Changes in Newcomers’ Psychological Contracts During Organizational Socialization: A Study of Recruits Entering the British Army

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Running head: NEWCOMERS’ PSYCHOLOGICAL CONTRACTS

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Abstract

A study into changes in the psychological contracts held by newcomer recruits into the British Army is reported. Following a review of the disparate literatures on organizational socialization and the psychological contract, the need for integrative research which examines changes in perceived expectations during the organizational entry process is asserted. Four specific hypotheses are derived from this review. A sample of 880 recruits completed questionnaire measures on day one and 314 subsequently eight weeks into training. Responses were compared against a sample of 1157 experienced “insider” soldiers. It was found that newcomers’ expectations of the Army increased significantly on several dimensions; that these changes were predicted by learning about Army life; that the perceived importance of dimensions of Army life increased; and most importantly, that these changes were generally toward the insider norms of experienced soldiers. The implications of the developing nature of the psychological contract are discussed.
During organizational socialization individuals enter organizations as naive newcomers, and have to make sense of new environments (Louis, 1980; Weick, 1995). Hence, this period of organizational entry is characterized by newcomer knowledge acquisition in a number of domains relating to task responsibilities, the work group, and the organizational culture (Anderson & Thomas, 1996; Morrison, 1993a, b; Ostroff & Kozlowski, 1992). As part of this learning process, newcomers will elaborate the rudimentary psychological contract they hold at entry in line with organizational reality (Anderson & Ostroff, 1997; Dunaher & Wangler, 1974; Hiltrop, 1995; Levinson, Price, Munden, Mandl & Solley, 1962; Nadler, Hackman, & Lawler, 1983; Shore & Tetrick, 1994). In this paper, we focus on the development of newcomers’ psychological contracts during organizational socialization, an area which has received little empirical research attention.

**The Psychological Contract Defined**

The concept of a psychological contract was first introduced by Argyris in 1960, and by Levinson, Price, Munden, Mandl & Solley in 1962. Levinson et al. argued that the contract is implicit, mutual, and frequently antedates the formal employment contract. It consists of an interplay of implicit expectations; both employer and employee tacitly accept the others’ expectations, with this interdependency binding the two parties together. Thus, Levinson et al. asserted that it is this mutuality of expectations “with its inherent obligatory quality and its system of rewards, [which] constitutes a psychological contract” (p. 36). The concept of the psychological contract has retained these core elements in applied psychological research ever since. Thus, Rousseau (1995) defines the psychological contract as dependent on “promises, reliance, acceptance, and a perception of mutuality” (p. 22).

In contrast to the continued general consensus on what the psychological contract refers to, its constituent dimensions have remained elusive and have not been generally agreed upon, with different researchers developing varying operationalizations on both theoretical and empirical foundations (Freese & Schalk, 1996). The dimensions used to measure the psychological contract are summarized in Table 1. From this, it can be seen that researchers have proposed either two or
three types of psychological contract, such as the “transactional” and “relational”
division proposed by Rousseau and her colleagues (Rousseau, 1990; Robinson,
Kraatz, & Rousseau, 1994). Researchers have used various methods to develop these
dimensions. Empirical methods have included interview research with personnel
and human resource professionals (Robinson et al., 1994), with employees and
employer representatives (Herriot, Manning, & Kidd, 1997), and asking open-ended
questions of employees in a survey (Robinson & Rousseau, 1994). Researchers have
also composed dimensions based on previous theoretical work. Thus, Schalk, van
den Bosch, and Freese (1994) developed their items from work by Kotter (1973) and
also from Lofquist & Davis’ (1969) work values. The overview of the dimensions
used in previous research, provided in Table 1, highlights that there has not been
general agreement on the dimensions constituting the psychological contract.
Indeed, it is possible that the dimensions may differ according to the research setting
(Herriot, Manning, & Kidd, 1997). Thus, research with US MBA students has
revealed dimensions of performance-related pay and rapid advancement (Robinson,
1995, 1996; Rousseau, 1990; Robinson, Kraatz, & Rousseau, 1994), whilst a
representative sample of the British working population revealed employees to most
frequently mention a safe working environment as an employer obligation (Herriot,
Manning, & Kidd, 1997). Further, as Arnold (1996) notes, research on the
psychological contract may itself influence respondents by forcing the implicit
contract terms to be made explicit, although this problem may be avoided if research
relating to the development of the contract dimensions is separated from the
subsequent measurement of the dimensions (e.g., Rousseau, 1990; Schalk, van den
Bosch, & Freese, 1994).

Originally, research on the psychological contract focused on expectations
(Argyris, 1960; Herriot, 1984; Schein, 1980). More recently, there has been a shift to
research obligations and a concomitant emphasis on the greater implications of
broken obligations for the employee-employer relationship (Rousseau, 1989, 1990;
Rousseau & Parks, 1993). However, the use of the terms expectations and obligations has been virtually interchangeable even recently (Herriot, Manning & Kidd, 1997; Robinson, Kraatz, & Rousseau, 1994). Since the psychological contract has been used in most studies as an explanatory and predictive framework akin to a cognitive schema (Herriot, 1984; Rousseau, 1995; Rousseau & Parks, 1993; Schein, 1980; Shore & Tetrick, 1994), it is not clear that there would be any difference between a perceived obligation of action or expectation of action when the action is carried out (Arnold, 1996). Both confirm the psychological contract’s inferences. Rousseau (1989, 1990) proposes that it is with respect of violations of the contract that the differences are apparent, since violations of obligations will severely damage the contract by undermining the essential element of trust whereas, she argues, violation of expectations leads to disappointment, a less emotional outcome. This has subsequently been confirmed by Robinson (1995, 1996) in a study of MBA graduates over the first 30 months following organizational entry. Specifically, she found that psychological contract violation predicted additional variance over unmet expectations for outcomes of trust, satisfaction, and commitment. Importantly, Robinson measured violation of the psychological contract at 18 months post-entry. By this point, organizational newcomers are likely to be near the completion of organizational socialization toward becoming organizational insiders, with a complete and hence violable psychological contract. However, at entry, it is likely that the majority of promises existing between newcomers and their organizations are little further developed from those set out in the employment contract. Essential underpinnings of the psychological contract, such as trust, will only be developed over time based on experiences in the organization (Robinson, 1995). Thus, for organizational newcomers with rudimentary psychological contracts, it seems likely that perceptions of obligations develop over time as part of the sense-making process of organizational socialization (Louis, 1980), perhaps developing both from the employment contract and from newcomers’ pre-entry ideas of what the organization can be relied on to provide and what the organization will value in return (Dunahee & Wangler, 1974; Shore & Tetrick, 1994).

Changes in Newcomers’ Psychological Contracts
Organizational socialization is a stressful period for newcomers due to the novel and uncertain environment which they are entering (Louis, 1980; Nelson, 1987; Nelson & Quick, 1991; Schein, 1978). Newcomers, it appears, try to reduce this uncertainty by learning about the organization and how to function effectively within it (Chao, O’Leary-Kelly, Wolf, Klein, & Gardner, 1994; Morrison, 1993a, b; Ostroff & Kozlowski, 1992). Over time, as newcomers gain relevant knowledge, they have an improved understanding of what is expected of them in their role and what is provided by or in the organization (Hiltrop, 1995). Such knowledge about the realistic expectations between the two parties to this employment relationship, that is, the “fleshed out” employment contract, in turn informs and updates the psychological contract (Shore & Tetrick, 1994).

All psychological contracts are dynamic, allowing for their adjustment over time according to circumstances (Hiltrop, 1995; Schein, 1980; Sparrow, 1996). Thus, change can be motivated by internal or external factors, and may vary according to the type of employment relationship (Rousseau, 1995). This dynamic aspect of the psychological contract is particularly apparent in newcomers’ psychological contracts since the accelerated learning that occurs early on during organizational socialization informs and influences the psychological contract leading to its elaboration and adjustment over time (Ashforth & Saks, 1996; Bauer & Green, 1994). Despite the importance of understanding how newcomers revise the psychological contract during organizational socialization, only one published empirical study has been carried out on the development of newcomers’ psychological contracts, looking at change over a relatively long period of time. Robinson, Kraatz, and Rousseau (1994) surveyed graduating MBA students just prior to the end of their studies and again two years later. They investigated respondents’ perceptions of seven employer obligations and eight employee obligations (see Table 1). Over this two year period, employees’ perceptions of employer obligations had increased significantly for three of seven dimensions (advancement, high pay, and merit pay), and decreased significantly for one dimension (training). With regard to eight perceived employee obligations, five of the seven dimensions decreased significantly (overtime, loyalty, transfers, notice, and minimum stay). Overall, the psychological
contract shifted over the two years so that the perceived obligations of employers increased whilst those of employees decreased.

This single study by Robinson, Kraatz, and Rousseau (1994) suggests, therefore, that newcomers’ psychological contracts evolve quite considerably over time. However, it is unclear how rapidly such changes occurred since the MBA graduates were measured two years post-entry. Longitudinal research on organizational socialization has shown that newcomer adjustment occurs most rapidly immediately following organizational entry, reaching relative stability as early as four months into job tenure (Ashforth & Saks, 1996; Morrison, 1993a, b). For example, Morrison (1993a, b) investigated newly-recruited accountants at two weeks after training, at three months, and at six months. She found that socialization measures were relatively stable across time, with outcomes at the first measurement point strongly predictive of their values at the last measurement point. Thus, Morrison states that “early levels of socialization are highly important in determining later socialization” (1993b, p. 179). It is likely that such primacy effects of the early period of organizational socialization apply to newcomers’ psychological contracts. Combining this expected early adjustment of the psychological contract with the previous research results of a general increase in employees’ perceptions of employer obligations, we hypothesized:

Hypothesis 1: Newcomers’ perceptions of their employer’s obligations will change over time, with the majority of changes being increases.

The Role of Knowledge in Psychological Contract Change

Recent research in organizational socialization has largely taken an “information acquisition” perspective (Anderson & Thomas, 1996; Chao, Kozlowski, Major, & Gardner, 1994; Ostroff & Kozlowski, 1992), emphasizing the newcomer’s role as a proactive learning agent in socialization. Newcomers’ knowledge acquisition during socialization has been shown to affect important performance and mental health outcomes including performance, job satisfaction, commitment, and turnover (e.g., Ashforth & Saks, 1996; Chao et al.; Major, Kozlowski, Chao & Gardner, 1995; Morrison, 1993a; Nelson & Sutton, 1990; Ostroff & Kozlowski).
Similarly, it is highly likely that knowledge gained during organizational socialization will affect the psychological contract (Nadler, Hackman & Lawler, 1983). Indeed, Louis (1980) posited that the process of psychological contracting could aid in understanding the ways by which newcomers learn important organizational information. This may be true in some circumstances where, for instance, organizations explicitly negotiate the new employee’s psychological contract and, in so doing, facilitate learning about the organization. There is no direct evidence from the psychological contract literature on newcomer learning through explicit contracting, but research on realistic job previews suggests that these are effective in giving newcomers more realistic and knowledgeable perceptions of their new organization (Premack & Wanous, 1985). In other cases, it is likely that general learning comes first and this enables the new employee to adjust his or her psychological contract accordingly (Nadler, Hackman & Lawler, 1983). Whichever scenario is the case, it seems likely that as newcomers become more knowledgeable, their psychological contract will develop and change, at times quite fundamentally if substantial new knowledge is gained during the socialization process. This stated, there has been a notable absence of research into this question. Thus, it is unclear exactly how the psychological contract changes as a result of knowledge acquisition, and this undoubtedly constitutes a shortcoming in our understanding of how the psychological contract develops over time. Because of this paucity of existing research, we hypothesized in general terms that:

**Hypothesis 2:** Newcomers’ acquisition of socialization knowledge over time will influence their perceptions of their employer’s obligations.

### The Role of Salience in the Psychological Contract

Both individual and organizational factors will influence what information is available and what newcomers attend to as they develop and revise their psychological contracts. Salancik & Pfeffer (1978) proposed that individuals undergoing adaptation to a new situation will attend to the social context for information. Similarly, Shore and Tetrick (1994) propose a model of the development of the psychological contract incorporating organizational and also
individual factors. Thus, newcomers’ goals influence what information they seek and attend to as relevant to their psychological contract while different agents in the organization will also have an influence primarily in informational roles, for example recruiters may “sell” aspects of the organization, whereas coworkers and supervisors may provide information allowing newcomers to revise their psychological contracts. For example, newcomers may not consider pay as salient or important until they learn that they have to personally finance the purchase of necessary equipment. This may be proposed to occur due to their individual motivations and notions about pay, but it may also be further influenced by information from the organization, such as whether coworkers accept or begrudge these additional expenses.

Although salience, or importance, has been proposed to have importance for newcomers (Salancik & Pfeffer, 1978; Shore & Tetrick, 1994), it has not been investigated specifically in organizational socialization research. However, there is evidence for organizational contextual information affecting socialization, for example that the sources and types of information that newcomers have access to have different utility for their learning and adjustment (Louis, Posner, & Powell, 1983; Morrison, 1993a, b; Smith & Kozlowski, 1994). We proposed earlier that knowledge gained during organizational socialization will influence the development of the psychological contract (Hypothesis 2). Here, we extend this line of argument by proposing that, through organizational socialization and the concomitant acquisition of knowledge, newcomers’ developing psychological contracts will also incorporate a salience dimension.

Previous research on the psychological contract has indirectly investigated salience (Herriot, Manning, & Kidd, 1997). Herriot et al. used the frequency with which dimensions of the psychological contract were mentioned to infer their importance for both employees and employer representatives. Their results showed significant differences between these groups in the frequency with which they mentioned dimensions of the contract relating to both employee and employer obligations. Further research directly investigating the salience of different psychological dimensions is warranted. We propose that newcomer learning during
organizational socialization will affect the relative salience of psychological contract dimensions. Due to the lack of previous longitudinal research on salience, we make no predictions of the direction of change, and hypothesized:

**Hypothesis 3:** During organizational socialization, newcomers will show change in the salience of the various dimensions of the psychological contract regarding their perceptions of their employer’s obligations.

**The Role of Insiders in Newcomer Socialization**

As we have outlined above, newcomer socialization can be characterized, among other things, as a period of knowledge acquisition. Louis (1980, 1990) proposed that coworkers provide information and cues which enable newcomers to cope with surprises, interpret events, and learn the appropriate attitudes, opinions and norms. That is, organizational insiders help to acculturate newcomers into the organization (Morrison, 1993a). Indeed, research has shown that newcomers rate peers, senior coworkers and supervisors as both the most available and helpful sources of information, more useful even than formal induction procedures designed by the organization (Louis, Posner, & Powell, 1983; Nelson & Quick, 1991). Furthermore, insiders can act as information gatekeepers, helping or hindering newcomers from accomplishing their jobs competently. For example Feldman (1976) found that experienced staff concealed procedural norms specific to the organization from new hires. This prevented otherwise competent newcomers from performing their jobs in the organizationally-approved manner, with insiders only divulging essential information when they felt they could trust newcomers.

During organizational socialization, newcomers develop and adjust their cognitions according to the information made available and sought out in a proactive manner by the new recruit (Louis, Posner, & Powell, 1983; Morrison, 1993a, b; Ostroff & Kozlowski, 1992; Smith & Kozlowski, 1994). According to Van Maanen and Schein (1979), organizational socialization “entails the learning of a cultural perspective...[i.e.] a perspective for interpreting one’s experiences in a given sphere of the work world” (p. 212). A significant proportion of relevant information will originate from other organizational members and, since reality is socially-
constructed, learning from those conversant with the organizational environment is essential to gaining an understanding of the organization’s reality and therefore establishing a viable psychological contract (Louis, 1980, 1990; Rousseau & Parks, 1993). Thus, newcomers’ psychological contracts are likely to change towards those of experienced insiders as they become accepted as an integral part of the company.

Specifically relating this consensus on organizational reality to the psychological contract, it is likely that there is some agreement among insiders on what the organization is obliged to provide and, in return, what they as employees are expected to contribute (Anderson & Thomas, 1996; Herriot, 1984; Rousseau & Anton, 1991; Shore & Tettick, 1994). Herriot, Manning, and Kidd (1997) give examples of situations where insiders seem to have a general agreement of their reciprocal obligations to the organization. Their research shows unequivocally that consensus exists amongst employees regarding aspects of their psychological contracts, and shows how contracts can differ across organizations.

Consensus on the content of psychological contracts is also likely due to the similar values and attitudes of employees within organizations (O’Reilly, Chatman, & Caldwell, 1991; Chatman, 1991; Schneider, 1983, 1987; Schneider, Goldstein, & Smith, 1995; Schneider, Kristof, Goldstein, & Smith, 1997). Schneider’s attraction-selection-attrition (ASA) theory proposes that individuals and organizations are attracted to, select, and stay with each other on the basis of similarities. Schneider et al. (1995) review the direct and indirect evidence which is supportive of the ASA framework, showing that homogeneity of personality exists within organizations (O’Reilly, Chatman, & Caldwell). Moreover, Chatman’s research shows that, with regard to value match, socialization has additional effects over selection and, indeed, that socialization accounts for a greater amount of value match than selection (see also Chao, O’Leary-Kelly, Wolf, Klein, & Gardner, 1994). Applying these findings to the psychological contract, employees within an organization are likely to emphasize similar dimensions of the contract with the degree of similarity likely to increase over time as a result of socialization. It may also be the case that employees with similar values have cognate types of contract (i.e., transactional or relational focus)
On the basis of these existing study findings, we hypothesized as follows:

**Hypothesis 4:** Newcomers’ salience of the various dimensions in the psychological contract composing perceptions of their employer’s obligations will change towards insider norms.

**Method**

**Host Organization**

We were fortunate in that we conducted our research in the British Army where previous research by the Defence Evaluation Research Agency (DERA) had developed relevant psychological contract dimensions. DERA conducts a monthly survey of soldiers throughout the Army covering fifteen broad dimensions of Army life which are considered central to soldiers’ life at work and which are influenced by their employer, the Army. The dimensions covered are: career prospects, job security, job satisfaction, social/leisure aspects, pay, effects on family, accommodation, training, relations with superiors, postings, allowances, working conditions, educational opportunities, communication, morale. The utility and relevance of these dimensions is ensured since they were developed internally by DERA over time specifically for the Army. DERA’s research, in addition to providing relevant dimensions, supplied us with data on these dimensions taken from a large sample of experienced “insider” soldiers.

The research reported here was carried out as part of a longitudinal study of recruits going through initial training into the British Army at two training sites. Recruits go through training collectively, organized into “sections” of between 32 and 44 new recruits. They have contact with experienced soldiers, most particularly the individual in charge of their daily training, and also Physical Training instructors, and more haphazardly with medical staff, the padre, and other experienced soldiers involved in running the ATR. Initial training takes 10 weeks, although failure on critical tests and in particular medical injuries can prolong this process. There are three main components of this initial training: Classwork (e.g.,
international law, first aid); fieldwork (e.g., camouflage, weapons handling); and physical training (e.g., drill, physical fitness).

**Respondents**

**Newcomers.** Recruits responded to questionnaires at day 1 (N = 880) and the end of week 8 of training (N = 314, matched sample N = 249). The lower response rate at time 2 is partly due to premature termination of the research at one training site. Approximately four fifths of respondents were male (196 males and 53 females) which is representative of this population. Recruits’ average age was 19 (M = 19.18, SD = 2.36), having left full-time education at 17 (M = 16.72, SD = 1.32). The majority of recruits were single (78%), with relatively few married or divorced. In terms of recruits’ previous experience with the Armed Forces, approximately one third of recruits had previously been a member of the Territorial Army, Army Cadet Force, Combined Cadet Force, or a similar organization. Also, about one third of recruits had close family members (father, mother, brother, or sister) in the Armed Forces. There were no significant demographic differences between the recruits at the two training sites.

**Insiders.** We were also able to obtain data from organizational insiders, that is experienced soldiers, from DERA’s monthly attitude survey. Soldiers are randomly chosen by a computer as a representative sample of the soldier population and are sent questionnaires. The soldiers chosen remain anonymous and, therefore, response rates cannot be calculated. We used the May 1995 sample (N = 1157). Due to the anonymous nature of the survey, few demographic data were available. It is known that the majority had at least 6 years of service (72%), indicating that the soldiers in this sample had a good inside knowledge of the British Army. In addition, the modal age range for non-ranked service personnel is 20-24 years, only slightly higher than the recruit mean average of 19 years (the mean age in the British Army is 29, although this is influenced by the positively skewed age distribution from 16 to over 50 years).

**Procedure**

Data were collected over a 6 month period between December 1995 and May 1996. The data were collected at day 1 when recruits have only a naive
understanding of organizational reality, and week 8 which is near the completion of training and is the first opportunity recruits have to leave. Questionnaire administration was integrated into the training timetable and was conducted by training staff according to explicit instructions. Researchers visited several administration sessions to ensure that correct procedures were being used.

**Measures**

**Psychological Contract Dimensions.**

Of the fifteen questions from the monthly attitude survey concerning what was expected of the Army, seven were selected based on their relevance to the recruit population in a similar manner to the Army as a whole. For example, training and educational opportunities items were omitted since recruits’ responses while in the training process would be expected to be strongly skewed. Similarly postings was omitted as irrelevant to recruits at this early stage. The relevance of the selected items was verified through piloting with DERA experts, recruits, and training staff. The choice of seven as the cut-off for the number of dimensions was based on a number of criteria. The primary reason was practical: Since recruits were asked to give two ratings for each psychological contract dimension, these questions were perceived as complex and lengthy, and it was requested that they be limited to two pages within the overall questionnaire. Moreover, the relevance of the dimensions was already proved through considerable piloting in previous DERA research, but were unlikely to reflect all possible dimensions of the psychological contract for this population since, as Herriot, Manning, and Kidd (1997) emphasize, these are specific to individuals. Thus, given the exploratory nature of this research and the above considerations, the seven dimensions we retained were career prospects, job security, job satisfaction, social/leisure aspects, pay, effects on family, and accommodation. Item piloting comparing expectations and obligations phraseology revealed that the strength of soldiers’ expectations of the Army made obligations terminology unusable. For example, the question “to what extent does the Army oblige/owe you accommodation” was viewed as inappropriate when pilot-tested, since British Army barracks are separate from the general community and are viewed unquestioningly as being part of the Army’s responsibility (see also
Therefore, we used expectations terminology since this has been consistently employed in research and made better sense to respondents. Thus, there were two questions for each dimension, worded “Do you expect X to be poor or good” (1-7 scale from “very poor” to “very good”) and “How important is X to you” (3 point scale from “not important”, “quite important”, “very important”; a fourth point, “does not apply”, was treated as missing data), thereby providing information on the relative salience of these dimensions. To summarize, we obtained two ratings from recruits for each dimension, of expectations and importance, and we obtained an importance rating on each dimension for the experienced soldier sample.

**Socialization Knowledge.** In addition, a socialization knowledge measure developed by the present authors was administered. This comprised twenty-one items measuring four components of socialization knowledge found to be important in past research. These were: Social (8 items), role (6 items), interpersonal support (3 items), and organizational (4 items). Social items measured recruits’ integration and camaraderie with their colleagues. In this setting, questions referred to recruits’ “section” with whom they work and live during training (e.g., “I can easily be identified as ‘one of the team’”). Role knowledge referred to recruits’ knowledge and mastery of skills, and understanding of performance requirements (e.g., “I understand what my personal responsibilities are”). Interpersonal support measured newcomers’ establishment of a network of sources for help with various problems which newcomers’ might experience (e.g., “I have someone I feel comfortable going to if I need help with personal problems”). Lastly, organizational knowledge items asked about knowledge or familiarity with the wider structural and cultural aspects of the organization (e.g., “I am familiar with the unwritten rules of how things are done at this organization”). A Likert scale was used to measure all socialization knowledge acquisition, from 1 “not at all” to 7 “totally”. Cronbach’s alphas for each dimensions were as follows: time 1: Social (.87), role (.82), interpersonal support (.89), organizational (.78); time 2: Social (.93), role (.88), interpersonal support (.81), organizational (.76).

**Results**
The data were first analyzed to investigate whether any significant differences existed between recruits having previous experience of the Army, either personally (for example, if they had been a member of the Army Cadet Force) or vicariously through having close family members in the Armed Forces. Looking first at the variables measuring recruits’ psychological contracts, MANOVAs showed that the scores did not differ between these groups at times 1 or 2 (previous personal Army experience time 1: \( F_1 (14, 628) = 1.10, p > .05 \); time 2: \( F_2 (14, 221) = 0.55, p > .05 \); family members in the Army time 1: \( F_1 (14, 628) = 0.69, p > .05 \); time 2: \( F_2 (14, 221) = 1.23, p > .05 \}). Similarly, there was no difference for socialization knowledge for those with family members in the Army at time 1 (\( F_1 (4, 432) = 1.03, p > .05 \)) nor at time 2 (\( F_2 (4, 204) = 1.24, p > .05 \)). For those recruits with previous personal experience of the Army, there was a significant difference in socialization knowledge at time 1 (\( F_1 (4, 432) = 6.61, p < .001 \)) but not at time 2 (\( F_2 (4, 204) = 2.40, p > .05 \)). The time 2 significant difference was investigated with t-tests for the four socialization knowledge domains, with Bonferroni correction setting alpha at .0125. At time 1, recruits with previous experience of the Army showed greater organizational knowledge (\( M_1 = 5.09; M_2 = 4.61; t = 5.42, p < .001 \)). This was taken account of in testing Hypothesis 2.

Table 2 shows the means, standard deviations, and t-tests for recruits’ expectations at times 1 and 2. Recruits have moderately high expectations of what the Army will provide, with ratings for all seven dimensions above 4.5 on a 7 point scale at both time points. Ratings of career prospects, job security and job satisfaction are particularly high at both times 1 and 2, showing that recruits expect these dimensions of Army life to be good both at day 1 and 8 weeks later. With regard to change over this 8 week period, recruits’ expectations for most of the dimensions appear to increase, apart from career prospects and job satisfaction which appear stable.

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Insert Table 2 about here
Hypothesis 1. Hypothesis 1 proposed that recruits’ expectations of the Army increase significantly over time. In keeping with Robinson, Kraatz, and Rousseau’s (1994) analysis, this hypothesis was tested with multivariate analyses of variance (MANOVAs) with time 1 expectations as the dependent variables and time 2 expectations used as covariates. Recruits’ expectations of the Army did change significantly over time ($T^2 = 0.68, F(7, 235) = 23.00, p < .001$; Hotelling, 1931), and therefore further analyses were performed using paired $t$-tests to investigate specific differences. Although changes were proposed a priori, Bonferroni correction (Howell, 1992) was applied to counter the possibility of inflating type 1 error with the large number of comparisons being made. After Bonferroni correction, four of the seven expectations of the Army increased significantly over the initial 8 week period following organizational entry. These were job security, social/leisure aspects, effects on family, and accommodation. These results partially support Hypothesis 1, and are consistent with Robinson et al.’s results in which the trend was for employees to perceive their employer’s obligations as having increased over a two year period. Of the seven dimensions they investigated, three increased significantly (advancement, high pay, and merit pay) and one decreased significantly (training).

In summary, the results for Hypothesis 1 show that recruits’ perceptions of the exchange relationship with their employer alter during organizational socialization. Specifically, during the first 8 weeks of employment, recruits increased their expectations for four of seven dimensions reflecting the Army’s obligations to them. Hypothesis 1 is partially supported.

Hypothesis 2. Hypothesis 2 proposed that recruits’ knowledge acquisition during organizational socialization affects the development of the psychological contract. The means and standard deviations for the four knowledge domains at time 2 were as follows: Social $\bar{M} = 6.17, \bar{SD} = 0.84$; role $\bar{M} = 6.29, \bar{SD} = 0.71$; interpersonal support $\bar{M} = 5.69, \bar{SD} = 1.30$; organizational $\bar{M} = 5.63, \bar{SD} = 0.88$ (measured on a 7 point scale from “not at all” to “totally”). By the end of week 8 of training, recruits have acquired most knowledge in the areas of social- and role-
related information, with interpersonal support and organizational also high. Thus, recruits possess high levels of knowledge relevant to the training setting by time 2.

As a preliminary step in testing hypothesis 2, we first examined the correlations between the knowledge acquisition scales at time 2 with the expectation variables at time 2, including only those four expectation variables which had showed change. These are reported in Table 3. The majority of these correlations were moderate and significant for job security, social/leisure aspects and effects on family, ranging from .14 to .39. Accommodation showed only two significant correlations across the knowledge domains, both of which were small.

The number of moderate significant correlations across the four knowledge domains suggests that there is overlap with the expectations dimensions. This was taken account of in testing Hypothesis 2, for which a three-step regression was conducted for each of the four psychological contract dimensions showing change across time. These multiple regressions are presented in Table 4. For each regression, we entered the time 2 psychological contract dimension as the dependent variable with the time 1 rating of this as the only independent variable in the first block, followed by all four dimensions of organizational knowledge at the first time point in the second block. This also controls for the greater level of organizational knowledge of recruits with previous experience with the Armed forces at time 1. In the third block, given the apparent overlap in the relationships of the four knowledge domains with the expectations dimensions (see Table 3), variables were allowed to enter in a stepwise manner if they fulfilled the significance criterion of $p < .05$. To summarize, we conducted a three-step regression analysis for each dimension, resulting in a total of four regression analyses.
The results were significant for three of the four dimensions: An increase in social knowledge accounted 5% of the variance in the time 1 to time 2 change for job security and 7% of that for effects on family. An increase in recruits’ role knowledge accounted for 7% of the variance in the time 1 to time 2 change in recruits’ ratings of social/leisure aspects. There were no effects of recruits’ increased socialization knowledge for changes in the accommodation dimension, as might have been expected since there were fewer significant correlations between these variables. Overall then, the results partially support Hypothesis 2, with the development of socialization knowledge predicting a small but significant proportion of the change in recruits’ rated expectations of the Army.

**Hypothesis 3.** Hypothesis 3 proposed that recruits’ importance ratings for the various dimensions change over time. The relationships between ratings for each dimension are shown as correlations in Table 5. Recruits’ means, standard deviations, and t-tests for importance ratings only at times 1 and 2 are shown in Table 6. This table also contains the means, standard deviations and t-tests for experienced soldiers’ importance ratings (discussed below under Hypothesis 4). Recruits’ mean importance ratings at times 1 and 2 show that they rate career prospects, job security, and job satisfaction as most important, with little apparent change across time. Importance ratings for the remaining four dimensions show more change from time 1 to time 2.

Again, to investigate whether recruits’ importance ratings changed significantly over the first 8 weeks of organizational socialization, MANOVAs were carried out with time 1 importance ratings as dependent variables and time 2 ratings as covariates. There was a significant change in importance ratings from time 1 to time 2 ($T^2 = 0.60, F(7, 225) = 19.21, p<.001$; Hotelling, 1931), and therefore further analyses were performed using paired $t$-tests with Bonferroni correction ($p<.007$) to investigate specific differences. Two of the seven importance ratings increased significantly over the initial 8 week period following organizational entry: Pay and
effects on family. Social/leisure aspects and accommodation both showed increases which approached significance. These results provide limited support for Hypothesis 3: Recruits’ importance ratings for the dimensions of pay and effects on family increased significantly during the first eight weeks of organizational socialization.

Hypothesis 4. Hypothesis 4 proposed that recruits’ importance ratings would change towards experienced soldier norms. The mean importance ratings of newcomer and experienced soldiers across the seven dimensions of employer obligations are shown in Table 6. It can be seen that recruits’ mean importance ratings at times 1 and 2 varied both above and below those of experienced soldiers. In order to compare these ratings, two MANOVAs were carried out comparing the time 1 and time 2 newcomer soldier ratings separately with those from experienced soldiers. Both Hotelling’s $T^2$s showed significant differences between the importance ratings given by recruits and experienced soldiers (time 1: $T^2 = 0.24, F (7, 1818) = 62.66, p < .001$; time 2: $T^2 = 0.14, F (7, 1432) = 28.67, p < .001$). Therefore, these were followed up with independent sample $t$-tests with Bonferroni correction ($p < .007$). These results are reported in Table 6. At time 1, recruits differed in their importance ratings of all expectations of the Army other than career prospects. Recruits rated job security and social/leisure aspects as more important than did experienced soldiers, and rated job satisfaction, pay, effects on family, and accommodation as less important. At time 2, four of these six differences remained: Compared with experienced soldiers, recruits again rated job security and social/leisure aspects as more important and rated pay and effects on family as less important. The differences were no longer significant for satisfaction and accommodation. Again, as for time 1, there were no differences on ratings of career prospects. These results give limited support to Hypothesis 4 showing that there are fewer significant differences between experienced soldiers and recruits at week 8 than there are at day 1.

Further analysis was undertaken investigating whether the changes that occurred during organizational socialization were towards the experienced soldiers’ norms. Only four dimensions were included, being those which showed significant
or marginally non-significant change for recruits between time 1 and time 2 (social/leisure aspects, pay, effects on family, and accommodation). In order to look specifically at changes in recruits’ importance ratings whilst taking account of experienced soldiers’ ratings, we subtracted time 1 and time 2 recruits’ scores individually from the experienced soldiers’ mean separately for each dimension. The experienced soldiers’ mean rating provided a baseline to enable us to look at change over time within-subjects for individual (rather than composite) variables. We would like to emphasize that this is not a traditional difference score method with its concomitant debate (e.g., Edwards, 1994; Tisak & Smith, 1994). Using recruits time 1 and time 2 “baselined” scores for the four dimensions, we conducted a repeated measures MANOVA to investigate change. The overall change from time 1 to time 2 scores was significant ($F(1, 248) = 24.69, p < .001$). Therefore, further analysis was conducted using paired $t$-tests with Bonferroni correction ($p < .0125$). These showed significant changes for pay ($t = 3.82, p < .001$) and effects on family ($t = 3.71, p < .001$) which increased towards the experienced soldier means. Thus, for the two dimensions on which recruits’ ratings significantly differed from time 1 to time 2, these changes were consistent with Hypothesis 4, being towards insider importance norms. Summarizing all the evidence for Hypothesis 4, of the six significant differences between the ratings of recruits on day 1 with experienced soldiers, four of these remained by week 8 (job satisfaction and effects on family having changed). Of the two significant changes in recruits’ importance ratings investigated under Hypothesis 3 (pay and effects on family), both of these were significant changes towards insider norms. Therefore, overall, there is some limited support for Hypothesis 4, that there is some change in newcomers’ importance ratings of the employer’s obligations in the psychological contract towards those of organizational insiders.

Discussion

Changes in Newcomers’ Psychological Contracts

Our results generally confirmed Hypothesis 1, that recruits’ adjusted their expectations of the Army upward over an eight week period. Recruits’ expectations
significantly increased for job security, social/leisure aspects, effects on family, and accommodation. Although we selected the psychological contract dimensions to overlap with those used in the Army’s internal survey, from a theoretical perspective these four dimensions could be considered as relational rather than transactional (Downes, 1988; Manning, 1991; Rousseau & Parks, 1993). That is, they are long term, less job-specific dimensions of the contract that can change according to circumstances, and which will have an affect on the relationship between recruits and their employer, the British Army. Only one of these, job security, has been used in previous research and was confirmed as being relational (Robinson, Kraatz, & Rousseau, 1994; Rousseau, 1990). The current research shows that relational aspects of the psychological contract can show upward change, reflecting the development of an ongoing trusting relationship between employee and employer. Indeed, given that relational aspects of the contract are more removed from the formal employment contract, they may be more dependent on experience of working in the organization and, therefore, may be expected to show more adjustment during organizational socialization (Shore & Tetrick, 1994). The benefits of increasing relational elements of the contract are many (e.g., greater extra-role & citizen behavior, loyalty) (Robinson & Morrison, 1995; Rousseau, 1995) but, in return higher absolute levels of employer expectations may make violations more likely, and the effects of violations may be more damaging to these relational aspects (Guzzo, Nelson, & Noonan, 1992; Robinson et al., 1994; Schein, 1980).

If our post-hoc categorization of these four dimensions as relational is accepted, then our research contrasts with that of Robinson, Kraatz, and Rousseau (1994) who found upward change for only employer transactional aspects of the contract, with one of four relational dimensions decreasing (training). The differences between our findings and Robinson et al.’s may be largely due to the sample used. Traditionally, soldiers identify strongly with the Army, reflecting a relational attachment whereas MBA students, used by Robinson et al., work in industrial settings and are likely to focus on commercial benefits resulting in a transactional connection (Hiltrop, 1995). These divergent emphases may result in
employees developing contracts focusing on different dimensions, in turn restricting which dimensions are developed or re-evaluated over time.

Another explanation of this discrepancy is possible. The differences could be due to the different time frames used, such that relational dimensions of the contract develop during early organizational socialization with a subsequent shift to transactional elements, reflecting either an increase in the relative emphasis given to transactional elements and/or a reduction in the weighting of relational elements. This links with research showing that newcomers establish an organizational identity during organizational socialization, reflecting a relational or affective bond with the organization (Ashforth & Mael, 1989; Chao, O’Leary-Kelly, Wolf, Klein, & Gardner, 1994; Fisher, 1986; Mansfield, 1972; Reichers, 1987). Newcomers’ organizational identity has been found to be related to reduced stress, role ambiguity and conflict, and greater job satisfaction, commitment, and performance (Ashforth & Saks, 1996; Mansfield; Chao et al.). Hence, it is likely that newcomers will be motivated to establish an affective or relational-type bond – such as can be reflected in the psychological contract – with the organization early on.

Subsequently, there is the question of whether this bond shifts to become more transactional over a number of years, either through an increase in the relative weight given to transactional aspects of the relationship with the organization and/or through a total shift away from relational aspects of the psychological contract.

Looking at longitudinal research on newcomers’ relationships with their employer, variables of organizational identification and commitment are commonly found in organizational socialization research and come closest to reflecting this (Guzzo, Nelson, & Noonan, 1992; Guzzo, Noonan, & Elron, 1994; Hiltrop, 1995). The findings from longitudinal research on organizational socialization generally show a stable pattern for these and other outcome variables, with most adjustment occurring early on (Ashforth & Saks, 1996; Bauer & Green, 1994; Morrison, 1993b). Different measurement intervals have been used, partly due to the lack of consensus on the time frame of organizational socialization (Ashforth & Saks). The different intervals that have been used have included three weeks and one year (Bauer & Green), two weeks post-training and six months (Morrison), and four and ten
months (Ashforth & Saks). All have shown relative stability of outcome variables across the two time points, with time 1 outcomes strongly predictive of time 2 outcomes. Thus, the evidence there is shows a picture of relative stability and, therefore, does not support that a shift in employee-employer relationships to a more transactional basis generally occurs. Such a change may only occur where violations or triggering events occur that stimulate a re-evaluation of this relationship (Guzzo, Noonan, & Elron; Robinson, Kraatz, & Rousseau, 1994). In summary, there is little research support for this second explanation for the difference in findings from those of Robinson et al. (i.e., that relational rather than transactional employer obligations increased).

The adjustments in recruits’ psychological contracts, shown in the results for Hypotheses 1 and 3, also reflect the speed with which change is occurring during the early stages of organizational socialization. This is important for organizational socialization research, where previously change has only been measured over a longer period (e.g., Ashforth & Saks, 1996; Bauer & Green, 1994; Morrison, 1993a, b; Ostroff & Kozlowski, 1992). The speed of socialization in the particular setting may be partly explained by the greater opportunities for social interaction (Reichers, 1987) due to the collective and residential nature of training, and also its formal nature, explicitly treating new recruits as learners (Jones, 1986; Van Maanen & Schein, 1979). Such off-site residential training is found in other industries, such as accountancy (e.g., Chatman, 1991), and it would be interesting to see whether a similarly rapid adjustment occurs in other settings. For the British Army, it shows that recruits’ rapidly adjust the employer side of the psychological contract during the initial eight weeks of employment.

The Role of Knowledge in Psychological Contract Change

Related to this, with the confirmation of Hypothesis 2, the results show that such changes are influenced by recruits’ greater understanding of their environment and their place within it. The time 2 correlations show social knowledge as the best predictor, agreeing with the significance of the social dimension of socialization found in previous research. For example, Ostroff and Kozlowski (1992) found social knowledge to be the primary area of newcomer learning, followed by role
knowledge, and Feldman’s (1976) research showed that social knowledge can be essential for newcomers to gain knowledge about other aspects of work. We propose that this test of the influence of organizational knowledge was very conservative since (a) the changes over time for the psychological contract dimensions were relatively small, and (b) that measurements were carried out over a short time interval. Hence, the fact that recruits’ social and role knowledge at time 2 significantly predicted changes in their expectations shows the importance of knowledge acquisition to newcomers’ socialization. In addition, the involvement of social knowledge in the development of cognitive constructs relating to the employee-employer relationship suggests that changes in employees’ psychological contracts are indeed towards a socially-constructed reality.

The Role of Salience in the Psychological Contract

Our third hypothesis, regarding salience, received only partial support. Recruits’ importance ratings for the seven dimensions all increased over the eight week period following entry, but only two of these were statistically significant (pay and effects on family). Although only two of the seven increases in salience were significant, it is possible that more significant increases would have been observed over a longer time period. Taken together with our findings that expectations of the Army increased (Hypothesis 1), these point to an upwards re-assessment of the employer’s contributions in the psychological contract. In Robinson, Kraatz, and Rousseau’s (1994) research, this was allied with a decrease in employees’ obligations in line with an instrumental perspective, and related to perceptions of employer violation of the contract. Thus, in their research this re-assessment of the contract appears to reflect a generally negative turn in the employment relationship. Although we have no evidence regarding changes in recruits’ perceived obligations or of violations, the upward changes in our research showed that recruits’ increased their expectations about how good the Army’s contributions would be, with this positive change partly based on their increased knowledge. This seems to indicate that recruits hold generally positive psychological contracts at this early stage of the employment relationship. The increases in importance ratings may also reflect recruits’ increased knowledge of organizational realities. During questionnaire
piloting, recruits in the later stages of training frequently mentioned pay in relation to the amount of equipment they had to buy and also talked about support from their families as being helpful. Recruits’ increased ratings could reflect that these are issues whose importance they had not considered or had under-estimated prior to entering training and which were, therefore, more likely to change as their salience became apparent.

The Role of Insiders in Newcomer Socialization

Our fourth hypothesis, that newcomer changes in salience for employer obligations would be towards insider norms, received marginal support. At both times 1 and 2, the importance of career prospects was similar for recruits and experienced soldiers. Recruits’ importance ratings for job satisfaction and accommodation significantly differed from experienced soldiers’ ratings at time 1 but not at time 2. Both of the two newcomer soldier ratings which significantly changed over time, pay and effects on family, did so towards the experienced soldiers’ norms. Thus, recruits’ importance ratings for job satisfaction, accommodation, pay, and effects on family all moved closer to those of experienced soldiers from time 1 to time 2. Taken overall, the recruits’ changes in their salience ratings of the seven dimensions measured here tended to be towards those of experienced soldiers.

Although we found changes in recruits’ importance ratings across the seven dimensions, it is possible that recruits’ importance ratings showed less rapid alignment than would be found in other organizations. Recruits are constantly with experienced soldiers as their trainers, but the formality of the trainer-student relationship may reduce the opportunities for informal interactions that would reveal insider norms. This may also be true for interactions with other experienced Army personnel at the training site, limiting new recruits’ exposure to insider norms. It is likely that recruits would show greater change towards experienced soldier norms over time through continued interaction with a wider variety of experienced soldiers, with adjustment continuing into recruits’ first posting. Such restrictions on learning would be likely to occur in any collective organizational
socialization procedure, where newcomers have more exposure to each other than to experienced organizational members (Jones, 1986; Reichers, 1987).

In summary, this preliminary evidence suggests that as recruits learn more about their new employment environment, the relative importance they assign to the different aspects of the environment move towards a socially-constructed norm as reflected by insiders (Anderson & Thomas, 1996; Jones, 1986). Indeed, this research is unique in investigating the development of the psychological contract during early organizational socialization and relating this to the development of knowledge of the organization, and the norms held by insiders. Our research supports a social-constructionist approach to organizational knowledge and reality: Recruits’ adjust their rudimentary psychological contracts according to their own understanding of the organization, and also in line with the understanding held by experienced organizational members (Louis, 1980, 1990; Van Maanen & Schein, 1979).

Study Limitations

There are several limitations to the present study. First, it was conducted within a single organization and hence we cannot be sure that similar results would be found in other organizational settings. However, in part this is also a strength as most previously published studies have been inter-organizational, frequently carried out on graduating students taking up employment in various industries. Moreover, theoretical conceptions of the organizational socialization process have referred to examples from such military settings (Van Maanen & Schein, 1979) so it would be expected, from a theoretical perspective, to be an appropriate research site. A further advantage of using recruits was that it shows the applicability of the psychological contract among employees with a lower educational background.

The dimensions used in our research should also be mentioned. We chose these for practical reasons, in that they had been regularly used in previous research with the British Army and therefore their comprehensibility and relevance to this population were ensured. Further, piloting and expert advice were used to select dimensions most relevant to recruits. Finally, insider norm data were available for salience allowing us to make an innovative contribution to research on psychological contracts. Although the dimensions were chosen for practical reasons, several of the
dimensions included in our research are similar to those used previously. Both Herriot, Manning, and Kidd (1997) and Rousseau and colleagues (Robinson, Kraatz, & Rousseau, 1994, Rousseau, 1990; Rousseau & Tijoriwala, 1996) include dimensions that are arguably similar or identical to job security, pay, career prospects, effects on family, social/leisure aspects, and accommodation (these last three having similarity with Herriot et al.’s environment dimension).

A second issue arising from the use of these dimensions is that they focus solely on employees’ perceptions of employer obligations in the psychological contract. Most of the small amount of empirical research on the psychological contract has focused on employees’ perceptions, although some has also investigated the organizational viewpoint (e.g., Herriot, Manning, & Kidd, 1997). Indeed, there is still debate over whether or not organizations, or their representatives -- usually conceived of as management -- can hold psychological contracts (Guzzo, Noonan, & Elron, 1994; Herriot, 1984; Herriot, Manning, & Kidd, 1997; Kotter, 1987; Robinson et al, 1994; Rousseau, 1989; Schein, 1980). Thus, we investigated only one aspect of a two- or possibly four-sided construct. However, by focusing on an agreed aspect of the psychological contract we were able to make a novel contribution with respect to newcomers’ psychological contract development, salience, and similarities with insiders norms.

**Practical Implications**

Taken overall, the results of this research, showing the rapid development of newcomers’ psychological contracts during organizational socialization, have implications for employers (see also Anderson & Ostroff, 1997). Previous research has demonstrated that relative stability of outcomes is achieved early on during the socialization process (Ashforth & Saks, 1996; Bauer & Green, 1994), and that such outcomes are predicted by the psychological contract (Guzzo, Noonan, & Elron, 1994). Based on this evidence, we would recommend that employers attend to the dimensions included in employees’ psychological contracts from the most rudimentary stage onwards, to encourage the inclusion of realistic and desirable employer and employee obligations (Hiltrop, 1995; Robinson, 1995). Negotiation and renegotiation may be particularly important in developing a match between
what employees and employers both want and offer (Herriot & Pemberton, 1996). Establishing such norms to allow the psychological contract to evolve from organizational entry onwards may prevent shocks and triggering events that are detrimental to relational elements of the psychological contract (Robinson et al., 1994; Rousseau, 1989).

Further, the results of the current study add empirical weight to previous researchers’ proposals that employers should aim to be aware of employees’ psychological contracts (Rousseau, 1995; Sparrow, 1996). Based on the results showing salience has a role in the psychological contract, we could propose that employers should research which dimensions their employees generally place most emphasis on, and safeguard those. This might seem problematic given our results showing changes over time, but it is likely that these reflect the early adjustment newcomers make as a result of organizational socialization. Longer-tenured employees are likely to have an accurate and stable conception of organizational reality (Louis, 1980) which is partly embodied in the psychological contract. Thus, over time, an equilibrium is reached incorporating employee and employer expectations of each other and the importance of these different elements (Shore & Tetrick, 1994). It is likely that a relatively stable psychological contract poses more of a threat to the employee-employer relationship than a versatile contract, since changes in circumstance that alter what the employee or employer can provide will result in a violation rather than adaptation of the psychological contract. Regular renegotiation to determine the common dimensions of psychological contracts and evaluate their relative salience would make the contract explicit and allow it to be changed without violation (Rousseau, 1995; Sparrow, 1996).

In conclusion, the results of this study indeed confirm that, as a construct, the psychological contract is “dynamic and evolving” (Robinson, Kraatz, & Rousseau, 1994, p. 149). During early organizational socialization, newcomers show an upward re-appraisal of what their employer should provide, partly based on their knowledge of their new organizational environment. Salience is shown to have a role in the psychological contract, with some dimensions of the psychological contract changing over time to become more closely aligned with insider norms. If
organizations are to socialize and acculturate newcomers into established norms and practices, these findings suggest that it is important to view the psychological contract as a dynamic, shifting set of expectations which, at least during organizational entry, may be changing over a period of weeks rather than months.
References


Newcomers’ Psychological Contracts


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1 The stem wording and responses for the second question on importance were obtained from the DERA monthly attitude survey.