional involvement between the employer and the employees. These themes emerge in *relational-oriented* HPCs. In addition, the theme of *social interaction* was included as an important aspect of an HPC. Therefore, the relational-oriented HPC is related to and extends the vertical relational contract. The *task-oriented* HPC is both distinct from and similar to the transactional vertical psychological contract. Transactional contracts

focus primarily on monetizable exchanges, while a *task-oriented* HPC involves exchanges about task performance. Both contracts involve the aspect of self-interest—that is, the transactional contracts are based on balanced reciprocity norms, so that the exchanges are monitored by both sides. A *task-oriented* HPC means that one party will assist the other if he or she perceives a balance of reciprocity in the relationship. Flynn (2003) examined favor exchange between colleagues, focusing on exchanges of information, goods, and services (assistance). He found that frequent favor exchange was positively related to both status and productivity. Thus, information and services (assistance) seem to reflect the *task-oriented* and *relational-oriented HPCs*, respectively.

Furthermore, the findings suggest that the contracting parties perceive task-oriented contracts, relational-oriented contracts, or both. The data also suggest that the relational-oriented contract can function as a foundation for task-oriented exchanges, expectations, and obligations. In particular, some respondents emphasized the importance of establishing a relationship based on social interaction and liking of each other before expecting the other party to contribute to the task. Thus, a relevant question with regard to the interrelationship between a relational- and a task-oriented contract is whether a hierarchical relationship exists between them, such that one rests on the other. Another pertinent aspect regarding the content of HPCs pertains to the question, "What is exchanged for what"? For example, does the HPC regarding knowledge sharing imply that knowledge is exchanged for knowledge? The data suggest that exchanges are not necessarily a one-on-one relationship. That is, a group member who shares knowledge does not need to receive knowledge in return for the contract to be considered fulfilled. Rather, support or recognition may be exchanged in return and be evaluated as fulfilling the HPC.

Second, the features that were included in the cross-case analysis were derived partly from the vertical psychological contract perspective and partly from the data. In particular, the *breach-handling* feature needs to be addressed more thoroughly because of the large amount of interest in the "breach" element in vertical psychological contract literature. Though not the main topic of this research, breaches in HPCs did not always result in negative outcomes, as has been found in vertical psychological contracts literature. Rather, in some instances breaches in HPCs made the contracting parties renegotiate the contract, which resulted in a better relationship between them. This finding may be due to how breaches were explored. Instead of focusing only on whether the respondents perceived breaches in the contract (as is

the case in most vertical psychological contracts research), this study investigated how the breaches were handled. In some instances, breaches were renegotiated, while in other cases they were not, which led to a perception of violation. Moreover, the data suggest that in relationships involving tight HPCs, breaches are more frequently renegotiated than in cases of loose HPCs. Thus, these preliminary findings suggest that not all breaches have negative consequences and also that breaches should be examined in terms of handling, not only in terms of demonstrating whether a contract has been breached.

Third, the findings regarding the implications of HPCs suggest that two types of HPCs, *tight* and *loose HPCs*, are related to the level of cooperation, leadership coordination, and loyalty. In particular, a *tight* HPC involves higher levels of cooperation, a lower need for leadership coordination, and group loyalty; conversely, *loose* HPCs include lower levels of cooperation, a higher need for leadership coordination, and organization loyalty. With regard to this particular case study, in which the aim of the change initiative was to promote cooperation and knowledge sharing, the groups that developed *tight* HPCs were more likely to have fulfilled the goal of the change initiative than the groups that had *loose* HPCs. The data do not allow for any conclusions as to which conditions are viable for the two types of HPCs. However, the findings suggest that *loose* HPCs are functional when interdependence and cooperation are of little importance and that *tight* HPCs may be less functional if the goal of the organization is to promote loyalty to the organization rather than to groups. In addition, the analysis of the content and the features of the current study resulted in two types of HPCs only: tight and loose. Because many features and themes reside in the content approach, additional combinations of these dimensions probably exist than what was recognized herein, with the likely result of different types of HPCs.

Implications for practice

The findings have at several implications for practice. First, when groups are established, leaders need to be aware that HPCs can develop between the group members. During a group's lifespan, the group leaders should manage the psychological contracts by paying attention to how and which HPCs develop. If the goal of the group is to work interdependently and cooperatively, the group leaders should stimulate the development of a *tight* HPC. Second, research on breaches of vertical psychological contracts has shown that breaches occur relatively frequently (Conway & Briner, 2002). It is therefore important for

the group leader to manage these breaches so that potentially negative consequences are avoided. Thus, it is recommended that the group leader promote a *renegotiating* strategy when managing a breach. Finally, teams are often supposed to be self-managed, in which the goal is to coordinate their activities without the help of a leader. Rather, a group leader's job is to ensure that a *tight* HPC develops, in turn replacing the need for leadership coordination.

Limitations and future research directions

This study is primarily an explorative and inductive case study, providing opportunities for rich data from one specific setting. Therefore, there are limitations as to the generalizability of the findings because the data came from one organization and only four groups. Generalization is rarely the goal of explorative case studies; rather, the goal of this study was to provide rich data for developing a theory of HPCs. In addition, a sample of each group was interviewed rather than interviewing all group members, implying that the results could be different if every member was interviewed. However, in my observations of all the group members during meetings and while they were working together, I did not observe large discrepancies from the general results presented here. In addition, I interviewed the group leaders so that they could present their perceptions of the group functioning. Furthermore, when presenting the study, I made attempts to provide transparency in the methods applied as well as in the theory-building steps.

There are several avenues researchers could pursue. Because the psychological contract is a process (Conway & Briner, 2005), future research should explore how HPCs form and evolve. Research that applies methods that lead to exploration and theory development would be worthwhile. Furthermore, studies that examine HPCs in different types of organizations should be carried out so that the content and feature approach presented in this study can be further explored and strengthened. In addition, the two types of *tight* and *loose* HPCs should be examined further in terms of their relationship to group functioning and group performance, the conditions under which they operate most efficiently, and also whether other types of HPCs are prevalent in horizontal relationships. In particular, future research should aim to examine whether HPCs influence group functioning, or if it is the other way around. Furthermore, implications of breached HPCs should be further studied by pursuing the preliminary findings from this study, in particular by exploring how breaches are renegotiated and what the consequences of violating HPCs are. The question whether there are particular

types of HPCs that are breached more often than others should also be investigated. Last, the interplay between vertical and horizontal psychological contracts would be an interesting avenue of investigation. Thus, a study that compares the interplay of vertical and horizontal psychological contracts in self-managed groups and manager-led groups is worth pursuing.

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Article 3

The power of reciprocity:

Horizontal psychological contracts and group functioning

By

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Abstract

This study examines how a psychological contract approach can help inform how groups function. Building on traditional psychological contract theory, we introduce a *horizontal psychological contract* (HPC) perspective to clarify the relationships between group members. We collected interview data from 12 joint operations (groups) in the farming industry to investigate three research questions about HPCs: their content, state, and outcomes. First, we found that the content of HPCs is both task and relational oriented, with several sub-themes pertaining to each dimension. Second, we found that the state of HPCs in terms of breach and fulfillment is related to HPC content—that is, task-oriented HPCs are typically breached more often than relational-oriented HPCs. Finally, we found that relational-oriented (vs. task-oriented) contracts and fulfilled (vs. breached) contracts are both strongly associated with good cooperation, high commitment, high team viability, and, to some extent, high performance. We discuss the results and the potential implications of the HPC perspective.

The psychological contract is a person's belief about the terms of a reciprocal exchange agreement between him or her and another party (Rousseau, 1989); therefore, psychological contracts reflect reciprocity with regard to what people give and what they get in interactions with others. The vast amount of research on psychological contracts, focusing on employees and employers as the contracting partners, has demonstrated significant effects on various organizational outcomes, including job satisfaction, organizational commitment, turnover intention, in-role performance, and organizational citizenship behavior (e.g., Bal, De Lange, Jansen, & Van der Velde, 2008; Cantisano, Dominguez, & Depolo, 2008; Zhao, Wayne, Glibkowski, & Bravo, 2007). Thus, psychological contracts are undoubtely of crucial importance in organizational life.

However, employees do not interact only with their employer; they also interact with many others with whom they lack a hiearchical relationship, both inside (e.g., colleagues) and outside (e.g., collaborative partners or customer relations) the organizatoin. Recent organizational trends, such as more team-based structures, dezentralization, and globalization, mean that these "horizontal" interactions are increasing in both prevalence and importance (Sias, 2009). Given the significant impact of psychological contracts in vertical (i.e., employer–employee) interactions and the development of "new" and less hierarchical organizational structures, it is important to understand the role of *horizontal psychological contracts* (HPCs) and how breach and fullfillment of these contracts affect attitudes and behaviors in organizations.

Unfortunately, research on HPCs is remarkably limited, with a few exceptions. Marks (2001) argued in a conceptual article that employees may have psychological contracts with several organizational constituencies and claimed that it would be appropriate to examine these relationships in a team setting. Subsequent research has highlighted the existence of psychological contracts between employees (i.e., horizontally) but does not focus on developing a systematic HPC approach (Seeck & Parzefall; Svensson & Wolvén, 2010). A recent attempt at exploring HPC is Sverdrup (2012), however we are yet to confirm and establish an HPC-approach, both concerning its content and its consequences. Potential relevant theories, such as social exchange theory, team member exchange, and social network theory, all address horizontal relationships in organizations, but they fail to consider the anticipated exchanges and breach perceptions, both of which are at the heart of the psychological contract.

Thus, the purpose of this article is to make three distinct contributions: First, we attempt to identify the *content* of HPCs between group members. Second, we explore the HPC *state* (i.e., breach and fulfillment perceptions of HPCs between group members) and how such perceptions are related to HPC content. Third, we examine how HPC content and HPC state, respectively, influence *group functioning* in terms of cooperation, commitment, team viability, and performance. We explore these questions through in-depth interviews and examination of collaborative joint operations in the farming industry. Our results indicate that HPC is a powerfull concept in providing an explanation of the functioning of groups. Thus, the findings in this study have important theoretical implications for the literature on psychological contracts.

Psychological contracts in groups

The psychological contract is typically defined as: "an individual's belief regarding the terms and conditions of a reciprocal exchange agreement between that focal person and another party" (Rousseau, 1989, p. 123). This definition emphasizes that there is a reciprocal agreement between two parties, without explicitly spelling out who the parties are. We address the psychological contract in work groups, and as such suggest that group members represent the contracting parties. In our study work groups consist of a group of people that are "interdependent with respect to information, resources and skills and who seek to combine their efforts to achieve a common goal" (Thompson, 2008, p. 4). In the following section we present a theoretical outline pertaining to our three intended research contributions.

The content of psychological contracts

An important area of research within the psychological contract domain involves its *content*. Content refers to *"expectations of what the employee feels she or he owes and is owed in turn by the organization"* (Rousseau, 1990, p. 393). The most prominent content approach was introduced by Rousseau (1990), who established a distinction between the transactional and the relational contract. In general, *transactional* psychological contracts are well-specified performance terms with limited duration. The expression "a fair day's work for a fair day's pay" is characteristic of the transactional contract. In contrast, *relational* psychological contracts are long-term contracts, such as agreements, that rest on intangible resources and are

highly subjective. Examples of relational-oriented exchanges of the vertical psychological contract include, for example, good work in exchange for promotion opportunities and loyalty toward the employer in exchange for training and development opportunities. Although a few studies have criticized the transactional/relational approach because of the cross-loading of some items (e.g., training, security) on both dimensions (Arnold, 1996; Coyle-Shapiro & Conway, 2005) and the lack of support for a distinction between them (Taylor & Tekleab, 2004), this approach is undoubtedly the most commonly applied in investigations of the psychological contract.

Recently, the vertical psychological contract has been expanded by a horizontal perspective. In particular, several studies examining the psychological contract between the employees and the organization have found that the employees formed psychological contracts with coworkers as well. In their qualitative interview study, Seeck and Parzefall (2008) examined employees' role in shaping the psychological contract. The findings showed that employees are active parties in constructing and modifying the psychological contract with their employers, colleagues, customers, and other stakeholders. Furthermore, Svensson and Wolvén (2010) conducted a cross-sectional survey study whose purpose was to test Marks's (2001) assumptions that employees develop psychological contracts with several constituencies. They found that temporary agency workers perceived approximately the same type of psychological contracts with the management and with colleagues in the client company for which they worked. Because this is a premature broadening of the vertical psychological contract, knowledge on the actual antecedents, content, and consequences of HPCs is lacking. A recent exception is a case study exploring the content of HPCs (Sverdrup, 2012), in which the findings suggest that HPCs can be categorized along the two dimensions of task oriented and relational oriented. Thus, one of the aims of the current study is to identify the content of HPCs between group members to further contribute to an HPC approach.

The state of psychological contracts

Although the content of the psychological contract has received some empirical attention, research on breach consequences by far outnumbers any other psychological contract theme. This may be explained by the presumption that the most important contribution of psychological contract theory is that of "breach" (Conway & Briner, 2009; Coyle-Shapiro &

Conway, 2004). Guest and Conway (2002) introduced the term psychological contract *state*, which refers to whether the terms and content of the psychological contract between the contracting parties have been met (fulfilled) or not (breached). Robinson and Rousseau (1994, p. 247) defined breach as follows: *"when one party in a relationship perceives another to have failed to fulfill promised obligation(s)"*. Psychological contract fulfillment thus is the opposite of breach, as the definition of breach indicates. As such, when a study has shown that breach is negatively related to commitment, researchers have drawn the conclusion that fulfillment is related to commitment with the same correlation, only inversed (positive). However, research has challenged this linear relationship view between breach and fulfillment (Lambert, Edwards, & Cable, 2003).

Most empirical research on psychological contract breach consists of quantitative surveys, 90% of which apply a cross-sectional design (Conway & Briner, 2005). Thus, breach and fulfillment have generally been measured with self-report methods, in which employees are typically asked to rate on a five-point scale *"how well, overall, has your employer fulfilled the promised obligations that they owed you"* (Robinson & Rousseau, 1994, p. 251). Some studies have asked the respondents to rate how well the employer has fulfilled various elements of the psychological contract (e.g., competitive salary, meaningful work, job training, flexible work schedule, a reasonable work load) (Kickul, Lester, & Finkl, 2002). However, when measuring the effect of breach on work related outcomes; the various breach measures are usually collapsed into one score. According to Conway and Briner (2005), at least eight issues limit the results from such a measure. We elaborate on some of these issues next.

First, breach has been measured by asking about fulfillment. As mentioned previously, this assumption has been challenged, and recently Montes and Irving (2008) tested this empirically, showing that breach is dependent on contract type and can also be perceived as both underfulfillment and overfulfillment. Thus, fulfillment and breach should be measured separately. Second, the survey question does not indicate anything about what is being exchanged or what is perceived as breached or fulfilled. Third, the question is vague about the time frame of the obligation. In summary, the measurement of breach and fulfillment is blurred, knowledge about the content of the breach or fulfillment is limited, and the question regarding when the breach or fulfillment occurs is lacking. Therefore, studies that expand and strengthen knowledge of breach and fulfillment are encouraged, preferably with alternative measures to questionnaire surveys. In this research, we examine HPCs to explore the contents

of breach and fulfillment and to determine whether some contents are more breached or fulfilled than others.

The relationship between HPCs and group functioning

We suggest that HPCs pertain to various group functioning variables. More specifically, we assume that cooperation, commitment, team viability, and performance are related to HPCs in groups. We chose these variables because prior research has identified them as crucial for understanding how groups function (Mathieu, Maynard, Rapp, & Gilson, 2008). In addition, findings within the traditional psychological contract literature have shown that psychological contract state (breached or fulfilled) is tied to commitment, turnover intention, and performance (Zhao, et al., 2007). In general, our assumptions about the link between HPCs and group functioning variables rely on vertical psychological contract theory. We begin by linking HPC content with the group functioning variables and further by identifying the link between HPC state and the group function variables.

HPC content and group functioning

Few studies have focused on the direct relationship between psychological contract content and work-related outcomes. According to prior research, transactional contracts have a direct effect on organizational citizenship behavior, while instrumentality mediates the effect of relational contracts on organizational citizenship behavior (Hui, Lee, & Rousseau, 2004). Furthermore, Raja, Johns, and Bilgrami (2011) found that employees perceived stronger violation-outcome relationships when they had relational rather than transactional types of contracts. Thus, previous research is scarce and does not clarify the link between HPC content and the group functioning variables we examine herein. However, from the few studies mentioned, we believe that HPC content is associated with the variables we present.

HPC state and group functioning

Cooperation constitutes the essence of teamwork and refers to team members who work together toward a common goal (Levi, 2011). Sverdrup (2012) examined the link between HPCs and *cooperation* but did not focus specifically on the direct link between HPC content and cooperation. Rather, the study showed that a type referred to as “tight HPC” was related to a high level of cooperation while “loose HPC” was related to a low level of cooperation. Thus, the findings reveal a link between HPCs and cooperation.

Commitment refers to *"the relative strength of an individual's identification with and involvement in a particular organization"* (Mowday, Steers, & Porter, 1979, p. 226). Psychological contract studies show that commitment decreases when employees perceive a psychological contract breach (see e.g. Bal, et al., 2008; Cassar & Briner, 2011; Coyle-Shapiro & Kessler, 2000; Kickul, 2001; Zhao, et al., 2007). In addition, several studies have shown that fulfillment of the psychological contract is positively associated with commitment (Chi & Chen, 2007; Conway & Briner, 2002b; Hess & Jepsen, 2009; Parzefall, 2008). Relating these findings to HPC we suggest that breaches and fulfillment of the HPC are tied to commitment. Furthermore, commitment consists of different types of foci—for example, the organization, the occupation, the work group, and the work in general. Our interest herein is particularly in commitment toward the work group.

Bell and Marentette (2011, p. 276) defined team viability as a team's *"capacity for the sustainability and growth required for success in future performance episodes"*. Thus, the conceptualization of team viability focuses on the team as a whole and, in particular, the continued existence of the team (Tekleab, Quigley, & Tesluk, 2009). Although the psychological contract literature does not explicitly focus on team viability, the concept of *turnover intention* has been frequently scrutinized. According to Jaros (1997), intention to leave refers to an employee's desire to withdraw from the organization. Moreover, turnover intention is a direct antecedent of actually quitting (Jaros, Jermier, Koehler, & Sincich, 1993). Thus, turnover intention and team viability are related. Many studies have shown that psychological contract breach increases the intention to leave (Cantisano, et al., 2008; Rigotti, 2009; Robinson & Rousseau, 1994; Stoner & Gallagher, 2010; Suazo, 2009; Suazo, Turnley, & Mai-Dalton, 2005; Zhao, et al., 2007). In addition, several studies have found that psychological contract fulfillment is negatively related to turnover intention (Chi & Chen, 2007; Collins, 2010; De Jong, Schalk, & De Cuyper, 2009; Hess & Jepsen, 2009; Parzefall, 2008; Parzefall & Hakanen, 2010). Therefore, we suggest that HPCs (breach or fulfillment) are related to turnover intention in groups and, thus, to team viability.

Finally, along with team viability, *team task performance* represents a team's effectiveness (Balkundi & Harrison, 2006). Team task performance is typically assessed by supervisor ratings of team productivity or objective indicators of team quantity and quality of productivity (Barrick, Stewart, Neubert, & Mount, 1998). The link between psychological contract breach and performance has not undergone much investigation, but a few studies show that psychological contract breach is negatively related to performance (Bal, Chiaburu,

& Jansen, 2010; Restubog, Bordia, Tang, & Krebs, 2010; Robinson, 1996). Conversely, research has shown that fulfillment of the psychological contract is positively related to in-role performance (Turnley, Bolino, Lester, & Bloodgood, 2003). In general, research on vertical psychological contracts has found that psychological contract breaches are more strongly associated with attitude-related outcome variables than with behavior-oriented outcome variables (Zhao, et al., 2007).

Method

Data collection

The cases we examine are joint operations in the farming industry. These operations are small firms in which the farmers join their quotas (how much milk they are allowed to produce), herds, and land. That is, the operations are owned and typically driven by the farmers themselves in a joint collaborative partnership, and as such act as interdependent work groups. Thus, these joint operations are not embedded in complex organizational structures that influence operations, making the psychological contracts and their relationship to group functioning easier to interpret.

We collected data on 12 joint operations, located in two geographic regions with different contextual characteristics. In each region, we asked an adviser from the farming industry with extensive knowledge about the joint operations in the region to select relevant operations. To maximize variability in HPCs across operations, we asked them specifically to select some joint operations that seemed to cooperate well and some that seemed to cooperate less well. This sampling technique is referred to as "polar types" and is consistent with Eisenhardt and Graebner's (2007) recommendations for exploring clear and contrasting patterns in the data.

We examined relatively large joint operations; the operations typically had three or four members and had invested more than $1 million in new cowsheds and technology. Table 1 summarizes the key information describing the joint farming operations (i.e., region, year established, number of members, milk quota, and main technology).

Table 1: Description of the Joint Farming Operations

JO	Region	Year Established	Members	Milk Quota per Year (liter)	Main Technology
1	West	2002	3	239.829	Milking parlor
2	West	2001	4	425.017	Milk robot
3	West	2007	3	399.852	Milk robot
4	West	2005	4	491.273	Milk robot
5	West	2005	3	663.961	Milking parlor
6	West	2006	5	548.150	Milk robot
7	North	2005	4	474.457	Milk robot
8	North	2001	4	664.084	Milking parlor
9	North	2004	3	287.518	Milking parlor
10	North	2007	5	506.418	Milk robot
11	North	2006	2	726.240	Milk robot x2
12	North	2004	3	501.505	Milking parlor

In each of the 12 joint operations, we interviewed two people: the administrator of the operation and one member whom the advisers suggested. Importantly, the administrators did not have a hierarchical position above the other members; their role was more for practical purposes, as all operations were formally required to name an administrator. We carried out the interviews one at a time, which resulted in 24 interviews. The interviews lasted from one to two hours and were semi-structured; that is, the informants answered open-ended questions about the joint operation and how team members collaborated and interacted.

All interviews were conducted by at least two interviewers and at the farmer's site. During the interviews, we were also allowed to inspect the farm to obtain first-hand impressions about the business and the context. These observational data enhanced our understanding and interpretations. All interviews were tape-recorded and transcribed verbatim. In addition, shortly after each interview we wrote down our impressions and immediate thoughts and reflections from the interviews and observations at the farm. After completing all the interviews, we held several presentations for farmers and representatives from the farming industry (advisers, consultants, and managers), so they could assist with interpretations and feedback.

Data analysis

Qualitative analysis involves three related processes: identifying meaning, categorizing, and integrating (Barker, Pistrang, & Elliott, 2002). We conducted a content analysis and followed

the principles of a within- and cross-case analysis approach to identify meaning and to categorize and integrate the data (Miles & Huberman, 1994). In other words, the goal of a content-analysis approach is to attain a condensed and broad description of a phenomenon, and often the outcome represents concepts or categories that describe the data (Elo & Kyngäs, 2007). A within-case analysis approach aims to understand each case in the data (or, in this article, each group). The cross-case analysis examines all the cases (groups) to identify patterns.

First, we began the analysis by applying a few rough codes to the data. That is, we coded quotes that indicated an HPC between group members exemplified by perceptions of obligations, expectations, and specific exchanges between group members. After identifying these quotes, we proceeded with a more fine-grained coding process. Atlas.ti version 6.1 was applied in the coding process. The goal of the fine-grained coding process was to identify the *content* of the various HPCs that were recognized in the rough coding process. We identified common themes across the joint operations and further categorized them into the two distinct dimensions of a task-oriented and a relational-oriented HPC. In addition, we categorized each joint operation as incorporating either task-oriented HPCs or both task- and relational-oriented HPCs. Therefore, joint operations were labeled as either task oriented (predominately task-oriented HPCs) or relational oriented (both task- and relational-oriented HPCs).

Second, we analyzed the HPCs identified in the initial coding process in terms of their *state*—that is, whether the HPCs were perceived as fulfilled or breached. We coded participants' reported situations as breached if they perceived that group members in the joint operation had failed to meet expectations or obligations. Conversely, we coded participants' reported situations as fulfillment if they perceived that other group members had met expectations and obligations. Furthermore, when analyzing breach and fulfillment perceptions, we identified some joint operations as having primarily fulfilled HPCs and some as having breached HPCs. Therefore, we coded the joint operations as having either breached or fulfilled HPCs.

Third, we coded the interviews for the following three group functioning variables: cooperation, commitment, and team viability. We coded *cooperation* as ranging from good to poor, where good cooperation reflected joint operations in which members stated explicitly that they cooperated well, had few problems with how they cooperated, or had previous experience with cooperating well with each other. Poor cooperation referred to joint

operations in which members explicitly stated that they had problems with cooperation, felt that others did not contribute, or believed that cooperation should improve.

We coded *commitment* as high, medium, or low. High commitment reflected joint operations in which members clearly stated either that they were highly committed or that they were more committed now than when they started the business. Medium commitment referred to joint operations in which members stated that they were unsure about commitment level or that they were highly committed but others were less committed. Low commitment was based on statements about a decrease in commitment or that some members perceived themselves or others as having low commitment.

We coded *team viability* as high, medium, or low. High team viability reflected joint operations in which members had laid specific plans for the future, did not regret joining the operation, or were optimistic about the future for the joint operation. We assessed medium team viability on the basis of member statements regarding being unsure about joining an operation again or continuing with the operation or when the farmers had diverging perceptions of these issues. We derived low team viability from quotes in which the informants explicitly stated that they wanted to get out, regretted that they had started the business, or said they would not recommend it to others.

Finally, we measured *performance* on the basis of several indicators. We chose four indicators that the advisers specified as key indicators of productivity and quality in our joint farming operations: quota filling, milk per cow (liter), milk quality, and fertility status. We received the scores on these key performance indicators from the dairy farm to which the joint operations delivered their milk, and used the average scores for the 2008–2010 period to achieve a robust measure (e.g., reducing the influence of one-year outlier scores). From these indicators' rank, we classified each joint operation as having high, medium, or low performance. Importantly, when coding for the other variables in this study (i.e., HPC content and state, cooperation, commitment, and team viability), the coder was not aware of any of the scores on the performance indicators.

Data quality

The following five research quality criteria are relevant to this study: descriptive and interpretative validity, theoretical validity, external validity, and reliability. First, *descriptive*

validity reflects the factual accuracy of an account and is a fundamental aspect of validity (Maxwell, 1992). We secured descriptive validity by having two or more researchers present during the interviews, which enabled us to cross-check the results during and immediately after data collection. Various representatives from the farming industry (consultants, advisers, and managers) helped verify the facts. In addition, all but two of the interviews were recorded and transcribed verbatim. Because of technical problems with the recorder, we needed to record two interviews by writing notes during the interview. Second, *interpretive validity* refers to the credibility of the research as evaluated by the participants of the study (Maxwell, 1992). We checked and discussed the concepts and interpretations developed during the study with relevant representatives from the farming industry who work closely with various types of joint operations. They helped cross-check and gave feedback on some of the findings from the study.

Third, while descriptive and interpretive validity involves credibility in the eyes of the participants, *theoretical validity* reflects credibility in the eyes of other researchers. Theoretical validity consists of both construct and internal validity (Maxwell, 1992). Construct validity measures whether the concepts derived from the data adequately represent what is intended by the theoretical accounts, and internal validity refers to whether the suggested relationships of the concepts are valid. We achieved construct validity by constantly comparing data and the newly developed constructs. In addition, we discussed the concepts developed with other researchers. We present the process of interpreting the data from the quotes from themes to concepts in the Results-section to provide transparency and to encourage other researchers to make their own interpretations. Internal validity or the relationships among the concepts were strengthened through discussions of the assumed relationships with several researchers.

Fourth, *external validity* or generalization is seldom the aim of case study research, though using a multiple-case design, as the current study does, may increase generalizability (Yin, 2003). Case studies more often attempt to generalize to theory rather than to a predefined population (Eisenhardt, 1989) so that new theories can be developed (Eisenhardt & Graebner, 2007). Thus, our findings are not generalizable, by definition, to other settings, but we attempt to strengthen the HPC framework and offer theoretical insights into how HPCs are related to group functioning. Subsequent research can test and generalize these assumptions.

Finally, *reliability* refers to the ability of different researchers to arrive at the same conclusions by following the same procedures. We ensured reliability by applying a software program for coding (Atlas.ti), which makes the coding process transparent. We also kept a coding manual and research notes. In addition, two researchers discussed the analysis and findings to secure reliable measures.

Results

We present our results in two main sections. The first section presents the within-case analyses, which describe the HPC content (task and relational) and the HPC state (breach and fulfillment). These analyses pertain to our first and second research questions about what constitutes an HPC and how HPC breaches and fulfillments are related to the content of the HPC. Furthermore, we consider the group functioning variables (i.e., cooperation, commitment, team viability, and performance) for each of the joint operations. The second section presents cross-case analyses, which examine the relationship between HPCs (content and state) and the four group functioning variables across the joint operations, thus answering our third research question about the influence of HPCs on group functioning.

The content of HPC: Task and relational

Regarding the first research question about the content of HPCs, the data suggest that HPCs can be categorized into two dimensions: task-oriented and relational-oriented. Figures 1 and 2 present the findings from the analysis by displaying excerpts of quotes that we coded and condensed into themes and dimensions. Figure 1 shows the four themes that pertain to a *task-oriented* HPC: knowledge/idea sharing, work effort, feedback, and work quality. Each of these themes is illustrated with three quotes, as well as the total number of quotes derived from the interviews.

Knowledge/idea sharing included quotes in which the respondents discussed how much they had learned from others when working in a joint operation, such that they now execute tasks better. *Work effort* emerged as a theme related to how much the farmers perceived the others as contributing during the workday and whether they were satisfied with this contribution. *Feedback* included quotes regarding perceptions of whether the respondents had been given

feedback about their work and also how feedback was provided. Finally, *work quality* emerged as a theme related to the quality of how work was carried out and whether the respondents were satisfied with the quality of the work others delivered.

Figure 1: Task-oriented HPC

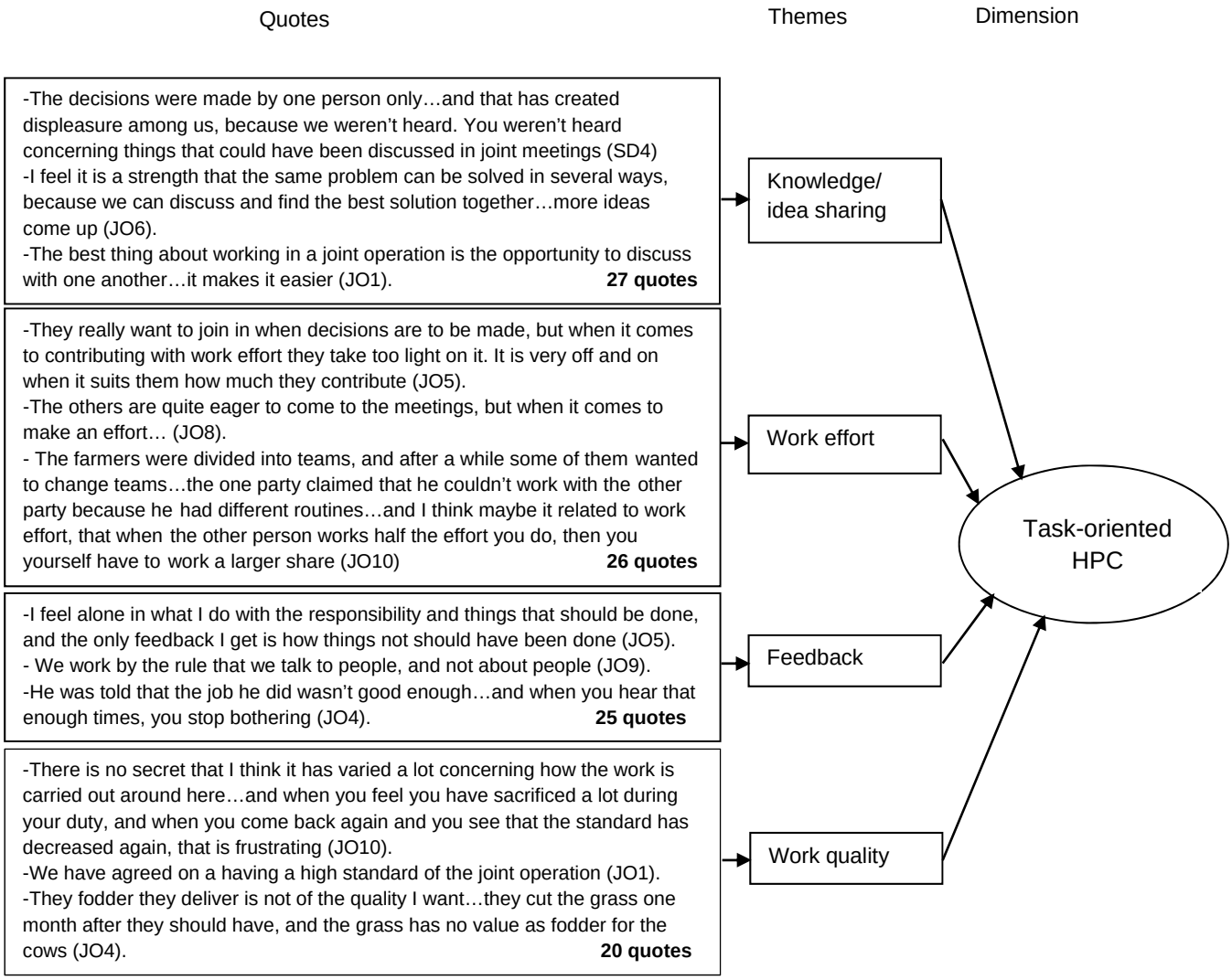
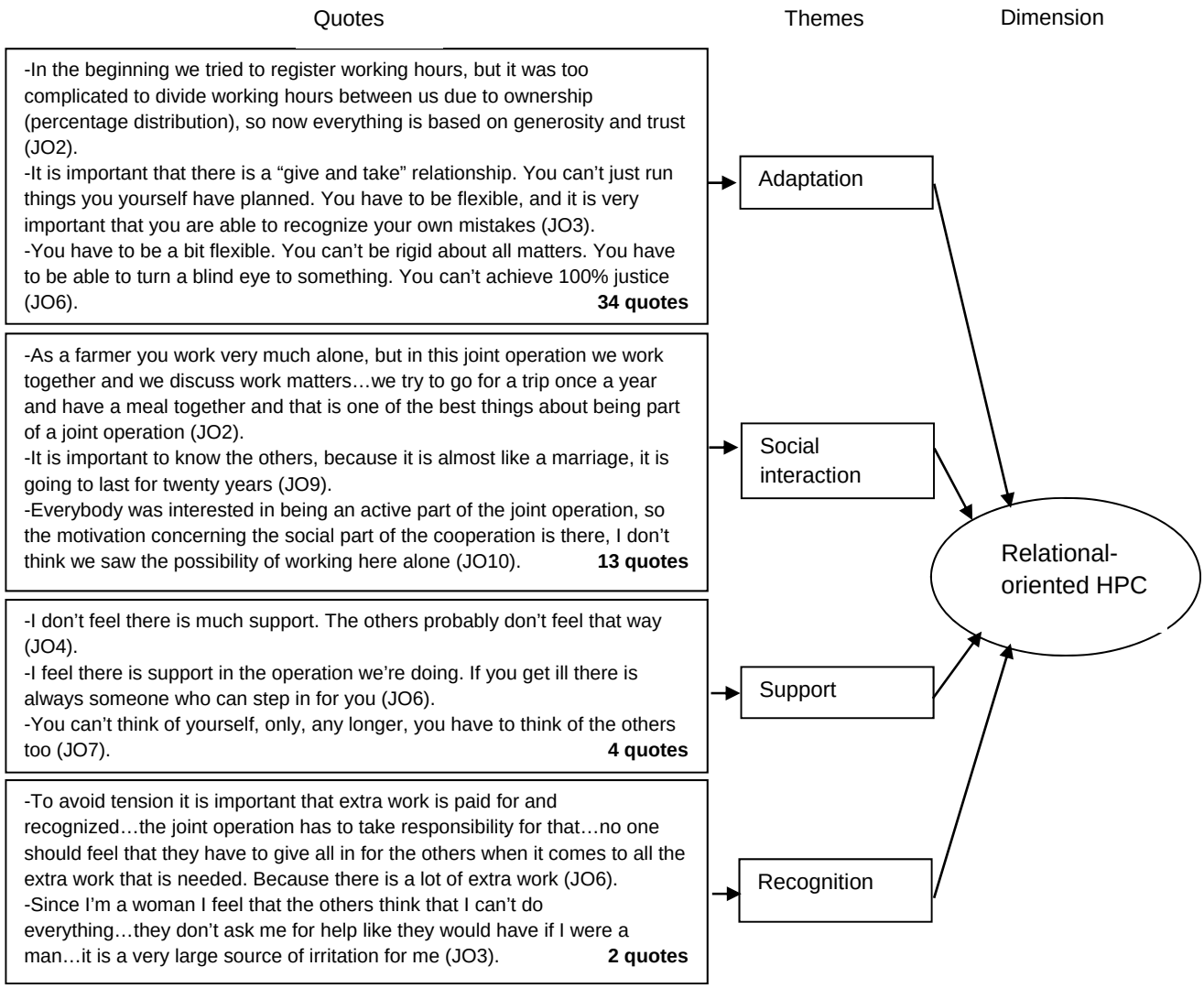


Figure 1 shows an even distribution between the four themes and how frequently they were addressed. From this analysis then, we surmise that all four themes are important aspects of a task-oriented HPC.

Figure 2 displays the themes related to a *relational-oriented* HPC, including adaptation, social interaction, support, and recognition. By far, the most frequently mentioned subject pertained

to *adaptation*, which involved an exchange agreement about filling in for each other when needed and adjusting to new situations.

Figure 2: Relational-oriented HPC



The informants explicitly mentioned the need to be generous to the others, in terms of both how work is executed (work quality) and work effort. Some respondents acknowledged that to collaborate in the best possible manner, they sometimes needed to let flaws pass. Thus, in this case adaptation referred to an exchange agreement about being generous by giving others some slack, in addition to stepping in for others when needed. *Social interaction* emerged as a theme related to expectations about being friends or interacting socially beyond executing work tasks together. In particular, some farmers indicated how important the social part of the joint operation had become; before the joint operation, many had worked alone. Finally, we identified quotes that indicated a *support* and a *recognition* theme. However, as Figure 2 shows, few quotes pertaining to support and recognition were present in the data; thus, because of the sparse information on these themes, we chose not to include them in further analyses

In summary, the data identify both a task-oriented and a relational-oriented dimension of HPCs. The four themes of knowledge/idea sharing, work effort, feedback, and work quality comprised the task-oriented HPC, and the themes of adaptation and social interaction were pertinent to the relational-oriented HPC. From an overall analysis of the two dimensions and the frequency with which they were mentioned, we show that adaptation was a prevalent HPC theme.

The state of HPC: Breach and fulfillment

To address our second research question, we examined the relationship between breaches and fulfillments and the HPC content. Table 2 displays breach and fulfillment perceptions across the themes in the task-oriented and relational-oriented dimensions we identified in the HPC content analysis, including selected quotes and the total number of quotes for each of the six themes categorized into breach or fulfillment.

Table 2: Breach and fulfillment across the content of HPCs

	HPC content	Breach	Fulfillment
TASK HPC	Knowledge/ idea sharing	-One of the problems we have had concerns the bad communication between some of us. Somebody tells us about everything they have done, while others don't tell us anything (JO10). - I have started to ask some critical questions about how things are done around here. Since I go to school now, I have gained more knowledge…and that is not well accepted by xxx. I feel that parts of what I am saying are brushed aside (JO12). - I tried to tell them that we shouldn't build like this, but they wouldn't listen (JO5). **13 quotes**	- The best part about being in a joint operation is that everybody has different ideas about ways of doing things, so you learn a lot more from working in a joint operation than running your own business (JO3). - I feel I learn from the others all the time, and that they learn from me (JO7) - I feel that I learn from the others about cooperation and to be considerate (JO9) **14 quotes**
	Work effort	- Every Monday I write a list of what should be done the next week, but seldom is everything done…maybe I should put up deadlines to follow up (JO12). - I feel I have to nag to get things done (JO10). - Yesterday I went through the working list, and I had to do what the other person should have done when he was at work (JO8). **23 quotes**	- I have learnt from working in a joint operation that you have to be patient, tolerant, and loyal…and this is mirrored in the work effort we both put in. We work 12 hours each day (JO11). **3 quotes**
	Feedback	- I feel there is very little feedback on the work I do (JO12). - One starts to hesitate…I can't even instruct them about how things are done around here…the last meeting we had they told us they didn't want to be part of the operation anymore, because they said that they didn't know what they were met with when coming to work in the weekends…I didn't bother to take part in the conversation then. But they claimed that they never knew what would be communicated to them (JO4). **22 quotes**	- It is important that we have a good atmosphere. That we don't talk about each other behind our backs without saying it directly to the other person (JO7). - I think it is okay to take things up (JO9). **8 quotes**
	Work quality	- The fodder does not have the quality I want. They don't have any interest in making that effort. They are a burden to us…They cut the grass one month after they should have, and then the grass doesn't have any value as fodder for the cows (JO4). - I feel that some of the others take too light on the dairy work…when you see that this continues, it's apparent that the trust decreases too (JO10). **18 quotes**	- We have agreed on having a high standard on the operation (JO1). - We have agreed on a quite detailed set of standards for the day-to-day work, and other work tasks that come along we just discuss and find a solution to (JO2). - The best thing about the joint operation is that the others feel the same responsibility, so when I have a weekend off, I know it is all taken care of, and I can relax (JO7). **5 quotes**
RELATIONAL HPC	Social interaction		- The social part of the joint operation is the best part…and that you can share the responsibility with the others (JO6). - The best part about being in a joint operation is that we are two people that can cooperate. It is much more pleasant then working alone (JO11). **12 quotes**
	Adaptation/ generosity	I was ill one day and asked x to cover for me, and it was Saturday…he worked for me, but gave me a bill of 23 000 NOK which he wanted me to pay (JO5). **7 quotes**	- It works really well because we can swap and be flexible…if someone needs to go away or anything, we just swap…you'll take my watch, and will take one for you (JO2). - We step in for each other (JO9). **27 quotes**

The data in Table 2 clearly indicate distinctions between the themes of fulfillment and breaches. First, three themes tended to be breached more often than others—*work effort*, *feedback*, and *work quality*—and pertain to the task-oriented HPC. Second, we identified two

themes pertaining to the relational-oriented HPC as being predominately fulfilled: *adaptation* and *social interaction*. Finally, for the last category, knowledge/idea sharing, an even distribution of breach and fulfillment perceptions emerged. In general, a fairly even distribution of quotes pertained to the 12 joint operations; however, a few joint operations had the largest share of quotes, while the majority had approximately 10 quotes each.

Overall, breaches seemed to occur more often on the task-oriented dimension, as more than 80% of the breach-related quotes were task oriented. Conversely, fulfillment was slightly more common in relational themes, with approximately 60% of the quotes being about fulfillment. Thus, the results indicate that there are some differences regarding which aspects of the HPCs are most commonly breached and which aspects are predominately fulfilled; task dimensions are associated more with breaches, and relational dimensions are associated more with fulfillment.

Group functioning variables

Before addressing our third research question, we need to assess the group functioning variables (i.e., cooperation, commitment, team viability, and performance) in each of the joint operations. Cooperation, commitment, and team viability are perceptual variables, which we coded from the interviews; we categorized the performance variable on the basis of several indicators. The three perceptual variables appear in Table 3, in which relevant quotes within each of the 12 joint operations illustrate the level of cooperation, commitment, and team viability.

Table 3: Example quotes for cooperation, commitment, and team viability in the 12 joint operations

JO	Cooperation	Commitment	Team viability
1	-We cooperate well, I think we really do. -We have always cooperated well for several generations. **Good**	-I: how do you feel your commitment is now compared to the start up? R: It is pretty much the same…when we first have this JO it is important to give it all. **High**	-There is no doubt that the only right thing is that we started up. There are no regrets. -I would probably have started up again today…being a joint operation is a positive thing. **High**
2	-We have a very good cooperation. -I: would you characterize your cooperation as good? R: Yes, I would say it is. **Good**	-I feel we have kept the spirit. -I am not as committed as I was in the beginning. **Medium**	-I: you are not satisfied with the economy in the business? R: No…I am not sure I would have joined again today. -We have plans to cultivate more pasture. **Medium**
3	-This is a cooperation where everyone needs to be flexible. -We constantly work to improve the cooperation. **Good**	-I am much more committed now than in the beginning. **High**	-I believe in the future. -We try to become a model joint operation. **High**
4	-You have to be willing to give-and-take when you cooperate(indicates that this is lacking). -I practically run this JO on my own, the others have jobs outside of the JO, so they can't help me. **Poor**	-R: I was more committed in the beginning…I: and you are less committed now? R: Yes, basically I am. -R: how do you feel the commitment was in the beginning? I: It was higher than it is now. **Low**	-I have thought about different options, either continue or pull out. -I: Would you have joined again today with what you know R: you should ask my husband…he would not have done it…I am more optimistic. **Low**
5	-We now have a bad cooperation climate. -The challenge lays in having a committed cooperation. **Poor**	-The commitment is not very high. -After we couldn't be fully employed in the JO…the commitment has decreased. **Low**	-I would not have started with the same people as today. -Someone came to visit to get advice about starting a JO…and I highly advised them against it. **Low**
6	-The cooperation between us has worked really well. -We have cooperated before we joined the JO. **Good**	-I: how is the commitment now compared to the beginning? R: I think it works really well. I am satisfied. **High**	-I have not regretted entering this joint operation, and recommends it to others…I wish to invest more. -We have plans to increase production…production has increased faster than we thought possible. **High**
7	-We have always cooperated…and enjoyed social activities together. **Good**	(Not enough data to conclude)	-I: Would you have started the JO again? R: Yes. -I am not sure I would have started again if I knew how bad the economy would be…but having flexibility is good and cooperation is good. **High**
8	-The cooperation you said? It has totally tipped over. **Poor**	-I: So there is little commitment from the others? R: Yes, they just sit down and wait for someone to come. **Low**	-I: Any plans for the future? R: To liquidate this business as fast as possible. -I would not have started up again under the conditions we have now. **Low**
9	-We have had some cooperation before…and we know each other well…this is one criterion for success. **Good**	-I felt earlier this summer that the others had decreased their commitment, and confronted them that I want them to take more initiative. **Medium**	-I: Have you regretted entering the JO? R: No I have not. -I: Would you have started the JO again? R: Yes, particularly because you avoid the problem with hiring substitutes. **High**
10	-I think several of us feel that the cooperation has been so-so. **Poor**	-When there is trouble you start focusing on the negative sides, and this impacts the commitment. -I: how is the commitment now compared to the start up? R: I feel more responsibility because I have taken over the farm…the commitment is there in the same degree. **Medium**	-If someone really eager would want to take over my share…I am not sure I would have wanted to continue. -I would have started up again, but maybe with other solutions...possibly only with one or two other farmers. **Medium**
11	-We have never had problems with the cooperation. **Good**	-I: Are you as committed as you were in the beginning? R: Yes, I think this is pretty stable. -I: How is your commitment now compared to in the beginning? R: It has actually increased. **High**	-I: Would you have done the same today? R: Yes…I think we have succeeded pretty good with the qualifications we had. **High**
12	-The cooperation between me and X needs to improve. **Poor**	(Not enough data to conclude)	-If I had known what I know today, I am not sure I would have joined again. **Low**

Note: JO = joint operation, I = interviewer, and R = respondent.

Table 3 demonstrates that there were differences across the joint operations in the respondents' perceptions. In addition, in a few joint operations, members of the same operation had somewhat divergent perceptions. Overall, across the operations, an overall pattern among the three perceptual variables emerged: joint operations in which the members perceived good cooperation were also more committed and had higher team viability. Conversely, joint operations in which the members perceived cooperation as poor were less committed and had lower team viability.

The performance measure was based on four indicators: quota filling, milk per cow, milk quality, and fertility status. Table 4 presents the average scores for each joint operation on each indicator for the 2008–2010 period. The right-hand side of the table shows how each joint operation ranked according to these indicators, the average rank across the indicators when equally weighted, and our overall qualitative conclusion about performance.

Table 4: Key performance indicators and rank for the 2008–2010 period

JO	Performance Indicators				Rank		
	Quota filling	Milk per Cow (Liter)	Milk Quality	Fertility Status	Average Rank (across indicators)	Total Rank	Performance
1	2.2	8198	1.00	97	2.0	1	High
2	3.6	8460	0.92	66	5.8	6	Medium
3	12.0	7533	0.92	31	9.8	10	Low
4	6.9	8178	1.00	89	4.0	4	High
5	8.0	6427	0.22	36	10.8	11	Low
6	1.7	7668	0.97	79	4.3	5	High
7	13.4	6632	0.42	57	11.0	12	Low
8	9.8	7631	0.97	64	7.3	8	Medium
9	3.2	8272	1.00	82	3.0	2	High
10	9.9	6856	0.75	70	9.3	9	Low
11	3.4	8197	0.97	109	3.5	3	High
12	2.9	6989	0.94	87	5.8	6	Medium

Note: Quota filling shows how much (in percentage) the joint operation (JO) deviates from 100%. Each operation has a quota it is allowed to fill, and producing below quota reduces income, as does producing above quota because of fees. Lower numbers thus indicate lower deviation and better results. Milk quality refers to how much of the milk classified as elite milk is delivered. This ranges from 0 (none elite) to 1.00 (all elite) and affects income. Fertility status is an indicator of how well the farmers succeed in getting calves (high numbers indicate higher success), and it also affects the economic status of the farm. Average range is calculated as the average rank of each operation across the four indicators. Total rank shows the overall rank among the operations, where 1 is the highest/best and 12 is the lowest/worst. All numbers are from the database of TINE AS.

Table 4 shows that there are differences among the joint operations in their performance. However, within the joint operations the various indicators are highly associated; those scoring high on one indicator also tend to score high on other indicators. Indeed, according to

the correlations among the indicators (reversing the quota-filling scores so that high scores indicate high performance on all indicators), all bivariate correlations are above .50 ($p < .10$). Consequently, the joint operations score quite consistently across the quality and productivity indicators, being stable high performers, stable medium performers, or stable low performers.

Linking HPC content and HPC state to group functioning

The purpose of this cross-case analysis is to address our third research question regarding the relationships between HPC content (task vs. relational) and state (breached vs. fulfilled) and each of the four group functioning variables (cooperation, commitment, team viability, and performance). Table 5 displays a summary of the overall findings from the within-case analysis, describing each joint operation in terms of their HPC content, HPC state, cooperation, commitment, team viability, and performance. We elaborate on the findings presented in Table 5 in two sections. The first section outlines the link between *HPC content* and the group functioning variables, and the second section addresses the relationship between *HPC state* and the group functioning variables.

Table 5: Summary of the within-case analysis

JO	HPC Content	HPC State	Cooperation	Commitment	Team Viability	Performance
1	Relational	Fulfilled	Good	High	High	High
2	Relational	Fulfilled	Good	Medium	Medium	Medium
3	Relational	Fulfilled	Good	High	High	Low
4	Task	Breached	Poor	Low	Low	High
5	Task	Breached	Poor	Low	Low	Low
6	Relational	Fulfilled	Good	High	High	High
7	Relational	Fulfilled	Good	-	High	Low
8	Task	Breached	Poor	Low	Low	Medium
9	Relational	Fulfilled	Good	Medium	High	High
10	Relational	Breached	Poor	Medium	Medium	Low
11	Relational	Fulfilled	Good	High	High	High
12	Task	Breached	Poor	-	Low	Medium

HPC content and group functioning

We categorized the joint operations as having either primarily task-oriented HPCs (four operations) or a mix of both task- and relational-oriented HPCs, termed "relational" (eight

operations). The following patterns emerged between HPC content and the four group functioning variables: First, for the relationship between HPC content and *cooperation*, the analysis showed that all seven operations having good cooperation encompassed relational-oriented HPCs. Conversely, for joint operations having poor cooperation, four of five had primarily task-oriented HPCs. This pattern is robust; a relational-oriented HPC is associated with good cooperation, and a task-oriented HPC is associated with poor cooperation.

Second, for the relationship between HPC content and *commitment*, we analyzed the 10 operations in which commitment could be assessed. We found that in all seven joint operations having high or medium commitment, a relational-oriented HPC was apparent, while all three operations having low commitment had primarily task-oriented HPCs. This pattern clearly suggests that relational-oriented HPCs are associated with a feeling of commitment to the group, while task-oriented HPCs are associated with a lack of such commitment.

Third, for the relationship between HPC content and *team viability*, Table 5 shows that all eight joint operations having high or medium team viability also had a relational-oriented HPC. In contrast, all four operations having low team viability had a primarily task-related HPC. This pattern consistently indicates that relational-oriented HPCs are tied to high team viability and task-oriented HPCs are tied to low team viability.

Finally, for the relationship between HPC content and *performance*, the pattern that emerged was less clear. Although four of the five high-performing joint operations were relational oriented, three of the four low-performing operations were also relational oriented. Thus, the link between HPC content and performance is weak.

HPC state and group functioning

We classified the joint operation as having either primarily breached HPCs (five operations) or primarily fulfilled HPCs (seven operations), as displayed in Table 5. We identified the following pattern between HPC state and the four group functioning variables: First, HPC state and *cooperation* was perfectly associated, as all seven joint operations having good cooperation also perceived their HPCs as primarily fulfilled; the remaining five operations with poor cooperation experienced primarily breached HPCs.

Second, for the relationship between HPC state and *commitment*, six of the seven operations with a high or medium commitment had fulfilled HPCs, while all three operations with a low

commitment had breached HPCs. The data thus indicate that fulfilled HPCs are associated with commitment, while breached HPCs are associated with a lack of commitment.

Third, for the relationship between HPC state and *team viability*, six of the joint operations having high team viability had fulfilled HPCs. In contrast, four of the operations having low team viability had breached HPCs. In the two operations classified with medium team viability, one had primarily breached contracts and one had primarily fulfilled contracts. These findings indicate a pattern in which fulfilled HPCs goes together with high, and breached HPCs goes together with low, team viability.

Finally, for the relationship between HPC state and *performance*, for the four joint operations having low performance, two had breached and two had fulfilled HPCs. For the three operations having a medium performance, two had breached and one had fulfilled HPCs. However, among the high-performance operations, four of the five operations experienced primarily fulfillment, while one operation experienced breaches. Thus, although the results are unclear for low- and medium-performing joint operations, the findings for the high-performing operations suggest a link between the fulfillment of HPCs and high performance.

Contributions and implications

The aims of this article were threefold. The first goal was to identify the content of HPCs, and the findings indicate that HPCs consist of two dimensions: task and relational, both of which contain several sub-dimensions (themes). The second goal was to explore HPC state and its relationship to HPC content, and the findings reveal that task-oriented HPCs are typically more often breached than relational-oriented HPCs, whereas relational-oriented HPCs are more often fulfilled than task-oriented HPCs. The third goal was to examine the relationship between HPCs and group functioning, and the findings indicate that having relational-oriented (vs. task-oriented) HPCs and fulfilled (vs. breached) HPCs is strongly associated with good cooperation, high commitment, high team viability, and, to some extent, high performance.

Theoretical implications

HPC content

The findings on the content of HPCs contribute to the literature on psychological contracts in two ways: First, our findings partly replicate and extend preliminary research (Yin, 2003) on HPCs; the results also confirm the two-dimensional content approach that Sverdrup (2012) found in her case study of four relatively large groups. That is, a task-oriented HPC seems to include the themes of knowledge/idea sharing, work effort, feedback, and work quality (high professional quality in Sverdrup 2012). We relabeled the last theme because the term "work quality" does not involve a ranking of the quality of work. The term "high professional quality" implies an evaluation of the work that should be delivered, and people may have different perceptions of what represents high work quality. Furthermore, the four themes of social interaction, adaptation, support, and recognition emerged in relational-oriented HPCs, as was the case in Sverdrup (2012); however, support and recognition were less evident across our 12 joint operations.

Second, building on the traditional psychological contract literature focusing on the employer versus the employee (i.e., vertical psychological contracts), we establish the two dimensions of transactional and relational psychological contracts. Thus, our finding from a horizontal perspective on psychological contracts both confirms and contrasts these dimensions. The relational psychological contract in a vertical perspective contains some of the same elements as the relational-oriented HPC, in particular support and recognition. However, the social interaction and adaptation themes extend the relational psychological contract pertaining to horizontal relationships. Also, social interaction and adaptation turned out to be key components of the relational-oriented HPC. Conversely, the transactional psychological contract is typically regarded as exchanging labor for salary, and this is hardly appropriate in a team or group setting. However, a basic element of a transactional psychological contract is the focus on a balanced reciprocity norm, which means that the contracting party monitors the other party's contribution and aims to achieve balance in both parties' contributions. This also occurred in the task-oriented HPC, in which the participants were concerned with comparing their own contributions with the others' contributions.

HPC state

The joint operations we examined experienced either primarily breaches or primarily fulfillments of their HPCs. Thus, the consistency in HPC state within each joint operation was relatively robust, though theoretically we can imagine cases with less consistency in terms of

how the content and state are mixed within the groups (e.g., having breaches in relational-oriented contracts and fulfillments in task-oriented contracts). Nevertheless, our findings have at least three contributions.

First, although research on psychological contract breach has traditionally measured the extent to which a breach is perceived, our study examines the type of content that is more often perceived as breached. Our findings suggest that task-oriented HPCs are more often breached than relational-oriented HPCs, which, conversely, are more often fulfilled. In particular, respondents more often perceived work effort, feedback, and work quality (task-oriental HPC themes) as breached. In contrast, they more often perceived social interaction and adaptation (relational-oriented HPC themes) as fulfilled. A reason for this may lie in the assumption that a task-oriented contract is more easily monitored than a relational-oriented contract. In addition, group members seemed to be more concerned with a reciprocity balance in the task-oriented contracts than in the relational-oriented contracts, implying that breaches are more easily perceived. Thus, this study extends knowledge on which type of HPC content is more often breached or fulfilled. Regarding the transferability to other groups, this finding means that good relationships can be established by focusing on the specific task-oriented (i.e., work effort, feedback, and work quality) and relational-oriented (i.e., adaptation and social interaction) themes of HPCs examined herein.

Second, the psychological contract literature has mainly focused on breach of contract and its effect on work-related outcomes. Furthermore, researchers have tended to conclude that fulfillment and breach are linearly related (Conway & Briner, 2005), such that when studies find that breach has a negative impact on, for example, commitment, conclusions about the impact of fulfillment on commitment have been exactly the opposite (i.e., in this case, positive). However, the current study explores breach/fulfillment perceptions and finds that they are more complex than what has been commonly suggested; thus, this study leans more toward Lambert et al.'s (2003) suggestion that the relationship between breach and fulfillment is far more complex than first assumed. For example, our findings suggest that a breach in work quality (task-oriented) is related to poor cooperation, while fulfillment of adaptation or social interaction (relational-oriented) is associated with good cooperation. Therefore, we suggest that there is no direct connection between breach and fulfillment, and thus specific knowledge about which themes are breached or fulfilled can be of vital importance.

Third, interestingly, the link between content and state (breach vs. fulfillment) showed that groups that were identified with task-oriented HPCs were primarily recognized with breached HPCs. Possibly, this might be explained by those experiencing breaches to the psychological contract, changing their psychological contract to be more transactional in subsequent interactions. This argument is consistent with findings from a study of employees' experience with breaches and its influence on new employment relationships (Pate & Malone, 2000). Thus, this implies that in groups were there are primarily breaches to the HPCs; there is a tendency to form task-oriented HPCs.

HPC and group functioning variables

Our findings indicate that both HPC content and HPC state help inform how groups function with regard to cooperation, commitment, team viability, and, to some extent, performance. First, the link between HPC content and group functioning shows that members in joint operations that developed a relational-oriented HPC cooperated better, were more committed to the group, and had higher team viability than members in joint operations with a task-oriented HPC only. We found only one exception to this pattern; the members in one joint operation (JO #10) with a relational-oriented HPC cooperated poorly and had somewhat different perceptions of commitment and team viability (medium). One likely reason for this divergence lies in the differing perceptions identified through the interviews. Therefore, both task- and relational-oriented HPCs likely occur in this group, explaining the mixed result. Furthermore, the relationship between HPC content and performance was rather ambiguous; slightly more relational-oriented HPC groups performed better than task-oriented HPC groups. Few studies have linked content of the psychological contract with work-related outcomes, and thus the current study offers a first glimpse into how various HPC contents can be related to the functioning of groups. In addition, the link between HPC content and the group functioning variables is important for understanding team processes, and more particularly, which types of relationships could potentially be beneficial for a group's functioning.

Second, the link between HPC state and group functioning suggests that members in joint operations with primarily fulfilled HPCs cooperated better, were more committed, and had higher team viability than members in joint operations with mainly breached HPCs. For performance, the findings are somewhat less ambiguous than for HPC content and performance, but still not particularly strong. This is not surprising because, according to the traditional psychological contract literature, the relationship between psychological contract

breach and attitudes is stronger than that for performance (Zhao, et al., 2007). Nevertheless, the findings suggest that for the majority (four of five) of the high-performance operations, the respondents perceived the HPCs as primarily fulfilled. Further inspection of the outlier (JO # 4: the joint operation with breached HPCs and high performance) indicates that this result is due to this joint operation being run more or less by one farmer; the other farmers in this operation only help during some of the weekends. Therefore, the farmer operates without interference from the others and shows more responsibility for the operation. Thus, according to the results from the high-performance groups, fulfilled HPCs are beneficial for achieving high performance.

In conclusion, with regard to the variables that can help explain why some groups perform better than others, the investigation of HPC state (breach vs. fulfillment) indicates that fulfilled HPCs are important for attaining high performance. Thus, according to the findings of fulfilled HPCs explicated previously, this suggests that to achieve high performance, the relational-oriented HPCs of adaptation and social interaction are significant contributors.

Practical implications

We identify at least three practical implications from the study. First, groups may develop both task- and relational-oriented HPCs. Because the results suggest that it is beneficial to promote relational HPCs, managers or group members should focus on developing such contracts through communication activities in which expectations and obligations are discussed so that group members understand which types of HPCs they currently have and can promote in the future.

Second, fulfilled HPCs seem to promote group functioning, and thus managers and group members should address at least two themes of relational-oriented HPCs that should be fulfilled—namely, social interaction and adaptation. In addition, it is important to manage HPC breaches, so that potentially negative reactions to breaches are avoided. Research on vertical psychological contracts has shown that breaches are most likely to occur (Conway & Briner, 2002a) and thus are difficult to avoid. Therefore, the handling of breaches is of vital importance.

Third, the study showed that aspects of task-oriented HPCs are more often breached, indicating that managers or group members should attend to the three specific themes of task-

oriented HPCs that tend to be breached more often—namely, work effort, feedback, and work quality. Suggestions in the team literature on the establishment of team contracts provide input on how to manage HPCs. Team contracts need not be written, but discussions about how group members should work together and clarify expectations of one another are important aspects (Mathieu & Rapp, 2009; Norton & Sussman, 2009). That is, establishment and discussion of a team contract may help develop clear expectations and obligations of each member so that breaches can be avoided, similar to making the psychological contract more explicit. Thus, both task- and relational-oriented HPCs can be promoted and managed through team contracts.

Limitations and further research

This study has several limitations that may inspire further research. The first limitation pertains to the internal validity of the study. That is, we cannot be certain about the relationships between the HPC variables and the group functioning variables. Because this is a qualitative study, we could not assess the relationships between the variables in accordance with rigorous causal testing; rather, we identified patterns in the data. As such, other variables or explanations may be more pertinent than those we recognize in this study. For example, the contextual variables of size, technology, region, and milk quota could have affected the HPCs and the groups' functioning. However, when linking the contextual variables with the group functioning variables, we found no systematic patterns. In addition, because we examined relationships rather than causal effects, we cannot be certain about whether HPCs affect group functioning variables, or vice versa. However, according to the interviews, HPCs formed quite early in the relationships; yet because psychological contract is a process variable (Conway & Briner, 2005), it is also likely that changes in HPCs follow from changes in various group functioning variables (e.g., commitment affects HPCs). Future studies are encouraged to further test these relationships and also consider alternative explanations.

Second, because we did not interview all the members of the joint operations, the interpretive validity could be threatened. That is, the general understanding we gained about each joint operation might be altered if all the members were interviewed. However, because we identified diverging patterns within some of the joint operations, more than one view was considered. In addition, our observations during the guided tours on the farms did not diverge from those recognized in the data. However, an important limitation in interviewing only

sample members of the joint operations lies in the level of analysis conducted. That is, we drew conclusions about how the overall HPCs for each joint operation were perceived on the basis of two members' perceptions. Ideally, all members would have been interviewed, lending further assessments of the HPCs between the group dyads. Nevertheless, because both the interviews and observations were carried out by at least two researchers, an overall picture of how the groups worked was accessible. Overall, the majority of the joint operations had consistent HPC patterns, though some joint operations showed divergent patterns. Thus, although we were able to disclose inconsistent patterns as well, further research could explore the various HPCs between all members of the group.

Finally, the findings in this study were based on a case study, which makes generalization to other settings difficult. However, Pratt (2012) suggests that obstacles to generalization can be overcome by showing how the context of a study is similar to other contexts. The groups we examined herein were high in task interdependence and high in carrying out production tasks. This might explain the larger number of task-oriented HPCs. Thus, our findings might transfer to groups that are high in production tasks and high on task interdependence, though this needs to be tested in future studies.

Conclusion

Most people interact heavily with colleagues, and during these interactions, they almost always develop expectations and obligations toward one another and evaluate the balance between what they give and what they get from the interaction; in short, they develop HPCs. These contracts are typically implicit, making them difficult to understand and act on; yet their importance seems to be ever increasing as modern organizations rely on decentralized and team-based structures. This study is among the first to develop a HPC perspective by examining their content, their state in terms of breaches and fulfillments, and their relationship to key group process and performance variables. Our findings underscore the power of reciprocity in group interactions and lend optimism to the role of HPCs in understanding the many subtle processes occurring in groups and organizations.

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