There are two sides to every story: Employee and employer agreement on the psychological contract

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Abstract

The purpose of this study is to investigate whether employee and employer agreement on the psychological contract can be associated with employee affective commitment and if such an agreement is affected by organizational culture. Data was collected from 87 Norwegian organizations, and questionnaires from 1055 employees and their leaders were analysed using multilevel regression analysis. The results show that agreement on the psychological contract dimensions job security and retention, as well as participation, does matter, and is ultimately associated with employee affective commitment, as hypothesized. When looking at the two culture dimensions market and adhocracy, the results show, as expected, that organizations that characterize themselves as market cultures are associated with less employee/employer agreement on the psychological contract. The adhocracy cultures, on the other hand, were not positively associated with agreement on the psychological contract, contrary to what was hypothesized.

**Key words:** adhocracy cultures, affective commitment, job security, market cultures, multilevel regression analysis, participation, psychological contracts.
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**Introduction**

For many people, their jobs, careers, and compensation are dependent on how well their employing organizations can create a competitive advantage (Ployhart, 2012). In today’s rapidly shifting and complex work environment, the organization’s competitive advantage can constitute the very essence of having a job or not. Obviously, there are several ways to achieve such competitive advantage, and properly managing the psychological contract can be seen as one, due to the many positive organizational outcomes that may result from this (Lambert, 2011). The psychological contract is both perceptual and individual and addresses transactional and relational issues. This study’s main focus is on the relational aspects of the contract. Contracts are fundamental to the behaviours of individuals and the actions of organizations. They imply collaboration and consensus, but often produce dispute and disagreement between parties and therefore have the capacity to impact negatively upon relationships (Robinson & Rousseau, 1994; Rousseau & Parks, 1993). They are used to characterize self-serving economic activities as well as sensitive, common relations.

A key feature of today’s employment relationship involves a lack of job security resulting from leaner organization structures (Ye, Cardon & Rivera, 2012). Yet, job security is highly valued amongst employees (Herriot, Manning & Kidd, 1997). Moreover, job security is considered a core element of the relational part of the contract (Rousseau, 1990). Central to psychological contract theory is the amount of contributions offered by the employees in return for inducements provided by the employing organization (Porter, Pearce, Tripoli & Lewis, 1998). Employer and employee strive to maintain a balance in this exchange relationship, and knowledge of what each party expects from their counterpart, is useful in understanding what constitutes a healthy employment relationship.

Informing and permitting employees an input into work decisions enhances favourable organizational outcomes and employee affective commitment (Farnadale, van Ruiten, Kelliher & Hope-Hailey, 2011). Affective organizational commitment is relationship-based and signifies a strong personal bond towards the organization (Meyer & Allen, 1991). One key purpose of this study is to investigate the level of agreement on the psychological contract concerning the dimensions of job security and participation, and see if such an agreement ultimately is associated with employee affective commitment.

Different organizations relate differently to their external environments and, more internally, to how they themselves are structured. Even though psychological contracts are subjective and in the eyes of the beholder, patterns of obligations that come from interactions...
between the organization and the employees, can eventually become a part of the social structure and culture of which the relationship is a part (Rousseau, 1989).

Research suggests that organizational culture does have an impact on employee attitudes such as job satisfaction, organizational commitment, turnover intentions, and morale (Richard, McMillan-Capehart, Bhuian & Taylor, 2009). Less research has, to my knowledge, been done on whether the type of culture not only reflects upon the individual’s part of the psychological contract, but also upon the level of agreement between employer and employee on the terms of the contract. This study addresses psychological contracts and their organization-level counterparts. To date, the issue of possible differential perceptions of inducements has been a rather neglected issue in the research literature in this area (Porter et al., 1998). As requested by Lambert, Edwards and Cable (2003), this study pursues the reciprocal effects of inducements and, as such, captures the exchange that defines the employment relationship. The study contributes to the literature in three ways. The first contribution is to acknowledge that there are two parties to the contract, and subsequently measure the psychological contract on both individual and organizational level. Second, this study introduces multilevel modelling as an appropriate method to investigate employee and employer levels of psychological contracts. And, finally, the integration of the fields of organizational culture and psychological contracts fills an existing gap in the literature.

**Theory**

**The social exchange aspect of employment relationships**

The relationship between employees and their organizations has often been described as an exchange relationship. The idea is that a focus on exchange can provide insights into social processes (Tsui, Pearce, Porter & Tripoli, 1997). More specifically, employers and employees are engaged in a social exchange relationship: if the employers fail to deliver the incentives, the employees may respond by reducing their contributions (Bordia, Restubog, Bordia & Tang, 2010). In particular, social exchange theory (SET) emphasizes interactions that have the potential to generate high-quality relationships under certain circumstances (Cropanzano & Mitchell, 2005). What characterizes a successful social exchange relationship is that what an employer offers go beyond short-term monetary rewards (Tsui et al., 1997). This may include an extended consideration of an employee’s well being as well as an
investment in the employee’s career within the firm (i.e., job security). In exchange, the employee’s contribution is expected to go beyond what has been specified in the work contract, and a willingness to contribute to the organization’s interests, because the employee trusts that such investments will be reciprocated over the long term. Such a balanced exchange relationship involves some degree of open-ended and long-term investments in each other by both the employer and the employee (Tsui et al., 1997).

Central to psychological contract theory is that employees compare what is delivered to what was promised to assess the degree of breach or fulfilment (Lambert, 2011). The content of the contract centres on the contributions to be offered by employees in return for certain inducements provided by the employer. Inducements can be thought of as incentives offered by the employing organization to its employees, independent of utility (Porter et al., 1998). When the terms of the psychological contract is fulfilled, the outcomes for both employees and organizations are positive, and, conversely, when contracts are breached, negative outcomes result (Morrison & Robinson, 1997).

One of the basic principles of SET is that relationships evolve over time into trusting, loyal and mutual commitments. Shared understandings and reciprocal contributions for mutual benefit constitute the basis of functional exchange relationships (Blau, 1964) and constructive psychological contracts between employers and employees (Rousseau, 1995). Although workers and employers often differ in their perception and interpretation of the employment relationship (Coyle-Shapiro & Kessler, 2000; Porter et al., 1998) some degree of mutuality or shared understanding is essential for the parties to achieve their interdependent goals (Rousseau, 1995). Mutuality exists, for example, where both worker and employer agree that the employer is devoted to providing job security and participation. Failure to reach an objective agreement can give rise to psychological contract violation (Morrison & Robinson, 1997; Porter et al., 1998; Rousseau, 1995), for example, where the worker and employer hold widely different ideas of the amount of job security or participation provided by the employer. In addition, employers and employees typically strive to maintain a fair balance in the reciprocal inducements and contributions each has offered the other (Blau, 1964). For the relationship to sustain, the two parties ought to accept certain rules and norms of exchange, which can be seen as the guidelines of the exchange process (Cropanzano & Mitchell, 2005). One such rule could be the norm of reciprocity.
The psychological contract: Content and context

In the case of contractual expectations and contributions, the principle of reciprocity in exchange for some action or effort forms the very basis of the contract (Rousseau, 1990). The psychological contract incorporates values, beliefs and expectations as perceived by the employer and the employee (Robinson & Rousseau, 1994). As such, the psychological contract is based on a subjective perception; each individual possesses a unique psychological contract based on his or her understanding of the reciprocal obligations in the employment relationship (Turnley & Feldman, 1999). These beliefs or perceptions need not agree for the parties to believe a contract exists (Robinson & Rousseau, 1994). As an individual-level phenomenon, psychological contracts are based on the perceived promises by the organization to the employee. These promises can be communicated directly by organizational agents (e.g., recruiters or managers). However, perceptions of promises to the employee can also be based on organizational actions, for example, past or present treatment of the employee (Shore & Tetrick, 1994).

The earliest work on psychological contracts defined the contracts as the shared perceptions between employers and employees regarding what each party owed the other in the employment relationship (Kotter, 1973). Then, the focus of research shifted from a contract consisting of two parties to a more individual perspective centring on the employee only (Rousseau, 1990). Some researchers have defined the psychological contract as an individual’s perception of what he or she owes the organization and the inducements the employee believes that he or she is owed in return (Rousseau, 1989). Guest (1998) and Rousseau (1990) argue the need for more research on the employer perspective of the psychological contract, and some researchers have followed the more classical definition by including both the employer and the employee perspective (Coyle-Shapiro & Kessler, 2000; Dabos & Rousseau, 2004; Lester, Turnley, Bloodgood, & Bolino, 2002; Porter et al., 1998; Tekleab & Taylor, 2003). Accordingly, this study explores both the employee and the employer perspective of the psychological contract.

Despite the existence of written contracts specifying the amount of pay, employees can experience that there is more to the job than just the money they make. Rousseau (1989) claims that such relation-based understandings go beyond economic exchange, committing the parties to maintaining the relationship and provide some form of exchange (e.g., hard work for loyalty). The relational component involves broad, long-term obligations, and may also be based on the exchange of socioemotional elements, like commitment or trust.
Much of the research on the psychological contract distinguishes between two types of contracts; one is the transactional contract, which refers to specific, monetary exchanges over a limited period of time (Coyle-Shapiro & Kessler, 2000). The relational contract, in contrast, focuses on job security, career development and training as well as support in times of difficulties (Robinson & Rousseau, 1994). There has been some disagreement as to how to empirically separate the types of contracts. Researchers use these distinctions in developing scales that capture the rather broad content of the psychological contract (Coyle-Shapiro & Kessler, 2000).

It may be worth keeping the concept of relational perceptions, even though the distinction in the mind of the employee may not be as clear, since relational expectations may vary across employees and cultures. Herriot, Manning and Kidd (1997) found that employees were more concerned with transactional issues (e.g., pay), while the employers focused on more relational than transactional forms of organizational obligations. Their findings were attributed to a lack of trust in the organization by the employees, and to their perceptions of job insecurity. Following their arguments, if organizations are able to come across as trustworthy and fair towards their employees, then the employees may focus more on the relational part of the contract. If this is consistent with the employer emphasis, the more likely it is that an agreement between the two parties will occur. As such, this study addresses the relational part of the contract, as perceived by both parties to the employment relationship.

**Psychological contracts and agreement**

A large amount of research on psychological contracts has concentrated on situations in which the employee perceives psychological contract breach (Zhao, Wayne, Glibkowski & Bravo, 2007). Any disagreement between the two parties concerning the organization’s inducements could indicate that there will be perceptions of contract violation (Morrison & Robinson, 1997; Porter et al., 1998). Knowledge about the negative consequences of psychological contract breach is useful in order to understand the possible benefits of properly managing the contract. The state of the psychological contract in terms of fulfilment or breach, should be of interest if earlier theoretical predictions hold true; organizationally desired outcomes will result from contract fulfilment by the employer, whereas contract breach by the employer is likely to yield negative attitudinal and behavioural consequences (Bordia et al., 2010; Coyle-Shapiro & Kessler, 2000; Porter et al., 1998; Zhao et al., 2007). Employees reciprocate perceived employer contract breach by reducing their commitment to
the organization (Coyle-Shapiro & Kessler, 2000) and lowering their trust in the employer (Robinson & Rousseau, 1994).

Little attention has been paid to the degree of agreement between employees and their employers in forming psychological contracts regarding job security. When Rousseau (1990) distinguished relational from transactional contracts, she found two factors, which she suggested represented the content of the relational contract; loyalty and a minimum length of stay. Relational contracts require loyalty and a minimum length of employment in exchange for a degree of job security. Broad long-term obligations may be based on the exchange of socioemotional elements, like commitment and trust (Cavanaugh & Noe, 1999).

Much of the research literature on psychological contracts has explored the processes of forming, keeping or breaching the psychological contract, however, little attention has been paid to the content. As such, job security is a central aspect of the content of the relational contract, and matter utmost to the employee (Herriot et al., 1997). Further, one could focus on the potential upside to the functional employment relationship, that is, the consequences of an agreement and a possible psychological contract fulfilment, as opposed to the breach. Empirical evidence concerning mutuality regarding psychological contract terms has been limited (Dabos & Rousseau, 2004). An employment relationship is more likely to have positive consequences where its parties develop shared understandings regarding the existence and meanings of specific contract terms. Commitments made by one party to the contract obligate the other to reciprocate because both parties are expected to strive for balance in their exchange relationship. Hence, if the employer and the employee agree on the terms of the contract, their future exchanges develop into actions more predictable by each party, facilitating forward planning, collaboration, and effective performance (Dabos & Rousseau, 2004). If employees experience the content of the contract to be in accordance with their expectations, a possible form of reciprocation could take the form of organizational commitment (Coyle-Shapiro & Kessler, 2000).

In a working environment characterized by change, the employee values trust and a sense of predictability. Globalization and increased competition have forced many organizations to restructure their companies. The restructuring has involved enforced redundancies, which have had the effect of reducing the job security of those who remain (Herriot et al., 1997). In the abovementioned study job security was considered a main concern of the employee. Further, a sense of job insecurity is likely to reduce the employee
contributions; employees may find it useless to contribute to the company’s results if they do not know for how long they are to be on board.

The content of the contract centres on the contributions to be offered by employees in return for inducements provided by the employing organization (Porter et al., 1998). Porter et al (1998) found that the larger the gap between what employees viewed as the inducements offered them, and what their employers reported offering them, the lower was the employees’ satisfaction with their employers. They also found that many employees reported greater amounts of inducements than did their employers. Prior research that has focused on inducements has found that breach and fulfilment have been consistently associated with important outcomes for employees and organizations (Lambert, 2011). This paper focuses on what the organization can offer the employees, more specifically, leader inducements on security and retention. Further, this study emphasizes mutual understandings of those inducements, as perceived by both employees and employers.

In their study, Coyle-Shapiro and Kessler (2000) examined the content and the state of the psychological contract from both employer and the employee perspective. They explored employees’ and managers’ perceptions of employer obligations and how well these obligations were fulfilled by the employer. Further, they investigated the consequences of perceived employer contract behaviour on favourable organizational outcomes, like employees’ perceived organizational support, organizational citizenship behaviour (OCB) as well as organizational commitment. They found that a majority of employees had experienced a contract breach. This finding received support from the organization representatives in the study, who reported that due to external pressure, the organization did not fulfil its obligations to employees to the extent that it could. Their results show that employees are restoring the balance of the relationship through reducing their commitment.

**Affective commitment and psychological contracts**

Organizational commitment has been a major focus of research, and considerable efforts have been given to theory development. Organizational commitment describes the strength of an individual’s identification with and attachment to an organization (Meyer & Allen, 1984). Today, it is well recognized that commitment is a multidimensional construct (Meyer, Stanley, Herscovitch & Topolnytsky, 2002), consisting of three components: affective, normative and continuance commitment (Allen & Meyer, 1990). This paper focuses on affective commitment, which refers to employees’ emotional attachment to, and
identification with the organization (Allen & Meyer, 1990). For example, employees characterized by strong affective commitment complete a work task because they want to, those with strong continuance commitment because they need to, and those with strong normative commitment because they feel they ought to do so. Workers with low affective commitment are likely to perform only those minimum behaviours required for continued employment (Ng, Feldman & Lam, 2010). In their meta-analysis Meyer et al. (2002) found that affective commitment had the most favourable and strongest correlations with desirable organizational-relevant outcomes, such as performance, attendance and organizational citizenship behaviour. Further, they found that affective commitment has a stronger impact on turnover. According to social exchange theory, individuals who perceive that they are valued are likely to reciprocate with trust and emotional engagement in their exchanges with others. Hence, individuals are more likely to feel psychologically attached to their employing organizations and reciprocate with positive behaviours when they feel valued and respected (Ng et al, 2010). Thus, affective committed employees are a valuable resource to the organization, and, as, such, a focal point of this paper.

In their article, Allen and Meyer (1990) point out that the antecedents of affective commitment can be grouped in three; personal characteristics, work experiences, and organizational structure. Further, they describe work experiences as the subjective experiences employees get from their work. As such, one can argue that the psychological contract classifies as a work experience. If there is a level of agreement between employer and employee on the content of the contract, this may indicate a positive work experience, which may be associated with affective commitment. De Cuyper and De Witte (2006) researched the role of job insecurity on outcomes such as performance, job satisfaction and organizational commitment among permanent and temporary employees. They found that permanent workers engaged more in relational psychological contracting, and that job insecurity was problematic for permanent workers in relation to organizational commitment. Psychological contract theory defines job security as a key element of the relational psychological contract (Millward & Brewerton, 2000). As such, job insecurity represents a threat to employees who have relational expectations towards their employers.

Mutuality portrays the degree to which the two parties agree on their perceptions of contributions and inducements each party has made and accepted. It has been found that employees’ perception may be especially affected by elements of inducements but affected in a smaller degree by elements of contributions (Lambert, 2011). When employees and
employers agree on the terms of the contract, their future exchanges develop into actions more predictable by each party and facilitating further collaboration. Employee affective commitment can result from such agreement.

_Hypothesis 1): Agreement between employee and employer on the psychological contract dimension leader inducements on security and retention is positively associated with employee affective commitment._

Participation in decision-making and other work related activities are associated with desirable organizational outcomes. Research within the field of Human Resource Management has shown that informing and permitting employees an input into work and business decisions can help create better decisions and enhance employee commitment (Farnadale et al., 2011; Wilkinson & Fay, 2011). When employees believe they have the opportunity to voice their opinions and have their views taken into account, this helps building trusting relationships, both with supervisors and the organization as a whole. Facilitating participation practices also implies that the organization values its employees’ opinion and recognizes their contribution to achieving company goals. It is also a signal that management cares for the well being of its employees (Macky & Boxall, 2007), in accordance with the relational component of the contract (Cavanaugh & Noe, 1999). Further, research on organizational justice suggests that employees define fairness not only in terms of the outcomes received but also in terms of the procedures used to determine such outcomes. A fair procedure should ensure that the opinions of various groups affected by the decision, have been taken into account. If employees feel that they have been given a voice, and that they have participated in the decision-making process, it is more likely that they experience the process as fair, even in situations they perceive as disadvantageous. Organizational justice research has shown that fairly treated employees tend to be more committed and have higher job performance (Colquitt, Conlon, Wesson, Porter & Ng, 2001).

Section 4-2 in ‘The Norwegian Working Environment Act’ (2015) refers to requirements regarding participation, and development of the employee. It is stated that “emphasis shall be placed on giving employees the opportunity for self-determination, influence, and professional responsibility; and “during reorganization processes that involve changes of significance for the employees’ working situation, the employer shall ensure the necessary information, participation, and competence development to meet the requirements
of this Act regarding a fully satisfactory working environment” (The Working Environment Act, 2015).

Participation can, as such, ensure that the employees impact and control their working environment, and give them a voice in the decision-making processes. An employment relationship is more likely to have positive consequences where its parties develop shared understandings regarding the content of the contract. If the employer and the employee agree on the terms and conditions for participation, employees could experience a higher degree of ownership and be more committed to the organization in question. Denison (1984), showed that perceived involvement and participation on the part of the employees predicted both current and future financial performance. As such, the organization will benefit from encouraging employees to participate. When participation is a priority on behalf of the organization, employees tend to develop a view of themselves and the organization that goes beyond their immediate working situation. Over time, identification with organizational goals develops (Denison, 1984). High levels of involvement and participation generate a sense of ownership and responsibility. Out of this ownership grows a greater commitment. When employees are encouraged and empowered to participate in work decisions, organizations are likely to generate greater affective commitment from their employees (Lee, Chiang, van Esch & Cai, 2016).

Hypothesis 2): Agreement between employee and employer on the psychological Contract dimension leader inducement on participation is positively associated with employee organizational commitment.

Organizational culture and psychological contracts

For most definitions of organizational culture a common feature is the idea that culture is something that is shared among members of an organization (Schneider, Ehrhart & Macey, 2013). Further, behaviours and attitudes become a product of shared values, beliefs and norms - what constitutes the organizational culture of a business entity (Deshpandé & Webster, 1989). The motivation behind much of the culture research is the acknowledgement that organizational culture has been said to influence behaviour and attitudes at the organizational, group, and individual level (Hartnell, Ou, & Kinicki, 2011). Deshpandé and Webster (1989) defined organizational culture as “the pattern of shared values and beliefs that help individuals understand organizational functioning and thus provides them with norms for
behaviour in the firm (p. 4)”. Kerr and Slocum (2005) suggest that an organization’s cultural values influence its human resource strategies, including development procedures and reward systems. Firms foster different psychological contracts by the way they reward their employees and the HRM strategies that demonstrate personnel practices (Rousseau, 1990). Different strategies result in psychological climates that foster varying levels of commitment and retention among employees working in different organizations. Certain companies may promote a relationship based on employee loyalty and long-term membership, while others appear to emphasize the links between extrinsic rewards and employee effort and performance (Rousseau, 1990).

In organizational research, the typical parties to the psychological contract are viewed to be the individual employee and the organization (Rousseau, 1989). In her article, Rousseau (1989) distinguishes between the psychological contracts and the implied contracts. She argues that psychological contracts consist of subjective perceptions held by individual parties to a relationship. Implied contracts, on the other hand, are patterns of obligations arising from interactions between parties (e.g., individuals and organizations) that become part of the social structure of which the relationship is a part. Psychological and implied contracts differ in that they exist at different levels. Parties to a relationship may not agree, while implied contracts exist as a result of consensus about what constitutes the contract (Rousseau, 1989). As such, the typical work behaviour in an organization can be thought to reflect the existing organizational culture. Nicholson and Johns (1985) even define the psychological contract as part of an organization’s culture. In their framework, psychological contracts emerge from interactions with the organization and define how culture is acted out. Further, if the norms of interactions derive from culture, psychological contracts should be a product of culture and not a cause (Rousseau, 1989; Nicholson & Johns, 1985).

The Competing Values Framework

In a further examination on how organizational culture can serve as an explanatory factor for the level of agreement between employer and employee, I will use the Competing Values Framework (Quinn & Rohrbaugh, 1983). This model is chosen because it is a useful tool for understanding an organization’s culture, and it is an organizational culture classification widely used in the research literature, within a variety of disciplines (Hartnell et al., 2011). It was originally developed to explain differences in the values, which are essential
in various organizational effectiveness models. The framework focuses on the competing strains and conflicts inherent in any human system (Denison & Spreitzer, 1991).

The Competing Values Framework describes organizational cultures along two dimensions: a focus on stability versus flexibility, and an internal versus an external focus. These two dimensions should be seen as a continuum, where organizations are located somewhere along the two axes. Four types of organizational cultures result from combining the two dimensions: clan, hierarchy, adhocracy and market cultures.

The Competing Values Framework. Adapted from Figure 1 (2011), in Chad A. Hartnell, Amy Yi Ou, and Angelo Kinicki, Organizational Culture and Organizational Effectiveness: A Meta-Analytic Investigation of the Competing Values Framework’s Theoretical Suppositions. *Journal of Applied Psychology, 96*, 677-694
The clan culture is internally oriented. Characteristic of the clan culture is that human affiliation produces positive, affective employee attitudes directed towards the organization and that the organization’s trust and commitment to employees enables open communication and employee involvement. As such, clan organizations value attachment and membership. Behaviours associated with these values include teamwork and participation (Cameron & Quinn, 2006). The hierarchy culture is internally focused, and the main assumption is that control, predictability and stability lay the basis for good functioning (Hartnell et al., 2011). The adhocracy culture is more externally focused and is described by a flexible organizational structure. A common feature of the adhocracy culture is that members are urged to be creative and take risks: the adhocracy organization values stimulation and innovation. The market culture is externally focused and one of its main focus areas is on achievement, which is meant to produce competitiveness in order to succeed and be productive (Hartnell et al., 2011).

Each of the cultures in the Competing Values Framework has a polar opposite that highlights the inherent dilemmas in the organizing process with which every organization needs to deal with; stability versus adaptation and people versus task (Goodman, Zammuto & Gifford, 2001). This view is consistent with Schein’s (1990) observation that culture is developed as the organization tries to cope with the twofold problems of external adaptation and internal integration. A second underlying assumption of the Competing Values Framework is the importance of balance. When one quadrant is overly weighted, an organization may become dysfunctional, and the typical strengths that characterize the culture may even become its weaknesses (Denison & Spreitzer, 1991). Further, an overemphasis on any of the culture dimensions can result in dysfunctional organizations, such as the market culture overemphasizing their productivity and loose eye of their employees’ well being. It is the balancing of competing demands that separates excellent managers or organizations from the mediocre ones (Dension & Mishra, 1995).

**Market and Adhocracy Cultures**

The market and adhocracy cultures both have an external orientation, and they are on the opposite side of the vertical axis, describing the organizational structure. With their external focus they both need to adjust to a rapidly changing work environment. Downsizing, restructuring, and related forms of organizational change, have challenged a long-standing psychological contract between employees and their employers that promised pay, promotion,
and job security are induced in exchange for employee skills, effort, and loyalty (Cavanaugh & Noe, 1999). These culture types relate differently to these external forces, due to their different structure and different goals. As such, it is possible that a specific organizational culture produces attitudes and behaviour relevant for how the employer manages the psychological contract. Both employers and employees are responsible for the success or failure of the contract, even though they may have different or even conflicting interests. The organization could benefit from taking its role in creating and influencing the psychological contract. This role could be an indicator of the company’s culture, and as such, be one way for the organization to influence the employees’ perceptions of the psychological contract. Hence, if the organization is conscious in its role in establishing and maintaining the psychological contract on behalf of the organization, and is capable to communicate this to the employee, then it is likely that there should be a level of agreement regarding the psychological contract.

The market culture’s focus on achievement is thought to produce competitiveness and aggressiveness. A key thought is that clear goals and contingent rewards motivate employees to perform, and behaviour associated with these values is characterized by centralized decision-making, task focus and clear goals (Hartnell et al., 2011). As such, market cultures foster positive shared employee attitudes when units achieve common goals, since the organization facilitates valuable extrinsic and/or intrinsic rewards. It is also possible that the competitive climate could foster distrust and as such have a negative impact on collective employee attitudes. With a focus on achievement, this culture emphasizes centralized decision making and more formal coordination and control systems. An overemphasis on the market culture could result in an oppressive environment. Hierarchical and market cultures scores are negatively related to trust, morale, equity of rewards and leader credibility (Zammuto & Krakower, 1991). These cultures are also positively related to conflict and resistance to change. Leaders in market-oriented cultures tend to be directive, goal orientated, instrumental, and functional. They are constantly providing structure and encouraging productivity (Denison & Spreitzer, 1991).

Organizations with stronger group and developmental cultures (clan and adhocracy cultures) score higher than the hierarchical cultures in terms of satisfaction with work and promotions. In these cultures, leaders also focus on acquiring additional resources, and on attaining visibility, legitimacy, as well as external support (Denison & Spreitzer, 1991). An overemphasis on this culture dimension could result in a turbulent chaos (Goodman et al.,
2001). On the other side, not to pay enough attention to the providing of resources could hinder the employees in being innovative and creative. Adhocracy cultures value stimulation, resource acquisition, growth, autonomy, and risk taking. It is thought that such emphasis will facilitate the growth, development, and skill- and task variety of employees (Hartnell et al., 2011). Similarly to the clan culture, there is an emphasis on informal coordination, control systems, and horizontal communications. Leaders in adhocracy cultures tend to be innovative and idealistic, they are willing to take risks, and able to develop a vision of the future.

In their study, Richard et al. (2009) focused on the clan and hierarchy dimensions. And, as mentioned, the literature on the field is scarce. Therefore, this study contributes and extends the research on organizational culture by taking a closer look at the market and adhocracy dimensions. Accordingly, I hypothesize:

**Hypothesis 3a):** Market cultures are negatively associated with employee and employer agreement on the psychological contract.

**Hypothesis 3b):** Adhocracy cultures are positively associated with employee and employer agreement on the psychological contract.

### Method

**Procedure and sample**

This study is part of a larger research project led by our supervisor, and, as such, eight master students have conducted the data collection over a period of three years. Each master student contributed with data from at least ten companies and the following analyses are based on the data collected by all the students combined. Data were collected using an online survey, which consisted of two questionnaires. One questionnaire was sent to participants on the employee level, and one questionnaire was distributed to leaders, representing the employer level. In this study the employer data are collected from different organizational representatives including supervisors, HR-managers, departmental leaders, and top leaders. The organizations vary in size, are from public and private sectors and include a variety of businesses, and, as such, capture the reality of the Norwegian work context.

In our selection of the companies the students first used personal contacts and networks, and then included companies from outside of these networks. All participants were
contacted by e-mail or telephone. They also received a letter where our purpose was explained, and confidentiality and anonymity in handling of data was ensured. The participants were also informed of their right to withdraw at any point of time, as well as the time to fill in the questionnaire, which was estimated to be approximately 15 minutes. Each participating organization was offered a copy of the final master thesis and a report summarizing their results compared to other companies. The companies who agreed to participate then received another e-mail with the link to both questionnaires. We followed them up to ensure the necessary number of participants from each company. We asked for a minimum of 10 employees and one leader from each participating organization.

In total 326 organizations were contacted to participate in the study. Out of these, 87 finally participated, yielding a response rate of 27 per cent. Respondents worked in sectors like education, service, media and sales. In the final sample, 1055 employees filled out the questionnaire and 87 employers. 55 per cent of the employees were female and 45 per cent were men. Age of the respondents was between 17 and 72 years, and the average age was 38 years. Organizational tenure ranged from 0 to 47 years and the average worker had been in the organization for 6 years.

Measures

The scales used in this study have all been applied in previous research, and are shown to measure the variables of interest. As mentioned above, two different questionnaires were distributed to the organizations, one to the employee and one to the employer. As such, we were able to measure variables at two levels. Employee commitment and employee perception on the content of the psychological contract were measured on the individual level. Organizational culture was measured at the organization level, as well as the employer perception on the psychological contract. The items in the questionnaires were originally developed in English, except from the psychological contract scales, which where originally in German. Former students as well as professional translators translated all items to Norwegian. To avoid inaccurate translations the items were translated back to English, to make sure that the wordings of the original items were comparable to Norwegian. In measuring organizational culture, the scale developed by Cameron and Quinn (2006) had already been translated in a Norwegian edition of the textbook, and this scale was applied.
Affective commitment

The scale used to measure affective commitment was the Affective Commitment Scale, developed by Allen and Meyer (1990). The scale includes eight items and the respondents were asked to rate the items on a 7-point Likert scale (1 = “strongly disagree”; 7 = “strongly agree”). Participants were asked to rate statements like “I think that I could easily become as attached to another organization as I am to this one”. Internal consistency (Cronbach’s alpha) for the affective commitment scale is .83.

Psychological contract content

Both employees’ and employers’ perceptions on the psychological contract were measured using a questionnaire developed by Raeder, Wittekind, Inauen and Grote (2009). This questionnaire consists of 17 items, which is evaluated twice, in separate sections. This part of the questionnaire is measuring the employee’s perception of his/her expectations from the organization, as well as their leader’s expectations, as perceived by the employee. The respondent is asked to rate statements on a 5-point Likert scale (1 = “strongly disagree”; 5 = “strongly agree”): “I expect from my employer long term employment” and “I expect from my employer participation in decision making”. Employees were also asked to evaluate their perceptions of what their employer provides them with, on the same items: “My employer provides me with loyalty” and “My employer provides me with the option to voice my opinion regarding important decisions”. The participants used the same 5-point Likert scale as mentioned above. The scale regarding employee perceptions of security and retention consists of five items and the Alpha level for this scale was .80. The scale measuring employee perception of participation consists of four items and Alpha level for this scale was .89.

Similarly, employers were asked to evaluate what the employee would expect from the organization, as well as evaluating the inducements the organization actually provides the employee with. For example “The employees expects from the organization participation in decision making” and “The organization provides the employees with long term employment”. The employee and the employer versions of the questionnaire consist of the same items, but the wording of items and information differed. The same 5-point Likert scale was used in both versions of the questionnaire (1 = “strongly disagree”; 5 = “strongly agree”). Alpha level for the scale measuring job security and retention was .73, and for participation, .82.
Organizational culture

The Organizational Culture Assessment Instrument (OCAI), developed by Cameron and Quinn (2006), was chosen to identify the organization’s culture. The questionnaire was answered on the employer level. This study adds to the field of research by including a culture measure at the organizational level of analysis. Because organizational culture is based on shared values, assumptions, and beliefs, it is a collective phenomenon that should be conceptualized at a higher level of analysis (Glisson & James, 2002).

This part of the questionnaire consists of six main categories (Management of Employees, Dominant Characteristics, Strategic Emphasis, Organizational Leadership, Criteria of Success, and Organizational Glue), each defined by four statements. Each of these statements is representative of one of the four culture dimensions. The organizational representative was asked to indicate the present state of the organization according to these statements. In doing so, the respondent was asked to divide 100 points among the four alternatives, depending on the extent to which each alternative was similar to the organization in question. A higher number of points indicate more similarity to the organization: For example, alternative A is very similar to the organization (65 points), alternative D is not similar at all (5 points), and statements B and C matter equally (15 points distributed to each). Depending on the leader’s distribution of points, one should be able to define whether the dominating culture characterizing the organization is clan, adhocracy, market or hierarchical. A high ranking of the statement “the organization emphasizes competitive actions and achievement. Hitting stretch targets and winning in the marketplace are dominant”, would be characteristic of a dominant market culture. A high ranking of “the organization emphasizes acquiring new resources and creating new challenges. Trying new things and prospecting for opportunities are valued”, would indicate a dominant adhocracy culture. The Cronbach’s alpha for the scales measuring market oriented cultures and adhocracy cultures were .82, and .78, respectively.

Control variables

At the organization level, the analyses controlled for organizational size. Employees’ gender and tenure with the employer was included as control variables at the employee level. With longer tenure the psychological contract is likely to become deeper and broader (Guest, 1998; Rousseau, 1990). Tekleab and Taylor (2003) found that employee tenure with the manager was positively related to agreement between employee and employer on employee obligations.
to the organization. In addition, research has suggested that employees’ perceived obligations to their employers decline over time while the obligations they attribute to their employers increase (Robinson, Kraatz & Rousseau, 1994).

**Analysis**

Multilevel modelling was chosen as the appropriate method, as we wanted to test relationships at different levels (e.g., employee and employer level). Multilevel analysis provides for a robust examination of cross-level models (Hox, 2002), allowing for the investigation of both within- and between-unit effects on an individual level dependent variable. Multilevel modelling can be understood as a series of equations at the different levels of data. In this study, employee respondents (Level 1) are clustered in higher order social groups; the organizations to which the employees belong (Level 2). Such a process, where data is collected from employees and employers, will reduce the common method bias in the sample (Podsakoff, MacKenzie & Podsakoff, 2012).

**Polynomial regression analysis**

Within the multilevel framework, two different analytical procedures were used to test the relationships, each consistent with the nature of the research questions. The analyses were conducted with SPSS 22. Polynomial regression analyses were used to test whether agreement on the psychological contract terms (job security and participation) was related to employee affective commitment. Polynomial regression analysis can be expressed visually, through a response surface analysis. Using polynomial regression and subsequent response surface analysis, one can examine how combinations of two predictor variables relate to an outcome variable, particularly where the difference between the two predictor variables is a central concern. Recent research has used polynomial regression analysis for investigating agreement between employee and employer (i.e., Dabos & Rousseau, 2004; Lambert et al., 2003; Tekleab & Taylor, 2003).

There are a few assumptions that must be met in order to apply polynomial regression analysis (Edwards, 2002): the two predictor variables need to represent the same conceptual domain in such a manner that any difference in the two predictor variables would be interpretable in a meaningful way. The second assumption is that the predictor variables must be measured on the same numeric scale in order to determine their degree of correspondence.
And finally, as with any regression technique, all the usual assumptions of multiple regression analysis should be met (Shanock, Baran, Gentry, Pattison & Heggestad, 2010). Polynomial regression analysis has been advocated as the preferred procedure for difference scores to examine agreement as predictors of outcome variables (Edwards, 1994). When agreement is measured as the outcome variable, which includes the organizational level, a multilevel regression analysis is not possible, because outcomes must be at Level 1. Hence a multilevel regression analysis with a gap variable as dependent variable, was conducted to test the hypotheses related to organizational culture. The gap variable represents a difference score between employer and employee perceptions. In creating a difference score, a comparison of employee/employer perceptions is combined into a single score.

Before conducting the polynomial regression analyses to test the hypothesized relationships, the independent variables were centered. The constant three was subtracted from each score because employee perception (EEP) and employer perception (ERP) of the psychological contract, both were measured on a 5-point Likert scale. Centering aids interpretation and reduces the potential for multicollinearity (Shanock et al., 2010). There are several ways to center data, and centering around the midpoint of the scale is recommended for this type of analysis (Edwards, 1994). Then, we made three new variables: (a) the square of the centered EEP variable; (b) the cross-product of the centered EEP and ERP variable; and (c) the square of the centered ERP variable. The culture variables were also centered, but around the grand mean (Hox, 2002). This was executed by subtracting the grand mean of each independent variable, from the values of each independent variable. When conducting the polynomial regression, employee tenure with their employee and gender were entered as control variables.

According to Hox (2002), the multilevel regression analysis was done in several steps. The first step of the analysis is to make an intercept-only model (Model 0). Without entering any predictors, one can inspect the partitioning of variance between levels. In Model 1, the control variables at Level 1, gender and tenure, were included as explanatory variables. In the last model the outcome variable is regressed on each of the two predictor variables, the interaction of the predictors, and the squared terms for each of the two predictors. As such, the interaction term of employer and employee perspectives of the psychological contract allows to test whether the interplay between employers’ and employees’ perceptions has explanatory power beyond that of their individual scales. By entering the squares of the individual scales, one can find out whether there is a curvilinear relationship between the
predictors and the outcome variable. A significant incremental $R$ in the last model indicates a curvilinear relationship.

**Regression analysis with gap variables**

A regression analysis with a gap variable was conducted to test whether there is a relationship between type of organizational culture and agreement between employer and employee on the content of the psychological contract, as an outcome variable. Since the outcome variable is measured on two levels, one cannot include the outcomes as two separate dependent variables. To measure agreement as an outcome variable, two gap variables were constructed, one that captures the degree of agreement between employer and employee on the security and retention dimension, and one that describes the level of agreement on participation. The gap variable was constructed by subtracting the average of the employee’s report of inducement from the average of each organization representative’s report of inducement. Each employee was then assigned a gap value, where zero would indicate perfect agreement. A negative value means that the employee rates the psychological contract higher than the employer, and vice versa. The culture variables were standardized, because culture is measured on a different scale. Through standardization one receives an estimate that is comparable to the other estimates (Hox, 2002).

**Results**

**Descriptive statistics**

Tables 1 and 2 present the descriptive statistics and correlations of all study variables at group level and employee level. To avoid disaggregation of supervisor data and aggregation of employee data the descriptive statistics and correlations for supervisors and employees are displayed in two separate tables. The tables show means, standard deviations, correlations and internal consistencies of the variables investigated in this study. There were 16 % of missing values in the psychological contract variables. When the missing data are relatively high, the choice of method used to replace these can affect the results (Schafer & Graham, 2002). The Expectation-Maximization method was used to replace missing data. The method uses the variance of existing data (the work engagement variables at the beginning of the questionnaire) to predict the missing values. This is considered to be preferable to listwise
deletion, and is viewed to be the best among data replacement methods (Schafer & Graham, 2002).

Table 1.

Descriptive statistics, correlations, and internal consistencies for variables at Level 1.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender, female=1</td>
<td>1.45</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Tenure</td>
<td>6.32</td>
<td>7.40</td>
<td>.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. PC security and retention</td>
<td>3.93</td>
<td>.71</td>
<td>-.05</td>
<td>-.04*</td>
<td>(.80)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. PC participation</td>
<td>3.53</td>
<td>.94</td>
<td>-.03</td>
<td>-.06</td>
<td>.74**</td>
<td>(.89)</td>
<td></td>
</tr>
<tr>
<td>5. Affective Commitment</td>
<td>4.66</td>
<td>1.18</td>
<td>-.02</td>
<td>.07*</td>
<td>.48***</td>
<td>.44**</td>
<td>(.83)</td>
</tr>
</tbody>
</table>

N=1055 for all variables. Scale reliabilities (α) are reported on the diagonal.
PC=psychological contract.

***p<.001. **p<.01. *p<.05.

Table 2.

Descriptive statistics, correlations, and internal consistencies for variables at Level 2.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Market Culture</td>
<td>23.19</td>
<td>12.37</td>
<td>(.82)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Adhocracy Culture</td>
<td>18.67</td>
<td>8.96</td>
<td>.11</td>
<td>(.78)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. PC security and retention</td>
<td>4.23</td>
<td>.62</td>
<td>-.24*</td>
<td>.05</td>
<td>(.73)</td>
<td></td>
</tr>
<tr>
<td>4. PC participation</td>
<td>3.98</td>
<td>.78</td>
<td>-.25*</td>
<td>.07</td>
<td>.57***</td>
<td>(.82)</td>
</tr>
</tbody>
</table>

Note: N=87 for all variables. Scale reliabilities (α) are reported on the diagonal.
PC=psychological contract

***p<.001. **p<.01. *p<.05.
Internal consistencies (Cronbach’s alpha) for the employee psychological contract was .88 and for affective commitment, .83. The market culture had a reliability of .82, and the adhocracy culture scale had .78. The psychological contract measured at the organizational level had a reliability of .91. According to DeVellis (2012), reliabilities within the range of .70 and .80 are considered to be respectable, while reliabilities within the range of .80 and .90 are considered highly respectable.

**Multilevel analysis and test of hypotheses**

The results of the polynomial regression analyses are presented in tables 3 and 4, with the subsequent surface response analyses. The first hypothesis (Table 3) predicted that employee and employer agreement on the psychological contract dimension *leader inducements on security and retention* is positively related to employee affective commitment. The intercept-only model for the psychological contracts helps us identify the total unexplained variance at the organizational level. The intraclass correlation (ICC) measure indicates that 13% of the unexplained variance is between organizations. When the control variables are entered, there is a small decrease in the AIC, which could be attributed to earlier findings, indicating that tenure tends to deepen the psychological contract (Guest, 1998). The last model includes the explanatory variable at the organizational level; the employer perception of the psychological contract. This model explains 24% variation at Level 1, and 68% variation at Level 2. There is also a substantial decrease in the AIC, which indicates a better fit of the final model. Total explained variation by this model is 29%.
Table 3.

*Results of multilevel modelling predicting affective commitment: Security and retention.*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixed effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>4.76 (.06)**</td>
<td>4.69 (.13)***</td>
<td>3.78 (.25)***</td>
</tr>
<tr>
<td><strong>Control variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.01 (.08)</td>
<td>.05 (.06)</td>
<td></td>
</tr>
<tr>
<td>Tenure</td>
<td>.01 (.00)*</td>
<td>.01 (.00)**</td>
<td></td>
</tr>
<tr>
<td><strong>Explanatory variables (Level 1)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EEP (job security and retention)</td>
<td></td>
<td>.51 (.16)***</td>
<td></td>
</tr>
<tr>
<td>EEP square</td>
<td></td>
<td>.21 (.03)***</td>
<td></td>
</tr>
<tr>
<td><strong>Explanatory variables (Level 2)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EER (job security and retention)</td>
<td></td>
<td>.39 (.35)</td>
<td></td>
</tr>
<tr>
<td>Interaction EEP and EER</td>
<td></td>
<td>.05 (.11)</td>
<td></td>
</tr>
<tr>
<td>EER square</td>
<td></td>
<td>-.28 (.15)</td>
<td></td>
</tr>
<tr>
<td><strong>Random effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unexplained variance between employees</td>
<td>1.25***</td>
<td>1.25***</td>
<td>.94***</td>
</tr>
<tr>
<td>Unexplained variance between organizations</td>
<td>.14***</td>
<td>.15***</td>
<td>.05*</td>
</tr>
<tr>
<td>AIC</td>
<td>3298</td>
<td>3296</td>
<td>2976</td>
</tr>
</tbody>
</table>

*AIC = Akaike’s Information Criterion. EEP = Employee perception of psychological contract; EER = Employer perception of the psychological contract.*

***p<.001. **p<.01. *p<.05.

Following Shanock et al. (2010) the results of a polynomial regression analysis are calculated with regard to four surface test values: $a_1, a_2, a_3,$ and $a_4$. The slope of the line of perfect agreement (EEP =EER) as related to affective commitment is specified by $a_1$.

Calculating $a_2$ assesses curvature along the line of perfect agreement as related to commitment. Calculating $a_4$ assesses the curvature of the line of incongruence as related to the outcome, which indicates the degree of discrepancy between EEP, EER, and commitment.
The slope of the line of incongruence as it relates to the outcome, indicates the direction of the discrepancy. Calculating $a_3$ assesses the direction; whether EEP is higher than EER or vice versa.

One can see from table 4 and Figure 1, only the $a_1$ is significant in testing the agreement between employee and employer on the security and retention dimension, as it relates to affective commitment. This indicates that agreement of both parties on this contract dimension matters for the outcome affective commitment. Moving along the X=Y line from the front of the graph to the back, one can see that the line of perfect agreement as related to commitment, has a positive slope. The lowest level of commitment is in the front, where both employee and employer perceptions are low, and increasingly higher toward the back of the graph where employee and employer are both in agreement, and high.

Table 4.

Slopes and curves: security and retention variables.

<table>
<thead>
<tr>
<th>Surface tests</th>
<th>Affective commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>$a_1$</td>
<td>.91*</td>
</tr>
<tr>
<td>$a_2$</td>
<td>-.01</td>
</tr>
<tr>
<td>$a_3$</td>
<td>.13</td>
</tr>
<tr>
<td>$a_4$</td>
<td>-.11</td>
</tr>
</tbody>
</table>

Note N= 1055.

*p<.05.
Figure 1.

Hypothesis 2 predicted that agreement between employee and employer on the psychological contract dimension *leader inducement on participation* is positively associated with employee organizational commitment. The same multilevel procedure was followed, replacing the centred security and dimension variables, with the centred participation variables (Table 5). The intraclass correlation (ICC) shows that 10% of the unexplained variance is between organizations. Entering the control variables gives a slight decrease in the AIC, which further decreases when the employer variables are included, yielding a better fit of the model. The last model explains 18% of the variance at Level 1, while 50% of the variance is at Level 2. A considerable decrease in the AIC indicates a better fit of the final model. Total explained variation by this model is 21%.
Table 5.  
*Results of multilevel modelling predicting affective commitment: Participation.*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixed effects</strong></td>
<td>Est. (SE)</td>
<td>Est. (SE)</td>
<td>Est. (SE)</td>
</tr>
<tr>
<td>Intercept</td>
<td>4.76 (.06)***</td>
<td>4.69 (.13)***</td>
<td>4.23 (.14)***</td>
</tr>
<tr>
<td><strong>Control variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.01 (.08)</td>
<td>.02 (.07)</td>
<td></td>
</tr>
<tr>
<td>Tenure</td>
<td>.01 (.00)*</td>
<td>.01 (.00)**</td>
<td></td>
</tr>
<tr>
<td><strong>Explanatory variables (level 1)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee psychological contract</td>
<td></td>
<td>.59 (.07)***</td>
<td></td>
</tr>
<tr>
<td>Employee pc square</td>
<td></td>
<td>.05 (.03)</td>
<td></td>
</tr>
<tr>
<td><strong>Explanatory variables (level 2)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employer psychological contract</td>
<td></td>
<td>.19 (.16)</td>
<td></td>
</tr>
<tr>
<td>Interaction employee/employer pc</td>
<td></td>
<td>-.08 (.06)</td>
<td></td>
</tr>
<tr>
<td>Employer pc square</td>
<td></td>
<td>-.08 (.08)</td>
<td></td>
</tr>
<tr>
<td><strong>Random effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unexplained variance between employees</td>
<td>1.25***</td>
<td>1.25***</td>
<td>1.03***</td>
</tr>
<tr>
<td>Unexplained variance between organizations</td>
<td>.14***</td>
<td>.15***</td>
<td>.07**</td>
</tr>
<tr>
<td>AIC</td>
<td>3298</td>
<td>3296</td>
<td>3087</td>
</tr>
</tbody>
</table>

*AIC = Akaike’s Information Criterion.*  

***p<.001. **p<.01. *p<.05.

As one can see from Table 6 both $a_1$ and $a_3$ are significant, indicating that agreement between employee and employer matters. As mentioned above, a significant $a_3$ indicates that the direction of the discrepancy between employee and employer on employee commitment matters. Affective commitment is higher when the discrepancy is such that the employee perception of the psychological contract is higher than the employer perception of the contract. The employee opinion matters more than the employer opinion in relation to affective commitment. The line of incongruence is positive and it increases, so that when the employee view of the contract is higher, it has more impact on affective commitment.
Table 6.

Slopes and curves: Participation variables

<table>
<thead>
<tr>
<th>Surface tests</th>
<th>Affective commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>$a_1$</td>
<td>.77***</td>
</tr>
<tr>
<td>$a_2$</td>
<td>-.11</td>
</tr>
<tr>
<td>$a_3$</td>
<td>.40*</td>
</tr>
<tr>
<td>$a_4$</td>
<td>.05</td>
</tr>
</tbody>
</table>

Note N= 1055.

***p<.001. *p<.05.

Figure 2.

Hypothesis 3a) predicted that market cultures are negatively associated with employee and employer agreement on the psychological contract dimensions. Table 7 shows the results for the security and retention dimension and Table 8 shows the results concerning the
participation variable. Table 7 tell us that there is no variance to be explained between employees but some variance to be explained between organizations. The gap variables were centred around the mean before conducting the analysis. The intraclass correlation (ICC) tells us that 31% of the unexplained variance in security and retention is between organizations. The ICC for the participation variable is 37%. Entering the control variables gives a small decrease in the AIC, which further decreases slightly when the culture variables are entered. The last model explains 10% of the variance at the organization level. One can see from Table 7 and 8 that the hypothesis is supported; market culture has a negative effect on agreement. The effect is small (-1.1 for security and retention, and -1.4 for participation. \(p<.05\)) but is still significant. The total explained variation by the model predicting agreement on the security and retention is 3%. The total explained variation by the last model predicting agreement on participation provided by the employer is also 3%.

Hypothesis 3b) predicted that adhocracy cultures are positively associated with employee agreement on the psychological contract. This hypothesis was not supported.
Table 7.

**Results of multilevel regression analysis with a gap variable predicting agreement on security and retention.**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Standardized estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixed effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>.34 (.06)***</td>
<td>.28 (.09)**</td>
<td>.28 (.09)**</td>
<td></td>
</tr>
<tr>
<td><strong>Control variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.03 (.05)</td>
<td>.04 (.05)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenure</td>
<td>.00 (.00)</td>
<td>.00 (.00)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Explanatory variables (level 2)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market Culture</td>
<td>-.01 (.00)*</td>
<td>-.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adhocracy Culture</td>
<td>-.00 (.00)</td>
<td>-.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Random effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unexplained variance between</td>
<td>.46***</td>
<td>.46***</td>
<td>.46***</td>
<td></td>
</tr>
<tr>
<td>employees</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unexplained variance between</td>
<td>.21***</td>
<td>.21***</td>
<td>.19***</td>
<td></td>
</tr>
<tr>
<td>organizations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIC</td>
<td>2311</td>
<td>2310</td>
<td>2309</td>
<td></td>
</tr>
</tbody>
</table>

*AIC = Akaike’s Information Criterion.***

***p<.001. **p<.01. *p<.05.
Table 8.

Results of multilevel regression analysis with a gap variable predicting agreement on participation.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Est. (SE)</td>
<td>Est. (SE)</td>
<td>Est. (SE)</td>
</tr>
<tr>
<td>Fixed effects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>.41 (.09)***</td>
<td>.39 (.13)**</td>
<td>.39 (.13)**</td>
</tr>
<tr>
<td>Control variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-.01 (.06)</td>
<td>-.01 (.06)</td>
<td></td>
</tr>
<tr>
<td>Tenure</td>
<td>.01 (.00)</td>
<td>.01 (.00)</td>
<td></td>
</tr>
<tr>
<td>Explanatory variables (level 2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market Culture</td>
<td>-.01 (.00)*</td>
<td></td>
<td>-.14</td>
</tr>
<tr>
<td>Adhocracy Culture</td>
<td>-.00 (.01)</td>
<td>-.02</td>
<td></td>
</tr>
<tr>
<td>Random effects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unexplained variance between employees</td>
<td>.81***</td>
<td>.80***</td>
<td>.80***</td>
</tr>
<tr>
<td>Unexplained variance between organizations</td>
<td>.49***</td>
<td>.49***</td>
<td>.47***</td>
</tr>
<tr>
<td>AIC</td>
<td>2925</td>
<td>2924</td>
<td>2924</td>
</tr>
</tbody>
</table>

\[ AIC = Akaike’s Information Criterion. \]

***p<.001. **p<.01. *p<.05.

Discussion

This paper focused on psychological contracts, as perceived by the employer and the employee, and whether agreement between the two parties had an effect on the employee affective commitment. It was found that agreement between employer and employee matters
in such a way that affective commitment is higher when the employee psychological contract exceeds the level of the employer contract. The more the employees value the contract, the more affectively committed the employees become. Further, the results show that market cultures were negatively associated with employee and employer agreement on the psychological contract. This study failed to support the assumed positive relationship between adhocracy oriented cultures and employee and employer agreement on the psychological contract.

This study contributes to existing research on the psychological contract in three ways. The first contribution is to acknowledge that there are two parties to the contract, and subsequently measure the psychological contract on both individual and organizational level. This allows for a comparison of employer and employee views. It generally becomes the responsibility of the employee’s supervisor (acting as an agent, representing the organization) to take care that the psychological contract is fulfilled. For this reason, scholars have called for a closer evaluation of the employer’s perception of the psychological contract (e.g., Dabos & Rousseau, 2004; Guest, 1998; Porter et al., 1998; Rousseau, 1989). In spite of these requests for research on the organization’s perspective, prior research has generally neglected how organizational representatives perceive the psychological contract (Lester et al., 2002). This seems to be an important omission since research in other areas suggests that how organizations approach the employment relationship is likely to impact employees’ job attitudes and work behaviours such as affective commitment and organizational citizenship behaviour (Tsui et al., 1997).

Each party to the contract matters, and agreement between the parties can have valuable outcomes, also for the organization, which would benefit from having a committed workforce. Even though the two parties to the relationship may hold different views about the terms, the more they agree on the content, the more committed the employee becomes. Prior research on psychological contract breach has shown that failure to reach an objective agreement can give rise to psychological contract violation (Morrison & Robinson, 1997; Dabos & Rousseau, 2004). Social exchange theory explains this by emphasizing that employers and employees strive to maintain a fair balance in the reciprocal inducements and contributions each has offered the other. Today, organizations face the challenge of renegotiating and managing the transition from one exchange base to the other, as they may become unable or unwilling to continue to provide employees the same inducements. Changes like these make it less clear what the two parties owe each other as part of the
relationship (Coyle-Shapiro & Kessler, 2000). The fulfilment of obligations or expectations made to employees could reflect the extent to which the employer values the relationship (Coyle-Shapiro & Kessler, 2000), and, as such, evoke a positive reciprocation on behalf of the employee.

This study addresses questions concerning job security and participation, as these inducements are thought to matter to most employees, and, as such, should be of interest to the employer, and thus be accounted for, in the psychological contract. As Lambert (2011) notes, employees’ appraisals may be especially affected by the inducements delivered. Inducements received from the organization are an evident source of need-satisfying resources. Understanding evaluations by employees of their full psychological contract is important because such an evaluation is influential in explaining future attitudes toward and behaviour in an employment relationship.

Second, this study contributes and extends existing research by the choice of methodological approach. There has been little work incorporating the employer’s view to the contract, and those studies that did, typically used either general unit-level reports from the employer’s representative (e.g., Porter et al., 1998) or between-group comparisons of managers and employees (e.g., Coyle-Shapiro & Kessler, 2000). This study introduces multilevel modelling as an appropriate method to investigate employee and employer levels of psychological contracts. Further, the use of polynomial multilevel regression analysis allows us to investigate the level of agreement regarding psychological contracts. In their study, Lambert and colleagues (2003) compared traditional views of contract breach and fulfilment, based on difference scores, with more comprehensive views, based on polynomial regression analyses. Their analyses indicated that difference scores concealed substantively meaningful effects of psychological contract breach and fulfilment, which could be tested using polynomial regression.

Third, the integration of the fields of organizational culture and psychological contracts fills an existing gap in the literature. Guest’s (1998) proposed model of the psychological contract includes several organizational antecedents, among them organizational culture, that have yet to be examined. Richard and colleagues (2009) further claimed that organizational culture plays a vital role in establishing the psychological contract. As such, the organization has a role in influencing the psychological contracts, and this role may rely on the company’s organizational culture. Coyle-Shapiro and Kessler (2000) found that managers, as representatives of the organization, reported that the organization,
due to external pressures, did not fulfil its obligations to employees to the extent that it could. While managers can be seen as contract makers, they themselves may be constrained by internal forces in terms of current organizational practices (Coyle-Shapiro & Kessler, 2000). Such practices are thought to reflect the organizational culture.

This study adds to the organizational culture research, by increasing the knowledge about two, less researched culture types, market and adhocracy cultures. To date, research that links organizational culture and psychological contracts has researched clan and hierarchical cultures. Market and adhocracy cultures share the external focus and need to adapt to a fast changing work environment. As such, the goals of an organization should also impact the psychological contract. Prior research has found that market cultures are negatively associated with trust and equity of rewards, as well as leader credibility (Zammuto & Krakower, 1991). A strong focus on achievement is likely to produce high levels of competitiveness and possible conflicts. Organizations facing a large amount of competition for their products or services may seek to establish more transactionally oriented contracts, consistent with a goal to be flexible and reactive to a changing external environment (Shore & Tett, 1994). The emphasis on centralized decision-making is not in accordance with the principles of participation, which is of great importance to the Norwegian employee. Accordingly, market cultures were negatively associated with employee and employer agreement on the psychological contract, as hypothesized.

The more flexible organizational structuring, characterizing adhocracy cultures, was thought to evoke a more positive association between employer and employee agreement on the psychological contract. The employment system in Northern Europe and, more specifically, in Scandinavian countries, differs from that in Great Britain and the US, in both a legal and a structural manner. To my knowledge, not much research on the psychological contracts and organizational culture has been conducted in the Scandinavian work context. The questionnaires were sent out to a variety of organizations, which differed in size, covering both the public and the private sector, across different industries, and, as such, should capture the Norwegian work context to a satisfying degree.

The present study did not find a significant effect of adhocracy-oriented cultures on employee and employer agreement on the psychological contract. This is contrary to what was expected, since members of an adhocracy-oriented organization are urged to take risks and be creative, in order to reach their ends, which are cutting-edge input and innovation (Hartnell et al., 2011). In order for the employees to be creative and innovative, the working
environment should facilitate this, and thus provide the organizational resources necessary to achieve this goal. It is possible that employees in the external focused organizations become more committed to their occupations (Van Vuren, Veldkamp, de Jong & Seydel, 2007). If managers want to enhance the affective bond employees tied with their organizations, they should not let their external focus overshadow the interpersonal relationships and supportive environments that characterize more internal oriented cultures. The culture of an organization impacts aspects of social relationships, more or less salient to organizational members (Erdogan, Liden & Kraimer, 2006). The external orientation that characterizes the adhocracy culture type is supported by a flexible organizational structure (Hartnell et al., 2011). It is possible that the organizational structure in these organizations could be too flexible, such that the employees loose the understanding and importance of performing their tasks. A fundamental belief in adhocracy cultures is that an idealistic and innovative vision induces members to be creative and take risks. If innovation is held as a value, the organization’s structure and systems, including the reward system and performance appraisal system, should support innovation. Is the strategy consistent with the concept of innovation? Are there other values or beliefs in direct conflict with the idea of innovation? And do the employees have the skills and behaviours necessary to be innovative?

Denison and Mishra (1995) found when comparison survey data and case studies, that survey measures of culture were expectation dependent and context dependent. As such, this study captures this to some degree, in that agreement on the psychological contract addresses the expectations, which the employee and employer can agree upon, or not. It is possible, though, that shared norms and practices may be determined by the conditions and realities that employees face on a day-to-day basis, independent of the values and assumptions of top management. Employees in an organization can be fully aware of behavioural expectations without being conscious of, or internalizing, the values and assumptions that lie on the core of these expectations (Glisson & James, 2002).

Limitations and future research

As with any study, this study has some limitations. First, the use of cross-sectional employee data implies that cause and effect relationships cannot be inferred from the findings reported here. Future research could adopt a longitudinal research design to address the causal relationships.
Second, psychological contract theory (Rousseau, 1995) suggests that organizations have multiple agents who may describe the company’s view of reciprocal obligations, which underlies the employment (psychological) contracts. Such agents could include the immediate supervisor, human resource practitioners or top managers. Thus, not all the perceptions of the organization’s expected inducements come from one source, and not all sources are equally weighted in the building of the employee’s expectations (Turnley & Feldman, 1999). Determining who speaks for the organization is a major challenge (Dabos & Rousseau, 2004; Guest & Conway, 2002). In this study we did not distinguish between the different company agents, and one should be aware that the employee is “likely to view the manager (supervisor) as the chief agent for establishing and maintaining the psychological contract” (Shore & Tetrick, 1994, p. 101).

Third, in measuring the psychological contract content, not all categories of content are included. It is beyond the scope of this study to incorporate all variables. Therefore, job security and participation were selected on the basis of scientific literature. Job security because it is considered an essential part of the relational psychological contract, and participation, as this seems especially relevant to the Norwegian employing system. When measuring the organizational culture, only managers were asked to rate the organization according to the four culture types. Cultural values and beliefs are shared among members, but cultural meaning can also be highly contextualized (Denison & Mishra, 1995). It could be that in-depth measures (quantitative and/or qualitative) from a broad range of organizational members could provide a more comprehensive picture of organizational culture and subsequent outcomes.

Fourth, the use of difference scores in measuring employee and employer agreement as an outcome variable could hide the true relationship (Edwards, 1994), and the results should be interpreted with caution. This study combines the comparison of employee and employer perceptions into a single score (gap variable). As such, this method suffers from conceptual and methodological problems associated with difference scores (Edwards, 1994). In particular, difference score methods confound the effects of employer and employee agreement, thereby implying that both components contribute equally to the relationship (Lambert et al., 2003).

These limitations, however, are compensated for by the methodological strengths of this study. The data were based on both employees’ and employers’ perceptions, thus, concerns about common method bias should be minimized.
Implications for practice

The pervasiveness of an organization’s culture requires that managers recognize the underlying dimensions of their organization’s culture and their impact on employee satisfaction and commitment, work-group cohesion, strategy implementation, as well as organizational performance (Odom, Boxx & Dunn, 1990). Quite a few of the organizations in this study conceive themselves as market cultures. The external focus characterizing this culture, combined with their ends, (e.g., increased market share and profitability) seem to be characteristic of many aspects of social, economic and political life in Norway today. Managers in such market-oriented organizations should be aware of the results of this study; that market cultures are negatively associated with employee and employer agreement of what constitutes the psychological contract. Job security and participation matters to employees, and to be aware of this, and actively incorporate this into the psychological contract, will be beneficial to the market-oriented organizations. A key issue for managers in all organizations, regardless of their company culture, is to manage the psychological contract so that the dysfunctional consequences of breach are minimized.

In order to enhance positive work attitudes, organizations should explore ways to develop appropriate cultural values (Lee et al., 2016). This study shows that agreement on the content of the psychological contract matters, and that such an agreement can foster a stronger affectively committed workforce. As such, human resource management practitioners can construct and reinforce cultural norms, which can influence a wide range of desirable employee outcomes. For example, organizations could increase and encourage more open communication to enhance employee awareness of what is expected of them, what are the organization’s goals, and providing more opportunities for employees to participate.

Conclusion

This study found that there are indeed two sides to any story. Employee and employer agreement on the psychological contract dimensions job security and retention, and participation, are associated with higher levels of employee affective commitment. When the employee rates the contract higher than the employer, the employee is more committed. Market cultures were associated with less employee/employer agreement on psychological contracts, while no significant relationship was found between adhocracy cultures and subsequent agreement.
References


