

Agreement between Employees and Employers on the Psychological
Contract: Antecedents and Consequences

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Abstract

Empirical research on psychological contracts between employees and employers have suggested that the two parties often have diverging expectations to the employment relationship, resulting in negative consequences for both parties. The purpose of this study was to investigate the effects of communication on agreement between employees and employers regarding the psychological contract, as well as attitudinal and behavioural consequences of agreement. The sample consisted of 98 pairs of employees and supervisors, representing a wide range of private and public organizations in different sectors in Norway. Data were analyzed in pairs, in order to directly compare employees' and employers' perspectives. Paired-samples *t*-tests, multiple regression analyses, and polynomial regression analyses were applied. Employees and supervisors agreed on employee contributions, employer expectations and employee expectations, but not on employer inducements. One or more of the communication measures predicted agreement on at least one psychological contract dimension. This study failed to support the hypotheses that agreement on the psychological contract would be related to performance, civic virtue behaviour, job satisfaction and intention to quit. However, main effects of employees' and supervisors' perspectives were significant. The findings of this study have implications for researchers, establishing communication as an antecedent to agreement on the psychological contract, as well as broader knowledge concerning agreement. The findings also have implications for managers, as it demonstrates the positive effects of communication regarding mutual expectations and contributions in order to achieve agreement on the psychological contract.

Introduction

In the past two decades, the relationship between employees and employers has received substantial empirical interest within the field of organizational psychology. This is due to the impact that organizational changes like mergers, layoffs and reorganizations have on employment relationships (De Meuse, Bergmann, & Vanderheiden, 1997). The traditional long-term employment relationship, where employees were provided with job security and predictable pay in exchange for their loyalty to the employer, is no longer the norm. Consequently, both employees and employers have changed their perspectives of what they are expected to give and can expect to receive in the employment relationship. Researchers have suggested that employees and employers develop *psychological contracts* which consist of their *expectations* and *obligations* to each other. Psychological contracts imply promises of committing oneself to future exchange, which makes them necessary for the employment relationship to last (Robinson & Rousseau, 1994). It has also been argued that psychological contracts are valuable because they reduce insecurities and anticipate future exchanges, which may help both individuals and organizations to meet their needs (Shore & Tetrick, 1994). Many researchers have investigated the content of the psychological contract between employees and employers. Until recently, the main focus has been on the employees' perspectives, with less emphasis on the employers' perspectives. More knowledge about the employers' perspectives on the employment relationship is needed to obtain a comprehensive and valid understanding of the employee-employer relationship (Porter, Pearce, Tripoli, & Lewis, 1998). The present study contributes to this by investigating both employees' and employers' perceptions of the psychological contract.

The Present Study

As an introduction to the topic of the present study, previous research on employees' and employers' perspectives of the psychological contract will be reviewed, along with findings regarding what kinds of expectations and obligations the psychological contract consists of. This constitutes the content of the psychological contract. Theoretical frameworks will then be presented. Subsequently, research on employees' and employers' perspectives on breach and violation of the psychological contract will be discussed. Knowledge about the documented negative consequences of psychological contract breach may be of value in order to realize the possible benefits of managing psychological contracts, by understanding what problems can be avoided if employees and employers agree on the terms of the employment relationship.

The present study explores quantitative data of employees' and employers' perspectives on the psychological contract between them, by matching the perspectives of both parties. Specifically, employees' and employers' perceptions of their own contributions and expectations, as well as their perceptions of the other party's contributions and expectations, are examined. The main goals of this study are to investigate, in a first step; the degree of agreement between employees and employers on the psychological contract, in a second step; whether communication satisfaction predicts agreement, and in a third step; behavioural and attitudinal consequences of agreement. The behavioural consequences studied are employers' ratings of their employees' *organizational citizenship behaviour* and *in-role performance*. The attitudinal consequences studied are employees' *job satisfaction* and *intention to quit*. Figure 1 presents the hypothesized model tested in this study.

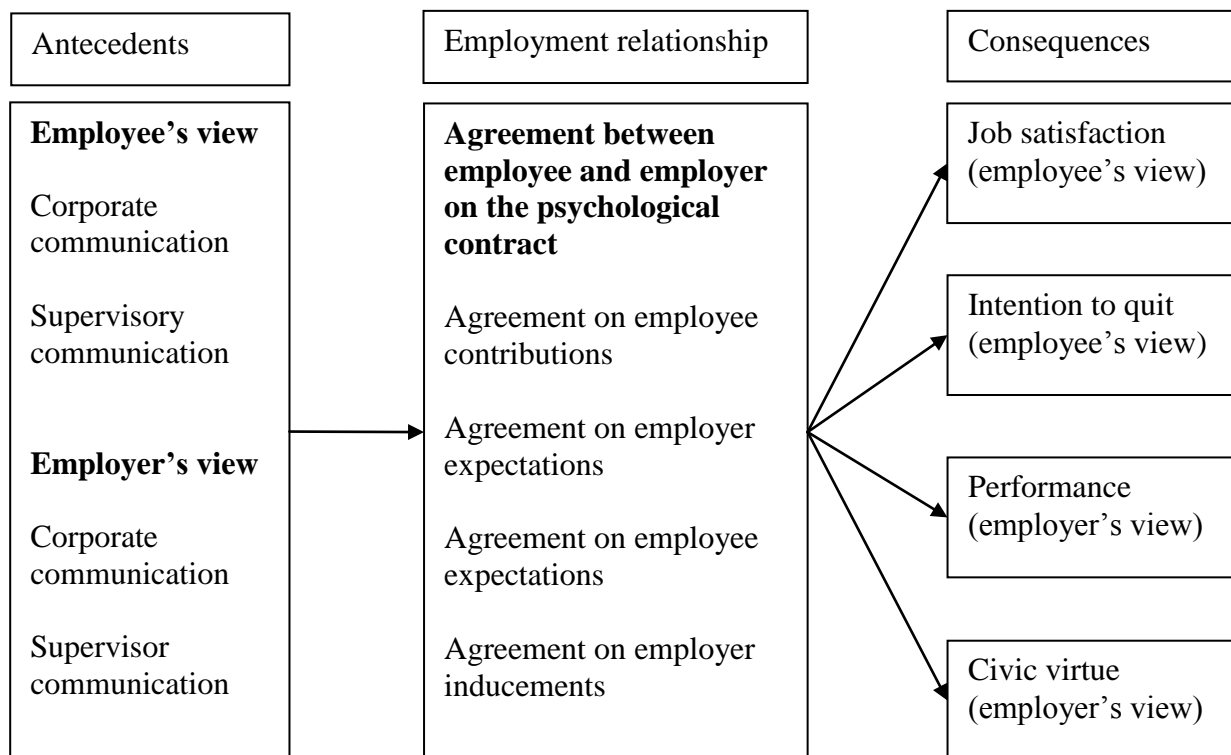


Figure 1. Hypothesized model

This study contributes to the field of research in three ways. First, this study investigates quality of communication as an antecedent to the degree of agreement between employees and employers on the psychological contract. Thus far, this has not been empirically investigated. Second, this study examines the positive consequences of agreement, so-called *psychological contract fulfilment*. To date, most studies have focused on the negative consequences of diverging perspectives, so-called *psychological contract breach* or

violation. Third, while most research on the psychological contract has been conducted in the U.S and Western Europe, this study is based on a sample of Norwegian employees and employers, contributing to ascertain the generalizability of previous findings.

The Psychological Contract – Concept and Content

The concept. The concept of the psychological contract was first introduced four decades ago, by the work of Argyris (1960), Levinson, Price, Munden, Mandl, and Solley (1962), and Schein (1965). Kotter (1973) was the first to empirically study the psychological contract, and defined it as “an implicit contract between an individual and his organization which specifies what each expects to give and receive from each other in their relationship” (p. 92). This and other classical definitions imply that there are two parties within the psychological contract, employee and employer, and that they both have expectations to the employment relationship. More recently, researchers have defined the psychological contract as an individual’s perceptions. According to Rousseau, the psychological contract refers to “an individual’s beliefs regarding the terms and conditions of a reciprocal exchange agreement between that focal person and another party” (1989, p. 123). This definition is reflected in the large amount of studies focusing solely on the employee’s perspective, with no emphasis on the employer’s perspective (Chobrot-Mason, 2003; Morrison & Robinson, 1997; Robinson & Rousseau, 1994; Shore & Tetrick, 1994). More recent research has followed the classical definitions by including the perspectives of both employee and employer (Coyle-Shapiro & Kessler, 2000; Dabos & Rousseau, 2004; Lester, Turnley, Bloodgood, & Bolino, 2002; Tekleab & Taylor, 2003). Tekleab and Taylor (2003) argue the need for research on the employers’ perceptions of the psychological contract in order to develop a comprehensive and valid understanding of the employment relationship.

The development. The focus has also been directed towards the individual, perceptual process of psychological contract development. Rousseau (1990) has conducted a survey on a sample of newly recruited MBAs to examine the emergence of psychological contracts. She suggested that psychological contracts are created during the recruitment process. Contrary to the formal, written employment contract, the psychological contract is not made once, but is revised several times throughout the employment relationship. Turnley and Feldman (1999) have suggested that the individual expectations that constitute the psychological contract are influenced by three different sources; the specific promises made by organizational representatives, the individual’s perceptions of the organization’s culture, and the individual’s personal expectations regarding how the organization functions. In addition, different

organizational representatives, like the line manager, human resource manager, recruiter, and top manager, may all communicate expectations and obligations to the employee, and thus influencing the employee's perspective on the psychological contract (Lester et al., 2002).

The content. Researchers have also investigated the content of the psychological contract (i.e. specific employee contributions and employer inducements). In the abovementioned study of Rousseau (1990), participants were asked to rate the perceived content of the contract. Based on what sort of relationship the employee sought with their employer, Rousseau suggested distinguishing between *transactional* and *relational* psychological contracts. Transactional contracts were characterized by short duration, performance-related pay, where the employee had specified tasks and limited involvement in the organization. Relational contracts were characterized by long duration, mutual trust and loyalty, where the employee was more involved in the organization. In addition to these two factors, Rousseau later included *balanced* contracts, consisting of both transactional and relational aspects, operationalized in the Psychological Contract Inventory (PSI; Rousseau, 2000). Much research is based on this conceptualization (Coyle-Shapiro & Kessler, 2000; Dabos & Rousseau 2004).

Coyle-Shapiro and Kessler (2000) have examined the content of *employer obligations* from both employees' and employers' perspectives, based on a sample from a local authority in Britain. They examined the extent to which participants perceived that the employer was obligated to provide a range of items, based on employer obligations found in the aforementioned study by Rousseau (1990) and additional obligations. Employees believed that their employer was obligated to provide them with long term job security, good career prospects, up to date training and development, pay increases to maintain standard of living, fair pay in comparison to employees doing similar work in other organizations, necessary training to do the job well, support to learn new skills, fair pay for responsibilities in the job, and fringe benefits that are comparable to employees doing similar work in other organizations. Contrary to Rousseau, Coyle-Shapiro and Kessler found three factors of employer obligations; transactional obligations, relational obligations and training obligations. De Cuyper and De Witte (2006) also found three factors; transactional obligations, relational obligations and a third factor that was difficult to interpret. These mixed findings suggest that the conceptualization suggested by Rousseau (2000) is not clear.

Porter et al. (1998) have also developed a measure of the psychological contract, the Work-Related Expectation Survey (WES), measuring only employer inducements from both employees' and employers' perspectives. The WES included nine employer inducements

which were autonomy, bonus, educational opportunities, recognition, opportunities for input, job security, meaningful work, and take employees' interests into account. These were organized into three areas of importance to the psychological contract; rewards for performance, job/career growth opportunities and commitment to employees.

Another example of research on the content of the psychological contract is a qualitative study by Herriot, Manning, and Kidd (1997). These researchers used the critical incident technique, which they argued is a more appropriate method of investigation than the rating scales used by Rousseau (1990). Both employer obligations and employee obligations were examined from employees' and employers' perspectives. Two groups, one consisting of employees and one consisting of managers, were divided into eight conditions. They were asked to "recall an incident at work where an employee or the organization went beyond or fell short of what might reasonably be expected of them in their treatment of the other party" (p. 154). Based on the incidents reported by the participants, Herriot et al. defined 12 categories of employer obligations and 7 categories of employee obligations. They perceived the employer as obligated to provide employees with training, fairness, time off for personal needs, consulting, discretion, humanity, recognition, environment, justice, pay, benefits and job security. The employees were obligated to provide employers with the contracted work hours, quality of work, honesty, loyalty, careful treatment of property, correct self-presentation, and flexibility.

Due to the implicit and subjective nature of psychological contracts, it is impossible to present a complete list of content items. To date, researchers have used a limited subset of items, resulting in no consensus on which subscales and items to include. However, there is some agreement on both employer and employee obligations. Most authors include the employer obligations of job content, opportunities for personal development, social aspects and rewards, and the employee obligations of loyalty, flexibility, and extra-role behaviour (De Cuyper, Isaksson, & De Witte, 2005).

Very recently, Raeder, Wittekind, Inauen, and Grote (2009) developed a measure of the psychological contract that includes both employees' and employers' perspectives. The measure contains separate versions for employees and employers, containing similar items measuring four dimensions; *employee contributions*, *employer expectations*, *employee expectations* and *employer inducements*. This measure was developed in Switzerland and originally contains German items. It has been validated in German and in Dutch (Schalk, 2007). The operationalization developed by Raeder et al. is used in the present study, with items translated into Norwegian.

Theoretical Framework

The most common theoretical framework used to understand the psychological contract is social exchange theory (Blau, 1964), in which the employment relationship is seen as a social exchange relationship. According to social exchange theory, both parties will try to maintain a balanced relationship, following the norm of reciprocity (Gouldner, 1960). This implies that if the employer provides a contribution to the employee, both expect the employee to provide a contribution in return that benefits the organization. If the employee perceives that the employer has failed to fulfil some aspect of the psychological contract, this represents an imbalance in the relationship. The employee will then perceive a contract breach. Consequently, in order to restore balance in the relationship, the employee is likely to reduce his or her own contributions to the employer (Coyle-Shapiro & Kessler, 2000). If this reciprocal failure of fulfilling promises and obligations continues into a negative spiral, the relationship is likely to end. On the positive side, when the employee perceives that the employer has fulfilled, or even exceeded, the promised inducements in the psychological contract, he or she is likely to reciprocate the contributions, in order to restore balance. According to Blau, shared understandings and reciprocal contributions for mutual benefit are the core of functional exchange relationships. Research has shown, however, that employers and employees often have diverging perspectives of what each part ought to provide the other part in the relationship. This is called *incongruence* and occurs when the two parties have different understandings of the promises made (Coyle-Shapiro & Kessler, 2000). One example of incongruence is an employee who believes that the employer has made an obligation of giving feedback on performance, and that this has not been fulfilled, whereas the employer is not even aware that the employee wants to receive feedback on performance.

Another theory used to understand the psychological contract is equity theory (Adams, 1965), which is part of exchange theory. Equity theory suggests that people compare their inputs and outcomes to those of others, striving for *equitable payment*, comparable to a balanced social exchange relationship. Inputs refer to the contributions employees they make to their employer, like their qualifications, time worked and effort expended. Outcomes refer to benefits and rewards that employees perceive getting from the job, like pay, fringe benefits, and prestige. This comparison is a subjective experience, which may result in disagreement between employees and employers on what constitutes equity and inequity in the job.

Employees' and Employers' Perspectives on the Psychological Contract

Diverging perspectives. As mentioned when defining the concept, the psychological contract is perceptual. Hence, the employee's perceptions are not necessarily shared by the employer, and vice versa (Morrison & Robinson, 1997). In their study of the content of the psychological contract, Herriot et al. (1997) concluded that psychological contract obligations are perceived as similar in nature by employees and managers, indicating that there is a considerable level of agreement about what the psychological contract consists of. However, they disagreed on the relative importance of the obligations. Regarding employee obligations, employees and employers agreed that the most salient employee obligations were work hours, quality of work, and honesty. Employees also valued correct self-presentation and respect for property, while employers valued loyalty. Concerning organizational obligations, employees valued environment, security, and pay, while the employers valued humanity, recognition, and benefits. This indicated that employees wanted fundamental hygiene factors, as defined by Herzberg, Mausner, and Snyderman (1959), having a transactional and traditional perspective, while employers valued the more relational factors. These results implied that employers might misperceive what employees primarily want. Employers might believe that employees want a relational psychological contract, and provide them with recognition and humanity in order to satisfy their needs, while the employees want the basic transactions of pay and a secure job in exchange for their time and effort. This misunderstanding might lead to negative attitudinal and behavioural consequences for both the employee and the organization. According to Herriot et al., agreeing on a fair exchange deal is the issue of importance in negotiating psychological contracts.

Research by Porter et al. (1998) also demonstrated diverging perspectives. They studied gaps between employees' and employers' perspectives on the nine employer inducements in their measure, WES. The biggest gap was on their perceptions of the amount of recognition provided by the organization, where employees perceived receiving less than representatives of the organization perceived providing. This seemed to negatively influence organizational satisfaction. On the contrary, employees perceived that the organization provided them with more job security than representatives of the organization perceived providing. According to Porter et al., this disagreement might present a risk of future disappointment in case of redundancies.

Psychological contract breach and violation. A large amount of research on psychological contracts has concentrated on situations in which the employee perceives psychological contract breach; involving mismatching perspectives between employee and

employer (cf. Meta analysis; Zhao, Wayne, Glibkowski, & Bravo, 2007). To the contrary, the present study will focus on matching perspectives. However, knowledge about the negative consequences of psychological contract breach is useful in order to realize the possible benefits of managing the psychological contract. Psychological contract breach is defined as “the cognition that one’s organization has failed to fulfil one or more obligations comprising the psychological contract” (Morrison & Robinson, 1997, p. 230). The focus of this definition is on the employees’ perspective alone, and this one-sided focus is reflected in the approaches used in many previous studies. Examples of psychological contract breach may be loss of tasks and responsibility or not getting an expected promotion.

Lester et al. (2002) studied the degree of agreement between employees and employers on psychological contract fulfilment, focusing only on employer obligations. They suggested that there are significant differences in employees’ and employers’ perceptions of the extent to which the employee’s psychological contract has been fulfilled. Lester et al. investigated the degree of fulfilment on six dimensions of the psychological contract; benefits, pay, advancement opportunities, the work itself, resource support and a good employment relationship. Regarding the dimensions of pay, advancement opportunities and a good employment relationship, employers perceived that the organization had done a better job of fulfilling the psychological contract than perceived by the employees. However, the research of Lester et al. suggested that overall, both employees and employers perceive that organizations provide slightly more than promised to their employees. Regarding perceived breach of the contract, there was considerable disagreement between employees and employers. Of the employees, 65 percent perceived that their psychological contract had been breached in at least one aspect, while 41 percent of employers reported that their subordinate’s psychological contract had been breached. Similarly, findings by Robinson and Rousseau (1994) suggested that 55 percent of employees perceived that their employer had violated their psychological contract. Coyle-Shapiro and Kessler (2000) found that 89 percent of employees experienced that their employer had failed to deliver transactional obligations, 81 percent failed to deliver relational obligations and 78 percent failed to deliver training obligations. However, these researchers emphasize that the two parties agree that the employer had not fulfilled its obligations to the employees. Contrary to most research, Sutton and Griffin (2004), reported that 68 percent of their respondents did not report psychological contract breach. They used items developed by Robinson and Rousseau (1994), asking respondents directly to evaluate to what degree they perceived that employer obligations had been met.

In accordance with the research of Lester et al. (2002), most empirical work on psychological contract breach has focused on situations in which the employee perceives receiving less than promised. This literature emphasizes that employees feel that they deserve or have been promised more than they have received. The traditional view on psychological contracts has been that giving employees more of any inducement will result in positive attitudinal and behavioural consequences. Lambert, Edwards, and Cable (2003) have challenged this traditional view. They argued that employees can perceive a contract breach even when receiving more than promised of an inducement, not only when receiving less than promised. Their research confirmed that this is the case when it comes to the employer inducements variety, skill development and training. Lambert et al. explained these findings in terms of fulfilment of needs and desires. Employees who are assigned varying work tasks, who are expected to develop new skills, and who receive plenty of training, may feel that they fail to develop adequate proficiency in the skills required to perform the job. Thus, high levels of these inducements interfere with the fulfilment of needs and desires. Receiving more than promised of the employer inducements pay, recognition, and relationships had positive effects on satisfaction, because they can fulfil a wide range of employee needs and desires.

Previous research has suggested that in addition to having diverging perspectives on the degree of contract fulfilment, employees and employers reported different explanations for why the organization had not fulfilled the contract (Lester et al., 2002; Morrison & Robinson, 1997; Rousseau, 1995). Employees were more likely to explain the unfulfilled obligations to either an intentional and wilful failure to keep them (*reneging*), or to an honest misunderstanding between the parties regarding the terms of the employment relationship (*incongruence*). Employers were more likely to attribute the breach of contract to situations beyond the organization's direct control, like changing economic or environmental factors (*disruption*). These findings reflect the fundamental attribution error (Furnham, 2005), and indicate that there is a high level of disagreement between employees' and employers' attributions regarding psychological contract breach.

Researchers on the psychological contract tend to mix up the concepts of breach and violation. Morrison and Robinson (1997) clarified this conceptualization in their model of how psychological contract violation develops. Psychological contract breach is perceptual, and involves a cognitive comparison of the contributions made by each party. The norm of reciprocity is important in this perceptual process, where a perceived imbalance results in a perception of psychological contract breach. Perceptions of fairness have also been suggested to moderate the effect of psychological contract breach on attitudinal and behavioural

outcomes (Kickul, Lester, & Finkl, 2002). Psychological contract violation is an emotional reaction that may result from perceived psychological contract breach, conveying anger and mistrust. Morrison and Robinson highlight the perceptual nature of psychological contracts, which makes the development of contract violation a highly subjective and imperfect mental process with resulting mismatches in perception between the parties to the exchange.

Matching perspectives. As noted in the introduction, the present study will compare the psychological contract reports of each pair of employee and employer, in order to examine the degree of matching perspectives and resulting positive consequences. Researchers have not been consistent in who represents the organization's perspective. Shore and Tetrick (1994) has suggested that employees perceive their *supervisor* (e.g. the immediate manager) as the chief agent for establishing and maintaining the psychological contract. In line with this argumentation, also followed by Tekleab and Taylor (2003), the present study includes the perspectives of the employees' supervisor as representing the organization. To date, very few studies have directly compared employees and employers perspectives in matched pairs. Dabos and Rousseau (2004) studied the degree of mutuality and reciprocity in 80 employee-employer dyads, using a sample of research directors and staff scientists in Latin-America. According to these researchers, *mutuality* occurs when the two parties share beliefs regarding promises and commitments each party has made and accepted, while *reciprocity* occurs when they agree that they are obligated to reciprocate contributions made by the other party. Mutuality is synonymous to the terms *matching perspectives* and *agreement*, used interchangeably in the present study. Another equivalent term is *congruence* (cf. Edwards & Parry, 1993). Dabos and Rousseau found support for the assumption that there is mutuality between employees and employers on the terms of the psychological contract, and demonstrated substantial benefits of mutuality for both employees and employers. The present study will contribute to this line of research by investigating positive attitudinal and behavioural consequences of mutuality. Due to mixed findings about the degree to which employees and employers perceive a psychological contract breach (Coyle-Shapiro & Kessler 2000; Lester et al., 2002; Sutton & Griffin, 2004), the present study will examine the degree of agreement on the psychological contract. Four different dimensions of the psychological contract will be examined (Raeder et al., 2009).

Hypothesis 1: Employees and employers have matching perceptions of the psychological contract dimensions (a) employee contributions, (b) employer expectations, (c) employee expectations, and (d) employer inducements.

Communication as an Antecedent to the Agreement on the Psychological Contract

Little empirical research has investigated antecedents to agreement (i.e. matching perspectives) on the psychological contract between employee and employer. Dabos and Rousseau (2004) suggested that shared mental models lead to agreement. The effect of information-seeking behaviour (Shore & Tetrick, 1994), tenure and the quality of leader-member exchange (LMX; Tekleab & Taylor, 2003) on agreement have also been studied. Shared mental models, information-seeking, and LMX are closely related to communication, but communication has not yet been directly examined as an antecedent to agreement on the psychological contract. To date, few studies have focused on communication in relation to psychological contracts. Guest and Conway (2002) studied the management of the psychological contract among 1306 senior HR managers in the UK. Previous research highlighted the importance of communicating the psychological contract during the process of recruitment (Robinson & Morrison, 2000), ongoing communication of the job and personal issues like workload, work-life balance and career prospects (Herriot & Pemberton, 1997), and top-down communication (Turnley & Feldman, 1999). Based on this research, Guest and Conway asked the HR managers whether 13 different methods of communication were used in their organization to communicate its promises and commitments to the employees. The communication methods represented three factors; job and personal communication, recruitment communication and top-down communication. Of the managers, 98-100 percent reported communicating during the recruitment process, induction and initial training, training and development, informal day-to-day interaction, and briefing by line management. Top-down communication was generally rated as less effective.

Guest and Conway (2002) focused on the process of communicating the psychological contract, and proposed that this process may be as important as the content of the contract. They concluded that most organizations acknowledge the importance of communication and use a wide range of communication methods. However, managing the process of communicating the psychological contract is highly complex, and should not be left to chance. The psychological contract was used as a concept to shape employee relations by 36 percent of the managers. Guest and Conway suggested that effective job-related and recruitment-related communication has positive benefits for both employees and organizations. It reduces perceived psychological contract breach and is associated with better employee-related outcomes like performance, commitment, employee relations, motivation and employee trust in the organization. They argue that effective communication will lead to a more explicit and potentially more effective psychological contract. In line with this argumentation, the present

study suggests that the quality of communication between employer and employee is related to agreement on the psychological contract. As the first empirical study, both employees' and employers' perspective on communication is examined in relation to the psychological contract.

Hypothesis 2: The quality of the communication between employee and employer is related to agreement on the psychological contract dimensions (a) employee contributions, (b) employer expectations, (c) employee expectations, and (d) employer inducements. High quality of communication leads to matching perspectives. Low quality of communication leads to mismatching perspectives.

Attitudinal and Behavioural Consequences of Agreement

As mentioned above, most previous research on the psychological contract has focused on negative attitudinal and behavioural consequences of diverging perspectives between employees and employers regarding the reciprocal obligations. This study will investigate positive effects of agreement between employees and employers. In accordance with social exchange theory (Blau, 1964), when employees perceive that their psychological contract has been fulfilled, they are likely to adapt their own contributions to the inducements provided by the employer. Specifically, this study examines the effect of agreement between employee and employer on the terms of the psychological contract on (1) performance; (2) organizational citizenship behaviour; (3) job satisfaction; and (4) intentions to quit. Four dimensions of the psychological contract are included in the study; employee contributions, employer expectations, employee expectations and employer inducements.

Performance. The psychological contract has been associated with employee performance of in-role behaviours (Isaksson, 2005; Johnson & O'Learly-Kelly, 2003; Turnley, Bolino, Lester, & Bloodgood, 2003; Zhao et al., 2007). In-role behaviours are work behaviours that are formally specified in the employment contract (Williams & Anderson, 1991), and employees are obligated to perform these behaviours. However, if employees perceive that the organization has not fulfilled their obligations, they may refuse to perform according to their role (Zhao et al., 2007).

Findings from PSYCONES (Isaksson, 2005), a European research project involving 5288 participants, suggested that the employers' evaluation of how well employees fulfilled their obligations toward the organization was related to how satisfied the employers were with their employees' performance. A similar result was reported by Lester et al. (2002), who

found that employees' perspectives of psychological contract breach was related to lower employer rating of employee's performance. This means that an employees' performance is rated lower by the employer when the employee perceives that an aspect of the psychological contract has not been fulfilled. This is in line with social exchange theory, indicating that employees who perceive that the employer has not fulfilled its obligations consequently decrease their own work performance in order to restore balance in the relationship.

The present study will examine the positive side of social exchange, suggesting that agreement between employees and employers on the psychological contract will be positively related to employee performance. Performance is rated by the employer, to avoid the problem of self-serving bias and common-method variance associated with self-reports (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Podsakoff & Organ, 1986).

Hypothesis 3: Agreement between employee and employer on the psychological contract dimensions (a) employee contributions and (b) employer expectations are positively related to employee performance, as rated by the employer.

Organizational citizenship behaviour (OCB). Previous research has indicated that employees' perceptions of the psychological contract affect their engagement in OCB (Coyle-Shapiro, 2002; Restubog, Bordia, & Tang, 2006). OCB was defined by Organ as "behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in aggregate promotes the effective functioning of the organization... the behavior is not an enforceable requirement of the role or the job description... the behavior is a matter of personal choice" (1988, p. 4). While in-role performance is controlled by organizational standards, OCB is primarily determined by individual choice (Restubog et al., 2006). OCB is thus defined as extra-role behaviour, that the employees are not obligated to perform. However, research on evaluation ratings has suggested that OCB accounts for at least as great an effect as that of in-role performance (Podsakoff, MacKenzie, & Hui, 1993; Podsakoff, MacKenzie, Paine, & Bachrach, 2000). Also, it has been argued that organizations could not survive unless the employees occasionally engage in OCB (Katz, 1964, in Robinson & Morrison, 1995).

The best established antecedent to OCB is employee satisfaction. Other factors that have been found to predict OCB include leadership style, organizational commitment, and perceived organizational support (Robinson & Morrison, 1995). Recently, empirical findings have suggested that the psychological contract also predicts OCB. Tekleab and Taylor (2003)

found that the employers' perception of contract violations by the employee was negatively related to their report of employees' OCB. However, employees' perception of violations by the employer was not negatively related to managers' reports of employees' OCB. These findings can be interpreted in light of social exchange theory, suggesting that both parties react negatively to perceived violations by the other. In addition to being a direct consequence of psychological contract violation, OCB may also be moderated by situational factors, like job satisfaction (Turnley & Feldman, 2000).

Organ (1998) has identified five major types of organization citizenship behaviours; civic virtue, loyalty, helping, courtesy, and conscientiousness. These five dimensions have been documented as separate factors of the construct (Podsakoff, MacKenzie, Moorman, & Fetter, 1990). Williams and Anderson (1991) distinguished OCB directed at the organization from OCB directed at individuals, like supervisors or colleagues. In the present study, it is hypothesized that agreement between employees and employers on the psychological contract will predict the employees' engagement in OCB. Specifically, this study focuses on civic virtue, an organizationally-directed form of OCB. Civic virtue is the type of OCB that is most clearly organizationally directed (Robinson, 1996; Robinson and Morrison, 1995), defined as "behavior on the part of an individual that indicates that he/she responsibly participates in, is involved in, or is concerned about the life of the company" (Podsakoff et al., 1990, p. 115). A limitation of previous research is that OCB has been measured using self-report questionnaires. This is associated with self-serving bias (Podsakoff et al., 2000; Podsakoff & Organ, 1986), and to avoid this, OCB was rated by supervisors in the present study.

Hypothesis 4: Agreement between employee and employer on the psychological contract dimensions (a) employee contributions and (b) employer expectations are positively related to the employee's engagement in civic virtue, as rated by the employer.

Job satisfaction. Job satisfaction is the most widely studied generic attitude variable in the field of organizational psychology (Porter et al., 1998). Job satisfaction can be defined as "the degree to which employees have a positive affective orientation towards employment by the organization" (Vroom, 1964, cited in Price, 1997, p. 470). Furthermore, an employees' job satisfaction is affected by the perceived relationship between what one wants from the job and what is being offered (Zhao et al., 2007). Prior research has documented that employees' perceptions on the psychological contract are related to their job satisfaction (Chobrot-Mason,

2003; De Cuyper & De Witte, 2006; Isaksson, 2005; Porter et al., 1998; Robinson & Rousseau, 1994; Sutton & Griffin, 2004). When an aspect of the psychological contract is not fulfilled, the employee perceives a discrepancy between what has been provided and what has been promised, which is a major source of dissatisfaction. Consequently, the employee can no longer rely on promised inducements, and it may be difficult to stay motivated to perform and to obtain satisfaction from doing the job.

Robinson and Rousseau (1994) studied the relationship between psychological contract violations by the employer and employees' job satisfaction. They used a longitudinal design and a sample of MBA alumni, building on previous research by Rousseau (1990). The study included two measures of psychological contract breach; one dichotomous and one continuous measure. Results from both measures revealed that psychological contract breach was negatively associated with job satisfaction. De Cuyper and De Witte (2006) studied the effect of job insecurity, which is perceived as an important aspect of relational psychological contracts, on job satisfaction among both permanent and temporary employees. They found a negative association between job insecurity and job satisfaction among both permanent and temporary employees, indicating that breach of this relational obligation is related to lower job satisfaction. Porter et al. (1998) measured gaps between employees' and employers' perceptions of employer inducements. Employees who reported receiving fewer inducements than the organization's representatives reported offering, were less satisfied with their jobs.

Isaksson (2005) focused on positive consequences of psychological contract fulfilment. The findings suggested that employees who perceived that their employers fulfilled their obligations to them experienced higher levels of job satisfaction. In a similar line, the present study investigates whether agreement between employees and employers on employee expectations and employer inducements is positively related to the employees' job satisfaction.

Hypothesis 5: Agreement between employee and employer on the psychological contract dimensions (a) employee expectations and (b) employer inducements are positively related to job satisfaction, as rated by the employee.

Intention to quit. Violation of obligations in the psychological contract weakens the bond between employee and employer. When employees perceive that the employer has not fulfilled their side of the contract, they lose faith in the benefits of staying in the relationship, and might develop intentions of leaving the organization. Previous research has confirmed this reasoning (Robinson & Rousseau, 1994). Robinson and Rousseau conducted a

longitudinal study, where employees were surveyed immediately following recruitment and again two years later. The results suggested that contract violations predict employees' current intentions to remain with one's employer, even after controlling for initial intentions to remain. Tekleab and Taylor (2003) also found that employees' perceptions of violations by the organization is positively related to intention to leave the organization, based on a sample of 130 matched dyads of non-faculty university employees and managers.

Sutton and Griffin (2004) found that turnover intention is predicted by job satisfaction, specifically that low job satisfaction leads to higher turnover intention. However, they found no direct relationship between contract violation and turnover intentions. In their study, job satisfaction mediated the relationship between contract violation and intention to quit. This mediating role of job satisfaction in the relationship between psychological contract violation and intention to quit was also found in the research of Turnley and Feldman (2000). However, job satisfaction was found to partially mediate this relationship. Thus, there seemed to be both a direct and an indirect effect of psychological contract violation on intention to quit. Turnley and Feldman also documented the mediating effect of met expectations on employees' intention to quit, while research by Lo and Ayree (2003) suggested that trust in the organization is a mediator.

Intention to quit can serve reflection of one's psychological attachment to the employer. While actual turnover is affected by external factors like the probability of getting an alternative job (Zhao et al., 2007), turnover intention more accurately reflects the employee's attitude toward the organization. Based on these previous findings, the present study investigates the relationship between agreement between employees and employers on the psychological contract and the employees' intention to quit.

Hypothesis 6: Agreement between employee and employer on the psychological contract dimension (a) employee expectations and (b) employer inducements are negatively related to intention to quit, as rated by the employee.

Method

Sample and Procedure

Data were collected through an online questionnaire. Two versions of the questionnaire were made; one for employees and one for employers, and distributed to pairs

of employee and closest supervisor. The supervisor represented the employer. This decision was based on previous findings indicating that employees perceive their closest supervisor as representing the organization (Shore & Tetrick, 1994). None of the supervisors participated in more than one pair, in order to avoid clusters in the sample. This procedure is consistent with similar work on psychological contracts (e.g. Dabos & Rousseau, 2004). Participants were contacted either by telephone or by e-mail, and invited to participate in the survey. In most cases, either the employee or the supervisor was invited, and asked to invite his or her supervisor or an employee. After agreeing to participate, each supervisor and employee received an e-mail including an invitation with information about the research project and a link to the questionnaire. Participants were assured that all survey responses would be treated confidentially, and were promised a final report of research findings in return for their participation. In some cases, both e-mails were sent to either employee or supervisor, after making an agreement that the recipient would forward the correct version to the other participant. Participants who had not responded within two weeks were sent a follow-up notice by e-mail, in which they were politely encouraged to respond. Participants who did not respond after the follow-up were not reminded again, as participation was voluntary.

The pairs of employee and supervisor were asked to type an identical ID-number, allowing each employee's data to be paired with the corresponding supervisor's data. In order to ascertain anonymity, the pairs were recommended to use the last four digits of the supervisor's phone-number. This suggestion was made in order to give them an idea of a possible code, and to avoid potential problems matching the pairs if several pairs had used the same four digits (i.e.1234).

In total, 118 pairs of employee and supervisor were invited to participate in the survey. Out of these, 103 supervisors and 98 employees completed the questionnaire, yielding a response rate of 87 percent for supervisors and 83 percent for employees. The ID-numbers of supervisor and employees were matched, resulting in 98 matched pairs. In the 5 cases where only the supervisor had completed the questionnaire, the data were excluded from the analysis, because the analysis of this study was based on matched pairs. Some participating pairs had not filled in equivalent ID-numbers. These were matched on the basis of the demographic variables tenure and company size. Other variables used to match respondents were their date of survey completion and gender. A sample size of 98 pairs was considered appropriate based on the rule of thumb, $N \geq 50 + 8m$, for testing multiple correlations, where m is the number of independent variables (Green, 1991, in Tabachnick & Fidell, 2007, p. 123). In the polynomial

regression analysis used to test hypothesis 3, 4, 5 and 6, five independent variables needed to be included. With 98 cases, one control variable could also be included.

The sample was based on personal networks; a convenience sample. Nonetheless, in order to obtain results that can be generalized to the Norwegian population, the representativeness of the sample was considered. Participants worked for 64 different organizations in Norway. Out of these, 52 organizations were represented by only one pair, while the remaining 12 organizations were represented by more than one pair. One organization, an international private company in the banking industry, was represented by 15 pairs, but participants possessed different positions in the organization. Banking, real-estate, IT, consulting, retail, recruitment, public health, research, and optic engineering were among the various sectors that were represented. Both private and public organizations were included. Participants varied in positions, from top managers to blue collar workers.

The demographics of supervisors showed that 69 percent were male. The supervisors' age ranged from 26 to 67 ($M = 45.55$, $SD = 9.36$), and 83 percent had a college or university degree. In terms of the employees' demographics, 55 percent were female. Their age ranged from 24 to 65 ($M = 39.58$, $SD = 11.42$), and 64 percent had a college or university degree. Both employees and supervisors were asked to indicate how many years they had worked together and the number of employees working in their organization. These two demographic variables differed slightly from employees' and supervisors' datasets. In the analysis, tenure was used as a control variable. Employees' reports of tenure were used, based on the assumption that employees may have more exact knowledge about when they started working with their current supervisor, while the supervisor may have many employees and hence may not remember exactly when each of them started. Employees reported average tenure of 2.96 years, ranging from 2 months to 26 years ($SD = 3.99$ years). The size of the organizations varied from less than 50 to more than 10 000 employees. Based on supervisors' reports, 34 percent of participants worked in an organization with 50 employees or less, 38 percent worked in an organization with 50 to 250 employees, 16 percent worked in an organization with 250 to 1000 employees, 3 percent worked in an organization with 1000 – 10000 employees, and 9 percent worked in an organization with more than 10000 employees.

Measures

Two different versions of the questionnaire were used in this study; one for supervisors and one for employees. Based on several trials, completion time was estimated to 10 - 15 minutes for both versions. The supervisors' version contained scales measuring

communication satisfaction, the psychological contract, employee performance and organizational citizenship behaviour. The employee version contained scales measuring communication satisfaction, the psychological contract, job satisfaction and intention to quit. All items were measured on a 5-point Likert scale with verbal anchors ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

All scales, except the psychological contract measure, originally contained English items. Because this study was conducted in Norway, all items were translated into Norwegian. English items were translated by back-translation; first, the researcher translated the English items to Norwegian, and then a person with English as first language translated them back to English. This was done in order to make sure that the wordings of the original items were comparable to the Norwegian translation. All items were satisfyingly translated by the use of this procedure. The psychological contract measure originally contained German items. A professional translator translated these into Norwegian. In order to validate the translation from German to Norwegian, the wordings of the items were compared to an English version.

Communication satisfaction. Communication satisfaction was measured using three of eight scales from Downs and Hazen (1977; Mueller & Lee, 2002), each containing five items. Both employees and employers answered the scale *corporate communication*. Cronbach's alpha (α) was .69 for employers and .76 for employees. One example of an item from this scale is "Information about company policies and goals". Employers were asked to what extent the organization gives the employees information, and employees were asked to what extent they get information. Corporate communication may be communication from other people than the supervisor (e.g. the top management). Employees also answered the scale *supervisory communication* ($\alpha = .89$). One example of an item from this scale is "Extent to which my supervisors listens and pays attention to me". Employers also answered the scale *supervisor communication*. One example of an item from this scale is "Extent to which my subordinates are responsive to downward directive communication". This scale revealed internal reliability of $\alpha = .62$. The item that affected the internal reliability negatively was deleted, resulting in $\alpha = .75$. These two scales, supervisor communication and supervisory communication, measure communication between supervisor and employee.

The psychological contract. Both employees' and supervisors' perspectives on the psychological contract were measured using a questionnaire developed by Raeder et al. (2009). This questionnaire contains 21 items measuring employee contributions and employer expectations and 23 items measuring employer inducements and employee expectations. The versions for employee and supervisor contain the same items, but the wording of items and

information differed. Each item was evaluated twice, in separate columns. For each item, employees were asked to evaluate what they contribute towards their employer on 21 items (employee contributions, $\alpha = .78$), as well as indicating what they think their employer expects from them on the same 21 items (employer expectations, $\alpha = .81$). Employees were also asked to evaluate what they expect from their employer on 23 items (employee expectations, $\alpha = .80$), as well as their evaluation of what their employer provides them with on the same items (employer inducements, $\alpha = .90$). Employers were asked in a similar way, their evaluation of what the employee contributes towards the organization (employee contributions, $\alpha = .89$), as well as indicating what the organization expects from the employee (employer expectations, $\alpha = .80$). They were also asked to indicate what the employee expects from the organization (employee expectations, $\alpha = .86$), as well as evaluating what the organization provides the employee with (employer inducements, $\alpha = .87$). Respondents were asked to focus on contributions and expectations which were agreed on personally or in written form, announced explicitly, or assumed with tacit understanding. A sample item measuring employee contributions and employer expectations is “To assume responsibility for the product and the company”. A sample item measuring employee expectations and employer inducements is “Opportunity to use my skills in a variety of tasks”. Raeder et al. (2009) distinguished scales, but due to the maximum number of independent variables for the sample size, only four dimensions were used in the analysis.

Performance. Performance was measured using the scale in-role behaviour (IRB) developed by Williams and Anderson (1991). The scale consists of seven items ($\alpha = .89$), of which one example is “Meets formal performance requirements of the job”. Only supervisors’ ratings of their employee’s performance were measured.

Civic virtue. Civic virtue was measured using the scale from the Organizational Citizenship Behaviour measure developed by Podsakoff et al. (1990). This scale was only included in the supervisors’ version, measuring the employee’s civic virtue ($\alpha = .67$). One item from this scale is “Attends meetings that are not mandatory, but are considered important”.

Job satisfaction. Job satisfaction was measured using four items from Brayfield and Rothe (1951), also used in the PSYCONES project (Isaksson, 2005). One item from this scale is “I find enjoyment in my job”. This scale was only answered by employees ($\alpha = .84$).

Intention to quit. Intention to quit was measured using a scale of five items developed by Bozeman and Perrewé (2001). One item is “At the present time, I am actively searching

for another job in a different organization”. Intention to quit was only answered by employees ($\alpha = .85$).

Control variables. Employees’ tenure with the supervisor was included as the only control variable. Previous research of the psychological contract development has suggested that newly hired employees experience more obligations to their employers, and expect to receive less in return. This gap seems to diminish after some time in the relationship, as employees’ perceptions of their obligations to the organization tend to decrease over time, while their perceptions of the organization’s obligations to them tend to increase (Robinson, Kraatz, & Rousseau, 1994). Rousseau (2001) suggested that a possible reason for this might be more opportunities of sharing information, leading to agreement. Tekleab and Taylor (2003) found that employee tenure with the manager was positively related to agreement between the manager and the employee on employees’ obligations to the organization.

Analysis

The data obtained from the questionnaires resulted in two separate datasets, which were further processed with SPSS 16. One dataset contained data from the supervisor version and the other contained data from the employee version. The datasets were merged into one file, and sorted by ID-number in order to conduct the analysis on pairs of employees and supervisors. Items were named, negatively worded items were reverse coded, and scales were computed.

Three different analytical procedures were used to test the hypotheses, corresponding to the nature of the research question. First, paired-samples *t*-tests were run to examine whether employees and employers had different perceptions of four dimensions of the psychological contract; (1) employee contributions, (2) employer expectations, (3) employee expectations, and (4) employer inducements (hypothesis 1). Then, multivariate regression analyses were used to test whether communication was related to matching perceptions on the four dimensions of the psychological contract (hypothesis 2). Finally, polynomial regression analyses were used to examine the relationship between matching perspectives on the psychological contract and the outcome variables performance (hypothesis 3), civic virtue (hypothesis 4), job satisfaction (hypothesis 5) and intention to quit (hypothesis 6). The methods used will be further explained below.

Screening data. Before conducting the analyses to test the hypothesized relationships, all independent variables were centered. Centering was done by calculating the mean of the means of the independent variables, and then subtracting this mean from each independent

variable so that each had a mean around zero. This was done to reduce problems with multicollinearity that can appear in moderator models including interaction terms and power terms, caused by the measurement scales of the component independent variables. Dependent variables were not centered, as there is no advantage to do so (Tabachnick & Fidell, 2007).

The data were then screened in accordance with recommendations by Tabachnick and Fidell (2007). They recommend to (1) check univariate descriptive statistics for accuracy of input, (2) evaluate amount and distribution of missing data, (3) check pairwise plots for nonlinearity and heteroscedasticity, (4) identify and deal with nonnormal variables and univariate outliers, (5) identify and deal with multivariate outliers, and (6) evaluate variables for multicollinearity and singularity.

The original datasets contained correct data because they were downloaded directly from the electronic survey, avoiding typing error. Missing values was not a problem, because all items included in the surveys were mandatory. The distributions of all scales were assessed, as one of the assumptions of regression analysis is that data are normally distributed. For most variables, this was not the case. The scales in the employer version that were normally distributed were employee expectations, supervisor inducements, and civic virtue. The remaining eight scales, employee contributions, employer expectations, corporate communication, supervisor communication, and performance, were significantly negatively skewed. Negative skewness implies that the means were higher than the centre of the distribution (value 3.0), with a pileup of cases to the left and a too long right tail (Tabachnick & Fidell, 2007). The employee scales that were normally distributed were employee contributions, employer expectations, and employee expectations. The scales employer inducements, corporate communication, supervisory communication, job satisfaction, and intention to quit were all skewed. Intention to quit was positively skewed while the other scales were negatively skewed. Because intention to quit was a negative variable, essentially, all scales were skewed in the same direction. According to Tabachnick and Fidell (2007), the solution is particularly degraded if variables are non-normal in very different ways, i.e. some positively and some negatively skewed variables. To the contrary, in this sample, all variables were negatively skewed, implying that the participants gave higher (e.g. more positive) scores than what is expected in the population. Box plots of all variables revealed univariate outliers. The only plausible explanation for these outliers was that some participants indicated lower than average ratings on the measures, causing the non-normal distribution of the variables. The outlying cases were included in the analysis because of the relatively small sample size, even though they might distort the findings. Transformations of the non-normal variables

were considered in order to obtain normal distribution and a better regression model. Tabachnick and Fidell recommend transforming variables “unless there are compelling reasons not to transform” (2007, p. 83). Finally, original scales were used in the regression analysis. This decision was due to the use of polynomial regression analysis, in which paired responses on the same scales are compared. Not all of the equivalent scales in supervisors’ and employees’ datasets needed to be transformed. Including some transformed scales and some original scales in the analysis would make interpretation of results difficult. Especially as squared and interaction terms are included in polynomial regression models.

Possible multivariate outliers were identified by applying the Mahalanobis’ distance. Regression models corresponding to hypotheses 3, 4, 5 and 6 were tested. When matching perspectives on employee contributions were used as predictors, four multivariate outliers were detected, and when supervisor expectations were used as predictors, five multivariate outliers were detected. Also, when employee expectations were used as predictors, six multivariate outliers were detected, and when employer inducements were used as predictors, three multivariate outliers were found. Nonetheless, all 98 cases were kept in the analysis, due to the relatively small sample size when multiple regression analysis is applied. With a larger sample size, the outlying cases would probably not have been outliers because there would have been cases with scores filling the gap, rendering the distribution normal.

Multicollinearity of centered variables was evaluated. Multicollinearity occurs when variables are very highly correlated, like .90 and above (Tabachnick & Fidell, 2007). There was no multicollinearity problem with the variables employee contributions, employer expectations and employee expectations. However, there was possible multicollinearity in hypothesis 5 and 6, when employer inducements were used as a predictor for job satisfaction and intention to quit. This might increase the probability that a good predictor of the outcome will be found non-significant and rejected from the model (a Type 2 error; Field, 2005).

Paired-samples t-test. To test hypothesis 1, which predicted that employees and employers agree on the four dimensions of the psychological contract, a paired-samples *t*-test was conducted. This test examines whether there are significant differences between two related measures (Howitt & Cramer, 2005). A two-tailed *t*-test was chosen, as previous research has not consistently found matching perspectives. A significant *t*-value indicates that there are differences between the variables, which would indicate a mismatch in employee’s and employer’s perspectives. A non-significant relationship indicates matching perspectives.

Multivariate regression analysis. To test hypothesis 2, which predicted that quality of communication is positively related to agreement on the psychological contract, multivariate

multiple regression analysis was applied. Pairs of four different dependent variables were used; employee contributions, employer expectations, employee expectations and employer inducements. Four measures of communication were used as independent variables. These were both employees' and employers' satisfaction with corporate communication, employees' satisfaction with supervisory communication and supervisors' satisfaction with supervisor communication. Tekleab and Taylor (2003) used multivariate regression analysis to test a similar hypothesis where congruence (i.e. agreement) was examined as a dependent variable. Therefore, this study uses the same approach. As recommended by Edwards (1995), the relationship between each predictor (i.e. communication satisfaction) and each of the dependent variables (i.e. dimensions of the psychological contract) was examined to arrive at a conclusion for agreement between the two parties. Figures depicting regression lines were presented for analysis with at least one significant predictor, as done by Tekleab and Taylor (2003). Agreement is supported when the two lines approach each other.

Polynomial regression analysis. Polynomial regression analysis (Edwards, 1994) was used to test hypotheses 3, 4, 5 and 6. Polynomial regression analysis is used to measure congruence (i.e. agreement, match; Edwards & Parry, 1993). Commonly, difference scores have been used in research on employees' and employers' perspectives. For example, in a study of Lester et al. (2002), respondents were asked to indicate difference between delivered versus promised levels on inducements. Similarly, Porter et al. (1998) used a variable they called Psychological Contract Gap to analyze differences in perceptions of organization inducements between employees and organization representatives. According to Edwards (2002), difference scores or any derivation of these scores suffer from numerous methodological problems. He argues that these scores hide the true relationship between the predictors and the dependent variables from which the difference scores are derived. According to Edwards (1994), these problems can be avoided by the use of polynomial regression analysis, which gives more comprehensive and conclusive results. In polynomial regression analysis, the two components of difference scores are supplemented by higher-order terms to represent relationships between the two constructs (e.g. what the employee expects to be provided with and what the employer expects to provide). Recently, researchers have used polynomial regression analysis when investigating agreement between employee and employer (i.e. Dabos & Rousseau, 2004; Lambert et al., 2003; Tekleab & Taylor, 2003).

In the present study, the dependent variables were performance, organizational citizenship behaviour, job satisfaction and intention to quit. The independent variables were four combinations of employees' and supervisors' perceptions on their own and the other

party's contributions and expectations; employee contributions, employer expectations, employee expectations and employer inducements. To test hypothesis 3, 4, 5 and 6, similar regression models were used. In the first step, employee tenure with the supervisor was entered as a control variable. In the second step, the individual scales of employees' and supervisors' perspectives of the psychological contract were entered, to examine their main effects on the dependent variables. A significant R^2 in this step indicates a direct relationship between the predictors and the outcome variable. In the third step, the interaction between employees' and supervisors' perspectives of the psychological contract was entered, to examine whether the interplay between employees' and supervisors' perspectives has explanatory power beyond that of their individual scales. In the fourth step, the squares of the individual scales of employees' and supervisors' perspectives of the psychological contract were entered. Entering these variables is an important aspect of the procedure for examining the role of agreement on the outcome variables. A significant incremental R^2 in this model indicates a curvilinear relationship between the predictors and the outcome variable. Polynomial regression models can be presented visually, in three-dimensional graphs (Edwards, 2002). The present study includes two graphs of this kind, made with the software JMP. A significant regression model will result in a surface which is concave, convex or saddle-shaped. A concave surface is dome-shaped, a convex surface is bowl-shaped, and a saddle-shaped surface combines upward and downward curvature.

Results

Descriptive Statistics

Means, standard deviations, correlations and reliability estimates for all variables used in the analyses are reported in Table 1. Internal reliabilities for the psychological contract ranged from .78 to .90, the antecedent measures ranged from .69 to .89, and the outcome measures ranged from .67 to .89. De Vellis (2003) considers reliabilities from .65 to .70 to be minimally acceptable, reliabilities from .70 to .79 are considered respectable, whereas reliabilities from .80 to .89 are considered to be very good. No more than two scales had minimally acceptable reliabilities. All scales had high means, except intention to quit which is a negative scale, indicating that participants gave high scores on all variables.

Table 1

Means, standard deviations, correlations, and reliabilities.

No.	Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Control variable																				
1	Tenure with supervisor	2.96	3.99	-																
Employee scales																				
2	Corporate communication	4.14	.59	.04	(.76)															
3	Supervisory communication	4.09	.72	.03	.46***	(.89)														
4	Employee contributions	4.25	.34	.09	.34***	.42***	(.78)													
5	Employer expectations	4.27	.38	.12	.31**	.29**	.64***	(.81)												
6	Employee expectations	4.24	.34	-.01	.16	.16	.50***	.47***	(.80)											
7	Employer inducements	3.88	.55	-.06	.49***	.63***	.55***	.57***	.45***	(.90)										
8	Job satisfaction	4.13	.83	.05	.28**	.58***	.38***	.37***	.19	.58***	(.84)									
9	Intention to quit	2.06	.98	-.04	-.26*	-.47***	-.13	-.14	.08	-.45***	-.63***	(.85)								
Supervisor scales																				
10	Corporate communication	4.16	.52	.01	.09	.08	.08	.13	.00	.17	.07	.11	(.69)							
11	Supervisor communication	4.12	.56	-.07	-.08	.19	-.14	-.00	.02	.16	.13	.01	.11	(.75)						
12	Employee contributions	4.18	.46	.03	.15	.38***	.22*	.28**	.15	.46***	.32**	-.21*	.15	.47***	(.89)					
13	Employer expectations	4.30	.34	-.01	.13	.06	.08	.24*	.10	.13	.09	.04	.47***	.27**	.46***	(.80)				
14	Employee expectations	4.21	.38	-.11	.08	.17	.17	.19	.25*	.37***	.22*	-.06	.43***	.30**	.53***	.55***	(.86)			
15	Employer inducements	4.01	.40	-.09	.20	.22*	.20	.24*	.20	.50***	.24*	-.21*	.49***	.36***	.46***	.50***	.73***	(.87)		
16	Performance	4.46	.59	.02	.14	.46***	.12	.20*	.05	.46***	.40***	-.37**	.08	.42***	.72***	.19	.31**	.34***	(.89)	
17	Civic virtue (OCB)	4.11	.61	.16	.09	.34***	.10	.13	.06	.20*	.33***	-.22*	.23*	.31**	.47***	.20*	.38***	.37***	.42***	(.67)

Note. $N = 98$ for all variables. Scale reliabilities (Cronbach's alpha) are reported on the diagonal in parentheses. * $p < .05$. ** $p < .01$. *** $p < .001$.

Test of Hypotheses

Hypothesis 1 predicted that employees and employers agree on the psychological contract dimensions (a) employee contributions, (b) employer expectations, (c) employee expectations, and (d) employer inducements. This was tested by a paired-samples *t*-test. The results supported hypothesis 1 on three of the four psychological contract dimensions (cf. Table 2). Employees and supervisors agreed on (a) employee contributions ($M = .07$, $SD = .51$, $t = -1.385$, $p > .05$), (b) employer expectations ($M = -.03$, $SD = .44$, $t = -.654$, $p > .05$) and (c) employee expectations ($M = .03$, $SD = .44$, $t = .778$, $p > .05$). However, they did not agree on (d) employer inducements ($M = -.21$, $SD = .49$, $t = -4.233$, $p < .001$). Supervisors reported contributing more to the employees than the employees reported receiving. Thus, hypothesis 1 was partially supported.

Table 2
Paired-samples t-test: Agreement on employee contributions, employer expectations, employee expectations, and employer inducements

Variables	Employees' perceptions		Supervisors' perception		Paired differences		Mean differences <i>t</i> -values
	Mean	SD	Mean	SD	Mean	SD	
Employee contributions	4.25	.34	4.18	.46	.07	.51	1.385
Employer expectations	4.27	.38	4.30	.34	-.03	.45	-.654
Employee expectations	4.24	.33	4.21	.38	.03	.44	.778
Employer inducements	3.88	.55	4.09	.40	-.21	.49	-4.233***

Note. $N = 98$. * $p < .05$, two-tailed. ** $p < .01$, two-tailed. *** $p < .001$, two-tailed.

In addition to examining the degree of agreement between employees' and supervisors' perspectives, it was also examined whether one party's contributions was in line with the other party's expectations (cf. Table 3 and Table 4). Employees reported contributing in accordance with their perceptions of their employers' expectations ($M = -.02$, $SD = .31$, $t = 0.716$, $p > .05$), indicating that employees believe that they meet their employers' expectations. To the contrary, supervisors perceived employees' contributions to be significantly lower than employers' expectations ($M = -.12$, $SD = .43$, $t = -2.851$, $p < .001$), suggesting that supervisors believe that employees fail to meet the organization's expectations.

Table 3

Paired-samples t-test: Agreement on employee contributions and employer expectations

Variables	Employee contributions		Employer expectations		Paired differences		Mean differences
	Mean	SD	Mean	SD	Mean	SD	
Employees' perceptions	4.25	.34	4.27	.38	-.02	.31	-0.716
Supervisors' perceptions	4.18	.46	4.30	.34	-.12	.43	-2.851***

Note. $N = 98$. * $p < .05$, two-tailed. ** $p < .01$, two-tailed. *** $p < .001$, two-tailed.

Regarding employee expectations and employer inducements, employees perceived employer inducements to be significantly lower than their expectations ($M = .36$, $SD = .50$, $t = 7.216$, $p < .001$). More surprisingly, supervisors also perceived employees' expectations to be higher than employer inducements ($M = .12$, $SD = .29$, $t = 4.083$, $p < .001$). This finding indicates that employees and supervisors agree that employers fail to meet employees' expectations.

Table 4

Paired-samples t-test: Agreement on employee expectations and employer inducements

Variables	Employee expectations		Employer inducements		Paired differences		Mean differences
	Mean	SD	Mean	SD	Mean	SD	
Employees' perceptions	4.24	.34	3.88	.55	.36	.50	7.216***
Supervisors' perceptions	4.21	.38	4.09	.40	.12	.29	4.083***

Note. $N = 98$. * $p < .05$, two-tailed. ** $p < .01$, two-tailed. *** $p < .001$, two-tailed.

Hypothesis 2 predicted that quality of communication would be related to agreement on the psychological contract. In hypothesis 2(a), predicting agreement on employee contributions, employees' report of supervisory communication was significantly related to both supervisors' ($\beta = .28$, $p < .01$) and employees' ($\beta = .40$, $p < .01$) perspectives on employee contributions (cf. Table 5). Figure 2 shows that both lines increase as supervisory communication increases from low to high. Nonetheless, the lines do not approach each other, showing that employees perceive their contributions to be higher than perceived by the supervisors, regardless of the perceived quality of supervisory communication. Supervisors'

perspectives on supervisor communication was also significantly related to both supervisors' ($\beta = .40, p < .01$) and employees' ($\beta = -.21, p < .05$) perspectives of employee contributions (cf. Figure 3). The two lines approach each other as supervisor communication increases from low to high, indicating that when supervisor communication is of high quality, the parties agree on employee contributions. Neither employees' nor supervisors' perspectives on corporate communication was significantly related to employee contributions. Thus, hypothesis 2(a) was partially supported. Supervisor communication was significantly related to agreement on employee contributions.

Table 5

Multivariate regression analysis: Predicting agreement on employee contributions

Independent variables	Dependent variables						
	Wilks' lambda (Λ)	Employee contributions (S)			Employee contributions (E)		
		<i>b</i>	SE	β	<i>b</i>	SE	β
Intercept	.51	1.63	.49		3.56	.38	
Corporate communication (E)	.98	.04	.08	.05	.07	.06	.10
Supervisory communication (E)	.84**	.18**	.06	.28**	.19**	.05	.40**
Corporate communication (S)	.99	.07	.08	.09	.04	.06	.09
Supervisor communication (S)	.76**	.33**	.07	.40**	-.13*	.06	-.21*
<i>R</i> ²			.32			.24	
<i>F</i>			10.69***			7.48***	

Note. * $p < .05$. ** $p < .01$. *** $p < .001$. S = Supervisors' perspectives; E = Employees' perspectives.

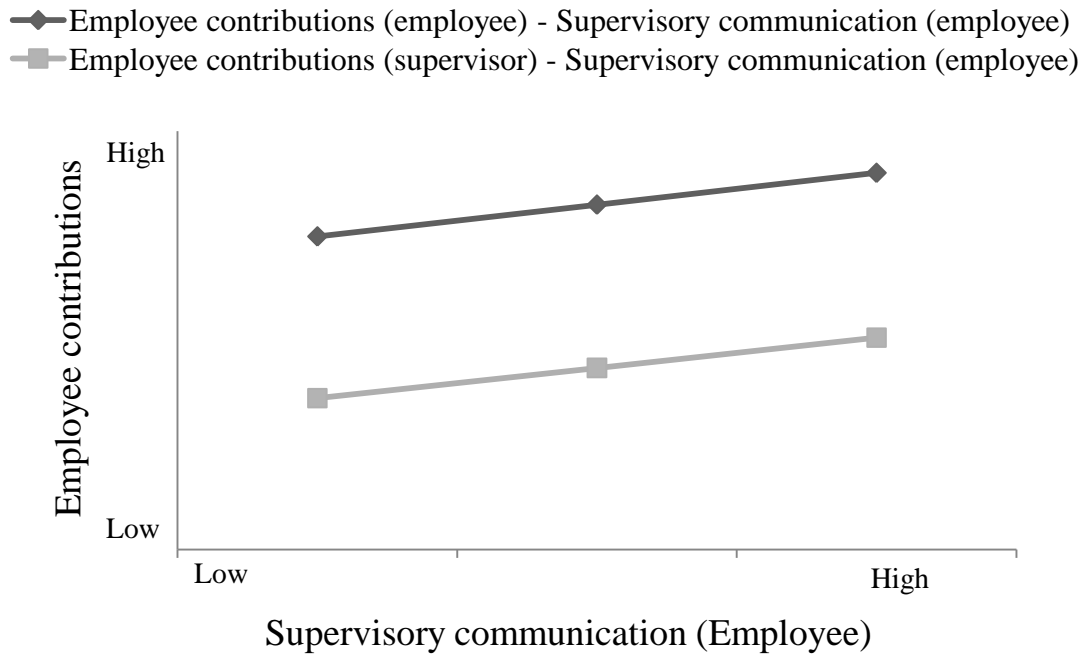


Figure 2. Relationship between supervisory communication (employees' perspectives) and agreement on employee contributions.

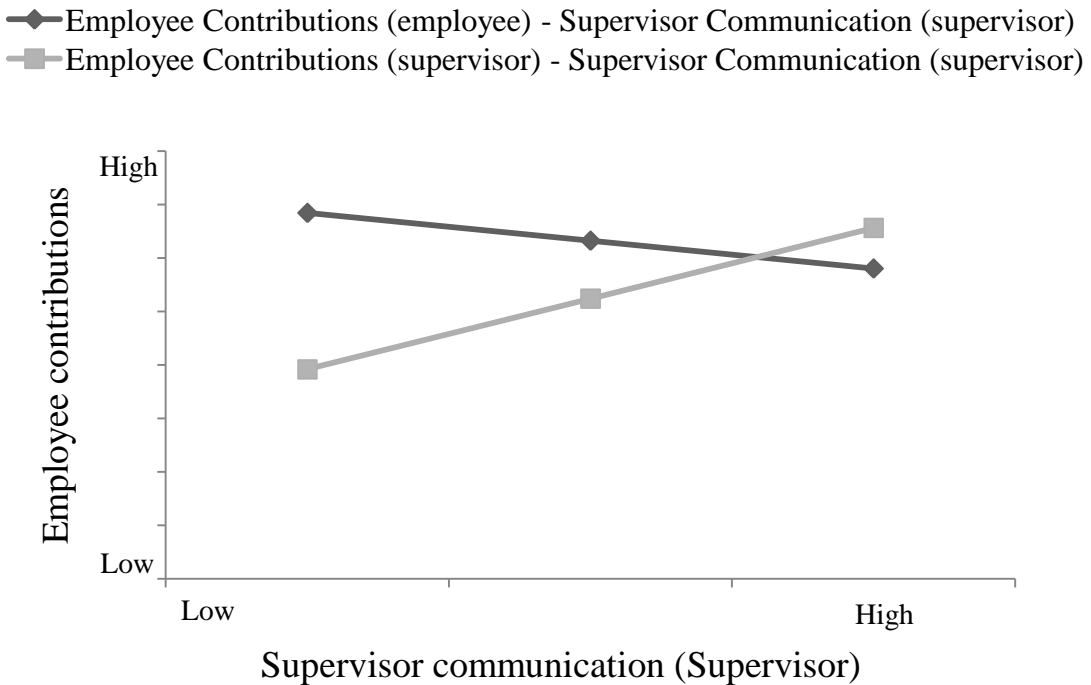


Figure 3. Relationship between supervisor communication (supervisors' perspectives) and agreement on employer contributions.

In hypothesis 2(b), predicting agreement on employer expectations, supervisors' perspectives on corporate communication ($\beta = .44, p < .001$) and supervisor communication ($\beta = .25, p < .01$) were positively related to supervisors' perspectives on employer expectations. None of the four predictors was related to employees' perspectives on employer expectations (cf. Table 6). Figure 4 depicts the relationship between supervisor communication and agreement on employer expectations. Figure 5 depicts the relationship between corporate communication and employer expectations. In both figures, the lines approach each other as communication increases from low to high, indicating agreement. Thus, hypothesis 2(b) was partially supported. Supervisors' view of supervisor communication and corporate communication were significantly related to agreement on employer expectations.

Table 6
Multivariate regression analysis: Predicting agreement on employer expectations

Independent variables	Dependent variables						
	Wilks' lambda (Λ)	Employer expectations (S)			Employer expectations (E)		
		<i>b</i>	SE	β	<i>b</i>	SE	β
Intercept	.56	2.33	.37		3.12	.46	
Corporate communication (E)	.95	.09	.06	.16	.14	.07	.22
Supervisory communication (E)	.96	-.05	.05	-.11	.10	.06	-.19
Corporate communication (S)	.79	.29***	.06	.44***	.07	.07	.10
Supervisor communication (S)	.92	.15**	.06	.25**	-.02	.07	-.03
<i>R</i> ²			.29			.13	
<i>F</i>			9.39***			3.41**	

Note. * $p < .05$. ** $p < .01$. *** $p < .001$. S = Supervisors' perspectives; E = Employees' perspectives.

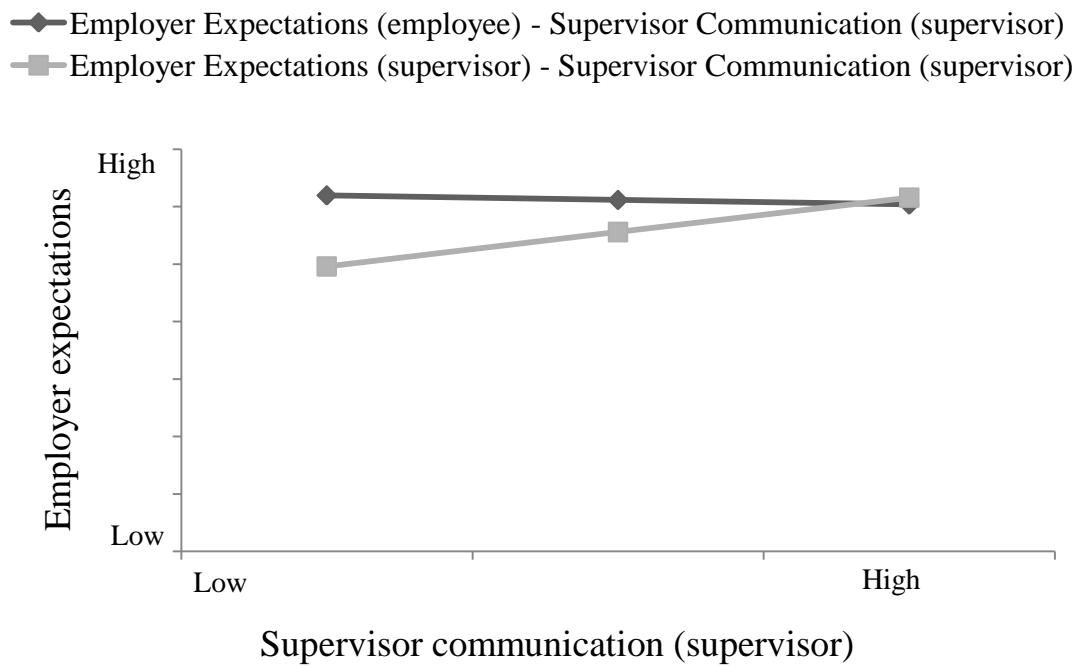


Figure 4. Relationship between supervisor communication (supervisors' perspectives) and agreement on employer expectations.

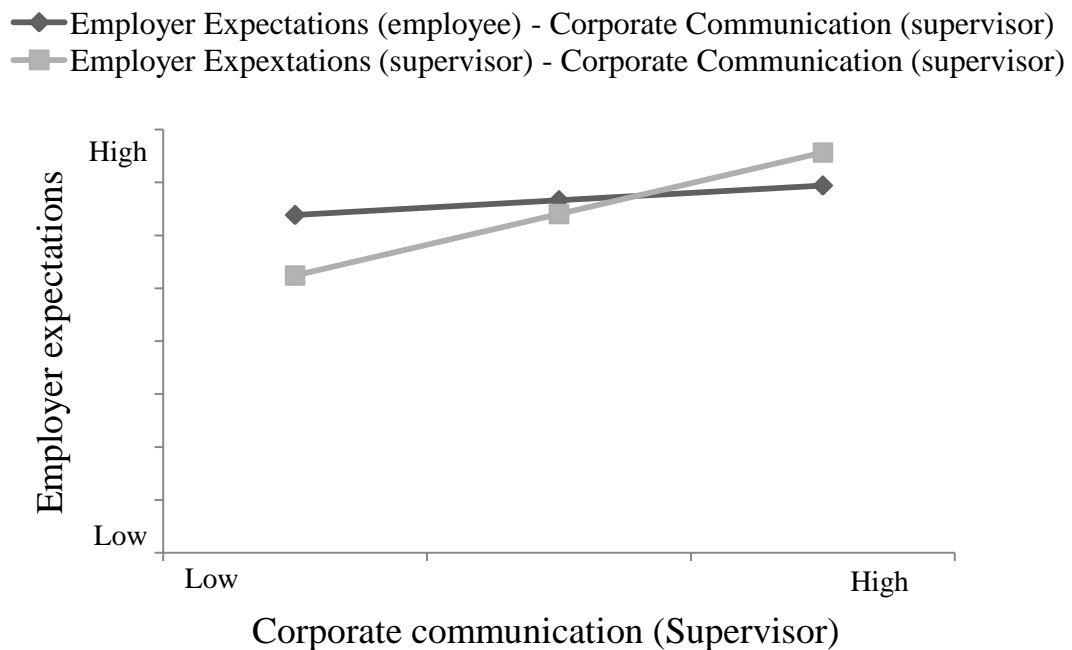


Figure 5. Relationship between corporate communication (supervisors' perspectives) and agreement on employer expectations

When predicting agreement on employee expectations in hypothesis 2(c), again, supervisors' perspectives on supervisor communication ($\beta = .25, p < .01$) and corporate communication ($\beta = .40, p < .001$) were significant (cf. Table 7). Figure 6 shows that as supervisor communication increases from low to high, supervisors' perception of employee expectations approaches employees' perception of own expectations. Figure 7 shows that as supervisors' perception of corporate communication increases from low to high, supervisors' perception of employee expectations approaches the employees' report of own expectations. Employees' perspectives of communication were not related to employee expectations. Thus, hypothesis 2(c) was partially supported. Supervisors' perspectives of supervisor communication and corporate communication were significantly related to agreement on employee expectations.

Table 7
Multivariate regression analysis: Predicting agreement on employee expectations

Independent variables	Dependent variables						
	Wilks' lambda (Λ)	Employee expectations (S)			Employee expectations (E)		
		<i>b</i>	SE	β	<i>b</i>	SE	β
Intercept	.51	2.09	.42		3.82	.43	
Corporate communication (E)	.99	.02	.07	.03	.06	.07	.12
Supervisory communication (E)	.99	.04	.06	.08	.05	.06	.11
Corporate communication (S)	.81	.29***	.07	.40***	-.01	.07	-.02
Supervisor communication (S)	.93	.17**	.06	.25**	.00	.06	.00
<i>R</i> ²			.26			.04	
<i>F</i>			8.20***			.85	

Note. * $p < .05$. ** $p < .01$. *** $p < .001$. S = Supervisors' perspectives; E = Employees' perspectives.

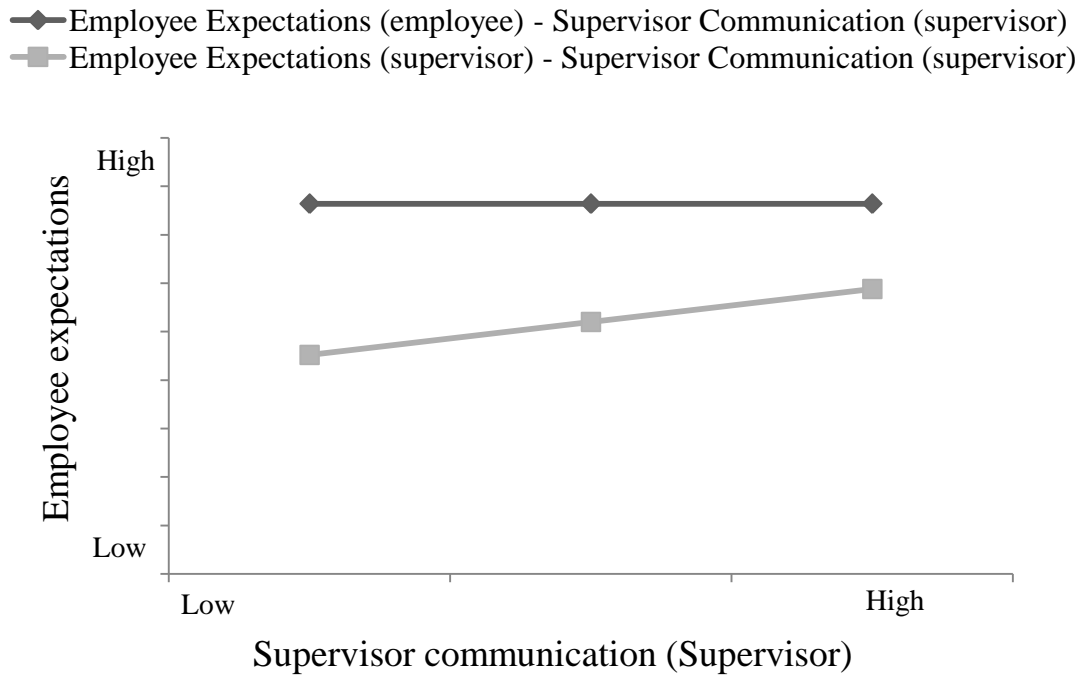


Figure 6. Relationship between supervisor communication (supervisors' perspectives) and agreement on employee expectations.

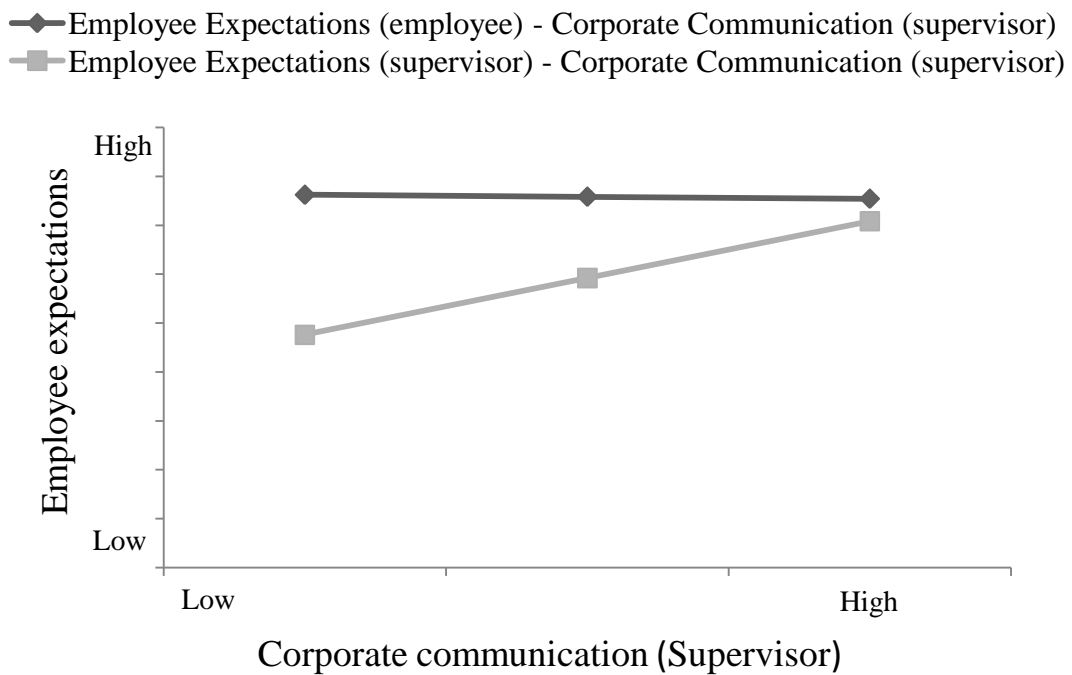


Figure 7. Relationship between corporate communication (supervisors' perspectives) and agreement on employee expectations.

When predicting agreement on employer inducements, in hypothesis 2(d), supervisors' perspectives of supervisor communication ($\beta = .32, p < .01$) and corporate communication ($\beta = .48, p < .01$) were significantly related to their views of employer inducements, but not to employees' views of employer inducements (cf. Table 8). In addition, employees' perspectives of supervisory communication ($\beta = .48, p < .01$) and corporate communication ($\beta = .25, p < .01$) were related to their views of employer inducements, but not to supervisors' views of employer inducements. Only employees' perspectives on corporate communication were related to agreement on employer inducements (cf. Figure 8). For the other predictors, employees' perspectives on supervisory communication (Figure 9), supervisors' perspectives on corporate communication (cf. Figure 8) and supervisor communication (cf. Figure 10), the lines do not approach each other as communication increases from low to high, indicating that they are not related to agreement. Thus, hypothesis 2(d) was partially supported. Employees' perspectives of corporate communication were related to agreement on employer inducements.

Table 8
Multivariate regression analysis: Predicting agreement on employer inducements

Independent variables	Dependent variables						
	Wilks' lambda (Λ)	Employer inducements (S)			Employer inducements (E)		
		<i>b</i>	SE	β	<i>b</i>	SE	β
Intercept	.92	1.20	.41		.68	.52	
Corporate communication (E)	.92	.11	.07	.16	.23**	.08	.25**
Supervisory communication (E)	.73	.03	.05	.05	.37**	.07	.48**
Corporate communication (S)	.77	.37**	.07	.48**	.10	.08	.10
Supervisor communication (S)	.87	.23**	.06	.32**	.08	.08	.08
<i>R</i> ²			.37			.46	
<i>F</i>			13.41***			19.83***	

Note. * $p < .05$. ** $p < .01$. *** $p < .001$. S = Supervisors' perspectives; E = Employees' perspectives.

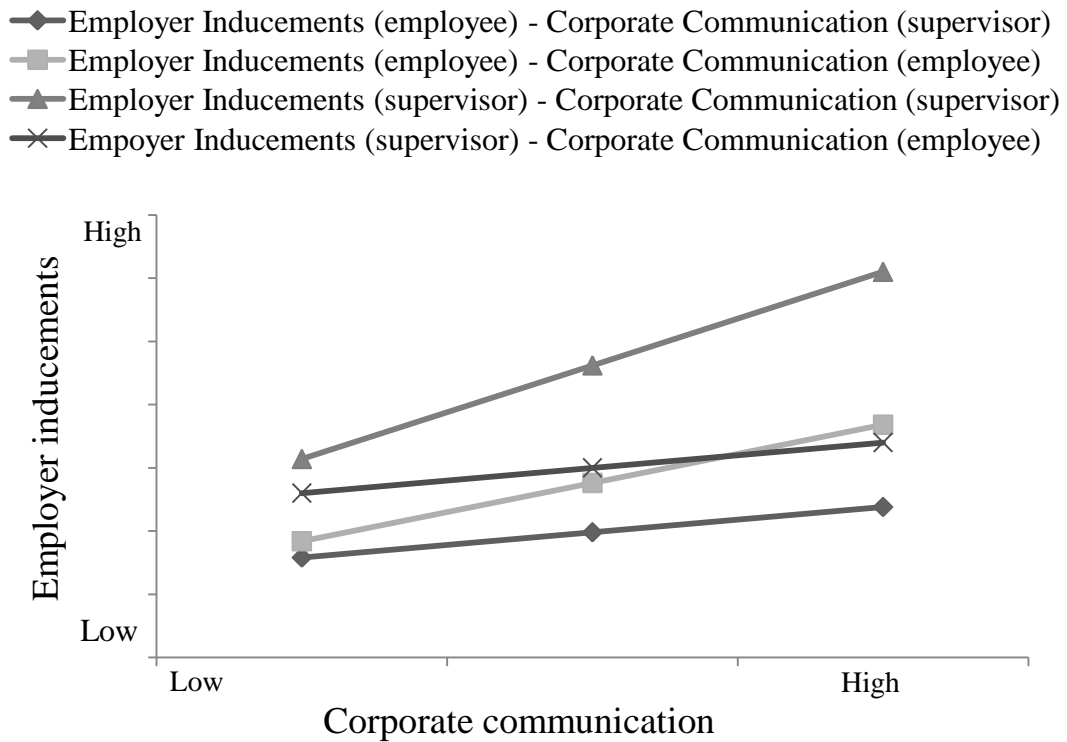


Figure 8. Relationship between corporate communication (both employees' and supervisors' perspectives) and agreement on employer inducements.

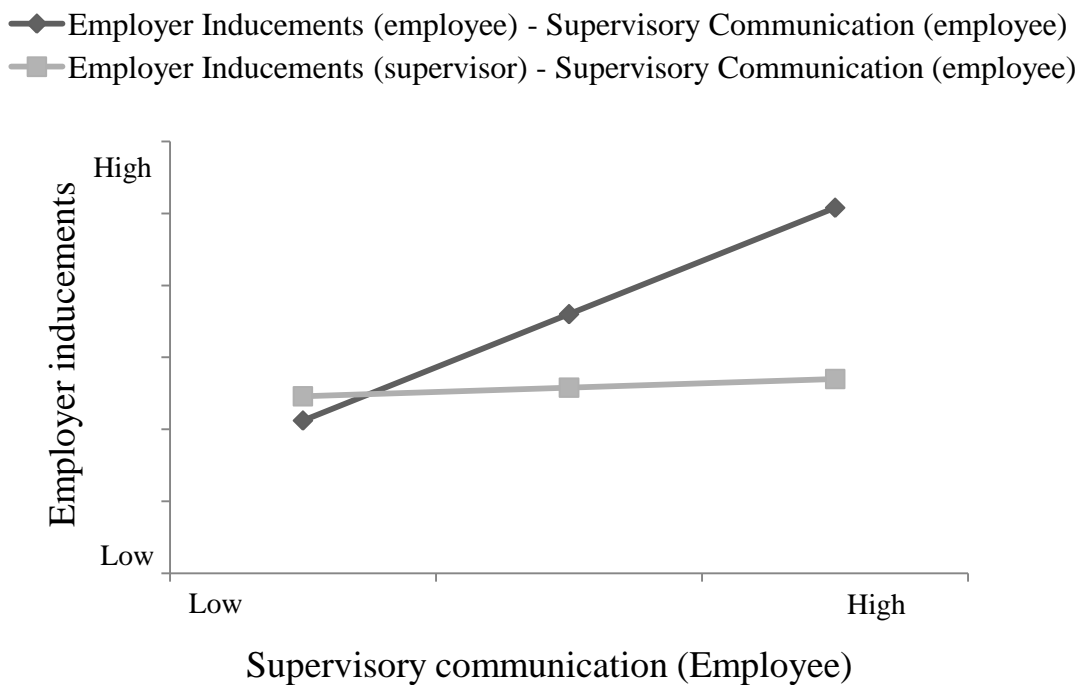


Figure 9. Relationship between supervisory communication (employees' perspectives) and agreement on employer inducements.

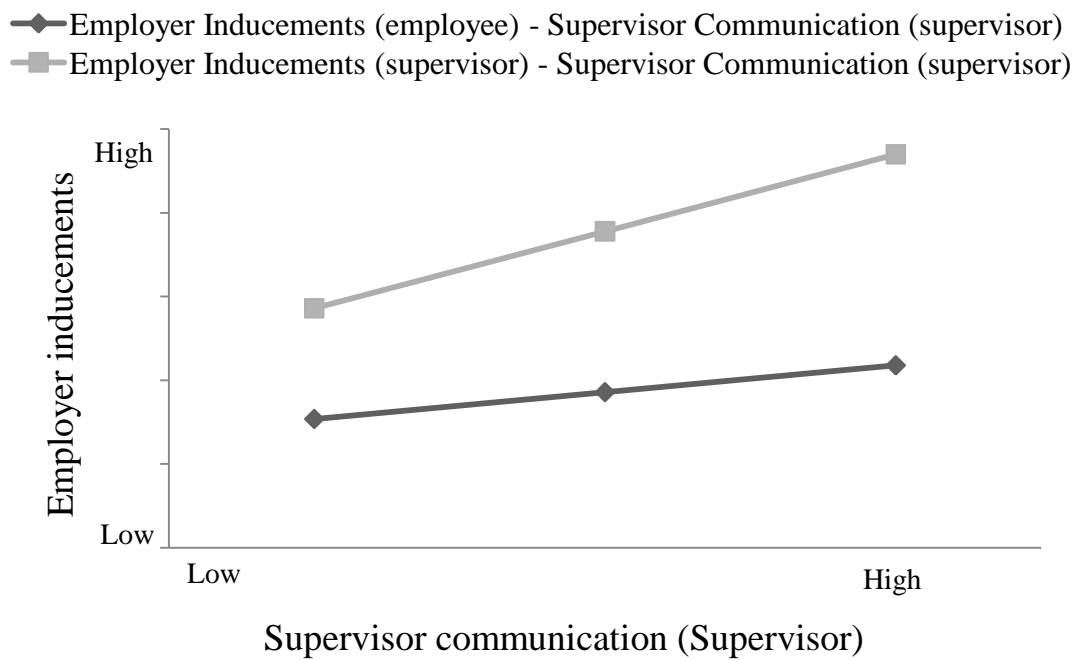


Figure 10. Relationship between supervisor communication (supervisors' perspectives) and agreement on employer inducements.

Hypothesis 3 predicted that matching perspectives between employees and supervisors on (a) employee contributions and (b) employer expectations would be positively related to supervisors' ratings of employee performance. The overall model including (a) employee contributions was significant ($Adj. R^2 = .54, F = 19.99, p < .01$), indicating that there is a main effect of the predictors on supervisors' ratings of employee performance (cf. Table 9). However, the interaction term included in step 3 was not significant, and explained no additional variance. The strongest predictor of employee performance was the main effect of supervisors' ratings of employee contributions ($\beta = .62, p < .01$; Step 4). This finding indicates that when the supervisors perceived high employee contributions, performance was perceived as high as well. A curvilinear effect on performance was supported for supervisors' ratings of employee contributions ($\beta = - 0.24, p < 0.01$; Step 4).

When it comes to employees' and supervisors' perspectives on (b) employer expectations, the overall model was significant ($Adj. R^2 = .10, F = 2.72, p < .05$), indicating that there is a main effect of the predictors on supervisors' rating of employee performance (cf. Table 10). Again, the most important predictor appeared to be supervisors' ratings of employee contributions. The interaction term explained no additional variance. However, a curvilinear effect of employee's rating of employer expectations was found ($\beta = - 0.33, p < .01$; Step 4). Thus, hypothesis 3 was not supported for either (a) employee contributions or (b) employer expectations.

Table 9

Polynomial regression analysis: Agreement on employee contributions related to performance and civic virtue

Outcome and predictor	Performance				Civic virtue			
	Step 1	Step 2	Step 3	Step 4	Step 1	Step 2	Step 3	Step 4
Step 1								
Tenure with supervisor (E)	.02	.00	.00	-.01	.16	.15	.15	.17
Step 2								
Employee contributions (E)		-.04	-.05	-.00		-.01	-.02	-.09
Employee contributions (S)		.73**	.76**	.62**		.47**	.50**	.62**
Step 3								
Interaction employee contributions (E)*(S)			-.08	-.07			-.90	-.12
Step 4								
Employee contributions (E) square				-.02				.12
Employee contributions (S) square				-.24**				.20†
<i>F</i>	.22	34.36**	26.11**	19.99**	2.51	9.98**	7.67**	6.00**
ΔR^2	.00	51.51**	.00	.04*	.03	.22**	.01	.04
Adjusted <i>R</i> ²	-.01	.51	.51	.54	.02	.22	.22	.24

Table 10

Polynomial regression analysis: Agreement on employer expectations related to performance and civic virtue

Outcome and predictor	Performance				Civic virtue			
	Step 1	Step 2	Step 3	Step 4	Step 1	Step 2	Step 3	Step 4
Step 1								
Tenure with supervisor (E)	.15	.00	-.01	-.01	.16	.15	.15	.14
Step 2								
Employer expectations (E)		.17	.17	.18		.07	.07	.04
Employer expectations (S)		.15	.14	.09		.19†	.19†	.19†
Step 3								
Interaction employer expectations (E)*(S)			-.09	.04			.00	.13
Step 4								
Employer expectations (E) square				-.33**				-.11
Employer expectations (S) square				.06				-.13
<i>F</i>	.02	2.08	1.75	2.72*	2.51	2.41†	1.79	1.55
ΔR^2	.00	.06	.01	.08	.03	.05	.00	.02
Adjusted <i>R</i> ²	-.01	.03	.03	.10	.02	.04	.03	.03

Note for Table 9 and Table 10. Psychological contract scales were centered. Beta values are reported. E = Employee scale; S = Supervisor scale; square = the quadratic term of the corresponding scale. † $p < .10$. * $p < .05$. ** $p < .01$.

Response surfaces of the resulting relationships between employees' and employers' perspectives on employee contributions and employer expectations and performance are depicted in Figure 11 and Figure 12.

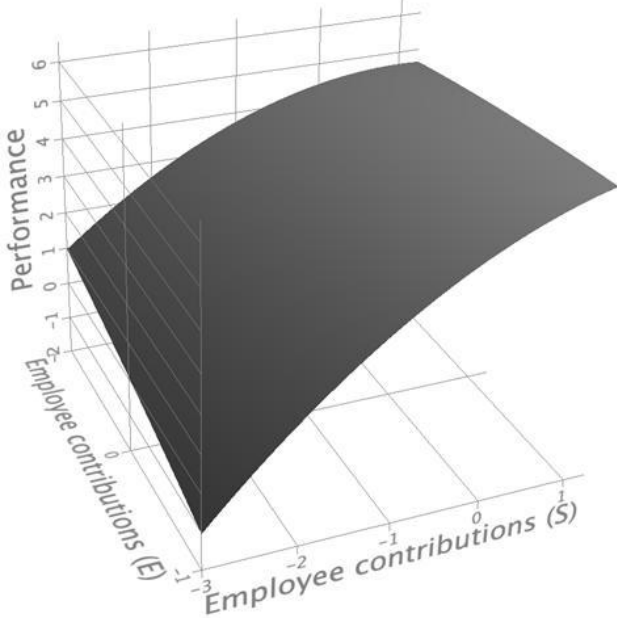


Figure 11. Response surface: Relationship between agreement on employee contributions and performance. S = supervisor scale; E = employee scale.

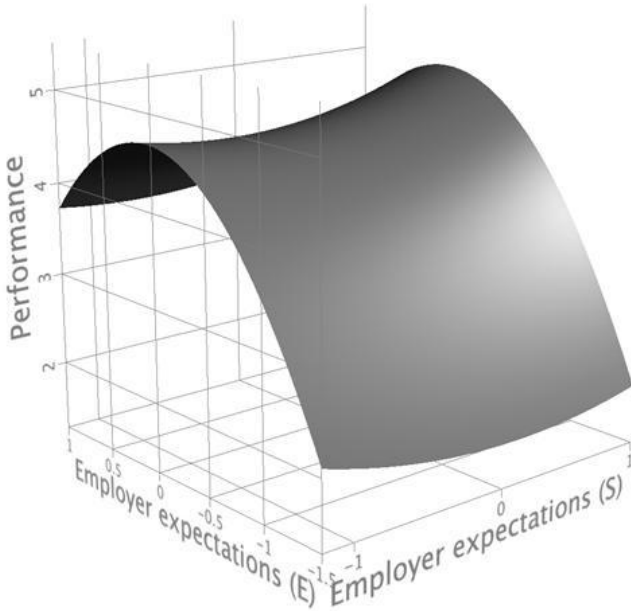


Figure 12. Response surfaces: Relationship between agreement on employer expectations and performance. S = supervisor scale; E = employee scale.

Figure 11 shows the curvilinear effect of supervisors' perspectives of employee contributions on performance. Supervisors' rating of employee contributions is strongly related to their rating of employees' performance. This is the case even when employees rate their contributions as low. Figure 12 shows the curvilinear effect of employees' perspectives of employer expectations on performance. Performance is rated as highest when the employees perceive employer expectations to be at a medium level, indicated by the concave curvature of the surface.

Hypothesis 4 predicted that matching perspectives between employee and employer on (a) employee contributions and (b) employer expectations would be positively related to supervisors' ratings of employees' civic virtue. The overall model including (a) employee contributions was significant ($Adj. R^2 = .24, F = 6.00, p < .01$), indicating that there is a main effect of the predictors on supervisors' rating of employees' civic virtue behaviour (cf. Table 9). However, there was no significant interaction effect of employees' and supervisors' perspectives on employee contribution on civic virtue. As for performance, the strongest predictor for civic virtue was the main effect of supervisors' perspectives on employee contributions ($\beta = 0.62, p < .01$; Step 4). There was a significant curvilinear effect of supervisors' perspectives on employee contributions ($\beta = 0.20, p < .10$; Step 4).

When it comes to (b) employee expectations as a predictor of civic virtue, the overall model was not significant (cf. Table 10). A marginally significant main effect of employers perspective on employer expectations was found ($\beta = 0.19, p < .10$; Step 4). Thus, hypothesis 4 was not supported for either (a) employee contributions or (b) employer expectations.

Hypothesis 5 predicted that matching perspectives between employee and employer on (a) employee expectations and (b) employer inducements would be positively related to employee's job satisfaction. Regarding (a) employee expectations, the overall model was only marginally significant ($Adj. R^2 = .06, F = 1.99, p < .10$, cf. Table 11), indicating that there is a small main effect of the predictors on job satisfaction. Supervisors' reports of employee expectations was positively related to job satisfaction ($\beta = 0.23, p < .10$; Step 4). In addition, there was a significant curvilinear effect of employee's reports of own expectations on job satisfaction ($\beta = 0.17, p < .10$; Step 4), but the interaction term was not significant.

In hypothesis 5(b), the overall model including employer inducements was significant ($Adj. R^2 = .32, F = 8.63, p < .01$, cf. Table 12). The strongest predictor of job satisfaction was the employee's perspective of employer inducements ($\beta = 0.60, p < .01$; Step 4). There was no significant curvilinear effect. Thus, hypothesis 5 was not supported.

Table 11

Polynomial regression analysis: Agreement on employee expectations related to job satisfaction and intention to quit

Outcome and predictor	Job satisfaction				Intention to quit			
	Step 1	Step 2	Step 3	Step 4	Step 1	Step 2	Step 3	Step 4
Step 1								
Tenure with supervisor (E)	.05	.07	.08	.09	-.04	-.06	-.06	-.06
Step 2								
Employee expectations (E)		.15	.16	.15		.13	.12	.13
Employee expectations (S)		.21*	.22*	.23†		-.24*	-.24*	-.16
Step 3								
Interaction employee expectations (E) * (S)			.06	.02			-.03	-.03
Step 4								
Employee expectations (E) square				.17†				-.16
Employee expectations (S) square				.05				.11
<i>F</i>	0.27	2.82*	2.19†	1.99†	.13	2.02	1.51	1.48
ΔR^2	.00	.08	.00	.03	.00	.06	.00	.03
Adjusted <i>R</i> ²	-.01	.05	.05	.06	-.01	.03	.02	.03

Table 12

Polynomial regression analysis: Agreement on employer inducements related to job satisfaction and intention to quit

Outcome and predictor	Job satisfaction				Intention to quit			
	Step 1	Step 2	Step 3	Step 4	Step 1	Step 2	Step 3	Step 4
Step 1								
Tenure with supervisor (E)	.05	.09	.09	.09	-.04	-.07	-.06	-.06
Step 2								
Employer inducements (E)		.61**	.63**	.60**		-.46**	-.44**	-.36*
Employer inducements (S)		-.06	-.05	.02		.02	-.05	-.01
Step 3								
Interaction employer inducements (E) * (S)			.04	-.13			.06	-.04
Step 4								
Employer inducements (E) square				.02				.17
Employer inducements (S) square				.23				-.03
<i>F</i>	.27	16.30**	12.14**	8.63**	0.13	8.08**	6.06**	4.10**
ΔR^2	.00	.34	.00	.02	.00	.20**	.00	.01
Adjusted <i>R</i> ²	-.01	.32	.32	.32	-.01	.18	.17	.16

Note for Table 11 and 12. Psychological contract scales were centered. Beta values are reported. E = Employee scale; S = Supervisor scale; square = the quadratic term of the corresponding scale. † $p < .10$. * $p < .05$. ** $p < .01$.

Hypothesis 6 predicted that matching perspectives between employee and employer on (a) employee expectations and (b) employer inducements would be negatively related to employee's intention to quit. The overall model including employee expectations was not significant (cf. Table 11). Supervisor's perspective on employee expectations was significantly and negatively related to employee's intention to quit in step 2 and 3, but this effect was not significant when the curvilinear relationship was entered in step 4.

In hypothesis 6(b), when employer inducements was used as predictor, the overall model predicted employees' intention to quit ($Adj. R^2 = .16, F = 4.10, p < .01$, cf. Table 12). The strongest predictor for intention to quit was the employee's perspective on employer inducements ($\beta = -0.36, p < .01$; Step 4). When employees perceived that their employer contributed a lot to them, they did not intend to quit. There were no significant interaction terms. Thus, hypothesis 6 was not supported.

Discussion

Research Findings

The present study examined antecedents and consequences of agreement between employees and supervisors on the psychological contract. In particular, this study assessed the quality of communication as hypothesized antecedent of agreement regarding reciprocal contributions and expectations. Supervisors' evaluation of the employees' performance and civic virtue behaviour, as well as employees' self-reported job satisfaction and intention to quit were examined as hypothesized consequences of agreement on the psychological contract.

The first finding of the present study, referring to hypothesis 1, was that employees and supervisors had matching perspectives on employee contributions, employer expectations and employee expectations. Their perspectives on employer inducements did not match. Supervisors rated employer inducements higher than employees did. However, they had matching perspectives on employee expectations, indicating that supervisors seemed to be aware of the high employee expectations. When comparing employee expectations and employer inducements, both employees and supervisors perceived that employee expectations were higher than employer inducements. One possible explanation for the mismatching perspectives on employer inducements may be that employers fail to contribute in accordance with their employees expectations, even though they are aware of the high expectations. Coyle-Shapiro and Kessler (2000) found a similar result, and concluded that both employees

and employers perceive that employers fail to fulfil their obligations. This finding might signify that employees experience some degree of psychological contract breach, even though this was not directly measured in the present study. The reason for the disagreement on employer inducements might be that the employer has either been unable to or unwilling to live up to its prior commitments to the employee, or that the parties simply do not know what the other expects of them (Lester et al., 2002). Similarly, when employee contributions and employer expectations were compared, supervisors perceived that employee contributions were lower than employer expectations. This indicates that supervisors perceived that the employees failed to meet the employers' expectations, while the employees thought they did. This might signify that supervisors perceived psychological contract breach by the employees, although this was not directly studied. Previously, researchers have made conclusions of psychological contract breach based on gaps (i.e. difference scores) between employees' view and the organization's view of the level of inducements being offered by the employer (Porter et al., 1998).

After exploring the degree of agreement on the terms of the employment relationship, both employees' and supervisors' satisfaction with communication was investigated as an antecedent to agreement. In general, one or more of the communication measures were related to agreement on one or more dimensions of the psychological contract. Specifically, in hypothesis 2(a), when predicting agreement on employer contributions, supervisor communication rated by supervisors was a significant antecedent. This indicates that when the supervisor perceives high quality of communication with the employee, both perceive employee contributions as high. When supervisors perceived the quality of supervisor communication as low, they also perceived low employee contributions, while employees perceived high contributions. Employees' perspectives of communication were not related to agreement on employee contributions. When predicting agreement on employer expectations, in hypothesis 2(b), supervisors' perspectives on corporate communication and supervisor communication were significant predictors. This indicates that when supervisors perceive high quality of communication with employees, both perceive high employer expectations. When supervisors perceived the quality of communication as low, employees perceived higher employer expectations than supervisors. Employees' perspectives of communication were not related to agreement on employer expectations. When predicting agreement on employee expectations, in hypothesis 2(c), again, supervisors' perspectives of corporate communication and supervisor communication were significant predictors. This indicates that when supervisors perceive high quality of communication with employees, both perceive high

employee expectations. When the supervisors perceive the quality of communication as low, they perceive employee expectations as lower than perceived by the employees. Employees' perspectives of communication were not related to agreement on employee expectations. Employees and supervisors did not agree on employer inducements (hypothesis 1). However, employees' rating of corporate communication was related to agreement on employer inducements. Regarding employees' perceptions of supervisory communication, both rated employer inducements as low when communication was of low quality. Supervisors' perspectives of communication were not related to agreement on employer inducements. In fact, when supervisors perceived high quality of corporate communication they perceived high employer inducements, on which employees did not agree.

In sum, communication satisfaction turned out to predict agreement on all dimensions of the psychological contract. Supervisors' perspectives on quality of communication seemed to be more strongly related to agreement than employees' perspectives. The relationships between communication and agreement might signify that when supervisors perceive high quality of communication, their perspectives on the psychological contract matches the high levels of the employees' perspectives because they have communicated about expectations and contributions. Even though employees' view of communication with supervisor was not significantly related to agreement, it had a main effect on their perspectives of own contributions and employer inducements.

The outcome variables included in the present study were supervisors' view of employee performance and civic virtue, and employees' reports of job satisfaction and intention to quit. The fact that supervisors rated their employee's performance and civic virtue constitutes a strength of the present study, as it reduces the self-presentation bias associated with self-report measures. Contrary to what was expected, matching perspectives between employees and supervisors did not have significant effects on any of the hypothesized outcome variables.

Matching perspectives on employee contributions and employer expectations were hypothesized to be positively related to the supervisors' rating of employee performance in hypothesis 3, and civic virtue in hypothesis 4. Based on the paired-samples *t*-test examining agreement, supervisors and employees had matching perspectives on both employee contributions and on employer expectations. However, matching perspectives were not related to performance or civic virtue. For performance, the strongest predictor was supervisor's rating of the employee's contributions. This result is not surprising, as it indicates that when supervisors observe that their employee contributes highly, they also perceive the employee's

performance as high. In addition to the main effect, there was also a curvilinear effect of supervisors' rating of employee contributions on performance. This result supports previous findings of Isaksson (2005), suggesting that fulfilment of employee obligations was related to employers satisfaction with employee performance. Regarding employees' perspectives on employer expectations, there was a no main effect, but a curvilinear effect, on supervisors' ratings of employee performance. This indicates that performance is rated as low when employees perceive employer expectations as low. Performance is rated as highest when employees perceive employer expectations at a medium level.

Neither employees' nor supervisors' perspectives on employer expectations were related to performance. Regarding civic virtue, again, supervisors' view of employee contributions was the strongest predictor, implying that when supervisors perceive that the employees contributes highly, they also believe that the employee engages in extra-role behaviours that benefit the organization. Supervisors' perspectives of employer expectations were also marginally related to civic virtue.

Hypotheses 5 and 6 predicted that agreement on employee expectations and employer inducements would be positively related to employees' job satisfaction and intention to quit. Unexpectedly, agreement did not appear to be of relevance, as indicated by non-significant interaction terms. The strongest predictor of both job satisfaction and intention to quit was employees' perspectives of employer inducements. This indicates that when employees perceive that the employer contributes highly, they are satisfied with their job and do not wish to find another job. The supervisors' perspectives of employer inducements were not related to the employees' job satisfaction or intention to quit. Considering employee expectations, only the supervisors' perspectives were related to employees' job satisfaction and intention to quit. Comparably, Lambert et al. (2003) studied the effects of promised and delivered employer inducements on job satisfaction, all variables reported by employees. These researchers found that employees' perspective of delivered inducements was more strongly related to job satisfaction than their perspective of promised inducements, implying that what one is being provided with is more important for job satisfaction than what one has been promised or expect to get. Regarding intention to quit, the current world-wide economic crisis has to be taken into account. Many organizations have recently undergone redundancies, resulting in increased unemployment, with fewer vacant positions being announced. This makes the labour market tougher and may influence employees' intention to quit. This fact may disturb otherwise stable findings that psychological contract breach is related to intention to quit.

Overall, the best predictor for all outcome variables was the contribution of the other party. Specifically, the best predictor for performance and civic virtue were the employers' rating of employee contributions. The best predictor for job satisfaction and intention to quit was employees' rating of employer inducements. This is consistent with the research of Lambert et al. (2003) who found that participants gave greater weight to what they have experienced than what they preferred or expected. These main effects also contribute to research on positive consequences of psychological contract fulfilment (Isaksson, 2005).

The fact that matching perspectives were not significantly related to the hypothesized outcomes differs from previous research with similar designs (Dabos & Rousseau, 2004; Tekleab & Taylor, 2003). It also differs from research on the negative consequences of psychological contract breach (Tekleab & Taylor, 2003). One reason for this might be that agreement is not as important for positive outcomes as psychological contract breach is for negative outcomes. That is, as long as the supervisor is satisfied with employee contributions, performance and civic virtue behaviour are satisfactory, even though the employee does not agree on own contributions. Even though agreement on the terms of the psychological contract did not contribute to the outcome variables measured, main effects were significant. This confirms previous studies (Isaksson, 2005). Another reason for the mixed findings of the present study and previous research might be the use of varied measures. Previous research has used a number of different measures of the psychological contract. The measure of Raeder et al. (2009) was very recently developed, and no other studies have used this measure in relation to the hypothesis tested in the present study.

The sample used in this study represented the general working population in terms of demographics, and the results can thus be generalized. Specifically, the sample consisted of employees and employers with positions on different levels in the organizations. Participants from both private companies and public organizations were included. Most of them worked in the area around the capital, but the south, west and north of Norway were also represented.

Limitations and Future Research

The results of this study should be interpreted in terms of study limitations. Like most previous research on the psychological contract, the measures were conducted once, using a cross-sectional research design. This implies that the reported relationships are correlational in nature. Therefore, no conclusions about causality can be drawn. For example, it cannot be concluded that employees who report receiving more from their employer are more satisfied with their job because they receive more. Future research should use longitudinal designs in

order to draw firm conclusions about causal relationships. It could also be interesting to measure perspectives on the psychological contract in advance of a planned change, and then measure them again after the implementation process, to see how the change affects the psychological contract.

The fact that not all variables used in the analysis were normally distributed may also be regarded as a limitation. Skewed variables make the regression solution degraded (Tabachnick & Fidell, 2007). Although the sample size ($N = 98$) should be large enough to obtain statistical power in regression analysis, a larger sample size would probably have resulted in more normally distributed variables, which in turn would improve the regression model. In the sample used, a few multivariate outliers were causing the non-normal distribution of variables. With a larger sample, there would have been cases between the bulk of cases and the outliers, so that the outlying cases would be in the lower part of a normal distribution.

Even though employee performance and civic virtue behaviour were rated by the supervisor in order to avoid problems with self-report, most variables were measured by self-report. This is associated with self-presentation bias. Nonetheless, in line with similar research in this field (Lambert et al., 2003), self-report measures appear to be the appropriate method for measuring personal phenomena, like employees' job satisfaction and intention to quit. The fact that the same participants rated both predictors and outcome variables must also be considered as a possible limitation. It may result in common rater effect; a sort of self-report bias which results from "any artificial covariance between the predictor and criterion variable produced by the fact that the respondent providing the measures of these variables is the same" (Podsakoff et al., 2003, p. 881). Since the significant variables in this study were answered by the same person, the results may be influenced by common method bias produced by the same rater.

The psychological contract measure used in this study (Raeder et al., 2009) originally contains subscales of the dimensions. Future research could use a similar design, but measuring outcomes of subscales instead of dimensions. Possibly, curvilinear effects on outcome variables could be found by measuring inducements of which the employee perceives and optimal level. Research of Lambert et al. (2003) suggested that, for some inducements (i.e. pay and recognition), job satisfaction increases along with increased level of the inducements. For other inducements (i.e. training and skill development), the employee perceives an optimal level, revealing a curvilinear effect on job satisfaction as the level of the inducements increases.

The present study focused on communication satisfaction as an antecedent to agreement on the terms of the psychological contract, using the measure of Downs and Hazen (1977). Future studies could use other measures of communication in order to establish broader knowledge about the extent to which communication is related to matching perspectives between employees and employers. Future research should include other antecedents in order to gain a more comprehensive understanding of what factors contribute to matching perspectives between employees and employers. Tekleab and Taylor (2003) investigated tenure and LMX as antecedents. Individual differences may also influence employees' perceptions, assuming that people with personality traits like negative affectivity and trait cynicism have a more negative perspective on the psychological contract.

In future studies, the perspectives of organizational representatives other than the employee's closest supervisor might be included, in order to gain a broader understanding of the employer perspective. Recruiters, human resource specialists, and upper-level managers may also communicate promises and expectations to employees (Lester et al., 2002) which are worth investigating in relation to the employees' perspectives on the psychological contract. Psychological contracts in teams could also be an interesting topic. Today, team organized organizations are quite common (Ilgen, 1999), and team-members have psychological contracts with each other with regards to expectations and contributions. To date, there are no published studies on psychological contracts in teams.

Differences between subgroups of employees could also be worth investigating, for instance employees with or without higher education, in order to obtain knowledge of whether expectations and contributions differ between groups. One hypothesis could be that highly educated people have higher expectations to their employer with regards to challenging work and career development, and are thus more prone to experience psychological contract breach. This has yet to be empirically investigated in terms of the psychological contract.

Practical Implications

The results from this study may have practical implications for managers. Firstly, the results suggested that there is a considerable level of agreement on employee contributions, employer expectations and employee expectations. This seems to be partially affected by high quality of communication between supervisor and employee, and by high quality of communication from management and other representatives of the organization. Organizations may benefit from establishing routines for communication. By communicating regularly, employees and their supervisors will gain knowledge about the other party's

expectations to the employment relationship, and perceptions of psychological contract breach will be less likely. This may be especially beneficial in an early stage, during the recruitment interview, in order to obtain matching perspectives on what both can expect to benefit from and contribute in return. Even though agreement on the psychological contract did not prove to affect employees' performance, civic virtue, job satisfaction and intention to quit, main effects of the predictors were strong. These findings confirm previous research focusing on the importance of mutual obligations for functional employment relationships.

Conclusion

As the first empirical study on psychological contracts conducted in Norway, agreement on the psychological contract was found regarding employee contributions, employer expectations and employee expectations, whereas disagreement was found concerning employer inducements. Communication was supported as an antecedent to agreement between employee and employer. Contrary to what was expected, agreement on the psychological contract was not as important for the employees' performance, civic virtue behaviour, job satisfaction, and intention to quit as were high levels of contributions on behalf of the other party. Further research is needed in order to draw conclusions about whether this is indeed so, or whether it is unique to the Norwegian workforce. Future research should also focus on consequences of specific obligations, with possible curvilinear relationships. The main effects of actual contributions of the other party were supported, contributing to establish firm conclusions about the relevance of fulfilling the needs of the other party in the employment relationship. In addition, the results suggest that actual contributions are more relevant than expectations for beneficial outcomes for both the individual employees and their employer.

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