Organisational Socialisation:

Longitudinal Investigations into

Newcomer Sense-Making and Adjustment.

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Abstract

This research investigated the organisational socialisation of newcomers, that is, the process by which new employees come to "learn the ropes" of their role and their place within the wider organisational context.

The research was longitudinal and focused on a number of issues, of which only the key ones will be mentioned here. First, the development of a measure of the content of newcomer learning during socialisation. Second, a more rigorous assessment of how the socialisation process unfolds over time, and related methodological issues of construct stability during a period of change. Third, an assessment of which factors influence the achievement of positive socialisation outcomes (e.g., organisational commitment). And fourth, newcomers' understanding of insider norms and organisational reality.

These issues were investigated in two organisations, the British Army and a multi-national professional services firm. Research was primarily through longitudinal questionnaire studies, over five and three measurement points respectively focusing on the early period of organisational socialisation.

A new measure of the content of socialisation learning was developed as part of this thesis, and proved useful in understanding the dynamics of organisational socialisation and predicting outcomes. The longitudinal research designs enabled a greater understanding of the early stages of organisational socialisation which have received little research attention. Further, this allowed a comparison of the organisational socialisation process as it occurs in two disparate organisations. A number of factors were found to influence positive socialisation outcomes, and also newcomer understanding of and adjustment to organisational reality.

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Overview of the Thesis

<u>Defining Organisational Socialisation</u>

Most researchers in the field of organisational socialisation give similar definitions of the concept focusing on newcomer learning of an organisational role. This learning includes the tasks for the role itself as well as more general social integration and learning of appropriate organisational behaviours. For example, Van Maanen & Schein (1979) define organisational socialisation as "the process by which an individual acquires the social knowledge and skills necessary to assume an organizational role" (p. 211). A similar definition is given more recently by Morrison (1993b, p. 557): "Organizational socialization is generally defined as the process whereby newcomers learn the behaviors and attitudes necessary for assuming roles in an organization". In spite of agreement on the overall process being discussed, different researchers in the field of organisational socialisation emphasise different aspects as being most essential to the concept. Common themes include newcomers letting go of previous values, attitudes and behaviours, the learning of new ones appropriate to the organisational context (Louis, 1980; Reichers, 1987; Schein, 1968; Van Maanen, 1975), and determining their fit within the task and social-related organisation networks (Jablin, 1986; Louis, 1980; Schneider, 1987; Van Maanen, 1975).

The current research aimed to reflect a broad conceptualisation of organisational socialisation by investigating a number of these different core aspects. These various approaches fit within the summary model of the historical development of organisational socialisation research recently proposed by Anderson and Thomas (1996). This model is first briefly reviewed. Subsequently, the various research eras are outlined in more detail, although not strictly chronologically, providing the context for the divers themes in the present research.

<u>The Historical Context of Organisational Socialisation Research</u>

Research on organisational socialisation has shown a shift in focus over time from investigating the organisational role in shaping the newcomer, towards taking a more interactive perspective, and currently focusing

predominantly on the newcomer's proactive role in the process. Accordingly, Anderson and Thomas (1996) divide organisational socialisation research's history into four eras, starting with the two periods of organisation-focused research, with the "coercive integration era" up to and including the 1960s, the "people-processing era" in the 1970s. Subsequently, research in the "interactive assimilation era" during the 1980s began to integrate the organisation and the individual perspectives. Most recently, the current "proactive information acquisition era" has continued the trend in taking a more individual focus. The two poles of macro and micro research are discussed first, focusing on the organisation and the individual newcomer, followed by their interaction and, in this latter part, looking at cultural and insider influences on socialisation. Last, beyond the framework of the model, issues relating to organisational socialisation as a process are reviewed.

Organisation Perspectives

Early views of organisational socialisation saw this process as being within the organisation's remit and power to mould newcomers as they desired (Brim, 1966; Caplow, 1964; Schein, 1968; Wheeler, 1966). Thus, during the coercive integration era, organisational socialisation was primarily viewed as a uni-dimensional process, with the organisation aiming to shape the newcomer (Brim; Schein, 1978).

During the subsequent "people processing era", organisational socialisation research continued to focus on the organisation's role in shaping essentially passive newcomers. This was principally because researchers proposed that an organisational focus was more helpful since individual differences would not help in understanding the commonalities across newcomers entering different organisational contexts (Nicholson, 1984; Van Maanen & Schein, 1979). Typical of this era is Van Maanen and Schein's organisational socialisation tactics framework, with organisations able to employ different combinations of tactics to bring about a variety of role outcomes (Van Maanen, 1978).

Van Maanen and Schein's (1979) theory of organisational socialisation tactics was developed into a measure by Jones (1986), comprising six scales.

Subsequently, these have been much used, but with few attempts at validating them (Ashforth, Saks & Lee, 1997; Saks & Ashforth, 1997a). Given their popularity in empirical research, further investigations of their validity are long overdue. Further, to add to past research in this area, the predictive utility of these organisational socialisation tactics is investigated over a shorter time frame than used previously, as a more stringent test of their influence, and both their direct effects on outcomes are investigated as well as their ability to account for change in outcomes.

<u>Individual Newcomer Perspective</u>

At the other extreme from this focus on the organisation's role, recent research has investigated individual-level factors that predict successful socialisation, and in particular newcomers' ability to proactively influence their own adjustment. It is likely that such research has been encouraged by the interactive era preceding it which highlighted that individual differences could have effects (Jones, 1986; Reichers, 1987) (this is discussed in more detail below). Within this individual focus, most recent researchers have implicitly or explicitly recognised socialisation as a learning process for newcomers, which is reflected in the current trend in organisational socialisation research of using an information-seeking paradigm (Anderson & Thomas, 1996; Chao, O'Leary-Kelly, Wolf, Klein, & Gardner, 1994; Smith & Kozlowski, 1994). Hence, Anderson and Thomas (1996) termed this current period the "proactive information acquisition era".

Relating this to the current research, in addition to the popular organisational-level measure of socialisation tactics, there is a long-standing need for a direct and valid measure of socialisation at the individual level, reflecting the process itself (Anderson & Thomas, 1996; Chao, O'Leary-Kelly et al, 1994; Chao, Kozlowski, Major, & Gardner, 1994; Fisher, 1986; Taormina, 1994). In 1976, Feldman noted that there was a lack of research identifying the appropriate outcomes of organisational socialisation and specifying what variables determined whether newcomers attained those outcomes. Five years later, he repeated this criticism stating "it is still unclear which criteria - whether behavioral or attitudinal - can be used to judge the success of

organizational socialization, and what the contingencies are on which the completion of the socialization process depends" (1981, p. 309). This criticism continues to the present, with Chao, O'Leary-Kelly et al. stating that research "has lacked direct criteria for measuring the extent to which an individual is socialized" (p. 730).

Instead, "secondary outcome" measures have been used (Bauer, Morrison, & Callister, 1998), mostly comprising attitudes and perceptions (e.g., job satisfaction, organisational commitment, intent to quit), which give no information on the actual processes underlying organisational socialisation. Thus, a new four component measure of the knowledge content essential to organisational socialisation is proposed, with support for this conceptualisation illustrated from previous research. The psychometric properties of this measure are investigated, and subsequently its utility in predicting more traditional attitudinal indicators of socialisation is examined, as well as its potential to predict other types of outcomes reflecting newcomers' cultural assimilation. Again, these considered both the direct effects on outcomes and the ability of newcomer knowledge to predict an adjustment in outcomes.

Cultural Assimilation Perspectives

Between these two extremes of organisational- and individual-level research, theoretical work in the 1980s began to focus on the interactions between the organisation's and individual's role through joint cognitive sense-making (Louis, 1980), with the interactions of newcomers and insiders facilitating newcomers' cultural adjustment (Jones, 1983; Louis; Reichers, 1987). Hence Anderson and Thomas (1996) call this the "interactive assimilation era".

Empirical research has supported the view that interpersonal interactions and individual differences are important to the socialisation process. Thus, Louis, Posner and Powell (1983) found that newcomers rated their workgroup colleagues (peers, senior co-workers and supervisors) to be more available and more helpful than socialisation activities planned by the organisation including formal orientation programmes, off-site training and

mentoring. Having colleagues available also positively predicted job satisfaction, organisational commitment and intention of staying with the organisation. Further support for including the individual in the organisational socialisation equation was provided by Jones (1986), whose research showed that individual differences predicted socialisation outcomes in addition to the effects of organisational socialisation tactics. From this, Jones proposed that "it is likely that research that considers the requirements of different jobs as to skills and role will find factors based on individual differences even more salient than did this study." (p. 276).

Insiders are proposed to have a role in this process too, primarily as a conduit for information about the organisation that facilitates newcomer learning. For example Louis (1980) outlined the importance of insiders in helping newcomers make sense of organisational reality, and confirmed this in subsequent research (Louis et al., 1983). Looking more specifically at newcomer-insider symbolic interaction, Reichers (1987) proposed that the frequency of this directly affects the rate of newcomer socialisation. More recently, research has begun to investigate the role of insiders, for example, their utility as information sources (Comer, 1991; Louis, Posner, & Powell, 1983; Major, Kozlowski, Chao, & Gardner, 1995; Morrison, 1993a), as mentors (Chao, Walz, & Gardner, 1992; Ostroff & Kozlowski, 1993), and sources of social support (Fisher, 1985; Nelson & Quick, 1991).

Linking this in to the current research, having established the validity of the measures investigating organisational and individual factors influencing organisational socialisation, their inter-relationship is also investigated. Specifically, the relative influence of socialisation tactics and newcomer learning on traditional outcomes is examined. Two previous studies have examined the relationship between organisational tactics and individual learning but these either combined organisational socialisation tactics with other constructs (Chao, Kozlowski, Major, & Gardner, 1994) or they investigated information seeking rather than information acquired (Saks & Ashforth, 1997b). Thus there is a need for a comparative investigation of

the absolute and relative positive effects of organisational socialisation tactics and newcomer learning.

In addition, research was conducted that more specifically relates to the socio-cultural context of organisational socialisation (Louis, 1990), using two theoretical frameworks. The first of these is newcomer psychological contract development during organisational socialisation. Psychological contracts have been a popular area of research over the past several years (Arnold, 1996; Herriot & Pemberton, 1996; Rousseau, 1995; Thomas & Anderson, 1998), yet little research has been conducted on how newcomers develop and adjust their psychological contracts during early organisational socialisation. Both contract dimensions and their salience are investigated, as well as factors influencing adjustment.

A second theoretical strand is person-organisation (P-O) fit, reflecting the degree to which newcomers' values are congruent with those of the organisation. It has been proposed that organisational socialisation may be viewed as a process of cultural match, such that in addition to newcomers and organisations selecting on the basis of similarity, this will be further enhanced through socialisation processes (Cable & Judge, 1997; Chatman, 1988, 1991; Kristof, 1996; Schneider, 1987a, b; Schneider, Kristof, Goldstein, & Smith, 1996). However, little research has been conducted on P-O fit during socialisation (the exception being Chatman, 1988, 1991), and none investigating this over a shorter post-entry period. Thus, as well as comparing different measures of P-O fit, the research investigated how P-O fit is adjusted over time, and both the factors affecting P-O fit and the influence of P-O fit itself.

Temporal Perspective

Last, it is clear from the literature that there is little knowledge about the actual time-frame of organisational socialisation, and only untested theoretical proposals about the factors affecting the speed at which newcomers adjust (Reichers, 1987; Saks & Ashforth, 1997a). Although past models of organisational socialisation have generally presumed this to be a gradual, cumulative process (e.g., Feldman, 1976b; Schein, 1978; Wanous,

1980), recent research has suggested a primacy effect such that more adjustment occurs during the early period after organisational entry (Ashforth & Saks, 1996; Bauer & Green, 1994). Thus, the results of longitudinal research on the adjustments underlying organisational socialisation are presented, using a greater number of proximal measurements over a shorter post-entry period, and with measurements closely controlled.

Related to this, there is the possibility that self-report scales commonly used in longitudinal studies are measuring various types of change in attitudes or perceptions other than, or in addition to, the mean change commonly assumed (Golembiewski, Billingsley, & Yeager, 1976; Schaubroeck & Green, 1989; Vandenberg & Self, 1993). Golembiewski et al. label mean change as "alpha" change, and outline two further types of change that may affect results, namely "beta" and "gamma" changes, which newcomers may be particularly prone to. For example, newcomer respondents may change their conceptions of a specific construct (gamma change) or recalibrate their understanding of a rating scale (beta change) due to cognitive adjustments during socialisation (Thomas, Cunningham-Snell, & Anderson, 1988). Therefore, a method of assessing the stability of the multi-item measures is demonstrated and used to distinguish the different types of change present in certain measures.

Structure of the Thesis

The thesis is divided into eight chapters. The first three form the introductory literature review. The first chapter comprises three sections, the first of which discusses the organisational socialisation tactics measure developed by Jones (1986) and the results of past research using this measure. Subsequently, the next section presents the rationale for the new socialisation knowledge content measure developed in this research (the TASQ), and past research using a newcomer knowledge framework is reviewed to provide the context for propositions about findings in the current research. The last section of this first chapter integrates the organisational and newcomer perspectives, which both focus on newcomer learning, with newcomers'

knowledge acquisition proposed to mediate the relationship between organisational tactics and outcomes.

The second chapter is based on a cultural assimilation perspective, and in turn outlines past research on the psychological contract and person-organisation (P-O) fit. In both areas, there has been a dearth of research on newcomers over shorter time intervals (Chatman, 1988, 1991; Robinson, 1995, 1996; Robinson, Kraatz, & Rousseau, 1994). Propositions relating to the psychological contract focus more exclusively on adjustments in these and antecedent factors whereas for P-O fit, the effects of fit on outcomes are also investigated.

The third chapter of the introductory literature review outlines temporal issues in organisational socialisation research. The first section emphasises the importance of investigating latent variables for the various types of change that they may include, outlining a structural equation modelling technique for such enquiries. The second section reviews past research relevant to the issues of the time frame and rate of organisational socialisation, including both attitudinal outcomes and newcomer learning as indicators of this (Ostroff & Kozlowski, 1992).

Chapter 4 expounds the methods used in the research at two organisations, namely the British Army and ABC, a professional services firm. For each in turn, an overview of the organisation's selection and socialisation practices is given. Then the procedures used in conducting the research are explained, and a summary of the respondents is provided. Last, the research measures used are presented, both quantitative and qualitative.

This is followed by two results chapters. Chapter 5 focuses on psychometric and temporal analyses. The first part outlines the respondent samples obtained, the results for the scales measuring organisational socialisation tactics and newcomer knowledge acquisition, and last, measures of latent variables that required revision are discussed. The second part of this chapter then details temporal changes, dealing first with the results of investigations of latent variables using structural equation modelling, and

then the temporal patterns underlying organisational socialisation for both attitude and knowledge measures.

The second results chapter, Chapter 6, is also in two larger parts. The first presents in turn the influence of organisational socialisation tactics on outcomes, the effects of knowledge acquisition, and last their inter-relationship in affecting outcomes. The latter part of this chapter presents the results of analyses investigating newcomers' adjustments to their psychological contract and also the factors influencing and outcomes of P-O fit.

The last two chapters of the thesis discuss the findings. The first of these, Chapter 7, follows the same structure as the results, detailing the psychometric and temporal investigations, the findings related to organisational socialisation tactics, newcomers' knowledge acquisition and their relative effects, and also the results of investigations of newcomers' psychological contract development and P-O fit. Within each section, the methodological strengths and limitations of the research are discussed, and suggestions for future research are briefly detailed.

Subsequently, in Chapter 8, the main research findings are presented. This is followed by an overview of the methodological strengths and limitations of the research as a whole and the Chapter concludes with a discussion of the implications of the findings of this thesis for future research in the area of organisational socialisation.

Chapter 1

Organisational and Individual Perspectives on Newcomer Adjustment

Introduction

This first chapter is divided into three sections. The first two focus, in turn, on the organisation and the individual's roles in the organisational socialisation process. First, Van Maanen and Schein's (1979) theory of organisational socialisation tactics is discussed along with the scales developed by Jones (1986) to measure these. The body of research using these tactics scales is reviewed and the need for further research proposed. Subsequently, the second section presents the rationale for the new socialisation knowledge measure developed in this research. Based on previous studies, four domains are proposed to parsimoniously summarise newcomer learning.

The third section focuses on newcomer adjustment through both organisational and individual perspectives. Based on past research, proposals are made about the effects of organisational socialisation tactics and of socialisation knowledge on attitudinal measures which are commonly used as indicators of organisational socialisation. The tactics and knowledge domains are predicted to have both direct effects on outcomes and to predict the adjustment of outcomes. The last part of this section integrates these macro and micro perspectives, which both focus on newcomer learning, with newcomer knowledge acquisition proposed to mediate the relationship between organisational tactics and outcomes.

Organisational Socialisation Tactics

<u>Overview</u>

During the "people processing era", organisational socialisation research typically focused on what organisations do to newcomers to make them fit into their organisational role (Anderson & Thomas, 1996). Thus, Van Maanen (1978) stated that organisational socialisation referred to how newcomers' experiences "are structured for them by others within the organisation" (p. 19). Perhaps the most well-known research stemming from this era is Van Maanen and Schein's (1979; Van Maanen, 1978) theory of the tactics which organisations use to influence the socialisation process. Their theory is based on the premise that "*what* people learn about their work roles in organisations is often a direct result of *how* they learn it" (p. 209). In other words, the way in which information is conveyed to organisational newcomers about their new roles via socialisation tactics, whether or not the organisation consciously plans them, plays an important part in the learning process. Van Maanen and Schein proposed that different combinations of these tactics cumulatively result in different newcomer role orientations, such as a custodial orientation, or innovation to the content or the overall remit of the role.

<u>Overview of Organisational Socialisation Tactics Research</u>

<u>Van Maanen and Schein's model of organisational socialisation tactics</u>

Van Maanen and Schein (1979) proposed and discussed six tactics, noting that the total list of these may be infinite. Each tactic is a continuum with two poles: collective vs. individual (whether newcomers are socialised in groups or individually), formal vs. informal (whether newcomers are segregated from insiders during socialisation), sequential vs. random (whether newcomers are told explicitly about the sequencing of planned socialisation events), fixed vs. variable (whether there is an explicit, fixed timetable for completing the various socialisation stages), serial vs. disjunctive (whether previous job incumbents are available as role models for newcomers), and investiture vs. divestiture (whether newcomers receive positive social support from insiders). As an example of how Van Maanen

and Schein propose different sets of tactics influence outcomes, a combination of sequential, variable, serial and divestiture tactics are posited to result in a custodial response (see also Nicholson, 1984). In line with Van Maanen and Schein's proposals, subsequent research has confirmed the influence of socialisation tactics on role outcomes (Jones, 1986) as well as other outcomes such as job satisfaction, organisational commitment and intent to quit (Ashforth, Saks & Lee, 1997; Chao, Kozlowski, Major & Gardner, 1994).

Jones' (1986) contributions to organisational socialisation tactics research

Jones (1986) was the first to carry out empirical research on Van Maanen and Schein's (1979) model, developing five item scales to measure each of the six tactical dimensions. He deliberately phrased items to be active and behavioural to reduce common method variance. Jones suggested that these six tactics could be categorised in two further comprehensive divisions. The first was the division of the tactics into institutionalised vs. individualised, the former consisting of collective, formal, sequential, fixed, serial and investiture tactics, with the opposite ends of these continua making up an overall individualised tactics strategy. It should be noted that Jones differs from Van Maanen and Schein (1979) in categorising the fixed and investiture tactics as institutionalised and leading to a custodial role orientation, since he proposes that variable and divestiture tactics will cause newcomers greater uncertainty and hence facilitate innovative behaviours.

The second categorisation proposed by Jones (1986) is tripartite, dividing the six tactics according to whether they refer to context (collective vs. serial and formal vs. informal), content (sequential vs. random and fixed vs. variable) and social (investiture vs. divestiture and serial vs. disjunctive) (see Table 1.1). This division is partially supported by Jones' factor analysis of his data from 102 graduate MBA students, although the formal vs. informal tactic had some loadings onto a fourth factor. Moreover, most of the inter-scale correlations were moderate to high, with a mean of .41, and a range of -.03 to .80. In spite of Jones' assertion that there is a tolerable level of discriminant validity between the measures since intrascale reliability

estimates are greater in magnitude than interscale correlation coefficients, this is not the case for the correlations between the two context tactics (.80) and the two content tactics (.70). Furthermore, the formal vs. informal scale has a reliability of .68, slightly below the .70 minimum normally recommended (Nunnally, 1978). However, given that these measures were newly developed and tested in Jones' research, this reliability would seem acceptable.

Table 1.1. A Classification of Socialisation Tactics from Jones (1986).

	INSTITUTIONALISED	INDIVIDUALISED
CONTEXT	COLLECTIVE FORMAL	INDIVIDUAL INFORMAL
CONTENT	SEQUENTIAL FIXED*	RANDOM VARIABLE
SOCIAL	SERIAL INVESTITURE*	DISJUNCTIVE DIVESTITURE

Note. * Jones' differs from Van Maanen & Schein in reversing the placement of these tactics

Further research investigating organisational socialisation tactics

With the exception of Ashforth, Saks and Lee (1997), subsequent research has continued to use the scales without further amendment. Moreover, in spite of being measured as six distinct tactics dimensions, researchers have frequently analysed the tactics only in aggregate, usually comparing institutionalised against individualised socialisation programmes (Chao, Kozlowski, Major, & Gardner, 1994). It could be argued that such a general measure is more likely to reflect whether or not an organisation has a planned and structured socialisation process overall, rendering the number of questions and resultant dimensions to gain this information unnecessary (Ashforth et al., 1997). At the opposite end of the spectrum, some researchers have used only a single item from each scale (Saks & Ashforth, 1997b). As Saks and Ashforth (1997a) note, this lowers content validity and reliability

over the full scales. Further, both types of coarser measurement overlook the potential differences in the effects of the tactics. Thus, Jones (1986) found the serial and investiture tactics to load more heavily than the other four tactics in canonical correlation analyses predicting lower role orientation, role conflict, role ambiguity and intention to quit, and higher commitment and job satisfaction. Other researchers have similarly found different relationships for the individual tactics with outcomes, rather than an overall institutionalised or individualised pattern (Allen & Meyer, 1990; Ashforth, Saks, & Lee, 1997; Chao, Kozlowski, Major, & Gardner, 1994; Laker & Steffy, 1995). (More detail on these studies is given below).

The lack of research improving measures of organisational socialisation tactics

Ashforth and Saks have noted the lack of further research to improve the organisational socialisation tactics scales (Ashforth & Saks, 1996; Ashforth et al., 1997; Saks & Ashforth, 1997a). For example, the formal vs. informal tactic scale has consistently shown low reliability and yet is commonly used in its original form (Allen & Meyer, 1990, α = .62; Ashforth & Saks, 1995, 1996, α = .66; Chao, Kozlowski, Major, & Gardner, 1994, α = .52, increased to .60 with one item deleted). Factor analyses of the scales, usually with varimax rotation, have extracted different numbers of factors ranging from two (Orpen, 1995), to four (Jones, 1986) to seven (Black, 1992).

Acknowledging this shortcoming of research using Jones' (1986) measures of organisational socialisation tactics, Ashforth et al. (1997) undertook research on two aspects of the tactics measures (see also Ashforth & Saks, 1996). First, they developed a new measure of investiture which they proposed more closely corresponds to Van Maanen and Schein's (1979) original definition of this, and compared this with Jones' investiture scale. Second, they used structural equation modelling to investigate the number of tactics dimensions that best fitted their data, comparing one factor (institutionalised vs. individualised), three factor (social, content and context) and six factor models. They found that a six factor model gave the best fit to

their data, with a three factor model in turn giving a better fit than one factor. Nevertheless, none of the goodness of fit indices for all models using either Jones' or Ashforth et al.'s investiture measure were acceptable (> .9; all indices were .81 or below), indicating that none of the models fitted the data well. There was no major difference between the two investiture measures, although Ashforth et al.'s new measure gave a cleaner factor structure. Both investiture measures had low reliabilities (Jones α = .68, Ashforth et al. α = .66), with the formal tactic also again having low reliability (.66) and correlating with the sequential tactic above its own reliability (.68).

Ashforth et al. (1997) suggest two reasons for the lack of a clean factor structure in their research. First, the fact that the scale items were interspersed rather than in blocks may have reduced their coherence, although this may have had the advantage of reducing any common method variance. Second, they suggest that their sample of business graduates may have had insufficient work experience. This latter reason, if true, does not exempt the scale from further revision since a self-report measure for organisational newcomers should be comprehensible to all new employees, independent of previous work experience. Indeed, the scale was originally developed on graduates entering the workplace (Jones, 1986), and has typically been used with this same population since. Thus, Ashforth et al.'s sample is typical of previous research using Jones' measure and hence results casting doubt on the robustness of the measure cannot be dismissed on the basis of their sample.

The need for further validation research on Jones' (1986) organisational socialisation tactics measures

Following their thorough investigation of the factor structure of Jones' (1986) measures, Ashforth et al. (1997) conclude that "more empirically differentiable measures of the tactics may be needed" (p. 210). The need for revision to these scales would seem particularly important given that past research has shown that they do predict adjustment in outcomes even in their current form, and therefore revised versions might provide even stronger results. One reason why no construct validation work has been possible in

the past is that research has predominantly used university graduates, especially those from business school programmes, entering a variety of organisations with no independent corroboration of the tactics actually used (see reviews by Bauer, Morrison, & Callister, 1998 and Saks & Ashforth, 1997a). There are two major implications of this, relating to likely bias in the tactics used for such educated populations and the lack of knowledge of the specific organisational settings they enter. These two issues are discussed in turn.

As Ashforth et al. (1997) note, organisations are likely to prefer to capitalise on the abilities and values that graduates have acquired during their education rather than stripping them away. Thus, the institutionalised pattern of tactics may reflect a more structured programme as is typically used for graduate newcomers. Further, the common use of graduate respondents in research may also explain why investiture correlates with institutionalised tactics rather than divestiture, as proposed by Van Maanen and Schein (Jones; Laker & Steffy, 1995; Saks & Ashforth, 1997a, b). Thus, a first stage in the validation of the socialisation tactics measures is to investigate their factor structure and inter-relationships for a different newcomer population.

The second effect of the almost exclusive use of graduating university classes as newcomer samples is that data has been collected in diverse but unknown settings, relying on self-report without cross-validation from other methods, and hence the content of the tactics measures has not been validated. This issue can be addressed by collecting data simultaneously in other ways alongside self-reports, such as using settings where the tactics have previously been documented by independent researchers, by observing the tactics in use, and/ or by collecting data from those responsible for implementing the socialisation programme. If the measure's content is valid, similar results will be found across these different data collection methods. Thus, the obvious next stage towards revising these measures is to determine the extent of their validity in a known context.

Research validating Jones' (1986) measures of organisational
socialisation tactics

One setting in which socialisation tactics have been extensively
researched is military training. In Van Maanen and Schein's (1979) research
they use Army socialisation to exemplify collective, formal, sequential, fixed,
serial and divestiture tactics. In line with this, previous research by Marsh
and Smith (1991) with the British Army concluded that the tactics used are
collective, formal, sequential, fixed and serial, with no conclusion reached on
the investiture vs. divestiture dimension. Specifically, new recruits go
through learning experiences together (collective) and learn through
structured lessons (formal); recruits know the sequence in which these
processes will occur (sequential) and the timetable associated with each stage
of the process (fixed); and role models exist in the form of experienced Army
personnel (serial). For the sixth tactic, past research has generally not
confirmed divestiture as part of an institutionalised pattern of socialisation
tactics. Instead, research has commonly found that investiture co-occurs with
the other institutionalised tactics, possibly due to reliance on graduate
samples (Jones, 1986; Laker & Steffy, 1995; Van Maanen & Schein, 1979). In
settings where organisations require newcomers to learn to behave
predictably, divestiture may be used as a means of reducing individual
differences. Thus, based on past research and observations of Army training,
it was anticipated that different expert sources would perceive the Army's
socialisation tactics as institutionalised, and involving divestiture as part of
this.

Hypothesis 1: *New recruits experiencing the British Army's
socialisation tactics will report that these form an institutionalised
pattern, namely that they are collective, formal, sequential, fixed, serial
and divestiture in nature.*

Hypothesis 2: *Army training staff will also perceive military
training to comprise an institutionalised pattern of tactics.*

The Content of Socialisation Knowledge

<u>Overview</u>

The major focus of organisational socialisation research in the 1990s has been on the individual and specifically on the behaviours newcomers engage in to facilitate their own adjustment. Referring to Anderson and Thomas' (1996) summary framework, they characterise this recent research as falling within the "proactive information acquisition era". Within the prevalent research framework of newcomers acquisition of relevant information, there are two major foci, namely the behaviours and strategies newcomers engage in to gain information, such as observing co-workers or asking their supervisor, and the actual content of information acquired. The current research takes the latter perspective of a content approach, since this is viewed as more useful to understanding successful socialisation. The reasons for this are outlined next.

<u>Information seeking versus information acquisition approaches</u>

Some previous researchers have appreciated the limitations of taking a pure information seeking perspective, recognising that attempts to acquire information do not exactly correspond with knowledge gain or utility and hence do not directly reflect socialisation (Louis, Posner, & Powell, 1983; Major, 1994; Morrison, 1993a, b; Ostroff & Kozlowski, 1992; Saks & Ashforth, 1995). Thus, Feldman and Brett (1983; Brett, Feldman, & Weingart, 1990) found different reasons for information seeking amongst graduate newcomers and experienced newcomers. Graduates who sought information were gaining positive performance feedback whilst for experienced newcomers, poor performance stimulated feedback-seeking (see also Comer, 1991 [p. 84]). In research with new staff accountants, Morrison (1993b) found that task mastery was negatively related to the frequency with which newcomers sought technical information from peers. She explained this as being due to newcomers who were experiencing difficulty being those making such requests for technical information. In line with this, Ashford and Northcraft's (1992) research revealed that insiders differ in their attributions for newcomers seeking feedback: positive attributions were made

about exceptional performers who sought feedback, whilst neutral or even negative attributions were made about average and below average performers.

In their research on newcomer proactive information seeking, Bauer and Green (1998) failed to find strong positive associations between this and socialisation outcomes. They explain their results in relation to prior research, stating that "previous information seeking findings may be inflated due to omitted variables. When information seeking was the only type of predictor, effects were found (Morrison, 1993a, b; Ostroff & Kozlowski, 1992, 1993). When other predictors of socialisation were included in studies of information seeking, diminished effects of information seeking were observed (Ashford & Black, 1996; Mignerey, Rubin, & Gorden, 1995)" (p. 15). Moreover, as Major (1994) emphasises, investigating proactive information seeking implies that the newcomer can be an effective sole agent of his or her own socialisation; this clearly does not represent the distribution of power in organisations, with insiders consistently confirmed as being the gatekeepers to information resources (Feldman, 1976; Louis et al., 1983; Wanous, 1992).

This brief overview illustrates that it is wrong to use a blanket approach treating all information seeking as evidence of (a) positive organisational socialisation or (b) equivalent in meaning across newcomers. Information seeking in itself is not a measure of knowledge integration, learning and positive adjustment. The alternative, investigating newcomer learning using an information content approach, directly reflects newcomer knowledge acquisition in the various relevant domains and is proposed as a more useful indicator of socialisation. Indeed, according to Chao, O'Leary-Kelly, Wolf, Klein, and Gardner (1994) a content approach is "essential" (p. 731), allowing the investigation of "relationships between the learning of specific socialization content areas and specific job outcomes" (p. 730). Moreover, a knowledge acquisition approach fits with common conceptions of organisational socialisation as a longitudinal process, allowing the rate of socialisation to be measured across different knowledge domains and according to organisational and individual differences (Feldman, 1989;

Reichers, 1987; Van Maanen, 1976). However, such an approach is not without its drawbacks. One limitation in particular should be acknowledged: identifying and learning the necessary job-related knowledge does not imply that newcomers will apply this knowledge to their performance. Two extremes are possible where sufficient learning takes places but does not lead to successful organisational membership, namely (a) when the newcomer is unable to put learning into practice, and (b) when the newcomer uses the learning to ascertain and practise the minimal necessary behaviours to remain in the organisation's employ. Whether or not the newcomer in either scenario can be said to be "socialised" to the organisation is open to debate, but they importantly highlight that a content approach is fallible. However, these are both extreme cases and therefore a content approach is likely to be a useful indicator of organisational socialisation for the majority of newcomers.

On the basis of the arguments outlined above, there is a need for more direct content measures of socialisation (Anderson & Thomas, 1996; Chao, O'Leary-Kelly, Wolf, Klein, & Gardner, 1994; Chao, Kozlowski, Major, & Gardner, 1994; Fisher, 1986). A number of previous researchers have reached this conclusion, that is, that organisational socialisation is a dynamic process relating to the development of job-relevant knowledge in a variety of areas, and have developed measures of organisational socialisation accordingly. These are briefly discussed in terms of their strengths and limitations, with these measures also illustrating the diversity of conclusions as to the number and nature of content dimensions comprising organisational socialisation.

Previous measures of the content of organisational socialisation

Although many researchers in organisational socialisation have proffered typologies of the information newcomers seek to acquire, there are only two measures which relate to knowledge or information that newcomers actually acquire which are essential to the process of organisational socialisation. Taking these chronologically, Ostroff and Kozlowski (1992) proposed a measure with four knowledge domains of task, role, social and organisational. Although their measure was well based theoretically, at a practical level the domains showed little differentiation. They proposed a

number of reasons for this, including that newcomers might have difficulty distinguishing between the domains early on, that it could be due to response bias, or that measures were insufficiently sensitive to detect domain differences. They propose that future research should try to better differentiate the domains.

The second measure was developed by Chao, O'Leary-Kelly, Wolf, Klein and Gardner (1994) comprising six domains (people, politics, history, performance proficiency, language, and goals and values). Although this showed good predictive validity, these researchers have adjusted the scale in subsequent research suggesting an acknowledgement of the need for further development. Two recent reviews of organisational socialisation explicitly espouse this position. Saks and Ashforth (1997a) refer to the scale as offering "a good beginning" (p. 265) but note that it has a number of shortcomings, including that the measure is unlikely to be comprehensive in covering all possible content areas, specifically noting that it does not include role learning. Bauer, Morrison and Callister (1998) are more thorough in their critique of the scale, although they do note its significance in being the first measure of organisational socialisation labelled as such. Bauer et al. highlight that at least three of the scales reflect multiple concepts, giving the example of the history scale which contains items referring to both the work group and the organisation (the other two scales they criticise for this are people and politics). Bauer et al. also note the limitations of the language scale, which mixes organisational with occupational language, and of the organisational goals and values scale, which reflects both learning and internalisation.

A New Measure of Newcomers Knowledge Acquisition

Since these previous measures are found wanting, there was a clear need for a new measure of newcomer knowledge acquisition reflecting organisational socialisation. However, deciphering the dimensions of organisational socialisation is complex, with researchers having a number of different perspectives as to the breadth and subsequent categorisation of the content of newcomer learning. Indeed, it is notable that in Saks and Ashforth's (1997a) integrative model of organisational socialisation, which

they state is "consistent with recent research showing that organisational socialisation is primarily a learning process" (p. 238), they do not specify these domains in the model. Instead they refer to the "various content domains of socialization (e.g., organizational goals and values, power structure, and task knowledge)" (p. 240), illustrating the difficulty of defining exactly what these domains comprise.

Any categorisation needs to be both comprehensive and parsimonious. Chao, O'Leary-Kelly et al. (1994) propose a further criterion, that content domains only be included if the content area is judged to be under the organisation's direct or legitimate influence. However, the validity of this assertion is questionable since the newcomer may also have the ability to legitimately influence the organisation, for example through innovative role development or "personalisation" (Jones, 1986; Nicholson, 1984; Van Maanen & Schein, 1979; Wanous, 1992).

In order to develop a new measure, the substantial research literature on newcomer learning was reviewed, including research focusing on both information sought and information gained; this previous research is summarised in Table 1.2 (at end of Chapter). This was used to educe the major knowledge domains essential to organisational socialisation of newcomers, proposed to be comprehensively and parsimoniously defined by four categories which form the basis for developing a measure of the content dimensions of organisational socialisation. These four areas of knowledge acquisition relate to the newcomer's role, social relationships, interpersonal resources and the organisation more generally. These are discussed in turn in relation to the relevant literature supporting their inclusion in a measure of the knowledge essential to newcomers learning during organisational socialisation. These were then used as the basis for developing a theoretically and psychometrically sound measure of the content of organisational socialisation.

Role Knowledge

The first domain is role knowledge for which, following a number of previous researchers, task and role knowledge are combined into a single

dimension relating to knowledge directly relevant to job performance (Fisher, 1986; Bauer & Green, 1995; Comer, 1991; Holton, 1996; Miller & Jablin, 1991). Nearly all previous research on newcomer socialisation from various perspectives has included task and/ or role knowledge as a domain that newcomers have to learn. Earlier researchers taking an organisational perspective emphasised newcomers understanding of the organisation's definition of their role, although some researchers proposed that this could preclude newcomers innovating with regard to the content of the role or the actual role itself (Feldman, 1976, 1977, 1981; Van Maanen & Schein, 1979; Wanous, 1980, 1992).

More recent research taking an information seeking or information acquisition perspective has also tended to include task and/ or role information (Ashford & Black, 1990; Ashford & Cummings, 1983, 1986; Bauer & Green, 1995; Comer, 1991; Jablin, 1987, 1991; Miller & Jablin, 1991). Comer conducted her research in three phases: following a literature review of information necessary to newcomers, she proposed two domains of "technical" and "social" knowledge, with technical knowledge comprising the skills and knowledge needed for competent task performance. The two subsequent stages of the research were an interview and then a questionnaire study. The results confirmed the dual model, with technical knowledge further divided into what the task and role comprise (factual) and how they should be performed (procedural).

Comprehensive research investigating both newcomers information seeking strategies and information acquired has been conducted by Ostroff and Kozlowski (1992). They proposed four knowledge domains, two of which related to task and role domains. Ostroff and Kozlowski investigated newcomers knowledge acquisition at approximately months four and eight post-entry and found that newcomers gained similar levels of task and role knowledge over time, lending further support for these two knowledge areas being more parsimoniously represented as a single construct. Moreover, levels of knowledge in these domains showed most increase over time, suggesting that they were important areas for newcomers to master. Similar

to Ostroff and Kozlowski, Morrison (1993a, b) combines information seeking and information acquisition approaches. She also proposes that newcomers need to achieve four primary tasks during socialisation. These tasks relate to learning in four knowledge domains which closely approximate those proposed by Ostroff and Kozlowski, two of them concerning task mastery and role clarification.

In further research by Kozlowski and his colleagues, role and task factors are again combined. Thus, the six dimension measure of socialisation learning developed by Chao, O'Leary-Kelly et al. (1994) includes only one dimension akin to task or role knowledge, this being "performance proficiency". This relates to newcomers' ability to both understand and carry out the required tasks and duties of their new role. Similarly Smith and Kozlowski (1994, 1995), using adaptations of Ostroff and Kozlowski's (1992) and Chao, O'Leary-Kelly et al.'s scales, investigated two levels of newcomer learning. One of these focused on the individual level, combining role and task factors within job mastery and innovation.

Given the common inclusion of role and task knowledge in previous categorisations of newcomer learning, their inclusion here seems incontrovertible. Past research has also shown that newcomers show similar patterns of acquisition across these two domains (Ostroff & Kozlowski, 1992) and indeed, a number of previous researchers have combined task and role factors as a more succinct categorisation (Bauer & Green, 1995; Comer, 1991). Thus, a single role knowledge domain is proposed here comprising knowledge directly relevant to the newcomer's job.

Social Knowledge

The second dimension proposed is social knowledge, specifically establishing relationships with and integrating into the proximal work group. Again, this aspect of newcomer socialisation is mentioned as a distinct area by most researchers (Anderson & Thomas, 1996; Comer, 1991; Fisher, 1986; Holton, 1996; Louis, 1990; Ostroff & Kozlowski, 1992). Thus, Feldman's (1976, 1977) early research underlined the importance of the proximal work group to enable newcomers to become socialised and perform their jobs to a similar

standard to others in the work group. He investigated new hospital employees and found that establishing relationships with insiders was critical for successful organisational socialisation. In a similar vein, in her work on surprise and cognitive sense-making, Louis (1980, 1990) emphasises the role of insiders as a potentially rich source of information. In her 1980 paper, social knowledge is given an implicit overarching role, since newcomer learning from social relationships is seen as key to the socialisation process. A decade later, Louis (1990) introduces interpersonal tasks as a component in her model of newcomer sense-making, consisting of establishing relationships with co-workers and others.

Research on newcomers' perceptions of the utility of various information sources for their adjustment is also illustrative of the importance of social knowledge. Louis, Posner and Powell (1983; Nelson & Quick, 1991; Posner & Powell, 1985) asked newcomers about the availability and helpfulness of various sources of information, ranging from interactions with co-workers through to formal orientation programmes. Organisational insiders, including co-workers, supervisors and senior co-workers assigned to help the newcomer were consistently rated as both the most available and most helpful sources of information. This agrees with Reichers' (1987) research on the importance of interactions in determining the pace of organisational socialisation and also explicitly acknowledges the importance of establishing relationships with insiders to facilitate the process of newcomer adjustment.

The information seeking perspective is also relevant here. Researchers taking this perspective have frequently focused on feedback seeking, which implicitly gives insiders a role (Ashford & Cummings, 1983, 1986; Ashford & Taylor, 1990; Jablin, 1987, 1991; Morrison, 1993a, b, 1994). Feedback is most likely to be from work peers and supervisors, that is, the newcomer's work group. Thus establishing an understanding of how the group functions, its values, norms and so forth is an essential part of newcomer learning, and is likely to be partly learnt through feedback processes.

This view of the role of insiders as information sources is more strongly stated by Jablin (1987). He proposes that messages from organisational insiders during newcomers' initial entry and encounter period are designed to bring about the adjustment and socialisation of the newcomer. In later research, Miller and Jablin (1991) propose relational information as an important area, which includes fitting into the new social environment (principally at the work group level but also within the organisation overall) and developing feelings about other work group members. More recently, Ashford and Black (1996) include relationship building as one of three areas which newcomers proactively focus on, which includes developing relationships with both co-workers and supervisors.

Research taking a more comprehensive approach to newcomer information seeking and acquisition during organisational socialisation has also commonly included social knowledge. Morrison (1993a, b, 1994) includes social integration as one of the four primary socialisation tasks and Ostroff and Kozlowski (1992) include knowledge of the work group as one of their four domains of newcomer learning, whilst Chao, O'Leary-Kelly et al. (1994) propose "people" as one of their six learning domains, relating to acceptance of the individual by their co-workers.

In summary, research has consistently included a knowledge domain relating to developing relationships with co-workers and becoming integrated into the work group. Empirical research has confirmed this domain (Louis et al., 1983; Ostroff & Kozlowski, 1992) and hence there is strong evidence supporting its inclusion in the current model.

Interpersonal Resources Knowledge

Separate from social knowledge is interpersonal resources knowledge which relates to newcomer's establishment of a network of relationships with insiders who provide support, information, and/ or advice. These insiders may or may not be immediate co-workers. For example, these resources could include formal systems such as staff in Human Resources, formally assigned or informally acquired mentors and buddies, informal contacts in similar roles in other departments, or more junior or administrative staff who

know or are gatekeepers to the organisation's shortcuts (Comer, 1991; Feldman, 1976; Fisher, 1985; Nelson & Quick, 1991).

In regard to this third domain, research taking an anxiety and stress perspective on newcomer adjustment is particularly pertinent. Feldman and Brett (1983) proposed eight coping techniques that organisational newcomers and job changers use to learn about and increase the predictability and perceived control of their new environment. These were: working longer hours (to allow more time for learning), changing work procedures, redefining the job, delegating responsibility, getting task help from others, seeking information, seeking social support and palliation. At both three and six months, newcomers primarily sought social support, as well as information and task help. Relative to job changers, newcomers were significantly more likely to cope by seeking out social support and task help (see also Fisher, 1985). This research illustrates that newcomers need to discover and establish relationships with people in the organisation who can provide both problem-focused and emotion-focused help (Folkman & Lazarus, 1980).

The key role of knowing who to go to for help is illustrated by an extract from an interview script reported by Zahrly and Tosi (1989) in which a newcomer with these resources acknowledges the greater difficulties faced by those lacking such an interpersonal help network. The newcomer, who had been through prior collective induction, states:

> I also knew who I could depend on and who I could trust
> because I had been in class with them for weeks. I knew who
> would help me. But I remember Sam's first day on the job. He
> was bagging and it was awful. He was sweating, making a lot
> of mistakes....He didn't even know the people or who to go to
> for help. (p. 59).

Moreover, in their recently proposed integrative model of organisational socialisation, Saks and Ashforth (1997a) propose social support as a group level factor with two components, expressive and instrumental. This lends further weight to the proposition that newcomers require

information over and above social relationships in themselves, to relationships with organisational insiders that can be depended on for various forms of support.

The role of insiders beyond social integration has been previously recognised by Ashford and her colleagues focusing on newcomers' information seeking (Ashford, 1986; Ashford & Taylor, 1990; Ashford & Black, 1996). Within the information seeking perspective, Ashford and Taylor propose that newcomers search for information to resolve organisational politics and discover the availability of resources and their allocation contingencies. In a later empirical study, Ashford and Black confirmed inter-departmental networking as one aspect of relationship building. Comer (1991) also found that social information could be further divided into the newcomer's immediate work group and those beyond the newcomer's functional area. Thus, researchers within the information seeking framework have also recognised the need for newcomers to establish reliable interpersonal contacts beyond the work group.

Both Ostroff and Kozlowski (1992) and Chao, O'Leary-Kelly et al. (1994) include politics in their models of newcomer learning. Ostroff and Kozlowski accord it a minor role within organisation knowledge whereas Chao, O'Leary-Kelly et al. consider it to be one of the six principal knowledge domains, relating to knowledge of who the most influential people are in the organisation. Smith and Kozlowski (1994, 1995) also include politics as part of newcomers necessary organisational-level learning. Moreover, in revising her model of the types of information newcomers seek, Morrison (1994) adds a political dimension, with this rated as the third most useful of six knowledge domain after role and task-related information.

Hence, during organisational socialisation, newcomers need to develop a resource network of organisational insiders that differs from purely social relationships such as are often found within the work group. Indeed, it is likely that for some issues it may be better to ask for advice outside the work group due both to the potential social and other costs of asking those in the immediate work group (Ashford & Northcraft, 1992; Miller & Jablin, 1991), as

well as the possibility that employees in other areas of the organisation will be more likely to have the relevant knowledge. For example, Van Maanen and Schein (1979) present the organisation as a symmetrical cone shape, clearly showing that employees at senior levels (higher in the cone) are more centrally placed in the organisation. Senior employees' high degree of inclusion allows them a more authentic view of organisation realities and greater access to organisational resources relative to more junior colleagues. On the other hand, those working at lower grades in the organisation may be more knowledgeable regarding informal aspects of the organisation, such as current gossip. In summary, past research clearly indicates that interpersonal resources within the organisation form an important knowledge domain in addition to social contacts and integration, and this is similarly posited here.

Organisation Knowledge

The last domain is knowledge of the organisation, which includes the organisation's history, structure and culture. This is included in virtually all researchers' conceptions of organisational socialisation, showing agreement on its importance as a content domain (e.g., Louis, 1980, 1990; Ostroff & Kozlowski, Smith & Kozlowski, 1995; Wanous, 1992). Louis' (1980) definition of organisational socialisation reveals the overarching importance of newcomers understanding the organisational context in order to become insiders. Thus, she defines organisational socialisation as "the process by which an individual come to appreciate the values, abilities, expected behaviors, and social knowledge essential for assuming an organizational role and for participating as an organizational member" (pp. 229-230). In line with Louis' emphasis on the role of insiders in enabling newcomers to understand the socially constructed reality of the organisation, Louis includes within organisational cultural learning other organisational members' shared assumptions and norms, as well as their values, activities and aims. This cultural learning enables the newcomer to develop a reliable schema for interpreting and making sense of events in the organisation (Shore & Tetrick, 1994; Rousseau, 1995; Thomas & Anderson, 1998).

Research within an information seeking perspective has also emphasised the importance of understanding the organisational context for successful adaptation. Ashford and Taylor (1990) propose that, in order to adapt, people need two types of information. The first of these is information about the standards required by the environment, how these relate to subsequent rewards, and about the relationship between behaviours and the standards those behaviours aim to achieve. The second type of information relates to information allowing the individual to assess to what degree these various standards and behaviours have been attained. Ashford and Taylor emphasise that normative attitudes, values and behaviours are important both at the individual level for successfully carrying out the assigned role, and also at the organisational level in order for the individual to have membership.

A similar emphasis on newcomers learning the organisational context is found in Miller and Jablin's (1991) tripartite division of information newcomers seek to acquire. One of these areas is "referent information" which includes organisational procedures and goals, the meaning of organisational symbols and the interpretation of activities and events. Again, there is a clear overlap with work emphasising newcomers making sense of the organisational environment (Louis, 1980, 1990; Weick, 1995). Thus, contextual information at the organisational level is viewed as necessary for newcomers to conduct their roles successfully at the individual level. In line with this, both Comer (1991) and Jablin (1991) propose that organisational socialisation has two major components, comprising competence in the task/ role and a second component relating to acceptance into the social system, with both Comer and Jablin conceiving of this at two levels, comprising the newcomer's immediate work group and then other parts of the organisation beyond this.

In research integrating information seeking and acquisition perspectives, Morrison (1993a, b) outlines five types of information newcomers seek to acquire, one of which relates to organisational norms and values. In further research, Morrison (1994) increases the number of domains

to include cultural and political dimensions. These five, and later seven domains are proposed to enable newcomers to achieve four primary socialisation tasks, one of these being organisation acculturation.

The previous two measures of the information acquired during organisational socialisation have also included organisational level learning. Ostroff and Kozlowski (1992) include organisation learning as one of their four knowledge domains, comprising items about organisational norms, values and procedures, politics and informal ways of working. Chao, O'Leary-Kelly et al. (1994) include similar items but divide them into three domains of organisational history, organisational goals and values, and organisational politics. They also include language as a domain, relating to organisation-specific jargon. In keeping with previous research, the most recent work on organisational socialisation again includes the organisation as a unique learning domain (Adkins, 1995; Holton, 1996).

Summary

Having outlined the agreed need for a measure of newcomer knowledge acquisition reflecting organisational socialisation, and discussed the weaknesses of previous measures, four domains of knowledge acquisition are proposed to fully and parsimoniously reflect newcomer learning during organisational socialisation. The theoretical basis for proposing these four domains is demonstrated as being directly taken from previous research (see Table 1.2). These four domains form the basis for the development of a measure of newcomer knowledge acquisition.

Table 1.2. Overview of Previous Researchers' Categorisations of Newcomer Learning.

Author & Year	Organisational socialisation definition	Content Divisions	Methodology
Adkins (1995)	No definition given	• task competence (knowledge of the organisation's rules and procedures) • work role clarity • realistic job expectations • interpersonal relationships (social support and help in task performance)	Newcomer mental health specialists, pre- and post-training & 6 months later (N = 104). Self- and manager-report.

Ashford & Black (1996)	refer to the definitions of other authors (p. 200), such as Van Maanen's (1977, p. 16) description that it "thrust(s) one from a state of certainty to uncertainty; from knowing to not knowing; from the familiar to the unfamiliar"	• information seeking
		  • information seeking: organisational level, e.g. structure, politics
		  • feedback seeking: supervisor's performance evaluation
		• relationship building
		  • general socializing with co-workers
		  • inter-departmental networking
		  • building supervisor relationship
		• job change
		  • job change negotiation
		  • positive framing of job
			Three samples of MBA graduates: Phase 1: generated areas from qualitative responses; Phase 2: developed & piloted scales; Phase 3: N = 69 (of 165); 7 scales, 25 items, at 2nd of three measurements: at job acceptance, 6 months & 12 months post-entry.

Ashford & Taylor, (1990)	As part of adaptation: "the process by which individuals learn, negotiate, enact, and maintain the behaviors appropriate to a given organizational environment. 'Appropriate' indicates some degree of fit between the behaviors demanded by the	• role boundaries • organisational & role culture & norms • political and conflict resolution • resource and social network issues	Theoretical

	environment and those produced by the individual such that the individual is able to achieve valued goals" (p. 4).		
Chao, O'Leary-Kelly, Wolf, Klein, & Gardner (1994)	"organizational socialization is concerned with the learning content and process by which an individual adjusts to a specific role in an organization" (p. 730)	- performance proficiency - politics - language - people - organizational goals/ values - history	Phase 1: factor analysis of 34 items; Phase 2 differences for same job, job changers, job & organization changers; Phase 3 related to career effectiveness.
Comer (1991)	"Through organizational socialization, naive nonperforming newcomers acquire information that transforms them into contributing, organizational members" (p. 64)	- technical (skills and knowledge for task performance) - factual (advice or referral) - procedural (organisation-specific methods) - social (people and norms) - intra-departmental - extra-departmental	Phase 1: semi-structured interviews ($\underline{N}$ = 30); Phase 2: questionnaires from 3-5 month newcomers.
Feldman (1976)	No definition given	- organisational culture and values (acknowledged but not measured) - development of work skills - adjustment to the work environment	Socialisation process variables each measured by combining interviewer ratings and 2 self-report questionnaire items.

Feldman (1981)	"Defined globally, organizational socialization is the process by which employees are transformed from organization outsiders to participating and effective members" (p. 309)	• development of work skills and abilities • acquisition of a set of appropriate role behaviours • adjustment to the work group's norms and values	Theoretical
Fisher (1986)	"the learning of organization-specific modes of behaving and thinking" (p. 102) "socialization is primarily a learning and change process for the newcomer" (p. 105)	• organizational: rules, reporting relationships, benefits, pay systems, other obvious organizational characteristics; less overt aspects of culture & climate necessary to behave appropriately • work group: names, job responsibilities, how to get along with co-workers & superior, group norms, familiarity with group's culture (which may differ from the organizational culture), learning to work with others, dealing with political behaviour, overall as learning the communal definition of reality • job: cognitive content (rules, facts, jargon, procedures), physical skill development (speed, accuracy, strength, steadiness), scripts & schemas allowing prediction & reaction • personal learning: changed understanding of one's own needs and desires, development of attitudes & self-image consistent with talents	Theoretical review

Holton (1996)	New employee development defined as "all development processes used to advance new employees to desired levels of performance....formal or informal...planned or unplanned...The two expected outputs of new employee development are an employee who, first, performs at a targeted level of performance and, second, stays with the organization" (p. 233- 234).	• individual: attitudes, expectations, and breaking in • people: impression management, relationships, and supervisor • organization: culture, savvy, and roles • work task: work savvy, task knowledge, and knowledge, skills and abilities	Theoretical
Jablin (1991)	refers to the definitions of previous authors, including Jablin (1982, p. 256) "Organizational assimilation refers to the process by which organizational members become a part of, or are absorbed into, the culture of an organisation."	competence in the task role via: • role clarification • indoctrination to organizational practices • acceptance into the work group / organization • facilitation of work group membership • development of new self-images which accord with newcomers' new roles and organization	Theoretical
Louis (1980)	"the process by which an individual comes to appreciate the values, abilities, expected behaviors, and social knowledge essential for assuming an organizational role and for participating as an organizational member" (p. 229 - 230).	• role: knowledge base, strategy, mission, pivotal role behaviours • culture: assumptions and norms of membership, values, activities, and aims.	Theoretical

Louis (1990)	Focus on acculturation, "how newcomers come to appreciate local workplace cultures - the sets of shared though tacit meanings and symbols that emerge in regularly convening groups and organisations" (p. 120)	• job: master basic skills • interpersonal: build relationship with co-workers & others • culture: learn values & norms of relevant groups	Theoretical
Major, Kozlowski, Chao, & Gardner (1995)	"newcomer socialization is essentially a process of assimilation into new organizational roles" (p. 419).	• newcomer's role: role clarity and role ambiguity (both related to the job), and role acceptance (personal role acceptance)	248 new graduate hires pre-entry and 4 weeks post-entry
Miller & Jablin (1991)	No definition given	Types of information: • referent (requirements for successful performance) • appraisal (feedback on performance) • relational (feedback on relationships)	Theoretical
Morrison (1993a, b, 1994)	(1993a, p. 557) "Organizational socialization is generally defined as the process whereby newcomers learn the behaviors and attitudes necessary for assuming roles in an organization"	Types of information: • technical • referent (role) • performance feedback • social feedback • normative (removed 1994) • political (added 1994) • cultural (added 1994)	135 new accountants, 3 measurements: 2 weeks post-orientation, 3 & 6 months.
Ostroff & Kozlowski (1992)	Focus on information seeking and acquisition (p. 850) "The present study takes a learning perspective with a longitudinal focus"	• task: understanding task duties, assignments, priorities, how to use equipment, how to handle routine problems • role: boundaries of authority and responsibility, expectations and appropriate behaviours for the position	151 newcomers at 4 & 6 months. 33 items measuring 4 domains, showed discriminant validity via different relationships with other measures.

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		• group: co-worker interaction, group norms and values, normative structure • organizational: politics, power, value premises of the organizational system, its mission, leadership style, special languages	
Smith & Kozlowski (1994)	Focus on information-seeking paradigm, reflecting socialization as a learning process	Types of information: • functional (how to perform) • evaluative (how well one is performing)	241 pairs of matched newcomers and co-workers. Measures of information domain by source - 7 of 8 factors confirmed by factor analysis.
Smith & Kozlowski (1995)	Focus on newcomers' proactive efforts to acquire information and adjust to the new setting	• individual level: learning of the job (outcomes of job mastery and innovation) • organizational level: learning of organizational attributes (organizational goals/ values, politics) do not explicitly state whether or not other types of content exist, although social relationships are given a role in the acquisition of organizational-level knowledge and could be argued to be a third area of newcomer learning	222 newcomers at < 16 months and 3 months later. Same measures as Smith & Kozlowski (1994).
Taormina (1994)	quotes from Kammeyer, Ritzer, and Yetman (1990, p. 129) "Socialization is the process by which a person learns and generally accepts the established ways of a particular social group, [organization], or society" p. 133	• training • understanding/ perceptions • co-worker support • prospects for the future N.B. training & understanding/ perceptions scales form 1 factor "Orientation"	20 items, 3 factors. Phase 1: 369 "working people"; Phase 2: 18 middle managers, validated by comparison with Misumi's Performance Management Questionnaire

Van Maanen & Schein (1979)	(p. 211) "In its most general sense, organizational socialization is the process by which an individual requires the social knowledge and skills necessary to assume an organizational role". For a specific role "organizational socialization refers minimally...to the fashion in which an individual is taught and learns what behaviors and perspectives are customary and desirable within the work setting as well as what ones are not."	• knowledge base (existing solutions) • strategic base (rules for choosing solution) • mandate (inter-relationships with other roles, rules & social norms)	Theoretical
Wanous (1992)	(p. 187) "Socialization concerns the ways in which newcomers change and adapt to the organization" with the objective of "maintaining organizational control over newcomers" (p. 188).	• role • group & organisational norms (determining behaviour) • organizational values (giving the rationale for behaviour)	Theoretical

The Relationship Between Newcomer Learning and Outcomes

The Relationship Between Socialisation Tactics and Outcomes

Overview

In the earliest empirical research validating Van Maanen and Schein's (1979) tactics dimensions, Jones (1986) analysed the influence of individualised versus institutionalised patterns of tactics on outcomes. Using canonical correlation to give a broad overview of the pattern of relationships, Jones found that an institutionalised pattern of tactics (i.e., collective, formal, fixed, sequential, serial and investiture) was associated with lower levels of innovative role orientation, role conflict, role ambiguity and intent to quit, and with higher levels of organisational commitment and job satisfaction. Thus, a more structured socialisation programme led to a more custodial orientation in which newcomers replicated the status quo. Jones also found that the social tactics (serial and investiture) were most strongly associated with these outcomes, with content tactics moderately strongly associated (sequential and fixed) and context tactics least so (collective and formal).

Other research on socialisation tactics has generally confirmed this pattern of results, with institutionalised tactics leading to more positive attitudinal outcomes and role replication (Allen & Meyer, 1990; Ashforth & Saks, 1996; Saks & Ashforth, 1997b). Specifically, institutionalised tactics are associated with lower role ambiguity, role conflict and intent to quit (Ashforth & Saks, 1996; Laker & Steffy, 1995; Mignerey, Rubin, & Gorden, 1995; Saks & Ashforth, 1997b), lower anxiety (Saks, 1996; Saks & Ashforth, 1997b), and lower role innovation (Ashforth & Saks, 1996; Black & Ashford, 1995; Mignerey et al., 1995; Saks & Ashforth, 1997b). The exception to this latter result is Black's (1992) finding that, for expatriate managers, the collective socialisation tactic was positively related to role innovation. In terms of positive relationships, institutionalised tactics have been found to be associated with higher levels of job satisfaction and organisational commitment (Ashforth & Saks, 1996; Laker & Steffy, 1995; Mignerey et al., 1995; Saks & Ashforth, 1997b), and task mastery (Saks & Ashforth, 1997b).

Subsequent research has also tended to confirm Jones' (1986) results regarding social, content and context tactics, with the two social tactics having the strongest influence on outcomes. Thus, Allen and Meyer (1990) found that, when the other tactics were controlled for, only serial tactics predicted role orientation and only investiture tactics predicted organisational commitment. In research on the relationship between socialisation tactics and socialisation knowledge, Chao, Kozlowski, Major and Gardner (1994) found the investiture tactic and to a lesser extent the serial tactic generally had higher correlations with various domains of socialisation knowledge than the other tactics. Both Black and Ashford (1995) and Ashforth and Saks (1996) found that investiture was related to person change, with Ashforth and Saks' results showing that the collective tactic was also positively related to person change. In addition, stronger relationships for both social tactics were found by Ashforth, Saks and Lee (1997), and for investiture by Laker and Steffy (1995).

Jones' (1986) rationale for the greater effect of social tactics is that they provide social cues which aid newcomer learning. Similarly, Ashforth et al. (1997) emphasise the congruity of this finding with other research showing the importance of proximal colleagues and supervisors to the socialisation process (Anderson & Thomas, 1996; Louis, Posner, & Powell, 1983; Major, Kozlowski, Chao, & Gardner, 1995; Moreland & Levine, 1989). A further possibility is that these social and content tactics are more open to individual interpretation than the context tactics, for which newcomers' self-report should be close to those of an external observer. To some degree, the same may be said for the two content tactics, where external observers would be able to rate whether or not socialisation progresses via a pre-determined programme (sequential) with a demarcation of each stage (fixed). However, there is more room for subjective interpretation by newcomers as to whether the organisation has provided a suitable role model (serial) and whether they feel that their colleagues have provided positive social support confirming the value of their personal characteristics (investiture). Thus, perceptions of these social tactics are at a more personal level, and hence would be more likely to

be related to personal attitudes and self-perceptions that are used as indicators of positive adjustment to the new workplace.

The Effects of Socialisation Tactics on Newcomers' Adjustment of Outcomes

Further, although there have been a number of calls for researchers to control for the initial levels of variables in their analyses, this has rarely been done (Bauer, Morrison, & Callister, 1998; Saks & Ashforth, 1997a). The advantage of such analyses is that they provide a clearer picture of the effects of the independent variables on the dependent variables. To date, no research has investigated the relationship of organisational socialisation tactics with traditional outcomes, controlling for the initial levels of these outcomes. It was expected that the same relationships would be found, but that controlling the initial levels of traditional outcomes would result in a reduction in the apparent influence of socialisation tactics. Given the exploratory nature of this research, results that are significant between .05 and .10 will be reported for interest since these may provide a basis for future research (Chao, Kozlowski et al., 1994). However, only results where significance is .05 or less will be interpreted as significant.

Hypothesis 3: *An institutionalised pattern of socialisation tactics will be associated with more positive outcomes. Specifically, collective, formal, sequential, fixed, serial and investiture tactics will be related to higher outcome levels of job satisfaction, organisational commitment, self-efficacy and personal change, and lower intent to quit. The same pattern of results will be found when initial levels of the outcomes are controlled for.*

Hypothesis 4: *The effects of institutionalised tactics, both on outcomes and adjustment of outcomes, will be strongest for social tactics (serial and investiture), followed by content tactics (fixed and sequential), with context tactics weakest (collective and formal).*

The Relationship Between Socialisation Learning and Outcomes

Overview

Research in the past decade has increasingly focused on newcomer proactivity during organisational socialisation, consistently finding that both the frequency with which newcomers use information seeking strategies and their subsequent learning are related to positive socialisation outcomes. More recently, researchers have taken the acquisition of knowledge itself to be a direct indicator of the effectiveness of socialisation, preferable to traditional secondary outcome measures such as job satisfaction and organisational commitment (Bauer et al., 1998; Chao, Kozlowski et al., 1994; Chao, O'Leary-Kelly et al., 1994; Ostroff & Kozlowski, 1992). The relevant literature on the links between newcomers' information seeking and acquisition with traditional socialisation outcomes is reviewed next.

The relationship of information seeking with socialisation outcomes

Taking research on newcomers' proactive strategies for acquiring information first, Morrison (1993a, b) investigated information seeking among newcomer accountants, combining three strategies (enquiry, monitoring, consulting written sources) across information types (technical, referent, normative, performance feedback and social feedback) for a total of fourteen information seeking measures (there was no use of written sources for social feedback). As part of this research, she hypothesised and confirmed that the frequency of newcomer information seeking across these fourteen combinations predicted outcomes of satisfaction, performance and intentions to leave. However, the most important predictors could not be determined due to problems of multicollinearity among the information seeking strategies, making beta weights uninterpretable.

In a related study, Morrison (1993b) found that these same fourteen information seeking strategies predicted task mastery, role clarity and social integration, but did not predict acculturation. Interestingly, task mastery was negatively related to the frequency with which newcomers sought technical information from peers, suggesting that such information seeking was motivated by newcomers feeling doubtful about their task-related abilities.

Moreover, passively received information influenced task mastery and role clarity. Both these results again highlight the potential difficulty of interpreting information seeking results, in that newcomer proactivity may be motivated by either newcomer competence or incompetence, and information may be gained without newcomers actively seeking it (Brett 1983; Brett et al., 1990).

In a similar type of research design, Saks and Ashforth (1997b) investigated two newcomer information acquisition strategies of feedback and observation, across three sources of peers, senior co-workers and supervisors, for a total of six types of acquisition strategies. They found that increased use of these strategies explained significant variance in positive job satisfaction and organisational commitment and negative task mastery and anxiety, with non-significant relationships for performance, intention to quit and actual turnover. As with previous research, the specific inter-relationships of strategies and outcomes were not presented, with no reason given for this although it may have been due to multicollinearity (Morrison, 1993a).

The relationship of information acquisition with socialisation outcomes

Newcomers' acquisition of knowledge about their role and the organisation has also been found to predict positive socialisation outcomes. Ostroff and Kozlowski's (1992) research on newcomer learning found significant relationships between four knowledge domains (task, role, group and organisational) with socialisation outcomes of satisfaction, commitment, adjustment, and psychological stress, but not with physical stress or intent to quit. Specifically, role and group knowledge at time 1 had low significant correlations (.13 - .21) with satisfaction and commitment, organisational knowledge had a low significant correlation with psychological stress (.18), whereas all four domains were moderately correlated with newcomers' adjustment (.27 - .49). In addition, increased socialisation knowledge predicted between 4 - 5 % of the variance in changes in three of these six outcomes (commitment, adjustment and psychological stress), with task knowledge the only significant domain.

As part of a three-phase assessment of newcomer learning, Chao, O'Leary-Kelly et al. (1994) found that socialisation knowledge was positively associated with five measures of career effectiveness, namely job satisfaction, personal income, career involvement, identity resolution and adaptability. Most of these were predicted by four organisational knowledge domains (history, language, politics and goals/ values). Further research by Chao, Kozlowski et al. (1994) using this measure found that socialisation knowledge predicted 21 - 30% of the variance in job satisfaction, organisational commitment and intent to quit, where both knowledge and outcomes were measured approximately six months post-entry. They did not specifically investigate which knowledge domains were significant, but correlations between the knowledge domains and these three outcomes indicated significant relationships of people, goals and history domains with all three outcomes, and for performance with job satisfaction.

Summary

Overall, there is good evidence that relationships exist for both information seeking and information acquisition with outcomes. The current research was concerned only with information acquisition as a more direct indicator of the learning process underlying socialisation (Chao, Kozlowski et al., 1994; Chao, O'Leary-Kelly et al., 1994). Thus, it was proposed that newcomers' learning across the four domains identified and measured in this research (social, role, interpersonal resources and organisation) would have positive relations with traditional socialisation outcomes.

Previous research has found role and group domains (Ostroff & Kozlowski) and social and organisational domains (Chao, O'Leary-Kelly et al.) to be the greatest predictors of outcomes. Moreover, research on emotional and instrumental support has found these to predict positive adjustment (Feldman & Brett, 1983; Fisher, 1985). Since a wide variety of knowledge domains have been confirmed as predicting outcomes in past research, no predictions were made for the relationships between specific knowledge domains, as proposed and measured here, with outcomes. The present research design again heeded the advice of others and hence the

initial levels of the outcome variables were controlled (Bauer & Green, 1994; Bauer et al., 1998; Saks & Ashforth, 1997a). Moreover, as a more stringent examination of the relationship between socialisation knowledge as a predictor of traditional socialisation outcomes, early levels of socialisation knowledge were also controlled. Thus, the present research provides two improvements over previous research, in that it also examines the actual adjustment reflecting both socialisation learning and changes in outcomes. Specifically, the question of whether changes in newcomers' socialisation learning predict changes in traditional socialisation outcomes is examined. As for socialisation tactics, since the research is exploratory, results that are significant between .05 and .10 will also be reported for interest since these may provide a basis for future research (Chao, Kozlowski et al., 1994). As before, they will not be interpreted as significant.

Hypothesis 5: *Newcomers' levels of socialisation knowledge will be associated with traditional socialisation outcomes. Specifically, newcomers' knowledge in the social, role, interpersonal resources and organisation domains will be positively associated with job satisfaction, organisational commitment and self-efficacy and negatively associated with intent to quit. Similarly, increases in socialisation knowledge across the four domains will be related to improved socialisation outcomes.*

The Relative Effects of Socialisation Tactics and Knowledge Acquisition in Predicting Outcomes

Overview

Although organisational socialisation tactics and newcomer information acquisition view the socialisation process from very different angles, that is, the influence of the organisation or that of the individual, they both focus on newcomer learning leading to positive affective and attitudinal outcomes. Research on organisational socialisation tactics commonly proposes that these function through shaping how information is available to newcomers (Jones, 1986; Van Maanen & Schein, 1979). According to Saks and Ashforth (1997a), research on socialisation tactics is tacitly based in Uncertainty Reduction Theory (URT) (Falcione & Wilson, 1988), with the tactics shaping learning and hence reducing uncertainty. The URT perspective has been explicitly adopted by only a small number of researchers. Thus, Mignerey et al. (1995) propose that newcomers' success in negotiating organisational entry is dependent on their ability to gain sufficient information to enable them to reduce uncertainty. Specifically, they argue that socialisation tactics are an important precursor of communication behaviour, with institutionalised tactics providing newcomers with formal, structured interactions with organisational insiders. To date, only two studies have combined socialisation activities of the organisation with individual-level learning: Saks and Ashforth (1997b) investigated organisation socialisation tactics and newcomer information seeking, whereas Chao, Kozlowski et al. (1994) examined the relationship between socialisation tactics and socialisation knowledge acquisition. These studies are discussed next.

The relationship between organisational and newcomer learning tactics

In line with the proposition that both organisation socialisation tactics and individual information seeking are aimed at reducing uncertainty (Saks & Ashforth, 1997a), Saks and Ashforth (1997b) conducted research investigating the relationship between these, looking at the organisation and the newcomers' roles. They proposed that socialisation tactics may influence the opportunities afforded to newcomers for acquiring information,

hypothesising that institutionalised tactics would be positively related to the frequency of feedback and observation and, further, that information acquisition strategies would mediate the relationship between socialisation tactics and outcomes.

Saks and Ashforth's (1997b) findings broadly supported their hypotheses. The six institutionalised tactics were found to be related to the frequency of feedback and observation of three sources: newcomers, senior co-workers and supervisor. Moreover, newcomers' information acquisition strategies were found to mediate the relationship between socialisation tactics and outcomes of job satisfaction, organisational commitment and intent to quit, but not task mastery or anxiety. Thus, the influence of organisational socialisation tactics on some outcomes is mediated by newcomers' information seeking strategies, suggesting that organisational socialisation tactics may provide the context for successful implementation of those strategies.

This research is important in linking the tactics used by the organisation with those used by newcomers, revealing the overall context in which newcomer learning and adjustment occurs. What such research fails to uncover is whether the content is also important over and above the effects of context, which requires investigation of the relationship of learning tactics or strategies with actual learning (Black, 1992; 1996; Tannenbaum et al., 1991). Nearly a decade ago, Wanous and Colella (1989) noted that the means by which socialisation tactics influence newcomers was unknown, with possible factors including social support, informational or reward mechanisms. Since then, only one study has examined the relationships between organisation socialisation tactics, newcomer learning and traditional indicators of successful organisational socialisation.

The relationship between organisational tactics and newcomer learning

Research was conducted by Chao, Kozlowski et al. (1994) on the relationship between the organisational and individual perspectives. As part of their research, they investigated the relationship between organisational socialisation tactics both with newcomers' socialisation learning and their

influence on traditional outcomes. They hypothesised that the relationship between tactics and outcomes would be mediated by newcomers' socialisation learning across six content domains, using the measure developed by Chao, O'Leary-Kelly et al. (1994) (see Table 1.2 for an overview of these domains).

Taking the relationship between organisational tactics and newcomer socialisation learning first, Chao, Kozlowski et al. found that institutionalised socialisation tactics were related to four of the six content domains measuring newcomer learning at one month and with three domains at six months (people, language, goals and values, and history, with language non-significant at six months). However, socialisation tactics predicted the gain in socialisation learning between one and six months for only one of the six content domains (history). In summary, organisational socialisation tactics had stronger effects on newcomer learning earlier in the socialisation process.

For the mediation hypothesis itself, which proposed that the effects of socialisation tactics on outcomes would be mediated by learning across the six content domains, Chao, Kozlowski et al.'s (1994) results supported this for two of the traditional socialisation outcomes. However, it should be noted that they combined organisation socialisation tactics with role ambiguity and role conflict to form a single variable, making the relationship between the tactics and newcomer learning less clear. Chao, Kozlowski et al. found that socialisation content mediated the relationship between formal and informal socialisation tactics with both job satisfaction and organisational commitment. The mediation hypothesis could not be tested for turnover intentions since this was not significantly related to the tactics variable. However, socialisation knowledge alone was a significant predictor of intent to turnover. Thus, using a combined organisational socialisation tactics and role outcomes measure, Chao, Kozlowski et al. confirmed that where this had an influence on traditional outcomes, this was mediated by newcomer socialisation learning.

Summary

In summary, Saks and Ashforth's (1997b) research confirmed that newcomers' information seeking strategies were influenced by the opportunities afforded by organisational socialisation tactics. Further, newcomer strategies, an individual-level factor, were confirmed as mediating the relationship between organisational tactics and some traditional outcome measures of organisational socialisation (job satisfaction, organisational commitment and intent to quit, but not task mastery or anxiety). Similar results were found by Chao, Kozlowski et al. (1994) with organisational socialisation tactics influencing information acquisition, having stronger effects earlier in the process. In addition, newcomer learning was found to mediate the relationship of a combined organisational socialisation tactics and role outcomes construct with two traditional socialisation outcome measures (job satisfaction and organisational commitment). Thus, in addition to the unique positive effects posited for both institutionalised organisational socialisation tactics and newcomer learning, there remains a need for a comparative investigation of the inter-relationship and possible overlap in their positive effects.

Research was also conducted to compare the relative effects of organisational socialisation tactics on changes in outcomes during organisational socialisation. This is in line with the previous research recommendations that initial levels of outcome variables should be controlled for to prevent inflating estimates of relationships (Bauer & Green, 1994; Bauer et al., 1998; Saks & Ashforth, 1997a).

> **Hypothesis 6:** *Newcomers' socialisation learning will mediate the relationship of organisational socialisation tactics with socialisation outcomes of job satisfaction, organisational commitment, self-efficacy and intent to quit, with the same mediation effects found for changes in these four socialisation outcomes.*

Chapter 2

A Cultural Assimilation Perspective on Organisational Socialisation

<u>Introduction</u>

One feature that is common to definitions of organisational socialisation is that it involves newcomers' learning of the organisation's culture. Thus, a number of researchers refer to the learning of appropriate behaviours, attitudes, perspectives, roles, history, norms and values (Chao, O'Leary-Kelly, Wolf, Klein, & Gardner, 1994; Feldman, 1976a; Morrison, 1993b; Ostroff & Kozlowski, 1992; Schein, 1971; Van Maanen & Schein, 1979; Wanous, 1992). Insiders are often accorded a key role in this cultural assimilation, with Van Maanen and Schein (1979) describing organisational socialisation as a process of newcomers being "taught to see the organizational world as do their more experienced colleagues" (p. 211) or, as Louis puts it, "acquiring an appreciation of local meanings" (1990, p. 89). Hence, research also investigated whether organisational socialisation resulted in newcomer cognitive adjustments. Often, such adjustments reveal increased understanding and, in turn, adoption of insiders' perspectives of organisational reality as a reflection of successfully fitting in to the new organisational context (Louis, 1980, 1990; Weick, 1995).

Two different theoretical perspectives were used to investigate changes in newcomers' understanding and cultural assimilation, namely theories of psychological contract and person-organisation fit (P-O fit). Thus, the first section of this chapter presents past research on psychological contracts and goes on to propose how newcomers will adjust their contracts as part of organisational socialisation. The second section looks more directly at cultural assimilation through the degree to which newcomers fit the organisation, reviewing past research on the factors affecting, and the effects of, P-O fit.

The Psychological Contract

Overview

The concept of the psychological contract was introduced in the early 1960s, with Argyris (1960) and Levinson, Price, Munden, Mandl and Solley (1962) using this construct to explain employees' attitudes towards their employer. The basic theory is that, in addition to the employment contract, employees have a more elaborated contract comprising implicit reciprocal expectations of what they and their employer will provide for each other and gain in return (Arnold, 1996; Herriot & Pemberton, 1995; Rousseau, 1995). The main aspects of the psychological contract are that it is implicit and reciprocal, with the perception of mutuality and agreement between the employee and the employer. Moreover, both parties to the contract rely on its perceived veracity to enable actions to have predictable consequences (Rousseau, 1995). For example, a university lecturer may believe that he or she has implicitly agreed to provide high quality teaching, student supervision and a consistent flow of research publications in return for being able to work flexible hours, provided with a decent working environment and having considerable research freedom.

The psychological contract of longer-tenured employees

In the past few years, psychological contract theory has been a popular area of research during a period of major change in patterns of work and careers (Arnold, 1996; Guest, Mackenzie-Davey, & Smewing, 1998; Thomas & Anderson, 1998; Thomas, Anderson, Hampson, & Lawton, 1998). This is perhaps due to its ability to provide an explanatory framework for the attitudes of those currently in the work force towards employers and work generally. In particular, research has focused on the implications of employers violating their employees' psychological contracts for the subsequent employment relationship (Herriot, Manning, & Kidd, 1997; Robinson, 1995, 1996; Robinson, Kraatz, & Rousseau, 1994; Robinson & Rousseau, 1994).

A related area of debate has centred on whether the psychological contract comprises expectations or obligations. Rousseau (1995) argues that

obligations are stronger and more emotive, and hence the effects of contract violation are more damaging. This was investigated by Robinson (1995, 1996) in research on business post-graduates, with violated obligations predicting additional variance over the effects of unmet expectations for outcomes of trust, job satisfaction and organisational commitment. However, a limitation of this research is that obligations and expectations were measured in different ways. Specifically, employees' perceptions of both employee and employer obligations were measured on the dimensions developed by Rousseau (1990) at pre-entry, 18 and 30 months, whilst expectations were measured with two global items asking newcomers, at 30 months post-entry, to retrospectively evaluate whether their expectations of the job and of the organisation were as expected when they joined. Thus, whether expectations and obligations truly differ needs to be examined further.

The psychological contracts of organisational newcomers

In contrast to the more substantial research on the psychological contracts of employees who have an established employment history with an organisation, and the effects of violation of employees' psychological contracts, there has been a dearth of research on newcomers. It is proposed here that newcomers develop psychological contracts as part of organisational socialisation, aiming to ensure that these concur with organisational reality. It is likely that, at organisational entry, newcomers have a rudimentary psychological contract that differs only marginally from their employment contract (Kotter, 1973). The employment contract is likely to be elaborated upon through experiences with employer representatives during the recruitment and selection process (Dunahee & Wangler, 1974; Kotter; Robinson & Rousseau, 1994; Shore & Tetrick, 1994). Subsequently, with greater exposure to common practices at the organisation and to other employees, newcomers are increasingly able to make sense of organisational events and are likely to adjust their contracts on this basis (Baker, 1996; Louis, 1980, 1990; Rousseau 1990). In particular, more informal aspects of work will be learned and integrated into the psychological contract, which newcomers will come to rely on as a trustworthy representation of the fleshed out

employment relationship with their employer (Thomas & Anderson, 1998). Thus, exposure to organisational practices and norms over a period of time are a necessary precursor to newcomers developing accurate perceptions of what an employer will provide and expect above and beyond those factors included in the employment contract (Louis, 1980).

The same may be said for the organisation's side of the psychological contract, with more realistic evaluations of the newcomers' technical performance, ability to work with colleagues, organisation loyalty and so forth only evident after a period of employment (Kotter, 1973). As Rousseau (1990, p. 390) states, "expectations formed during interactions regarding future patterns of reciprocity can constitute a psychological contract for an individual who is a party to the relationship". Building on this, Robinson and Rousseau (1994, p. 246) state that the beliefs of both the employee and employer can develop from "overt promises (e.g. bonus systems discussed in the recruitment process), interpretations of patterns of past exchange, vicarious learning (e.g. witnessing other employees' experiences) as well as through various factors that each party may take for granted (e.g. good faith or fairness)". This clearly illustrates that the psychological contract develops partly as a result of indirect experiences of exchanges which occur during employment.

Thus, organisational socialisation is likely to be a key period for the initial development of the psychological contract. During this time, it is proposed that newcomers' initial psychological contracts develop from expectations based on the employment contract and initial experiences with the organisation, and becomes increasingly elaborated and relied upon over time. Indeed, the endpoint of organisational socialisation may be marked by new employees' contracts having become sufficiently consolidated that they can be violated.

Past Research on Changes in Employees' Psychological Contracts

Past research on psychological contracts has confirmed that they are dynamic, with employees adapting them according to experience and shifting circumstances (Hiltrop, 1995; Kotter, 1973; Rousseau, 1995; Sparrow, 1996).

This element of change is likely to be particularly prevalent in newcomers' emergent psychological contracts. Newcomers are uncertain as to what they can expect from their employer beyond the formal policies and procedures included in their employment contract and in organisation manuals. Only rarely do newcomers and employer representatives have either clear expectations of the other party or make these explicit (Kotter, 1973). Thus, following organisational entry, newcomers are motivated to increase the predictability of their environment and reduce the stressful uncertainty prevalent in this period by learning about and understanding the organisation and their role within it (Datel & Lifrak, 1969; Feldman, 1976; Fisher, 1985; Louis, 1980; Nelson, 1987; Nelson & Quick, 1991).

In this research, only the newcomers' psychological contract is examined, that is, only the employees' perceptions of the deal. Newcomers require sufficient time and interactions to understand the organisational environment and their role, and to develop a relevant and reliable psychological contract in line with these (Louis, 1980). Thus, during newcomer adjustment into the firm, the psychological contract will initially develop from the employment contract as a set of expectations which, over time and with repeated confirmation of these expectations, will develop into more emotionally-laden and trust-based obligations (Thomas & Anderson, 1998; Robinson, 1995, 1996).

Longitudinal Research on Employees' Psychological Contract Development

To date, only a few studies have examined newcomers' psychological contract development, with all of these investigating samples of north American MBA postgraduates (Kotter, 1973; Robinson, 1995, 1996; Robinson, Kraatz, & Rousseau, 1994). The earliest study by Kotter investigated 90 middle managers' psychological contracts over a one year period following entry. Kotter conceives of the psychological contract as comprising four sets of expectations, with their associated matches and mismatches. These are of the employee's expectations of what he or she will give and receive, and the organisation's expectations of what it will give and receive. Kotter acknowledges that whilst the psychological contract "may have literally

thousands of items in it...the new employee may consciously think of only a few" (p. 92). Kotter details thirty expectations which newcomers and organisations may have, in terms of giving and receiving, based on previous research on managers' expectations by Berlew and Hall (1966). Kotter found that newcomers who established a contract comprising more matches than mismatches were more satisfied, more productive and stayed with the organisation longer.

Kotter's (1973) research also sheds light on changes in the psychological contract over time. A common pattern he found was that the psychological contract at entry had a number of mismatches which were not recognised. By approximately one year, the new employee began to feel the mismatches as disappointments, perceiving that the organisation had broken the contract and reacting "by slowly breaking his [sic] part of the bargain" (p. 94). Looking at the specific mismatches, individuals had higher expectations of receiving personal development opportunities, interesting work, and a sense of meaning or purpose and had lower expectations of job security than organisations expected to give. From the organisation's perspective, organisational representatives had greater expectations of newcomers taking on organisational values and goals, conforming, and being able to work with groups than individuals expected to give. A further interesting result was that mismatches reflecting exceeded expectations were as problematic as under-met expectations. Louis (1980) proposes this is due to the surprise engendered by the mismatch requiring further sense-making on the part of the newcomer.

Further data from a case study at one organisation illustrates that psychological contracts do change over time. Specifically, Kotter (1973) compared the psychological contracts of three management trainees, three managers with one or two years experience and a third group of four senior managers. As part of an intervention programme, each of the first two groups were asked to develop lists of mismatches between their specific expectations of giving and receiving and their experiences to date, whilst the senior manager group was asked to compile a list of the mismatches they

thought new employees' would experience. Kotter states that the final three lists were discrepant, but does not give the details. However, he proposes that the differences in the psychological contracts of employees with various lengths of tenure reflect a chronological picture of employees' organisational experiences. Thus, adjustments to the psychological contract are a result of such employees' varying degree of experience with the organisation.

More recently, Robinson et al. (1994) investigated changes in newcomers' psychological contracts from pre-entry to two years, focusing exclusively on the employees' perceptions of what they could be expected to give and what they would receive from the organisation in return. The dimensions they used were taken from previous research by Rousseau (1990), comprising eight employee obligations of: notice of leaving, acceptance of transfers, not supporting competitors, protecting proprietary information, spending a minimum of two years with the employer, overtime, loyalty and extra-role behaviour. The other side of the employee's psychological contract was measured with seven employer obligations of: rapid advancement, high pay, performance-based pay, training, job security, career development and support with personal problems.

Similar to Kotter's (1973) research, Robinson et al.'s (1994) results showed a general trend over this two year period of MBA students adjusting their psychological contracts such that employer obligations generally increased whilst employee obligations decreased. Specifically, increased obligations were perceived for advancement, high pay and performance-based pay whilst employer obligations regarding training were reduced. Conversely, employees' perceived themselves as having lower obligations with regard to overtime, loyalty, job transfers, notice of leaving and a two year minimum employment period.

To summarise, previous longitudinal research on newcomers' psychological contracts has investigated change over a period of either one or two years, showing that newcomers reduce their perceptions from entry of what they are supposed to give and increase their expectations of what they should receive (Kotter, 1973; Robinson et al., 1994). Yet such long time frames

may obscure a more complex process of newcomer psychological contract development and adjustment. Research on organisational socialisation has consistently shown that early experiences are important in determining more distal outcomes, with relatively stability in outcomes established early on (Ashforth & Saks, 1996; Bauer & Green, 1994; Morrison, 1993a, b; Ostroff & Kozlowski, 1992). In other words, organisational experiences tend to show a primacy effect in their influence on newcomers (See Chapter 3). Thus, it is likely that adjustments to the psychological contract found in past research over longer time intervals of several years will be seen over shorter time intervals reflecting the early period of organisational socialisation.

The Role of Salience in the Psychological Contract

Previous research on psychological contracts has been dominated by investigations of graduates entering new workplaces, particularly business graduates (Kotter, 1973; Robinson 1995, 1996; Rousseau, 1990; Robinson & Rousseau, 1994; Robinson, Kraatz, & Rousseau, 1994). This has influenced the types of dimensions that have been investigated, with most recent research from the United States based on the dimensions that Rousseau (1990) developed through research. Dimensions such as performance-related pay, high pay and willingness to accept a transfer may be less relevant for employees from other demographic or educational backgrounds and in different types of organisation or areas of industry. Furthermore, certain psychological contract dimensions may be more significant in different organisational environments and/ or according to recent events (Baker, 1996). For example, in a company that has recently changed its performance appraisal system, employees may incorporate factors relating to their performance appraisal into their psychological contract (e.g., related financial issues) or, if already present, such factors will become more salient. As Louis states "job aspects not previously considered important stand out as important because their presence or absence is experienced as undesirable" (1980, p. 238).

In research by Herriot et al. (1997), the authors conducted critical incident interviews to investigate what psychological contract dimensions

interviewees, representing both the employer and the employee, spontaneously produced and the relative importance of these. Although they found that employers and employees each mentioned only dimensions which the other party to the contract also mentioned, Herriot et al. found that these two parties differed in what was perceived as important in their contracts. More specifically, they measured the importance of contract dimensions indirectly, using "frequency of citations of an obligation as evidence of its salience in the minds of respondents" with salience taken as "suggest[ing] the degree of prominence or importance of the obligation for them" (p. 160). Whilst employees regarded basic outcomes of fair pay, safe working conditions and job security as more important, organisation representatives emphasised less tangible aspects of the psychological contract, such as humanity and recognition, as well as tangible aspects such as benefits which were not as salient to employees. As Herriot et al. outline, employees regard the basic economic, transactional type of contract dimensions as most important whereas employers appear to be misconstruing this and aiming to provide relationship-oriented dimensions. Comparing these findings to those of Kotter (1973), it is clear that the same discrepancies still prevail. Further, this lack of mutual agreement is likely to lead to more contract violations and hence increased negative consequences.

Given the implications of salience in the psychological contract, in particular that the salience of dimensions may change as newcomers experience surprises (Louis, 1980) and the importance of safeguarding aspects of the contract which are perceived as more salient, further research is warranted. In particular, following Herriot et al. (1997) and Kotter's (1973) results, investigating whether salience is a changeable aspect of the psychological contract is important for understanding the dynamics of contract development. Due to the lack of previous research investigating salience within a longitudinal framework, no specific propositions were made about how the salience of psychological contract dimensions would change. Moreover, as Louis and Kotter both note, surprises that are both greater and

less than expectations can have negative consequences. Thus it may be the degree of change, as well as the direction of change, that is important.

The Role of Organisational Insiders in Newcomers' Psychological Contract Development

Louis (1980) notes that newcomers differ from insiders in three important ways that reduce their ability to make sense of surprising organisational events. The first of these is that they do not know what to attend to that needs to be made sense of, and what to ignore. Second, newcomers also lack an accurate relevant history or knowledge of the organisational setting to interpret surprises and understand the true meaning of the organisation's actions. A third difference is that newcomers lack relationships with insiders; thus, whereas established employees are able to compare perceptions and interpretations of events, newcomers lack this additional reference source. These factors have direct implications in the context of newcomers emergent psychological contracts, with the development of a reliable psychological contract dependent on organisational learning, particularly from insiders.

Although previous research has emphasised the role of newcomers' colleagues in their work environment in the organisational socialisation literature (Major et al., 1995; Ostroff & Kozlowski, 1992), this has less commonly been acknowledged specifically for newcomers' psychological contract development. Kotter (1973) noted that when either individuals or organisations had clearer understandings of their expectations, there was a greater probability of a match. This was also promoted where expectations were explicitly discussed, increasing both parties' mutual understanding of each other's expectations (see Herriot & Pemberton, 1996, for a more recent exposition of this view). This point was further developed by Louis (1980), who proposed that an explicit psychological contracting process could facilitate newcomer learning about the organisation. Conversely, Nadler, Hackman and Lawler (1983) proposed that newcomers' relationships with their supervisor and work group have implications for newcomers' psychological contract development, such that a poor socialisation process

can lead to an impoverished contract in which the employee perceives they receive very little and hence gives little in return.

What is notable about these previous propositions about the role of organisational insiders in the psychological contract is that their role has been limited to negotiating the psychological contract. Thus, the organisational insider is seen as the employer's representative. Conversely, there has been little discussion or investigation of the role of organisational insiders in facilitating newcomers' psychological contract development from the employees' perspective, for example by exchanging norms with newcomers that enable them to develop viable psychological contracts. Drawing from research on organisational socialisation, this has consistently shown the important role of organisational insiders as information sources (Feldman, 1976; Louis et al., 1993; Morrison, 1993a; Nelson & Quick, 1991; Ostroff & Kozlowski, 1992) (see also Chapter 1). Insiders are likely to have a particularly crucial role in newcomers' psychological contract development because of newcomers' need to understand the cultural norms governing other employees' psychological contracts (Louis, 1980, 1990; Major et al., 1995; Rousseau & Parks, 1993; Weick, 1995).

Past research has proposed that organisational insiders have some agreement on what employees and the organisation can expect to give and receive from each other (Anderson & Thomas, 1996; Herriot, 1984; Herriot, Manning, & Kidd, 1997; Herriot & Pemberton, 1996; Rousseau & Anton, 1991; Shore & Tetrick, 1994). Indeed, Herriot et al. provide verbatim examples of situations where employees clearly have similar understandings of what they and their employer owe each other, illustrated through collaboration between employees. Herriot et al. found evidence for such collective employee behaviour in situations with both positive and negative impact on the employer, showing that similar psychological contracts can exist both for good and impoverished contracts. It seems likely that greater commonality between insiders' psychological contracts will result in them giving a more consistent and comprehensible picture to newcomers. In turn, this should

enable newcomers to adjust their own psychological contracts according to insiders' perspectives.

Although not explicitly conducted within the psychological framework, a study by Major, Kozlowski, Chao and Gardner (1995) is also relevant to the current research. Major et al. focused on newcomers' relationships with their work teams and supervisors rather than the organisation as a whole. Specifically, they conducted research on 248 graduating students, measuring expectations prior to organisational entry and four weeks post-entry, with outcomes measured at this later time point. Overall, the findings of Major et al.'s research were similar to previous studies of unmet expectations showing that these lead to poorer socialisation outcomes (Tannenbaum et al., 1991; Wanous, Poland, Premack, & Davis, 1992). However, in addition to this, they found that many of the relationships between unmet expectations (role conflict, role clarity and acceptance by colleagues) and socialisation outcomes (job satisfaction, organisational commitment and intent to quit) were moderated by leader- and team-member exchange (Seers, 1989), with higher quality leader- and team-member exchange tending to reduce the negative effects of unmet expectations on outcomes.

Major et al.'s (1995) results are in line with earlier research showing the importance of knowledgeable insiders in shaping newcomers' perceptions (Kozlowski & Doherty, 1989). Thus, Major et al. propose that their results confirm and extend previous work showing the importance of co-workers and supervisors as information sources (Louis et al., 1983; Major & Kozlowski, 1991; Nelson & Quick, 1991; Ostroff & Kozlowski, 1992), establishing socialisation as a "mutually proactive process" with "the role of organizational insiders critical in the exchange" (p. 429). Thus, supervisors and co-workers offer a normative view of the organisation which the newcomer's perspective begins to converge with. In addition to confirming that relationships with work colleagues could ameliorate the negative effects of unmet expectations following organisational entry, Major et al.'s (1995) research is also important in showing that change can occur over such a short

time period of only four weeks, suggesting the existence of a primacy effect in newcomer sense-making.

<u>Psychological contract similarity due to common values</u>

Similarity and convergence between insiders' psychological contracts is also likely due to similar kinds of people working in organisations (Schneider, 1983, 1987a, b). Schneider proposes that similar kinds of people are attracted to organisations and are subsequently selected due to their similarity to insiders responsible for hiring decisions. Further, those who are less similar are likely to leave at a higher rate. To date, the evidence for this model is mostly confirmatory, such that within-organisation variance is less than between-organisation variance with regard to employees' values and demographic background (Chatman & Jehn, 1994; Jackson, Brett, Sessa, Cooper, Julin, & Peyronnin, 1991; Caldwell, Chatman, & O'Reilly, 1990). Research has also shown that organisational socialisation plays a role in this process. Thus, Chao, O'Leary-Kelly et al. (1994) found that newcomers gain in their understanding of organisational goals and values over time. Related to this, Caldwell et al. confirmed that newcomers' normative commitment, that is, their adoption of organisational values, increased over time as a result of more intensive socialisation practices. Further, Chatman (1991) confirmed that selection processes accounted for value match between newcomers and the organisation, with socialisation processes predicting even greater subsequent congruence between individual and organisation values. (See the next section for greater detail on Schneider's theory and Chatman's results).

Within psychological contract research, Herriot and Pemberton (1996) propose that employees with similar values may have similar types of contract, for example being predominantly relational or transactional in their focus (Rousseau, 1995). Further, it is likely that agreement on the importance of contract dimensions is greater for employees in similar roles and in stronger organisational cultures (Cooke & Rousseau, 1988). This proposition is based on a number of factors, including the likelihood that those in similar roles will be more proximal and may have a degree of task interdependence. In turn, such employees will have both a greater opportunity for joint sense-

making and a greater desire for this, since such employees are likely to experience similar treatment from the organisation. These factors are likely to result in organisational insiders in similar roles showing considerable overlap both in the dimensions that are core to their psychological contracts with their employer and also in the relative importance of these dimensions. Returning to the previous example of an organisation with a recent performance appraisal restructuring, employees are likely to regard fair appraisal as a highly salient aspect of the psychological contract. As newcomers learn from insiders, they too are likely to increase the importance they assign to performance appraisal. In other words, over time what newcomers value will become more closely aligned with the things that insiders value (Chatman, 1991). Thus, to examine this relationship between newcomers and insiders' psychological contracts, the current research investigated their evaluations of the importance of various psychological contract dimensions, expecting to find increasing consensus over time.

The Influence of Newcomers' Socialisation Knowledge on Psychological Contract Adjustment

Looking at newcomer learning more generally, past research has confirmed that newcomers adjust their psychological contracts over time but has not investigated the mechanisms behind this. It is likely that this occurs through an iterative sense-making process, with the contract becoming more elaborated and defined over time as newcomers gain information about the new organisation and test out their understanding from this, subsequently adding aspects to the contract as these are proven viable or at least not disconfirmed.

Following earlier research on cognitive sense-making (Louis, 1980), recent research on organisational socialisation has predominantly been on newcomer information seeking and acquisition. This research has shown that newcomer learning is an important predictor of successful socialisation, having positive effects on traditional socialisation outcomes such as job satisfaction and organisational commitment (Ashforth & Saks, 1997b; Morrison, 1993a, b; Ostroff & Kozlowski, 1992) (see Chapter 1 for more detail

on recent research in this area). Similarly, it is likely that newcomer learning predicts newcomer psychological contract adjustment, with a reliable psychological contract being a positive socialisation outcome. Thus, as newcomers develop greater knowledge about their role, their co-workers and the organisational environment more generally, this enables them to revise their contracts.

Although past research has not investigated the influence of newcomers' learning on psychological contract development, a number of researchers have discussed the beneficial role of an explicit contracting process in clarifying each party's understanding of their own and the other's expectations (Herriot & Pemberton, 1996; Kotter, 1973). Thus, making the psychological contract an open deal ensures its mutuality. This overlaps with realistic job preview research, which shows that such previews, which provide an explicit information-sharing experience, are effective in giving newcomers a better knowledge of their new role which in turn leads to more positive outcomes (Premack & Wanous, 1985). From this, it is expected that directly investigating newcomers' learning will show it to influence psychological contract development. Newcomer learning has been found to have positive effects on other socialisation outcomes; in terms of psychological contract adjustment, positive adjustment will be towards a more realistic contract. Thus, learning may bring about either increases or decreases in expectations.

Summary

There has been no previous research on newcomers' psychological contract development during the early period of organisational socialisation. Previous research investigating contract development over one or two years has shown employees increasing their expectations of transactional elements owed to them, with the underlying dimensions of the psychological contract differing in their relative salience (Herriot et al., 1997; Kotter, 1973; Robinson & Rousseau, 1994; Robinson et al., 1994). The role of organisational insiders in providing psychological contract norms has not been previously investigated. Further, although researchers have agreed that psychological contracts are

dynamic, particularly for newcomers, there has been no investigation of whether newcomers' learning brings about psychological contract adjustment. The current research aimed to investigate these issues.

Hypothesis 7: *Newcomers' expectations of the organisation will increase significantly across time.*

Hypothesis 8: *The salience of the various dimensions of newcomers' psychological contracts will change as a result of organisational socialisation experiences.*

Hypothesis 9: *Newcomers' evaluations of the salience of the various dimensions of the psychological contract will change towards insider salience norms.*

Hypothesis 10: *Newcomers' socialisation learning will predict positive changes in their psychological contracts, affecting their expectations of what they will receive from the organisation.*

Person-Organisation Fit

Overview

There has been an emergent literature on person-organisation fit (P-O fit), such as the body of research, mostly confirmatory, investigating Schneider's attraction-selection-attrition hypothesis (Jackson, Brett, Sessa, Cooper, Julin, & Peyronnin, 1991; Jordan, Herriot, & Charmers, 1991; Kristof, 1996; Schneider, Kristof, Goldstein, & Smith, 1996). In particular, research has been conducted on the potential of selection for facilitating fit (Herriot, 1989; Judge & Ferris, 1992; Cable & Judge, 1997). For example, the consistent finding that those responsible for hiring prefer candidates similar to themselves has traditionally been viewed as a source of bias (Harris, 1986; Kanter, 1977). More recently, researchers have proposed that candidates and organisations should capitalise on assessments of similarity or fit during selection since newcomers who are compatible with insiders are likely to be more flexible, satisfied and have longer tenure (Bowen, Ledford, & Nathan, 1991; Chatman, 1989, 1991; Judge & Ferris; Rynes & Gerhart, 1992). Research by O'Reilly et al. (1991) has indeed shown that P-O fit at entry predicts normative (value-based) commitment, job satisfaction and intent to leave after one year, and turnover at two years (see also Chatman, 1991). Thus, P-O fit is now commonly thought to be a positive outcome for both organisations and newcomers.

Practical implications of strategies to promote person-organisation fit

From a practical perspective comparing the relative potential of selection and socialisation activities to achieve P-O fit for newcomers, there may be occasions where socialisation is the only way to achieve this. For example, organisations may need to hire employees with divergent values due to specific and scarce job skills, or where there is a shortage of "congruent" candidates. Further, socialisation may also be preferred due to the greater amount of control it allows the organisation to have over the newcomers' fit. Thus Schein (1971, 1990) proposes that employees should share only core or "pivotal" values, and differ in their peripheral values to facilitate diversity and hence organisational flexibility (see also Argyris, 1957;

Van Maanen & Schein, 1979; Herriot & Anderson, 1996). Organisational socialisation activities allow fine tuning of such pivotal values. Moreover, as Ashforth and Saks (1996) note with regard to selection, "in practice...no matter how thorough that process is, there is usually a need for at least residual organizational and individual adjustment" (p. 153).

A further important consideration is that the optimal level of P-O fit may vary within and across organisations, according to factors such as the function of the department, the growth rate of the organisation, organisational goals and so on (Chatman, 1991; Chatman & Jehn, 1994). In particular, human resources' diversity is positively related to creativity (Amabile, 1988) and is likely to be an important resource facilitating organisational performance in times of environmental uncertainty or change (Damanpour, 1990; Nemeth & Staw, 1989; Schein, 1990; Van Maanen & Schein, 1979). As Van Maanen & Schein note, newcomers always bring at least the potential for change, whether through determined effort or fortuitous ignorance (Anderson & Thomas, 1996). Again, this suggests that the best strategy to achieve a level of P-O fit that corresponds to the specific function is by capitalising on the process of organisational socialisation.

Several researchers also note the potential legal implications of hiring only similar others: since cultural profiles differ nationally, hiring on the basis of current dominant values could reduce the number of newcomers hired from expanding sectors of the workforce, such as ethnic minorities and women (Cassell & Walsh, 1994; Chatman, 1991; Hofstede et al., 1990; Jackson et al., 1993; Schneider, 1987a; Schneider et al., 1996). Notwithstanding this, P-O fit research emphasises consensus only on pivotal values and diversity in non-core values and, therefore, can be argued to be promoting diversity in some respects (Schein, 1980; Schneider et al., 1996).

The role of organisational socialisation in influencing person-organisation fit

In contrast to the gamut of work on P-O fit in selection, there has been considerably less acknowledgement of the role of organisational socialisation processes in facilitating congruence (Caldwell & O'Reilly, 1990; Chatman, 1989, 1991; Harrison & Carroll, 1991; Van Maanen & Schein, 1979). Thus,

Kristof (1996) notes that "although researchers often offer increasing levels of P-O fit as an explanation of the positive effects of socialisation, fit is rarely included as a variable in their studies" (p. 25). There have been several studies looking at outcomes related but not equivalent to P-O fit, showing that newcomers more closely align their values with those of the organisation and more closely fit the organisational climate either due to increasing tenure or as a result of socialisation practices (Caldwell, Chatman, & O'Reilly, 1990; Chatman, 1991; Ostroff & Rothausen, 1995). These are briefly reviewed next.

Organisational socialisation and organisation commitment

A number of studies have looked at newcomers' development of organisational commitment during or following organisational socialisation. In many cases, this commitment is conceived of and measured as newcomers' self-rated adoption and internalisation of organisational values. For example Caldwell et al. (1990) conducted research examining the effects of organisations' recruitment and socialisation procedures on employees' commitment, including a large number of firms in their study (N = 45). They used O'Reilly and Chatman's (1986) commitment measure, consisting of two factors: value-based (normative) and reward-based (instrumental) commitment. Hence normative commitment is similar to P-O fit as measured through value congruence. Caldwell et al. used Pascale's (1985) socialisation measure, consisting of three factors of perceptions of recruiting, clarity of rewards and clarity of organisational values. Although the relationships were relatively weak, they found support for their hypotheses that these socialisation practices facilitated commitment. Intensive selection procedures and a clear organisational value system were both significant predictors of normative commitment, that is of individual - organisational value match.

Other research has also found a positive relationship between socialisation practices and commitment. Thus, Jones (1986) found that an institutionalised pattern of socialisation tactics, arguably reflecting a stronger socialisation experience, was associated with higher commitment (see also Saks & Ashforth, 1997b). Other research has shown that both formal and informal organisational socialisation tactics positively influence newcomers'

commitment (Louis et al., 1983; Major et al., 1995; Meyer & Allen, 1988, 1990; Nelson & Quick, 1991). To summarise, previous research on organisational socialisation processes has found that these influence the actual and perceived congruence between the individual employee's and the organisation's values, as measured by organisational commitment.

Organisational socialisation's influence on person-organisation value match

Only Chatman (1988, 1991) has specifically investigated the relative effects of selection and socialisation activities on P-O fit, with fit defined and measured as the congruence between an individual's values and those of the organisation. She measured selection with five variables: two personality factors used by human resource directors in the selection process (achievement/ confidence and endurance/ analytical), time spent with insiders pre-entry, number of competing job offers and ratio of offers to acceptance. Chatman used six measures of socialisation: number of social activities attended, time spent with mentor and in formal training, and Pascale's three factor scale of newcomer perceptions of the organisation's socialisation process. Looking first at the effects of selection and socialisation separately, two selection variables predicted fit at one year: time spent with insiders pre-entry and the personality factor of achievement/ confidence. Two socialisation variables predicted fit at one year, namely time spent with mentor and in social activities. Looking at the relative effects of selection and socialisation on both P-O fit at one year and changes in P-O fit from entry to one year, socialisation predicted additional variance over selection for both fit at one year and change in fit, but the reverse did not hold. Thus, in Chatman's research at least, socialisation was the stronger influence on P-O fit although she recommends that future research measures socialisation more broadly, in particular including informal practices involving organisational insiders.

With regard to the informal socialisation activities that predicted P-O fit, Chatman notes that the relationship may be in the other direction: those who fit may be more comfortable attending firm social events and be accepted by their mentor resulting in a greater number (and possibly quality) of

interactions. However, the interpretation that it is the informal socialisation activities that promote positive adjustment is consistent with past research (Chao, Walz, & Gardner, 1992; Louis, Posner, & Powell, 1983; Ostroff & Kozlowski, 1993). For example, Ostroff and Kozlowski found that the most significant difference for mentored versus non-mentored newcomers related to learning about organisational issues and practices, with mentored individuals learning significantly more about these. Similarly, comparing mentored and non-mentored individuals, Chao et al. found the former group had significantly higher levels of organisation-related knowledge on three of six dimensions (goals/ values, politics and people). Thus, it seems likely that these socialisation activities promote P-O fit rather than the reverse.

Chatman (1988, 1991) also found that P-O fit was important in predicting positive outcomes. Both satisfaction and intent to quit were significantly predicted by P-O fit at entry; adding P-O fit at one year to assess the additional effects of increased fit was only significant in predicting additional variance in satisfaction. For actual turnover measured after two years, only P-O fit at one year significantly predicted this. Thus, both value congruence at selection and additional congruence wrought through socialisation experiences have important implications for newcomers' attitudes and behaviours.

The Measurement of Person-Organisation Fit

There are three principal issues relating to the measurement of P-O fit, which are discussed in turn. There are two issues relating to the type of fit, first whether fit is supplementary or complementary, and second the levels that are compared in discussing P-O fit. Last, there is the issue of how to appropriately measure P-O fit. These are discussed in turn.

Taking the issue of supplementary and complementary fit first, Kristof (1996) highlights this in her review of P-O fit, criticising previous research for lacking clarity about which type of fit was investigated. Illustrating the difference using newcomers as an example, supplementary fit is congruence based on similarity to others in the organisation whereas complementary fit is where the newcomer adds something different. In line with most previous

research, the current research is concerned with supplementary fit, i.e. newcomers' similarity to organisational insiders.

Turning to the second issue of how fit has been investigated, past research has included considerable investigation of the fit between individuals and environments (Holland, 1976; Walsh & Holland, 1992; Schneider et al., 1996) and more recently looking at the fit between people and organisations (Hall & Mirvis, 1995; O'Reilly et al., 1991; Schneider, 1987a, 1987b; Schneider et al., 1996) using a variety of measurement techniques. Although P-O fit is necessarily measured across levels, this can be done both subjectively and objectively. Kristof (1996) discusses the three major strategies for measuring fit, namely (a) the direct measurement of perceived fit (e.g., Enz, 1988), (b) indirect cross-levels measurement of actual fit (e.g., Chatman, 1988, 1991), and (c) indirect individual-level measurement of actual fit (e.g., Parkington & Schneider, 1979). The current research investigated the first two of these: direct, subjective fit and objective, cross-level measurement.

Cross-level measures of actual fit, that is fit measured at both individual and collective levels, has the advantage of objectivity, but it is also the most complex of these, involving more methodological hurdles than subjective or individual-level measurement. For cross-level measurement, Schneider (1987a) recommends that measures of both organisations and individuals should be similar: since the organisation is the people in it (i.e., it is a collective phenomenon), measurement at the organisational level should consist of an aggregate of individual measurements. Hofstede et al. (1990) take the same position regarding the measurement of organisational culture, viewing it as a socially constructed "collective characteristic". This, in turn, requires a decision on how to measure both individuals and organisations (or rather the organisation's culture) on the same dimensions. Although there is no agreed definition or measurement system of organisational culture, there is considerable consensus that values are a core aspect of culture (Enz, 1988; Judge & Ferris, 1992; Rousseau, 1990; Smircich, 1983). Further, values are a core aspect of organisational culture proposed to guide employee behaviour (Rousseau, 1990; Schein, 1992), and are also relatively stable (Chatman, 1991).

In keeping with this, much previous research has used values at the individual level and also aggregated them to reflect culture at the collective level, and found that it is the interaction of these, and not their independent effects, which meaningfully predicts outcomes (Billsberry, 1997; Chatman, 1991; Enz, 1988; Hofstede et al., 1990; O'Reilly et al., 1991; Wiener, 1988). Given the theoretical and practical support for measurement using values, these were used in the current research to measure cross-levels P-O fit.

Relationship between fit and newcomers' demographics

Interestingly, both Chatman (1988, 1991) and Billsberry (1997) found a difference between the P-O fit of older versus younger newcomers. Chatman's research revealed that older newcomers had better fit at one year than younger newcomers; tenure was non-significant in the same equation, which is not surprising since this refers to tenure at the first measurement point which had a restricted range (M =.75 days, SD = .16). Billsberry's research was across a single firm where participants had a wider range of tenure (M = 5.7 years; SD = 6.46). He found that age and tenure were strongly related, both of these predicting fit, but he did not examine the relationship between these in predicting fit.

Neither Chatman (1988, 1991) nor Billsberry (1997) suggest why they found these effects. A number of explanations are possible. These include the likelihood that older employees will have more work experience in different organisations and therefore are more likely to appreciate the importance of P-O fit, with this possibly influencing their initial attraction to an organisation and subsequent decision to accept a job offer (Schneider, 1987a, b). Older, more experienced newcomers may also have developed the knowledge, skills and motivation to identify and selectively adopt organisational values and/or impression manage their adoption of these for subjective measures only. These issues are mentioned since there may be differences in the various fit measures that are due to demographic factors more than individual differences. Thus, these factors need to be investigated in the research.

The Relationship Between Subjective and Objective Measures of Person-Organisation Fit

Few studies have investigated the relationship between these different types of fit. Enz (1988) discusses two different possible types of fit, proposing that perceived value congruity is a purely perceptual construct that requires respondents to speculate on similarity. This differs from actual value congruity (which Enz calls "latent" congruity), where respondents may be unaware of similarities of their own values and those of others. Enz's research focused on groups, comparing departments with the senior management team (SMT) to look at relationships between congruity and departmental power. In terms of prediction utility, Enz measured value congruity between departments and the senior management team (SMT), both objectively and from the subjective perceptions of each group, resulting in three congruity scores. Of the three correlations between these scores, only the objective measure and SMT's subjective measure were significantly correlated (.37). Departments' perceptions of their value congruence appear greater than those of the SMT (means of 5.50 and 4.95 respectively), although this difference was not tested for significance. This research is important in showing that two different subjective perceptions of value congruity may be unrelated, as may subjective and objective measures.

In addition, Enz (1988) found that perceived value congruity between departments and SMT, from both groups' perspectives, related to departmental power; however for actual value congruity, the relationship with power only held for SMT. Thus, both subjective and objective assessments of P-O fit were significant predictors but of different outcomes, with subjectively-assessed fit having greater predictive strength.

Other research has also shown that perceived value congruity is a strong predictor of outcomes (Caldwell, Chatman, & O'Reilly, 1990; Parkington & Schneider, 1979). For example, Parkington and Schneider (1979) conducted research on bank employees, asking them to recount their own beliefs about service delivery and also those they believed management to hold. They found that individuals who perceived less match between their

own and management's beliefs (i.e., poorer fit) had higher levels of role ambiguity and role conflict, and were more dissatisfied.

Subjective perceptions of fit may be stronger predictors because respondents engage in retrospective justification and/ or rationalisation (O'Reilly & Caldwell, 1981) which, therefore, will be in line with other subjective measures. In other words, subjective measures of fit are attitudinal and consequently are likely to be more closely associated with other measured attitudes than objective measures of fit (Kristof, 1996). Conversely, objective measures cannot be adjusted by respondents, resulting in weaker relationships. Thus, Chatman (1991) proposes that her use of an objective measure of fit may explain why her research results are weaker than those where similarity is measured subjectively.

Relationships between different measures of person-organisation fit

In her review of P-O fit, Kristof (1996) proposes that further research is needed on the relationship between different measures of P-O fit. Previous research on this has focused on the inter-group level (Enz, 1988). Related to this, culture has been found to be strongest within sub-units (Billsberry, 1997; Cooke & Rousseau, 1988) and levels (Enz) where there is more opportunity for interactions and hence the development of shared meanings. There has been no previous research comparing these types of fit at the organisational level, allowing this research to make an innovative contribution. Results may be weaker at this level due to the greater complexity of information than at the group level. Further, since the process of socialisation involves learning about organisational values, goals, reward systems and so on, newcomers' subjective assessment of their fit are likely to become more accurate over time (Kristof). Thus, perceived and actual P-O fit are likely to show greater correspondence following socialisation than at entry.

As a further addition to research on P-O fit, supervisors' assessments of newcomers' fit were also investigated. Enz (1988) found that only SMT's subjective assessments of fit were related to objective assessment and, from this, proposed that department members have more incentives for expressing 'false' similarity, distorting the relationship of their subjective assessments of

fit with those from a more objective measure. Similarly, supervisors' assessments of newcomers' fit would be expected to be less prone to biases inflating estimations of similarity. Moreover, supervisors will have greater organisational experience and therefore be more accurate assessors of the organisational side of the equation. Thus, supervisors' fit assessments would be more likely to match an objective fit measure than newcomers' subjective self-assessments.

Temporal Changes in Person-Organisation Fit

As part of her research, Chatman (1988) investigated change in actual P-O fit scores over the first year. She showed that there was some change for her 122 graduate respondents, with 16% showing decreased fit, 7% showing increased fit and 77% remaining stable. The overall comparison of fit across time for all eight firms in her sample showed no significant differences over the first year (t (51) = -.30). The general trend of Chatman's findings, that there was a decrease, is the reverse of what one would logically expect. Thus, Kristof (1996) proposes that P-O fit will increase after socialisation experiences since these enable individuals to gain full information about organisational characteristics.

Chatman (1988, 1991) noted that more complex patterns of change in P-O fit could have occurred over the one year period she investigated, but that these were masked by such a long interval. Given other research showing how crucial the first year as a newcomer is, she proposed that measuring P-O fit every three to four months would provide more detail on patterns of change. Past research has shown that measures of newcomers taken during the first few weeks are strong predictors of outcomes later in the first year (Ashforth & Saks, 1995; Bauer & Green, 1994a; Morrison, 1993a). This primacy effect is consistently found in longitudinal research, and is discussed further in the next chapter (Chapter 3). Thus, measuring adjustments in P-O fit from organisational entry to four months adds to previous research on P-O fit, investigating whether similar patterns are found over this shorter interval. Conceptually, an increase in fit would be expected (Kristof, 1996), although Chatman's (1991) research over a one year period showed that decreases in fit

were more common. Based on this, changes can be anticipated but their direction remains uncertain.

Person-Organisation Fit as a Dependent Variable

In addition to looking at different measures of fit, and how newcomers' fit alters over time, the relevance of P-O fit to organisational socialisation research more generally is important. Both the factors predicting fit, and factors influenced by fit, are relevant. This research is the first to investigate both predictors and outcomes of fit over a shorter four month period for newcomers.

The effects of socialisation tactics on person-organisation fit.

Although increased P-O fit is proposed as a positive outcome of socialisation (Kristof, 1996), only Chatman and her colleagues' have empirically investigated the factors influencing P-O fit as a dependent variable (1988, 1991; O'Reilly, Chatman & Caldwell, 1991). Chatman found that socialisation experiences during newcomers' first year increased their P-O fit, with the two significant predictors as mentoring (measured as hours spent with mentor) and social activities (number of social and recreational events attended).

Other research has similarly shown that socialisation variables influence outcomes, particularly those involving interaction with insiders (Caldwell et al., 1990; Louis et al., 1983; Major et al., 1995; Nelson & Quick, 1991). Research specifically investigating Van Maanen and Schein's (1979) organisational socialisation tactics has consistently found that the two social tactics, serial and investiture, have the greatest influence on outcomes (Allen & Meyer, 1990; Chao, Kozlowski, Major, & Gardner, 1994; Jones, 1986). These would seem particularly influential for predicting P-O fit since insiders acting as role models (serial tactic) can provide newcomers with knowledge of the organisational value system, whilst confirming that the organisation esteems newcomers (investiture tactic) is likely to increase newcomers' affiliation with the organisation, reflected by a greater value match.

Mentoring is similarly a social tactic, involving interaction between newcomers and insiders, with consistent positive effects of mentoring on

attitudinal outcomes. For example, Chao, Walz and Gardner (1992) found formal mentoring to have a stronger positive influence on job satisfaction, organisational socialisation knowledge and salary than informal mentoring and no mentoring. Noe's (1988) research also shows that mentoring is primarily social in its focus, with his results showing that protégés report greater psycho-social than career-related benefits from their mentoring relationship. Further, mentors may act similarly to the serial tactic, providing role models for newcomers. Moreover, measuring the quality of mentoring rather than quantity, as Chatman (1988, 1991) did, may provide a stronger test of this variable.

The effects of knowledge acquisition on person-organisation fit

As well as looking at the processes by which newcomers are socialised, the actual acquisition of knowledge relevant to the new organisational setting is an important indicator of successful socialisation (Chao, O'Leary-Kelly et al., 1994; Ostroff & Kozlowski, 1992). As part of newcomers' learning about all aspects of the organisation, they are likely to acquire a more accurate knowledge of organisational values (Chao, O'Leary-Kelly et al.). Thus, knowledge acquired during socialisation will enable newcomers to more accurately assess their own P-O fit. It is also plausible that learning about the organisation is an essential first stage in enabling newcomers to adopt organisational values, reflecting positive socialisation (Kristof, 1996), although this process may not be conscious and hence the relationship is likely to be less direct.

Of the four knowledge domains proposed here as the essential components of newcomer learning (social, role, interpersonal resources and organisation), organisation and social knowledge are likely to be the strongest predictors of both subjective and objective P-O fit. This is because learning both general organisational information, including the specific values of the organisation, and social information such as the values of co-workers, are likely to enable newcomers to assess their fit more accurately and also to integrate these values with their own.

Further, the influence of socialisation learning is also likely to be dynamic, with increased knowledge reflecting successful socialisation and in turn predicting an increase in P-O fit.

Person-Organisation Fit as an Independent Variable

Outcomes of job satisfaction, organisational commitment and intent to quit are traditional indicators of organisational socialisation (Bauer et al., 1988; Fisher, 1986; Saks & Ashforth, 1997a). Chatman (1988, 1991) investigated two of these, job satisfaction and intent to quit, in her research. She found that objectively measured P-O fit at entry positively predicted satisfaction and negatively predicted intent to quit at one year. Further, she found that changes in fit over the first year predicted lower turnover but did not add significant prediction to satisfaction. Similar results were found for P-O fit at entry by O'Reilly et al. (1991), with this predicting normative commitment, job satisfaction and intent to leave at one year. Thus, P-O fit at entry and changes in P-O fit over the first 4 months are likely to affect these three traditional indicators of organisational socialisation.

The relative predictive utility of subjective and objective measures of person-organisation fit

Returning to the issue of subjective and objective measurement of P-O fit, since each of these may be measuring distinct constructs, Kristof (1996) proposes that evidence is needed to determine whether these have different relationships with outcomes. More specifically, perceived fit is subjective and therefore likely to have stronger relationships with other attitudinal outcomes (Chatman, 1988, 1991; O'Reilly et al.; Posner et al., 1985).

Summary

There has been no previous research on adjustments to newcomers' P-O fit during early organisational socialisation, with the only research investigating this measuring changes in fit from entry to the end of the first year (Chatman, 1988, 1991) or looking at the effects of fit at entry on outcomes at one year (Caldwell et al., 1990). The current research aimed to extend this previous research by using a shorter time frame, comparing different

measurements of fit, and investigating both what affects P-O fit and what effects P-O fit has.

Hypothesis 11: *All fit measures will be related. Specifically,* **Hypothesis 11 (a)** *Objective and subjective measures of fit will be positively correlated, with this relationship becoming stronger with increasing organisational tenure.* **Hypothesis 11 (b)** *Supervisors' ratings of newcomers' P-O fit will be more similar to objective than subjective measures of fit.* **Hypothesis 11 (c)** *Objective and subjective measures of fit will show change over time.*

Hypothesis 12: *Organisational socialisation tactics of serial, investiture, and mentoring will have a positive effect on P-O fit, and will also predict an increase in P-O fit during socialisation.*

Hypothesis 13: *Newcomer learning will positively predict P-O fit following socialisation and, similarly, an increase in socialisation knowledge will predict an increase in P-O fit. Of the four knowledge domains, organisation and social knowledge will have the strongest effects.*

Hypothesis 14: *P-O fit will be positively associated with outcomes. Specifically,* **Hypothesis 14 (a)** *P-O fit at entry (reflecting selection) and increases in P-O fit (reflecting socialisation) will be positively associated with job satisfaction and organisational commitment, and negatively associated with intent to quit.* **Hypothesis 14 (b)** *Subjectively measured P-O fit will be more strongly related than objectively measured fit to these three attitudinal outcomes.*

Chapter 3

Organisational Socialisation as a Dynamic Process

Introduction

Over two decades ago, Van Maanen (1976) proposed that more longitudinal studies of organisational socialisation were needed to address socialisation as a dynamic process, rather than typical methods of using cross-sectional and/ or retrospective data (Fisher, 1986; Wanous & Colella, 1989). In the same year, Feldman similarly emphasised the need for research designs that could test proposed organisational socialisation models, with longitudinal studies highly suited to this (Feldman, 1976, 1981; Fisher, 1986; Wanous, 1992). The situation had changed little a decade later, with Fisher noting in her review that there were "probably fewer than 15 good, empirical, longitudinal studies of socialization in organizations" (1986, p. 102). However, this former shortcoming has been redressed: Bauer et al. (1998) review the literature in the interim period to find that of 68 empirical studies conducted, 48 were longitudinal.

Although the increase in longitudinal studies of organisational socialisation is welcome, it raises a number of methodological issues, two of which are discussed in this chapter. The first of these is the possibility of inconsistent measurement across time, with this particularly likely for newcomers as they adjust to a new environment. An overview of different types of change is provided, with a conceptual and technical review of one technique that can be used to investigate these. Second, past research findings on the rate of change during organisational socialisation are reviewed, in particular the greater impact of the early period of socialisation. The implications of this are discussed in relation to the design of the longitudinal research conducted here. Following each section, past research is used as a basis for hypotheses relating to the constructs investigated here.

Consistent Measurement in Longitudinal Research

Overview

It is evident that understanding organisational socialisation as a process requires longitudinal research. As Saks and Ashforth (1997a) note, "organizational socialization is a dynamic process in which the most fundamental characteristic is change" (p. 256). This raises the issue of measuring constructs consistently over time. In longitudinal research, even with valid constructs and comprehensible items, respondents may themselves change their understanding of constructs or interpretation of item scales leading to inconsistent measurement. Thus, respondents' perceptions, interpretations, reactions and norms are likely to change in themselves. This is particularly true of newcomers who have been shown to change their perceptions of organisational reality through organisational socialisation (Feldman, 1976; Louis, 1980, 1990; Major, Kozlowski, Chao, & Gardner, 1995; Weick, 1995). Indeed, it has been proposed that an important outcome of organisational socialisation is that newcomers learn to assign similar meanings to events as insiders (Louis, 1980, 1990; Van Maanen & Schein, 1979; Weick). Thus, whilst most researchers conducting longitudinal studies of organisational socialisation have assumed that shifts in responses to questionnaire items reflect true change, called *alpha* change (Golembiewski, Billingsley, & Yeager, 1976; Schmitt, 1982), changes in newcomers' perceptions, norms and so forth are likely to introduce error and make the real meaning of measured changes ambiguous or even uninterpretable (Schaubroeck & Green, 1989; Vandenberg & Self, 1993).

Measurement error through change

In addition to alpha change, two other types of change have been identified in longitudinal research, namely *gamma* and *beta* change (Golembiewski, Billingsley, & Yeager, 1976). Gamma change refers to the respondent reconceptualising the construct being measured, whilst beta change refers to the respondent recalibrating the scale such that the meanings of intervals change. Evidence of gamma or beta change may in itself be important, showing the effects of organisational socialisation, yet it is also

likely to radically alter the interpretation of results. Since it is possible that adjustments in newcomers' constructs to accommodate insiders' norms are common, the uninvestigated effects of gamma and beta change in organisational socialisation research may be pervasive.

As a hypothetical example of both types of "error" change, imagine a newcomer given a questionnaire on his or her first day in XYZ organisation and the same questionnaire at month six. Both contain the item "I am proud to tell others that I work for XYZ organisation", from Mowday, Porter and Steers' (1979) Organisational Commitment Questionnaire. Suppose that the newcomer on day one decides that he or she feels strongly positive towards the organisation, and chooses the second strongest response of 6 on a seven point scale, of "moderately agree". Six months later, with experience of the reality of the organisation, the newcomer receives another questionnaire with the same item. To illustrate gamma change, suppose that the newcomer redefined his or her conception of the construct of "pride in XYZ organisation" over time, perhaps in line with organisational norms. For example, the newcomer may re-conceptualise the basis for his or her organisational pride from the high profile of XYZ's product to being based on the firm's considerable charity contributions. The second type of error, beta change, could occur for this same item where at six months, the newcomer feels a similar amount of organisational pride, yet this time chooses "slightly agree", 5 on the scale, recalibrating this amount as further down the scale relative to colleagues who are far more proud of their organisational membership. From this, it is clear that both gamma and beta change can make comparison across time periods more complex than commonly believed.

Assessing True and Error Change

Schmitt (1982) developed a technique for operationalising gamma and beta change where multi-item scales are used to measure latent variables. He proposed a method of examining variance - covariance matrices across measurements. Specifically, gamma change is investigated in terms of changes in the number of factors or the covariances among factors across

time. Beta change is examined by assessing whether there are changes in either the pattern of factor loadings or in the variances of constructs. Schmitt confirmed the utility of this technique through longitudinal research on a group of individuals who had just been made redundant, asking about their work-related wants and needs immediately after redundancy and then soon after they gained new employment. Using patterns of changes in factor structure, variances, covariances, and loadings, he found that individuals' response patterns varied over time in a way that affected the meaning of these work-related constructs.

The Application of Error Change Assessment to Organisational Socialisation

The significant potential of this technique for accurately measuring adjustments in variables during organisational socialisation has been recognised by Schaubroeck and Green (1989) and Vandenberg and Self (1993). Schaubroeck and Green proposed two ways in which such a technique can contribute to understanding newcomers' organisational socialisation. First, it provides a method of examining types of change, other than "true" change, that may occur as a result of socialisation and which have not received much attention to date. Second, by understanding what other types of changes are occurring to influence responses, the patterns of "true" change can be distinguished and accurately interpreted.

Schaubroeck and Green (1989) demonstrated the assessment of these three types of change, alpha, beta and gamma, for newcomers into a PhD programme at two times, during their first month and again 9 months later. At both times, they measured three work-related dimensions of organisational commitment, job satisfaction and the quality of the advisor relationship. Although Schaubroeck and Green found moderate changes in factor structures, these did not affect the interpretation of the mean differences for these three variables, although they note that larger changes in the factor structures might do so. However, they recognise that their study had a number of methodological limitations, including a small sample size (N = 102).

This initial study by Schaubroeck and Green (1989) has been enlarged and improved upon by Vandenberg and Self (1993), particularly the confirmatory factor analytic technique. Vandenberg and Self note four methodological shortcomings of the former's research which necessitate further research. First, the fact that newcomers were students new to a PhD programme, rather than entering work organisations, means they are likely to have a different view of their relationship with the organisation than those who gain their livelihood from it. Second, Vandenberg and Self propose that the first measurement time should be pre-entry or on day one, rather than some time during the first month by which point newcomers will have had significant organisational and job experiences. Third, they propose that the number of measurement points should be extended beyond two to examine whether change is followed by a period of more change or of relative stability. Last, they propose that Schaubroeck and Green's use of a procedure to assess mean differences that is normally used for cohort groups may have restricted the apparent instability of measurement continua.

To illustrate their methodology, Vandenberg and Self (1993) conducted research on newcomers entering a bank, investigating four different measures of newcomers' organisation commitment. These were Mowday, Porter and Steers' (1979) Organisational Commitment Questionnaire (OCQ), the affective and continuance commitment (AC and CC) measures developed by Allen and Meyer (1990), and Mael's (1988) six-item measure of organisational identification (OI). Newcomers were assessed at three times, with the first measurement on day one and the two subsequent measurements at the third and sixth months following entry ($\underline{N}$ = 117). The patterns of gamma and beta change for the OCQ and OI did not change the interpretation of alpha changes. However, for the AC and CC measures, gamma change occurred indicating that respondents may have been using a different conceptual frame of reference across measurements. From their research, Vandenberg and Self state that "the present findings suggest that tests for the presence of beta and gamma changes may need to become a standard practice and treated as a

preliminary analytical step in studies in which change is the focal issue" (p. 566).

Analytical Procedures for Assessing True and Error Change

The present research aimed to confirm and extend research on true and error change using more proximal time points and investigating additional multi-item scales of latent constructs. This next section focuses on the statistical analyses used to investigate where and what type of changes, alpha, beta, and/ or gamma, are present.

Conceptual overview of analyses for assessing change

The overall assessment of change consists of three phases (Thomas, Cunningham-Snell, & Anderson, 1998; Vandenberg & Self, 1993). A preliminary phase examines whether there is any change over time and hence whether further analysis is necessary. A second phase comprises four hierarchical stages, two assessing whether gamma change is present and then a further two looking for indications of beta change. A third phase investigates the presence of alpha change. A number of indices are evaluated at each stage to assess whether further analyses should be conducted. The analyses themselves are outlined next, followed by an explanation of their interpretation at the various stages.

Preliminary analysis. The preliminary analysis assesses whether there are changes in the variable over time, by testing the null hypothesis that the variance-covariance matrices are equal for the variable at each time point. Rejecting this null hypothesis means that changes are present across measurements, thus providing a rationale for undertaking further increasingly restrictive analyses to examine the nature of such changes (Vandenberg & Self, 1993).

However, Byrne (1989) notes that the global test based on the null hypothesis of invariant variance - covariance matrices is not always tenable and can yield contradictory findings. She states that in some cases the null hypothesis may be accepted and yet subsequent tests reveal invariance in measurement and/ or structural parameters. Conversely, the null hypothesis may be rejected and yet measurement and/ or structural parameters may be

found to be invariant. According to Byrne, the inconsistency of the omnibus test is due to the lack of a baseline model, making the test more stringent than subsequent follow-up analyses. Byrne cites a personal communication received from Muthén (1988) who argues that the omnibus test is of little use in testing for invariance across groups, and therefore is not a necessary prerequisite for conducting more specific hypotheses investigating factorial invariance. This concurs with earlier research by Rock, Werts and Flaugher (1978) who advocate that where the null hypothesis cannot be rejected, further analyses should still be conducted to assess the invariance of measurement and/ or structural parameters.

Based on these various arguments, the strategy adopted in this research was to test the preliminary model to see whether there were differences between measurement times when the data from these times were treated as coming from different groups. However, where the null hypothesis was not rejected, a conservative strategy was adopted of conducting further analyses to assess whether gamma or beta change were present.

Gamma and beta change. Four further analyses investigate whether gamma and/ or beta change are present through a series of nested models. If no significant worsening of the model occurs following each of these analyses, the next stage is embarked on. Gamma changes are investigated first because changes in respondents' conception of the latent construct are the most serious: if the measurement instrument is measuring different constructs across time, comparisons across time are uninterpretable and hence further analyses are not warranted (Thomas, Cunningham-Snell, & Anderson, 1998; Vandenberg & Self, 1993). Thus, the first two stages assess gamma change, initially by investigating whether the same factor structure underlies the scale at each measurement, and next by assessing whether equal factor covariances hold across time. If neither of these models show a significant worsening in fit, two further stages assess whether beta change is present. The first of these assesses whether factor variances are equal across measurements and the next investigates whether items have equivalent factor loadings across measurements. If no significant worsening of the fit of the model has

occurred, and the initial omnibus test was significant (Byrne, 1989), the final phase is embarked on which consists of assessing alpha change.

Alpha change. In this final phase, the effects of even minor non-significant gamma and beta changes on alpha changes are included. For the analysis, the restricted model of the variable (factor structure, covariances, variances and loadings constrained to be equal across measurements) with freely estimated latent variable means is compared with the same model when latent variable means are constrained to be equal. A significant loss in the fit of the second more constrained model indicates that the model with freely estimated means gives a better fit. In other words, the means are not equal in value and there is alpha change (Thomas et al., 1998; Vandenberg & Self, 1993). This is equivalent to an omnibus F test associated with an ANOVA and, if significant, is followed up with the equivalent of simple effects analyses. Specifically, adjacent latent means are compared using two models as before, in which means are either freely estimated or constrained. The number of these subsequent analyses depends on the number of measurement periods, being one less than the total number of measurements, with type 1 error controlled accordingly.

For the sake of contrast, a repeated measures ANOVA is conducted with measurement time as the repeated measure, to yield a comparison of the results with and without controlling for gamma and beta change (i.e., the ANOVA analysis assumes observed change reflects alpha change). A significant overall F indicates significant mean change, which is followed up with comparisons of adjacent means. If the results of the ANOVA agree with those from the last stage assessing alpha change, the researcher can be sure both that the multi-item scale used to measure the construct is free from gamma and beta change and that alpha change exists.

Technical Overview

Comparisons of models are conducted with structural equation modelling (SEM), with measurement models specified which comprise both the scale items which are manifest variables and the latent variables underlying them. Models are tested for their fit to the data, comprising

relationships and inter-relationships between manifest and latent variables across time. In this research, SEM was conducted using the AMOS programme (Arbuckle, 1995). Data were input as correlation matrices and standard deviations, using listwise deletion. Analyses were conducted using Maximum Likelihood extraction since past research has found this to be the most reliable method for comparing proposed models with data (Hoyle & Panter, 1995; Hu & Bentler, 1995).

Choice of statistical indices for assessing models

The first method developed for assessing the fit of a model was chi-square, where a significant value shows the model gives a poor fit to the data (Joreskog, 1969, cited in Hu & Bentler, 1995). According to Hu and Bentler, the popularity of this method was due to its apparent objectivity over more subjective decision-making. The inadequacy of the chi-square statistic was recognised early on, in particular the effects of sample size: with large samples, chi-square is too powerful and hence overly stringent leading to models being rejected, whilst with small samples the opposite pattern holds (Bentler & Bonnett, 1980; Bollen, 1989; Marsh, Balla, & McDonald, 1988).

Although subsequent research has developed a number of other fit indices which provide adequate criteria for evaluating structural equation models (i.e., whether a model adequately fits a data set), there is little consensus on the best fit index (Hoyle & Panter, 1995; Hu & Bentler, 1995). Hoyle and Panter recommend reporting chi-square since it allows comparison of nested models, with the difference in the chi-square values and the degrees of freedom between two models being used as an independent statistic and evaluated as for chi-square. A significant value indicates a significant change in the fit of the model to the data. They further recommend two of the four indices proposed by Hu and Bentler, specifically the Tucker Lewis Index (TLI) (Tucker & Lewis, 1973) and the comparative fit index (CFI) (Bentler, 1989, 1990). These are both incremental fit indices (also called comparative fit indices), comparing the improvement in the fit of the proposed model over a null model based on no significant relations between observed variables. Hoyle and Panter note that the Goodness of Fit Index (GFI) may also be

included as an absolute fit index, assessing how well the model reproduces the sample data. This is analogous to R^2, comparing the goodness of fit to a component akin to the total sum of squares (Hu & Bentler), indicating the relative amount of variance and covariance jointly explained by the model (Byrne, 1989). Further, where competing or nested models are being compared, Hoyle and Panter propose that researchers should also report parsimony-adjusted absolute indices which control for the number of free parameters in the models, such as the adjusted goodness of fit index (AGFI). One further index is included in the current research for comparison with previous research. Thus, the normed chi-square (NC $=X^2/$ df) is reported, which gives an indication of the parsimony of the model (Schaubroeck & Green, 1989; Vandenberg & Self, 1993). However, as with chi-square, this statistic is susceptible to sample size effects.

Acceptable values of statistical fit indices

Reviewing the various fit indices, Hu and Bentler (1995) note that with dependent variables and samples sizes ≤ 250, even the most reliable goodness of fit statistics will over-reject models. Further, they state that the commonly-accepted value of .90 as an overall criterion for deciding whether to accept or reject a model may not always be appropriate (Bentler & Bonnett, 1980). This problem is also discussed by Kelloway (1996), who notes that assessing model fit with such indices is problematic due to a lack of sampling distributions. The consequence of this is that researchers are forced to rely on rules of thumb such as the .90 criterion even though "there is no strong evidence for the need for fit indices to exceed a certain value for the model to provide a reasonable fit to the data. Moreover, in the absence of sampling distributions it is not possible to determine when an NFI (for example) of 0.90 is substantially different from an NFI of 0.88" (p. 169). Kelloway concludes that the real question should be not whether a fit index meets a certain criterion, but whether the index's value for one model is higher than the value for a competing model. However, Kelloway does not suggest how much difference should be taken as significant. In response to the same dilemma, Hoyle and Panter (1995) propose that since as yet there is no theoretical or

empirical reason for changing the 0.90 norm, it should be accepted for the present.

In line with the common use of the .90 criterion in past research, this was used as a benchmark in the current research. However, given the debate over the criterion for acceptable model fit from the various fit indices (Kelloway, 1996; Hoyle & Panter, 1995; Hu & Bentler, 1995) and the likelihood of small sample sizes in the current research which are associated with reducing the magnitude of such indices, a lenient strategy was adopted. Specifically, for the two incremental fit indices that are more robust across smaller samples, the CFI and TLI, at least one of these had to meet the .90 criterion for a model to be deemed as fitting the data sufficiently well. The use of a single index achieving the .90 criterion is in line with Schaubroeck and Green's (1989) assessment of models. The GFI and AGFI are more susceptible to sample size effects, and are therefore included for comparison and completeness rather than assessment of whether a model is acceptable.

For the NC ratio, a variety of acceptable values have been proposed ranging from < 2.00 (Byrne, 1989), < 3.00 (Carmines & McIver, 1981), to < 5.00 (Wheaton, Muthén, Alwin, & Summers, 1977). Bearing in mind this limitation, it is reported in the current research for completeness in comparing the results with those of previous researchers. Again, since smaller sample sizes were anticipated in this research, a lenient criterion was chosen of 5.00, with values equal or greater than this taken to show a poor fit of the model to the data.

Thus, the preliminary model is assessed primarily by the chi-square value, with the CFI and TLI, GFI, AGFI and NC providing additional information. These same indices are used for assessing the first model investigating gamma change. For subsequent nested models of gamma and beta change, and subsequently of alpha change, the chi-square difference statistic is primarily used since it allows direct comparison of models. Additionally, for each nested model in turn to be acceptable, at least one of the CFI or the TLI fit indices should continue to meet the .90 criterion with the other fit indices also showing that the model fits the data reasonably well.

Investigations of True and Error Change in the Current Research

The presence of alpha, beta and gamma changes were assessed based on Vandenberg and Self's (1993) method outlined above, investigating four variables of organisational commitment, intent to quit, careerism and self-efficacy. These were chosen on the basis of being uni-dimensional constructs measured with multi-item scales at two or more periods. Two of these, organisational commitment and intent to quit, are commonly used in the organisational socialisation literature as "secondary outcome measures" (Bauer et al., 1998), and therefore are usually measured at the last data collection point (with the exceptions of Schaubroeck & Green, 1989 and Vandenberg & Self). Of the other two variables, self-efficacy has been increasingly popular as an indicator of newcomers' adjustment and learning and is therefore expected to show temporal change (Jones, 1986; Saks & Ashforth, 1997a). Last, careerism is a relatively new concept which has been used in research with newcomers, indicating whether they desire a career spanning a number of organisations (high careerism) or want to remain with a single employer (low careerism) (Robinson & Rousseau, 1994; Rousseau, 1990). Relative to the other constructs, careerism was expected to be more stable, allowing assessment of a range of anticipated changeability across constructs. In addition, two of the constructs focus on newcomers' reactions to the organisation (organisational commitment and intent to quit), with the other two reflecting newcomers' self-perceptions (self-efficacy and careerism).

Of the four constructs examined here, only the longitudinal reliability of organisational commitment has been examined previously. Schaubroeck and Green (1989) investigated new PhD students' responses to Porter, Crampon and Smith's (1976) six item organisational commitment scale as one of three measures taken at months 1 and 9 after starting their PhD programmes. A longer nine item version of the scale (Mowday, Steers, & Porter, 1979) was investigated by Vandenberg and Self (1993) for 117 newcomers to a bank, with data collected at orientation on day one, and at the end of the third and sixth month of employment. Both studies found no

evidence of gamma or beta change, but did find alpha change representing decreases in newcomers' organisational commitment.

Each of the four uni-dimensional constructs will be analysed separately since investigation of possible error changes are concerned with comparing measurement properties of single instruments, rather than their inter-relationships (Schaubroeck & Green, 1989). Since the measure of organisational commitment has been found previously not to show error change over time, the same result was anticipated in this research. Similarly, other measures were expected to be psychometrically robust, showing no gamma or beta changes.

> **Hypothesis 15:** *Organisational commitment, intent to quit, careerism and self-efficacy will show no significant gamma or beta change over time.*

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Patterns of Temporal Change Reflecting Newcomer Adjustment

Overview

Recent research in organisational socialisation has found that newcomers' perceptions, reactions and learning do not show the anticipated temporal patterns of change. Earlier models of socialisation propounded that the process comprised gradual, cumulative and linear changes. For example, Feldman (1976, 1981) developed a three-stage model of socialisation, stating that "it is expected that the further along in the socialization process a person is, the greater an individual's outcomes will be, and that those individuals who have completed socialization will have the highest levels on the outcome variables" (1976, p. 436). Instead of the even changes that were originally propounded, research shows strong evidence for greater amounts of adjustment early on (a primacy effect) and less change than expected over time, in particular later on in the organisational socialisation process (Bauer & Green, 1994; Morrison, 1993a).

Primacy Effects in Organisational Socialisation

A consistent finding in many of the recent longitudinal studies has been that patterns of change often show a primacy effect, such that most socialisation occurs during the early period after organisational entry. For example, Ashforth and Saks (1996) found that tactics had a relatively stronger impact on newcomers at 4 months than 10 months. They propose that this might be due to the greater effects of reducing uncertainty in the early stages following entry, subsequently having less impact as newcomers become more secure in their roles. Research by Major et al. (1995) over a shorter one month period (with data collected pre-entry and four weeks post-entry), showed that newcomers' experiences during this first month, especially interactions with supervisors and co-workers, predicted positive socialisation outcomes even though these were measured so early on.

Bauer and Green (1994) also found primacy effects in their research, explaining that "variables in early stages reached forward and influenced later outcomes and processes even after we had controlled for a number of intervening variables" (p. 220). They give two possible explanations for the

primacy effect in organisational socialisation. First, that it may be due to pre-entry socialisation. This explanation is plausible in their research where a number of their doctoral student respondents had previous experience of the organisation as undergraduates. Pre-entry socialisation has also been proposed in other contexts, where interactions with insiders, dissemination of information encouraging realism about the role and the organisation (e.g., RJPs), and other pre-entry experiences have been found to have positive effects on early socialisation (Chatman, 1991; Feldman, 1976; Kotter, 1973; Premack & Wanous, 1985; Zahrly & Tosi, 1989). Second, Bauer and Green propose the possibility that early encounters with the organisation are more robust than anticipated, with expectations and perceptions created early on colouring the interpretation and effects of later events. This explanation is similar to that of Ashforth and Saks (1996) and fits well with the newcomer conceived of as desiring to make sense of the situation as rapidly as possible, to reduce anxiety, fit in and learn appropriate behaviours and performance standards (Louis, 1980; Mignerey et al., 1995; Schneider, 1987a, b; Van Maanen & Schein, 1979).

Rate of Newcomer Adjustment

Although past research using longitudinal designs has tended to find significant changes, where short time periods have been used these have been relatively small (Bauer et al., 1998; Bauer & Green, 1994; Ostroff & Kozlowski, 1992). For example, Tannenbaum, Mathieu, Salas and Cannon-Bowers (1991) investigated self-efficacy (physical and academic) and commitment in US naval recruits at day one and at the end of their initial eight weeks of training. Respondents' indicated their ratings on seven point scales, with ratings of all three constructs being high at both measurements (4.88 - 6.00). In spite of the small absolute degree of change for the constructs (mean change = 0.27), each showed a significant increase over the eight week training period.

Research has also found less change than anticipated at later measurement points (Morrison, 1993a, 1993b; Ostroff & Kozlowski, 1992). Thus, Ostroff and Kozlowski state that "some of the observed relationships, though significant, were somewhat small in magnitude" (p. 869). Their

explanation for these small effects is that they are likely to have measured only some of the multiple variables implicated and also that more theoretically relevant outcomes are needed to show stronger relationships. In a similar vein, discussing her research on newcomer information-seeking, Morrison (1993a) notes "overall, the relative stability of mode and source usage is quite surprising....Although it is possible that information seeking is more stable than previously believed, a more likely explanation is that the six-month time frame was too short for changes to be observed" (p. 58). Concurring with this view, although Bauer and Green (1994) found that later experiences have effects, they propose that "although 1 year has traditionally been noted as the primary time frame for socialization (Fisher, 1986), longer time frames may be desirable in certain contexts" (p. 221). In other words, the rate of newcomer adjustment, and its endpoint, are likely to vary.

The proposition that longer time frames may sometimes be necessary (Bauer & Green, 1994; Morrison, 1993a) is supported by Hill's (1992) qualitative study of new managers who, even after a year, did not feel that they had mastered their roles. Indeed, it is likely that the time frame within which the newcomer becomes an insider may not only be longer but also shorter than this, depending on individual and organisational factors including organisational and role complexity, individual proactivity, opportunity for co-worker interaction, and the number of newcomers joining subsequently, to mention only a few (Reichers, 1987).

Measurement Intervals

Given the various findings on the existence of a primacy effect and the lack of certainty on its endpoint, it is not surprising that many researchers have noted the lack of agreement on the correct number of measurement points or appropriate intervals between them (Ashford & Black, 1996; Chao et al., 1994; Nelson, Quick, & Eakin, 1988; Saks & Ashforth, 1997a). From their review, Bauer et al. (1998) calculated that the average number of data collections in recent longitudinal studies was 2.7; 36 of the 48 studies they reviewed included a first measurement point pre-entry or within the first week, with the second measurement at approximately 6 months post-entry

and the third at one year. However, these are generalisations, with studies showing a wide variety of measurement intervals. Nonetheless, Bauer et al. also note that researchers often use three month measurement intervals on the basis of significant results from previous research using these intervals, rather than any theoretical support for changes occurring over three month periods. They emphasise that this practice falsely implies that the socialisation process occurs at a similar rate across contexts.

It should be noted that practical constraints will also feature in research designs (Ashford & Black, 1996). For example, researchers may arrange a measurement point to coincide with scheduled training at a specific site where all newcomers will be, perhaps advancing or delaying the desired measurement point as a trade-off for a higher response rate. As Nesselroade and Featherman (1991) note:

> ...choosing an interval for repeating measurements is something like selecting a sieve or a strainer for use; you may lose some pieces you would like to keep because the holes (intervals between measurements) are too large or retain some that you don't want because the holes are too small. Nevertheless, in order to implement a study such choices must be made. (p. 48).

As Bauer and Green (1994) note, collecting data at more proximal time points increases the risk of memory effects, resulting in consistency bias, although it more closely reflects the subtle changes underlying the socialisation process than more distal measurements. Thus, the problem of memory effects applies to their recommendation of using daily or weekly experience sampling to capture the finer details of changes across time (Bauer & Green, 1997). However, Ostroff and Kozlowski (1992) propose that memory effects are unlikely where a large number of responses are required at any single measurement. Bauer and Green (1997) further recommend that future researchers use equal tenure intervals to "control" for the effects of tenure on socialisation.

Both recent reviews of organisational socialisation recommend that the first measurement point needs to be early in the process to allow initial

attitudes and perceptions to be controlled, and therefore enable both an accurate assessment of changes and prevent over-estimation of the influence of socialisation variables on outcomes measured later on (Bauer et al., 1998; Saks & Ashforth, 1997a). Bauer et al. provide guidance for future researchers: having noted the possible problems with the popular three month measurement intervals in implying similarity across contexts, Bauer et al. paradoxically follow on by recommending that these provide a useful starting point, being preferable to random data collection.

Further, since it is not known how long adaptation takes, yet it is known to take longer than one year in some cases (Hill, 1992; Pinder & Schroeder, 1986), it is uncertain when the last data collection should occur. As Saks and Ashforth (1997a) note "little is known about socialization after 6 months of entry" (p. 257), hence they concur with Bauer and Green (1994) in proposing that longer research time frames are needed to understand the full effects of socialisation on outcomes. In sum, a decade after Reichers' (1987) seminal paper on factors affecting the rate of organisational socialisation, research on this "remains a neglected issue" (Saks & Ashforth, p. 257), with no consensus on the appropriate measurement intervals or the "average" rate.

Further Research on Temporal Changes Reflecting Newcomer Socialisation

There remains a clear requirement for further research on the rate and process of organisational socialisation. Few studies have used more than three measurement intervals (Bauer et al., 1998). Furthermore, there has been a lack of comparative research to investigate whether the socialisation process occurs at a similar pace and manner at different sites. The current research aimed to redress this in a number of ways. First, shorter measurement intervals were used to more closely investigate primacy effects in newcomer adjustment. Second, in one study, five measurements were taken to closely record patterns of adjustment. Third, two research sites were used, with the research design incorporating several parallel measurement intervals and using a number of similar constructs measured in the same way. These constructs were chosen for their common use as indicators of newcomer

adjustment, in terms of work attitudes and behaviour (Bauer et al.; Saks, 1995).

Past research provided a starting point for proposals about likely patterns of change and stability during organisational socialisation although considerable extrapolation from these was needed. For example, much previous research has separated predictors and outcomes, measuring these variables only once or twice whereas in the current research a number of variables were measured at multiple time points. Further, since research was conducted in two disparate settings (recruits entering the British Army and new employees entering a professional services firm), socialisation is likely to differ in some respects, such as the processes involved and their actual rates. Thus, the next section discusses each of the constructs that were measured in this research to reflect newcomer adjustment, first looking at the one measure asking newcomers to subjectively assess their change and then reviewing research on measuring change more objectively via longitudinal research. This is followed by a brief outline of possible differences in the process and its rate due to differences in the two organisations where research was conducted, and followed by hypotheses summarising anticipated patterns of temporal adjustment.

Subjective Measures of Newcomer Adjustment

Personal change. A number of researchers have proposed that objective and subjective measures of change are likely to differ, with important implications (Kristof, 1996; Nicholson & West, 1988). Nicholson and West give two reasons why research should investigate not only objective change but also subjective change as assessed by respondents themselves. First, the dimensions used to investigate change objectively may not be comprehensive for any one individual, whereas a global self-defined measure is assured of being inclusive (Wanous, Reichers, & Hudy, 1997). Second, Nicholson and West argue that self-perceived change may have greater implications for the individual and his or her subsequent behaviours, whereas this might not be evident from changes on less relevant measures (Ashforth & Saks, 1996). Last, Nicholson and West's results showed that those

experiencing job change reported more radical shifts subjectively than were apparent from objective measures of change. Although objective measures tended to show significant differences, these were of small magnitude. From this, Nicholson and West argue that traditional measures may under-estimate individuals' potential to proactively adjust. Thus, subjective change was included in this research both to directly assess newcomers' self-perceived adjustment and also to allow a comparison against objective measures of change.

Nicholson and West (1988) developed a four item measure of personal change, comprising career plans, attitudes, values and personality. They kept the dimensions separate and, although measured on a five point scale, reported aggregated percentages for no change, moderate change and a lot of change. For the whole sample, respondents' self-perceived change was fairly evenly spread across the three aggregated categorisations for the four dimensions; thus if the mean for each dimension had been calculated, these would have shown moderate change.

This four dimension measure was subsequently used as a single construct by Ashforth & Saks (1996), who proposed that the influence of organisational socialisation on personal change has been neglected. For business school graduates entering new organisations, they found a moderate degree of personal change at both four and ten months (means of 2.40 and 2.49 on a 1 - 5 scale; standard deviations of 0.83 and 0.85), with personal change at these two periods relatively highly correlated (.49). Thus, most newcomers experienced some personal change.

Objective Measures of Newcomer Adjustment

Job satisfaction. Job satisfaction relates to the newcomers' emotional reaction to their new job or role. Along with organisational commitment and intent to quit, job satisfaction makes up the triplet of affective measures commonly used as outcomes of organisational socialisation (e.g., Adkins, 1995; Chao, O'Leary-Kelly et al., 1994; Chao, Walz, & Gardner, 1992; Jones, 1986; Louis, Posner, & Powell, 1983; Major et al., 1995; Morrison, 1993a, b; Saks, 1994, 1995; Zahrly & Tosi, 1989). Only two studies have examined job

satisfaction at multiple times. In the earlier of these, Ostroff and Kozlowski (1992) examined the job satisfaction of management and engineering graduates at approximately four and eight months post-entry. Although they do not compare levels of satisfaction across this period, the means are similar and fairly high at both measurements (4.42 and 4.32 respectively). The second longitudinal study including job satisfaction is by Adkins (1995), who investigated mental health specialist newcomers with previous work experience elsewhere. She measured job satisfaction first at week one, a second time after training (between four and seven weeks), and after six months. Very little change in job satisfaction occurred, although there was an initial slight decrease (means of 12.74, 12.18 and 12.12 on a scale from 7 to 15); Adkins did not assess the significance of these differences. However, job satisfaction appears fairly stable overall.

Other research is relevant in showing relative levels of job satisfaction after varying lengths of tenure. For example, past research with MBA students entering new organisations has consistently found them to report high levels of job satisfaction. Thus, Jones (1986) found high job satisfaction at approximately 5 months post-entry (mean of 5.7 on a seven point scale), with a similarly high level reported after two years by MBA students in Robinson and Rousseau's study (1994) (10.90 on a twelve point scale). Two other studies have been conducted with entry-level accountants, with Saks (1995) finding them to have moderately high levels of job satisfaction at six months (4.54 on a seven point scale), and similar results found by Chatman (1991) at approximately one year (5.09 on the seven point Kunin (1955) faces scale). Satisfaction has been measured earlier, with Major et al. (1995) measuring this at four weeks post-entry; however, their use of an adjective check list makes interpretation ambiguous. In summary, newcomers' job satisfaction between four and twelve months is moderately high for samples of university graduates and appears to be stable over time.

Organisational commitment. Organisational commitment has frequently been used as an outcome measure, with higher levels reflecting positive organisational socialisation (e.g., Arnold & Nicholson, 1991; Chatman

& O'Reilly, 1990; Jones, 1986; Laker & Steffy, 1995; Louis, Posner, & Powell, 1983; Meyer, Bobocel & Allen, 1991; Ostroff & Kozlowski, 1992; Saks, 1994, 1995). It is usually assumed that organisational commitment increases in a linear manner over time, reflecting newcomers' internalisation of organisational values and affective commitment to the organisation more generally. Hence it is surprising that past research has found small but significant decreases in newcomers' organisational commitment for doctoral students and new bank employees. Specifically, Schaubroeck and Green (1989) found that new doctoral students' organisational commitment decreased between months one and nine after entering the doctoral programme (the mean decreased from 5.53 to 5.01 on a seven point scale). Similarly, Vandenberg and Self (1993) found that new bank employees showed decreased commitment from day one to month three, with a further decrease to month six (the mean decreased from 4.15 to 3.77, and then to 3.55 on a seven point scale). The results from three other studies also show decreases in newcomers' organisational commitment over time, but these were not investigated for their significance (Adkins, 1995; Meyer, Allen, & Bobocel, 1991; Ostroff & Kozlowski, 1992). In contrast to this general pattern of decreased commitment, Tannenbaum et al. (1991) found a small but significant increase in military recruits' organisational commitment over an eight week period (means of 5.89 and 6.00 respectively on a seven point scale).

Intent to quit. Newcomers' intentions of leaving an organisation are commonly used as an outcome measure to reflect the extent to which organisational socialisation has been a positive or negative experience (e.g., Louis et al., 1983; Morrison, 1993a, b; Nelson et al., 1988; Ostroff & Kozlowski, 1992; Robinson & Rousseau, 1994; Rousseau, 1990; Saks & Ashforth, 1997b). Only two studies were found which measured newcomers' intentions of quitting across time. Ostroff and Kozlowski measured intentions of leaving at months four and eight; respondents showed a slight increase in turnover intentions, but this was not investigated for significance (means of 2.68 and 3.14 on a seven point scale). Robinson and Rousseau (1994) asked respondents to indicate how long they intended to remain with their

employer at pre-entry and at two years. Their pre-entry data is based on a larger sample ($\underline{N}$ = 128) than that at two years ($\underline{N}$ = 96) since they only included those still with the same employer at the second measurement, biasing the comparison of these samples on intent to stay with the organisation. However, respondents' means across these samples showed little change (means of 3.81 and 3.72 years respectively), although the moderate significant correlation of .25 shows that change had occurred.

A third empirical study is worth outlining since it was conducted specifically on the early period of organisational socialisation in a military setting. Datel and Lifrak (1969) investigated recruits' experiences of the initial eight weeks' training in the US Armed Forces, and found that recruits' levels of distress were greatest at weeks 2 and 3 but thereafter returned to entry levels. Since leaving intentions are likely to reflect recruits' reactions to training, it is likely that intent to quit will follow a similar pattern to that for distress. In summary, one study has shown an increased intention of leaving between months four and eight, another is difficult to interpret but shows that change has occurred over the first two years and a third study in a military setting shows an inverted U shape with a slight primacy effect for distress over the initial eight week period.

Careerism. The concept of careerism was introduced by Rousseau (1990), referring to an employee's conception of his or her new job as being part of a career which will span a number of different organisations (high careerism), or whether he or she anticipates a career within a few or a single organisation (low careerism). In the current context of work, job security is low, employees are changing organisations more frequently, and increasing numbers of employees are on fixed term contracts (Guest, Mackenzie-Davey, & Smewing, 1998; Herriot & Pemberton, 1996; Saks & Ashforth, 1997a). Thus, employees may increasingly view the skills they will acquire during a particular employ as part of a multi-organisational career.

Conceptually, careerism is likely to have been established prior to even entering the recruitment process for a specific organisation, reflecting the respondent's career-related outlook in general. Thus, it would be expected to

remain relatively stable over short periods of time. In the only previous study looking at careerism longitudinally, Robinson and Rousseau (1994) found little overall change in this construct for newly-graduated MBA students across a two year period (means of 3.11 and 3.12). Robinson and Rousseau did not analyse this data to investigate the pattern of changes, although newcomers' careerism across the two years correlated at .52, indicating that some individual-level change occurred. Thus careerism is included in the current research as an attitudinal outcome with some conceptual overlap with commitment and intent to quit variables, yet it is expected to show greater stability than these.

Self-efficacy. The concept of self-efficacy was developed by Bandura (1977, 1978, 1986) and relates to an individual's self-perceived coping abilities in a specific situation. It is malleable and can be increased via mastery experiences (successful performance), vicarious experiences (learning from perceiving others), verbal persuasion and social influence, and emotional arousal. Thus, as Gist and Mitchell (1992) highlight, self-efficacy is a dynamic construct which changes over time.

Much previous research has focused on newcomers' self-efficacy, principally using measures of social, academic and role self-efficacy, but tending to only measure these early on as a predictor of organisational socialisation (Bauer & Green, 1994; Chao, Kozlowski et al, 1994; Laker & Steffy, 1995; Smith & Kozlowski, 1994). However, where self-efficacy has been measured longitudinally, it has shown increases as is consistent with organisational socialisation reflecting a learning experience (Chao, O'Leary-Kelly et al., 1994; Saks & Ashforth, 1997a). For example, Tannenbaum et al. (1991) found small but significant increases in recruits' physical and academic self-efficacy during their initial eight weeks of military training (see also Novaco, Cook, & Sarason, 1983). The current research focused on role self-efficacy, that is newcomers' perceptions of their ability to successfully carry out their new organisational role which is most relevant to organisational socialisation (Jones, 1986; Laker & Steffy, 1995).

Socialisation Knowledge

Newcomer learning during organisational socialisation was measured with an instrument developed as part of this research, comprising four domains: social, role, interpersonal resources and organisation knowledge. (The theoretical rationale behind these domains is propounded in Chapter 1). Since socialisation learning is proposed to occur in four domains, the longitudinal acquisition of knowledge within each domain and also the relative pattern of learning across domains are of interest. Only one previous study has directly investigated change in newcomers' knowledge over time (Ostroff & Kozlowski, 1992). Ostroff and Kozlowski investigated the socialisation learning of graduate newcomers, measuring self-rated knowledge at approximately months four and eight post-entry. Across four domains of role, task, group and organisational knowledge, only role and task knowledge increased across time. Looking at the relative patterns within time points, Ostroff and Kozlowski (1992) found that group knowledge (getting on with co-workers) was greatest at the first measurement, with levels of organisation knowledge significantly lower than the other domains. At the second measurement, organisation knowledge was still significantly lower than the other domains, with only task knowledge being significantly greater than the other domains.

The four domains proposed here do not directly map on to Ostroff and Kozlowski's (1992) measure, although three domains have a degree of similarity. Specifically, Ostroff and Kozlowski's group domain is somewhat akin to the social domain proposed here, their role and task domains are similar to the role domain proposed here, and both measures include an organisation domain. Thus, proposals about patterns of learning within the role, social and organisation domains can be based on this past research. In contrast, previous research does not directly reveal the likely position of the fourth knowledge domain proposed here, interpersonal resources. Past research has shown that organisational members who hold resources (e.g., organisational know-how) are only likely to dispense these to those they like or trust (Feldman, 1976). Thus, identifying and establishing these

interpersonal resources is likely to take longer than acquiring social knowledge, yet it may be an essential precursor to establishing organisation knowledge. The relationship of interpersonal resources with role knowledge is less clear: establishing interpersonal resources may be an essential precursor to gaining access to some areas of role knowledge. Conversely, a certain degree of role knowledge may be necessary to identify relevant potential interpersonal resources (Nicholson, 1984). Further, the inter-relationship of all four domains may vary according to the setting and the newcomer's prior experience in similar roles.

Socialisation knowledge as an indicator of organisational socialisation

In addition to the lack of knowledge on the rate and time frame of organisational socialisation, its endpoint also remains an unresolved issue. Further, this may differ according to a number of factors which have already been briefly discussed, such as role complexity and development factors (Reichers, 1987; Saks & Ashforth, 1997a). Since newcomers' knowledge acquisition is proposed to reflect organisational socialisation as a learning process, the measure developed in this research may provide a means for preliminary research investigating the endpoint of organisational socialisation. However, the question remains as to how knowledge acquisition can reveal the extent to which a newcomer is successfully socialised. For example, what degree of learning indicates successful socialisation? How much learning is required in each of the four domains to be successfully socialised? This may differ according to the job and the organisation (Taormina, 1994; Wanous & Colella, 1989). Moreover, socialisation is a continuous process as both the individual and the organisation change, and therefore it may have no discrete endpoint (Van Maanen & Schein, 1979).

One possibility to resolve this issue is that a threshold level of learning exists which newcomers have to attain in order to become insiders; thus, once newcomers' levels of knowledge are no different from insiders, newcomers can be considered to be socialised. The overall threshold level could be either additive across the four content domains (a lack in one domain being

compensated by a higher level in another) or specific within each domain. Although identifying specific threshold levels is beyond the scope of the current research, the relative differences between newcomers and insiders' self-rated knowledge may provide a useful initial exploration of the rate at which newcomers come to acquire similar levels of relevant knowledge to insiders, and hence the rate of organisational socialisation.

Summary of the Expected Patterns of Temporal Change During Organisational Socialisation

The organisational socialisation experienced by newcomers to the two organisations in this research is likely to differ in a number of ways. Full details of the socialisation practices at each organisation are given in the Method (Chapter 4). These differences are briefly summarised here since they have implications for the likely patterns of adjustment. In the organisation used in the first study, the British Army, socialisation is an intensive experience focused on learning and involving divestiture (Van Maanen and Schein, 1979). The second research site was a professional services firm, ABC, where newcomers are allowed more leeway in performing their job as long as the required outcomes are achieved. Newcomers are graduates and hence investiture tactics are likely used (Ashforth & Saks, 1997a; Van Maanen & Schein). Thus, it is expected that newcomers to both organisations will have experienced significant change, and further that new Army recruits will have experienced considerably more change relative to newcomers to ABC.

Previous research in military settings has tended to show positive outcomes of organisational socialisation towards the end of training (Datel & Lifrak, 1969; Novaco et al., 1983; Tannenbaum et al., 1991). Where recruits have held negative perceptions or attitudes towards the organisation or their situation as newcomers, this has followed an inverted U-shape such that their attitudes at the end of their training are not significantly worse than when they entered the process. Thus, patterns of positive adjustment are expected, with the likelihood that recruits will show a reduction and subsequent regain and possible overtaking of entry levels of attitudinal variables (job satisfaction, organisational commitment and intent to quit). The exceptions to

this are for careerism, which is expected to remain stable, and self-efficacy which should gradually increase showing recruits' mastery of their new role.

Conversely, most research with non-military newcomers has shown fairly high levels of attitudinal outcomes but some reduction in positive attitudes during the period of organisational socialisation. Thus, similar patterns of adjustment were proposed at ABC, with attitudinal outcomes (job satisfaction, organisational commitment and intent to quit) expected to show small but significant decreases over time. However, the two exceptions to this were as for Army recruits, with careerism expected to show stability during organisational socialisation and self-efficacy showing small but steady increments.

Since the measure of socialisation knowledge is one of the primary original contributions of this thesis to the organisational socialisation literature, temporal changes for this measure are examined in more detail than for other constructs. Although differences in patterns of knowledge acquisition are likely between the two organisations studied, there is insufficient previous research to predict these effects. Thus, hypotheses are proposed as applying similarly at both organisations studied here with the exception of the relationship between newcomers and insiders' knowledge which was only investigated at ABC.

Hypothesis 16: *Newcomers to the Army and to ABC will report significant personal change, with newcomers to the Army reporting a higher degree of personal change than newcomers to ABC.*

Hypothesis 17: *Army recruits' job satisfaction, organisational commitment and intent to quit will show an overall improvement such that recruits will show positive adjustment during organisational socialisation. Further, for intent to quit, it is proposed that this will increase and then subsequently decrease during the early stage of socialisation. Recruits' careerism will remain stable whilst their self-efficacy will gradually increase. A primacy effect is proposed for all constructs measured three times or more, with the exception of careerism which is not expected to show change.*

Hypothesis 18: *ABC newcomers' job satisfaction, organisational commitment and intent to quit will show a small but significant negative adjustment during organisational socialisation. Their careerism will remain stable whilst their self-efficacy will gradually increase. As before, a primacy effect is proposed for all constructs measured three times or more, apart from careerism.*

Hypothesis 19: *Newcomers' levels of knowledge in all four domains will increase across measurement periods, with a primacy effect apparent.*

Hypothesis 20: *Social knowledge will be greater than the other knowledge domains during the early phase of organisational socialisation, whilst role knowledge will be greater than for the other domains at the later stages of organisation socialisation. Last, organisation knowledge will be acquired most slowly relative to the other knowledge domains throughout organisational socialisation.*

Hypothesis 21: *Over time, newcomers' levels of knowledge will become more similar to those of insiders.*

Table 3.1. Overview of Hypotheses

1	New recruits experiencing the British Army's socialisation tactics will report that these form an institutionalised pattern (collective, formal, sequential, fixed, serial and divestiture).
2	Army training staff will also perceive military training to comprise an institutionalised pattern of tactics.
3	An institutionalised pattern of socialisation tactics will be associated with more positive outcomes. Specifically, collective, formal, sequential, fixed, serial and investiture tactics will be related to higher outcome levels of job satisfaction, organisational commitment, self-efficacy and personal change, and lower intent to quit. The same pattern of results will be found when initial levels of the outcomes are controlled for.
4	The effects of institutionalised tactics, both on outcomes and adjustment of outcomes, will be strongest for social tactics (serial and investiture), followed by content tactics (fixed and sequential), with context tactics weakest (collective and formal).
5	Newcomers' knowledge in the social, role, interpersonal resources and organisation domains will be positively associated with job satisfaction, organisational commitment and self-efficacy and negatively associated with intent to quit. Similarly, increases in socialisation knowledge across the four domains will be related to improved socialisation outcomes.
6	Newcomers' socialisation learning will mediate the relationship of organisational socialisation tactics with socialisation outcomes of job satisfaction, organisational commitment, self-efficacy and intent to quit, with the same mediation effects found for changes in these four socialisation outcomes.
7	Newcomers' expectations of the organisation will increase significantly across time.
8	The salience of the various dimensions of newcomers' psychological contracts will change as a result of organisational socialisation experiences.
9	Newcomers' evaluations of the salience of the various dimensions of the psychological contract will change towards insider salience norms.
10	Newcomers' socialisation learning will predict positive changes in their psychological contracts, affecting their expectations of what they will receive from the organisation.
11	(a) Objective and subjective measures of fit will be positively correlated, with this relationship becoming stronger with increasing organisational tenure. (b) Supervisors' ratings of newcomers' P-O fit will be more similar to objective than subjective measures of fit. (c) Objective and subjective measures of fit will show change over time.

12	Organisational socialisation tactics of serial, investiture, and mentoring will have a positive effect on P-O fit, and will also predict an increase in P-O fit during socialisation.
13	Newcomer learning will positively predict P-O fit following socialisation and, similarly, an increase in socialisation knowledge will predict an increase in P-O fit. Of the four knowledge domains, organisation and social knowledge will have the strongest effects.
14	(a) P-O fit at entry (reflecting selection) and increases in P-O fit (reflecting socialisation) will be positively associated with job satisfaction and organisational commitment, and negatively associated with intent to quit. (b) Subjectively measured P-O fit will be more strongly related than objectively measured fit to these three attitudinal outcomes.
15	Organisational commitment, intent to quit, careerism and self-efficacy will show no significant gamma or beta change over time.
16	Newcomers to the Army and to ABC will report significant personal change, with newcomers to the Army reporting a higher degree of personal change than newcomers to ABC.
17	Army recruits' job satisfaction, organisational commitment and intent to quit will show an overall improvement such that recruits will show positive adjustment during organisational socialisation. Further, for intent to quit, it is proposed that this will increase and then subsequently decrease during the early stage of socialisation. Recruits' careerism will remain stable whilst their self-efficacy will gradually increase. A primacy effect is proposed for all constructs measured three times or more, with the exception of careerism which is not expected to show change.
18	ABC newcomers' job satisfaction, organisational commitment and intent to quit will show a small but significant negative adjustment during organisational socialisation. Their careerism will remain stable whilst their self-efficacy will gradually increase. As before, a primacy effect is proposed for all constructs measured three times or more, apart from careerism.
19	Newcomers' levels of knowledge in all four domains will increase across measurement periods, with a primacy effect apparent.
20	Social knowledge will be greater than the other knowledge domains during the early phase of organisational socialisation, whilst role knowledge will be greater than for the other domains at the later stages of organisation socialisation. Last, organisation knowledge will be acquired most slowly relative to the other knowledge domains throughout organisational socialisation.
21	Over time, newcomers' levels of knowledge will become more similar to those of insiders.

Chapter 4: Method

Host Organisation I - The British Army

Overview of Organisational Selection and Socialisation Processes

The first host organisation was the British Army. The British Army aims to select approximately 15,000 recruits per annum, with recruits who complete training entering the Army at the lowest level of "private". Currently there is a shortfall of about 2,000 new recruits each year. Potential recruits have their first contact with the Army through an Army Careers Information Office. If they decide to go forward for selection, they are given a medical screening, and have to pass a computer-administered cognitive ability test and one or more interviews. Candidates are also invited to visit one of the five Army Training Regiments (ATRs) in the United Kingdom where they would go through initial training. They stay on site for 24 hours, meeting current recruits and getting a feel for the content of training and Army life more generally. The rationale for this comes from the realistic job preview literature (Premack & Wanous, 1985), that seeing the training in process will give candidates sufficient information to either self-select out or develop more realistic expectations of what training and Army life comprise. In practice, current recruits do not have the time or inclination to talk to these candidates and thus candidates' preview is primarily of the physical environment of the ATR and the formal messages given to them about the content of training rather than an informal perspective.

There are two phases of recruit training before assignment to a specific post. Phase 1 Training is the same for all regiments, and consists of the Common Military Syllabus which has three main components: classwork (e.g., international law, first aid); fieldwork (e.g., camouflage, weapons handling); and physical training (e.g., drill, physical fitness). At the time of this research, Phase 1 Training took ten weeks (now twelve weeks). Phase 2 Training is conducted in the individual regiments and comprises "trade training" with recruits learning the specific skills necessary to jobs in that regiment. For example, a recruit entering the Royal Electrical and Mechanical Engineers would likely be given training in areas such as vehicle mechanics

and maintenance. The length of Phase 2 Training varies according to the technical trade being acquired. The current research focused on recruits going through Phase 1 Training at the three largest ATRs.

Recruits go through Phase 1 Training collectively, organised into "sections" of between 32 and 44 new recruits who live in shared accommodation. Sections usually consist of four "platoons" with approximately equal numbers in each. Platoons and to a lesser extent sections are usually made up of recruits entering one regiment, although across each ATR there will be a variety of regiments represented. There were fewer female than male recruits and, at the time of this research, female recruits were trained in both mixed and single sex platoons.

The training itself is conducted by experienced soldiers: recruits learn drill, fieldwork, and classwork from their "platoon commanders". They also have contact with other soldiers at the ATR with primary responsibility for Physical Training, and more haphazardly with other experienced soldiers involved in running the ATR, such as those maintaining the weapons and other equipment stores, administrative staff, medical staff, and the padre.

Procedure

During October and November 1995, questionnaire items were piloted both at ATRs with recruits and training staff, and also with experienced psychology research staff at the Defence Evaluation Research Agency (DERA), a government organisation which conducts research on the Armed Forces. Particular attention was paid to (a) the meaningfulness of included constructs to new recruits experiencing Phase 1 Training and (b) that the words used were comprehensible and similarly understood by recruits. Some small amendments were made to questionnaire items following piloting; these are discussed below within each measured construct.

Data were collected over a 6 month period between December 1995 and May 1996. The research design was longitudinal across five measurements. The time points chosen were day 1, when recruits have only a naive understanding of organisational reality, and then the end of weeks 1, 2, 4 and 8. This last time point was chosen to remove the problem of respondent

attrition, since recruits cannot leave before 8 weeks unless they have extreme medical or personal reasons, both of which are rare. Furthermore, data collected at the end of week 8 should closely relate to recruits' perceptions and attitudes at the end of training at 10 weeks. For example, intention of leaving at eight weeks, as measured by the survey, should be strongly related to actual turnover at ten weeks.

The data were collected via questionnaires. Questionnaire administration was integrated into the training timetable and was conducted by training staff according to explicit instructions. Training staff received both an instruction sheet for themselves to help with organising the questionnaire administrations, such as the administration times for the differently colour coded questionnaires. They also received an instruction sheet to read out at each administration session. Visits were made to several administration sessions to ensure that correct procedures were being followed.

Respondents

Newcomers. Response rates were lower than anticipated (see Table 4.1). The major reasons for this was that one ATR was discovered to have made administrative errors, at least part of the time swapping time 2 and time 3 questionnaires. Since the extent of this problem was unmeasurable, a conservative strategy of omitting all these data was chosen. In addition, the remaining two ATRs in the study had some premature termination of the research, particularly at one training site. Since recruits cannot leave the ATR before eight weeks, non-response is not due to sample attrition. Lower response rates at different times may be due to other pressures on administration: as basic training progresses, training staff may feel a greater need to schedule extra training to ensure recruits' progress. They may have felt that using the time originally scheduled for questionnaire administration was the most expedient way of introducing extra training without affecting other aspects of the training schedule.

Table 4.1. Response Rates for Army Recruits.

Measurement	ATR 1	ATR 2	Total N
Time 1	478	274	752
Time 2	452	278	730
Time 3	354	258	612
Time 4	361	193	554
Time 5	175	139	314

At time 1, approximately three quarters of recruits who indicated their gender were male (563 males and 162 females) which is representative of this population. Recruits' average age was 19 (M = 19.19, SD = 2.48), having left full-time education at 17 (M = 16.62, SD = 1.28). 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 organisation. 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. Data from organisational insiders, that is experienced soldiers, was obtained from DERA's monthly attitude survey, using the May 1995 sample (N = 1157). 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 and, moreover, 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).

Training Staff. A small number of training staff at all three ATRs agreed to participate by responding to a short questionnaire about training. In order to minimise non-response, the only demographic information collected was on respondents' ATR. In spite of a number of reminders, only 23 training staff returned questionnaires. These respondents were fairly evenly spread across the three sites (6, 8 and 9 respectively).

Quantitative Measures

All scales used in this research are given in full either in Chapter 5 (for organisational socialisation tactics and socialisation knowledge, Tables 5.8 and 5.10 respectively) or the Appendix.

Revisions to Quantitative Measures

In applied psychological research, scales are often used across different organisations within a single study, and therefore references are to "this organisation" or "my present employer". Since this research was within a single organisation, these were replaced with "the Army" to increase the relevance and simplicity of these items. A second change was made for all measures that used the word "job", this being replaced with "role". The rationale for this came from piloting the measures, which revealed that some recruits considered themselves to be in training prior to having a specific job, and hence they found "job" confusing. A small number of recruits included in pilot testing also had difficulty with "role" and therefore a brief note appeared the first time this was used stating:

> Every now and then the word 'role' is used in the questionnaire.
> 'Role' refers to the part you play in your section and platoon or
> in other words, your current situation. Your role (the part you
> play) includes your position as a recruit, and the duties and
> tasks you carry out as a recruit in Phase 1 Training".

Socialisation Tactics. As already discussed in Chapter 1, the majority of research on organisational tactics for socialising newcomers has used Jones' (1986) scales, which were developed from the six theoretical tactics dimensions proposed by Van Maanen and Schein (1979). These consist of

collective (vs. individual), formal (vs. informal), fixed (vs. variable), sequential (vs. random), serial (vs. disjunctive), and investiture (vs. divestiture).

Pilot testing of the tactics items revealed a number of problems with the wording which was, in some cases, difficult for recruits and training staff to understand. For example, "I have been *extensively* involved with other new recruits" was changed to "frequently"; "other newcomers have been *instrumental*" was changed to "important". Throughout, references to "this organisation" were substituted with "the Army", and "newcomers" was changed to "new recruits". Several items were dropped which proved confusing, ambiguous, or inappropriate. For example reference to newcomers "being in the same boat" was confusing in a number of ways. Newcomers may share this sense of being a collective even if they are individually socialised, for example if they meet and informally discuss their progress and find they share a common perspective. Moreover, pilot testing showed that recruits generally did not understand what this phrase meant. In some cases factual information conflicted with the context and was therefore modified. For example, since the recruits had only been in training for 4 weeks at the time they were asked to respond to these questions, "in the last six months" was changed to "during my training". Related to this, in some cases negative items were re-worded to be positive, since they were sometimes thought to be trick questions. The use of negatively-phrased items is often used to counteract possible acquiescence response bias, but since the dominant view in psychology is that this is likely to have little effect on responses (Nunnally, 1978; Schuman & Presser, 1981 [p. 204]), it seemed reasonable to reverse these back to positive phrasing if this clarifies their meaning to respondents.

Overall then, a number of items from Jones' (1986) tactics scale were modified, resulting in 4 or 5 items per tactic, and a total of 26 items. Additionally, four items from Ashforth and Saks' (1995, Ashforth, Saks & Lee, 1997) five-item investiture scale were used. One item was omitted, "I have been made to feel that I still have a lot to learn", since these questions were being asked half way through training and therefore this statement was

highly likely be agreed with rather than truly reflecting investiture. One further amendment was made: "pay your dues" was found confusing, seemingly due to its allusion to finance, and was replaced with "prove yourself".

These questions were measured on a seven point scale, from "strongly disagree" to "strongly agree". Both recruits and training staff were asked to indicate their perceptions of the socialisation tactics used by the Army.

Self-Efficacy. Self-efficacy has been frequently used in socialisation research, consisting of an individual's expectation or belief that he or she can perform a required behaviour successfully in order to produce an outcome. According to Bandura (1977), "expectations of personal efficacy do not operate as dispositional determinants independently of contextual factors. Some situations require greater skill and more arduous performances and carry higher risk of negative consequences than do others. Expectations will vary accordingly" (p. 203). In other words, self-efficacy is specific to performance in a certain situation, rather than being a global personality trait.

The measure used in this research was adapted from Jones (1986), who developed a reliable measure specific to the self-efficacy of organisational newcomers (α = .71). For this research, several minor modifications were made to the scale. First, two items were changed from the future to the present tense (items 6 & 7) to agree with the rest of the scale, since the scale was being used following rather than prior to organisational entry (as in Jones' research). Also, the phrase "professionally speaking" was removed from the last item because recruits do not consider themselves as professionals (i.e., soldiers) whilst they are still in training. These items were measured on a seven point scale, from "strongly disagree" to "strongly agree".

Socialisation Knowledge. In addition, a socialisation knowledge measure developed as part of this research was included. This comprised twenty-two items measuring four components of socialisation knowledge found to be important in past research. These were: social (8 items), role (6 items), interpersonal resources (3 items), and organisation (5 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 resources knowledge measured newcomers' establishment of a network of contacts 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, organisation knowledge items asked about knowledge or familiarity with the wider structural and cultural aspects of the organisation (e.g., "I am familiar with the unwritten rules of how things are done at this organisation"). A Likert scale was used to measure all socialisation knowledge acquisition, from 1 "not at all" to 7 "totally".

Job Satisfaction. An overall global measure of job satisfaction was wanted and therefore, although a number of multi-item scale measures of job satisfaction are commonly used in applied research, a single-item global measure of job satisfaction was used. This decision was based on previous research comparing different measures of job satisfaction. Thus, Scarpello and Campbell (1983) showed through comparative research, that the whole of job satisfaction is more than the sum of its parts. They found that a 1 - 5 global rating of overall job satisfaction was more inclusive than facet measures, and importantly, that it was reliable (see also Schneider, 1985). Hence, they recommended a single-item measure as an indicator of global job satisfaction. Since the current research was interested in overall job satisfaction, a one-item measure appeared the best choice.

Subsequent research has lent further support to this decision. A recent meta-analysis of measures of job satisfaction by Wanous, Reichers and Hudy (1997) supports the use of a single-item measure of job satisfaction. They acknowledge that single-item measures are usually discouraged, primarily due to presumed low reliability. However, in the case of constructs which are narrow or unambiguous to the respondent, they concur with previous

researchers (Sackett & Larson, 1990) that single-item measures are acceptable. Wanous et al. state that an estimated minimum reliability of approximately .70 is reasonable. They suggest that single-items measures may be warranted depending on the research question or practical constraints, and also where single-items may be more face valid. Furthermore, if a single-item measure of satisfaction is more robust, it is less likely to be prone to gamma change (Vandenberg & Self, 1993) and therefore preferable for longitudinal research. These theoretical and empirical reasons gave support to the use of a single-item measure of satisfaction. In addition, practical constraints were paramount in this research with regard to questionnaire length. Specifically, respondents were being asked to fill out already lengthy questionnaires at different times. For the recruits, a longer questionnaire might have effects on the quality of responses as well as actual response rates (Andrews, 1984). For training staff trying to ensure that recruits progressed through training on schedule, the possibility existed that those who perceived the research project to be taking too much time away from normal training might not set time aside for questionnaire administration. Hence, the single question "How satisfied are you with your job/role in general?" was asked, and scored on a 1 to 5 scale from "very dissatisfied" to "very satisfied".

Organisational Commitment. A number of measures of organisational commitment have been developed for use in organisations, with two of the most frequently used being those of Mowday et al. (1974, Mowday, Steers & Porter, 1979) and of Meyer and Allen (1984, 1988, 1991; Allen & Meyer, 1990; Meyer, Allen & Gellatly, 1991). In a comparison of these commitment scales in data collected from organisational newcomers and investigating alpha, beta, and gamma changes, Vandenberg and Self (1993) found the nine-item version of the Mowday et al. measure to be most robust. Schaubroeck and Green (1989), using a six-item version of the Organisational Commitment Questionnaire (OCQ), also found it to be robust with newcomer respondents across measurement periods.

Mowday, Steers and Porter (1979) report that, for the OCQ, the negatively worded items generally correlate less highly with the total score

than the positively worded items (see also Mowday, Porter, & Boulian, 1974). They suggest using only the nine positively worded items when a shorter scale is desired. Past research has used various combinations of the original fifteen items, both positively and negatively worded, with alphas consistently greater than .70 (e.g., Jones, 1986, α = .71; Ostroff & Kozlowski, 1992, 8 items α = .80; Vandenberg & Self, 1993, 9 items α = .84 - .91). Item piloting with recruits confirmed that positively worded items were more comprehensible. Hence, only the nine positively worded items were used. These were rated on a 1 to 7 scale, from "strongly disagree" to "strongly agree".

Since organisational commitment can only be meaningfully measured after organisational entry (Lee, Ashford, Walsh, & Mowday, 1992; Mowday, Porter, & Steers, 1982), it was not included at the first measurement on the basis that some respondents might have had insufficient experience of the organisation to give a meaningful response. Further, due to space constraints on questionnaires, organisational commitment was measured at the last two measurements only (times 4 and 5).

Intention to Quit. Turnover intentions were measured with a three item scale developed by Colarelli (1984). All three items are worded positively, although one item refers to an intent to stay and two items refer to an intent to quit in the next 12 months. In his research, Colarelli obtained a Cronbach's alpha of .75, with the scale showing consistently high internal reliability in subsequent research (e.g., Ashforth & Saks, 1995a, 1995b). As with previous research, a five point scale was used from "strongly disagree" (1) to "strongly agree" (5).

Careerism. A reliable measure of careerism was developed by Rousseau (1990) to assess the extent to which an employee views his/ her job as being part of a career which will span a number of different organisations (high careerism), or whether he/ she anticipates a career within few or a single organisation (low careerism) (α = .78). The scale was adapted slightly: the first and second questions were found to be ambiguous during piloting, with soldiers unclear whether "another organisation" and "a variety of

different organisations" referred to organisations outside of the Army, or to different regiments or establishments / bases within the Armed Forces. Thus, an additional phrase was added to each question to clarify that the questions referred to external organisations. As with Rousseau's research, a 1 - 5 scale was used, from "strongly disagree" (1) to "strongly agree" (5).

Personal Change. The rationale for including a subjective measure of change is detailed in Chapter 3. The personal change measure developed by Nicholson and West (1988) has four items looking at personality, values, career plans and attitudes. They propose that, based on the individual psychology literature, this order would be expected to reflect the most stable (i.e. personality) to the least stable factors (i.e. attitudes). However, this has not been supported by their research both related to job mobility and in other areas. Nicholson and West kept the four dimensions separate and therefore do not report the reliability of this measure, but it was also used by Ashforth and Saks (1996) who found it to be reliable (α = .73). Items were measured on a five point scale, from "no change at all" (1) to "a great deal of change" (5).

Psychological Contract. Previous research by the Defence Evaluation Research Agency (DERA) with the British Army 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' experience 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 and morale. The utility and relevance of these dimensions is ensured since they were developed internally by DERA specifically for the Army and have been consistently relevant over time. DERA's research, in addition to providing apposite dimensions, supplied data on these dimensions taken from a large sample of experienced "insider" soldiers.

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) emphasise, these are likely to be specific to individuals. Thus, given the exploratory nature of this part of the research and the above considerations, the seven dimensions 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 obligate/ 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 Herriot, Manning, & Kidd, 1997). Therefore, expectations terminology was used since this has been consistently employed in research and made better sense to respondents. Thus, there were two questions for each dimension. The first was worded "Do you expect X to be poor or good" (1-7 scale from "very poor" to "very good"). The stem and wording was kept identical to the DERA monthly attitude survey to allow comparison. Thus, the second question, providing

information on the relative salience of these dimensions, asked "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). To summarise, two ratings were obtained from recruits for each dimension, of expectations and importance, and an importance rating on each dimension was available for the experienced soldier sample.

Qualitative Measures

Questionnaire Comments. All questionnaires included space for comments. Recruits were invited to write comments in a half-page space with the statement:

If you have anything else which you would like to add about

your experience of basic training, life as a new recruit, or about

Army life in general, please do so in the space below.

The majority of recruits did give comments, and these were occasionally lengthy and personal, mentioning the names of training staff. This can be taken as an indicator that recruits were satisfied that the research data would be treated confidentially, giving strength to the results.

Host organisation II - ABC

<u>Overview of Organisational Selection and Socialisation Processes</u>

Research was carried out at a second organisation, a multi-national professional services firm (ABC). ABC originated in the United States and this continues to be the main base for the firm in a number of ways. For example, higher level employees are sent for training in the US; US working practices, Human Resources (HR) policies and so forth usually follow the American model; and overall there is perceived to be a North American feel to ABC's culture.

ABC is a highly successful and growing firm, with clients in most industry sectors, covering a wide array of products and services in which ABC specialises. Their recruitment materials reflect their culture, focusing heavily on current clients and projects, and on the high levels of ability and motivation needed in employees to ensure that projects are delivered according to client requirements.

New employees entering ABC fall into two groups, graduate and experienced newcomers (GNs and ENs), and the research design capitalised on this. ABC conducts different selection processes, and different orientation and training programmes for these two groups. Looking first at selection, both GN and EN candidates submit an application form which serves as the basis for screening. Following this, the initial face-to-face stage of the selection process is an interview with either a line manager or an employee from HR. If successful in this initial interview, EN candidates continue through a series of three further interviews, each contingent on passing the preceding one. The first of these is usually with a line manager in the area they would be likely to join based on their previous work experience, with the two further interviews at more senior levels. For GN candidates, the initial interview is followed by a "mini assessment day" lasting six hours. This comprises two assessed components: two 45 minute interviews, one with HR and one with a line manager, and some exercises in groups of six. To provide a feel for the people and the culture of ABC, candidates are also taken to lunch by someone in a graduate entry-level position and have a group

meeting with two senior employees. For GN candidates being considered for the flagship areas of ABC's work (e.g., business strategy), they are given an extra interview and assessment exercise.

The recruitment and selection at ABC reveals that the number of those who enter the firm as newcomers represents a very small proportion of those initially attracted to the firm. The figures on selection at ABC for 1996 - 1997 were as follows. Approximately 10,000 GNs and 4,300 ENs applied for a job with ABC, of which 2,200 GNs and 1,400 ENs were invited for a first interview. By the end of the selection process, approximately 250 of each were offered a job with ABC of which about 200 accepted. This represents 2.1% of graduate applicants finally being offered and accepting a job with ABC (GNs), and 4.5% of experienced applicants (ENs).

The first few days following organisational entry are similar for all newcomers in that both GNs and ENs collectively attend a small number of presentations on ABC's business strategies, place in the market, overall structure and so on. After this, the socialisation processes differ considerably. The initial socialisation process for GNs is similar regardless of their future role or work area. They spend the first six weeks in collective formal training at off-site ABC training centres, learning both specific technical skills and general organisational information. The first half of this is conducted in the United Kingdom, and the second half in the United States. During this time, GNs form strong social bonds with others in their cohort. Initially, then, GNs experience an institutionalised socialisation programme (Jones, 1986; Van Maanen & Schein, 1979). However, after this they are assigned to a specific project where their team is likely to comprise individuals from all levels of seniority; further socialisation occurring at this stage may be classified as individualised, although GNs continue to regularly meet socially with their initial starting cohort.

For ENs, they have between two to five days of specific orientation on-site, focusing on ABC's formal policies and also developing relationships with others. Specifically, during this period, ENs are given a schedule of individual appointments with various Human Resources staff to learn about

training, leave policies and so on, and also with more senior staff working in similar areas of industry who may have a need for the EN's expertise their team. Whereas GNs are independently assigned to projects, being seen as essentially inter-changeable at this early stage, ENs can attempt to influence this process through meeting those in charge of projects in areas where the ENs have expertise, and trying to get themselves assigned onto their preferred projects. Thus, ENs experience a more individualised and self-directed period of socialisation.

Procedure

Newcomers joining ABC between late December 1996 and mid May 1997 were included in the research. The research was conducted longitudinally across the first four months of their time at ABC.

Newcomer Questionnaire Research

Questionnaire research occurred at three points across the first four months, with measures taken at weeks one, eight, and seventeen. Compared with Study 1 at the British Army, this reflects temporally equivalent periods of time, with times 1 and 2 at ABC equivalent to times 1 and 5 in the Army study. HR staff sent out questionnaires at the appropriate times, and informed the researcher of all new entrants, including those who explicitly declined to participate, and leavers. On the basis of returned questionnaires, weekly summary sheets were sent to HR staff to enable them to send out reminders to tardy participants, usually by telephone or email.

Newcomer Face-to Face Research

Further research was conducted with only the EN sample on a face-to-face basis. ENs were interviewed during their first week in ABC and again at the end of month 4. The EN was first asked to complete a Q-sort, which was followed by a semi-structured interview lasting between 15 and 45 minutes (full details on the Q-sort and interview are given in the Measures section below).

For the interviews, the HR staff scheduled time for the researcher to interview ENs as part of their first week's induction. For the interviews with ENs after four months, these were negotiated on an individual basis

according to participants' timetables and geographical location. Four of the four month new entrant interviews were conducted by telephone, with Q-sorts mailed out to participants with full instructions.

Interviews, including the Q-sort, lasted up to an hour and occasionally longer. All interviews were conducted by myself, with hand-written notes. At the first meeting with participants, the aims of the research were explained, including the benefits for ABC, the particular individual and the researcher. Emphasis was placed on the fact that participation was voluntary, that information would remain confidential, and the way in which information would be used and presented back to ABC and participants. The first five minutes were spent establishing rapport with the interviewee and encouraging him/ her to ask questions, which many did. Also the overall research process was explained: that they would be asked to participate in a second interview at 4 months, and that they would be sent surveys at various time points (some had already received the first of these) which would include all contact details should they have any questions. In the second interview with ENs, this introduction was shorter. Although the extent to which rapport and the trust of the interviewee was established cannot be confirmed, a possible indication of this might be the fact that there was a higher response rate from experienced than graduate newcomers to questionnaires (see Table 4.2). However, an alternative explanation of this is that experienced newcomers felt obliged to return questionnaires having met me once, and knowing that they would meet me again. That said, no experienced newcomer declined to be interviewed at four months.

Other ABC Respondents

Two further groups of ABC employees acted as respondents in the research. The larger group of these were the newcomers' supervisors who were asked to give feedback on the newcomer. Specifically, at the third measurement of the questionnaire research, week seventeen, HR staff sent newcomers' supervisors a short questionnaire (see Measures section below).

Second, a small sample of senior employees participated in the research (N = 20) providing a benchmark to compare newcomers against. HR

staff in each of the five major areas of ABC identified between 3 and 5 senior employees with at least two years tenure who would likely be willing to participate. These individuals were telephoned to solicit their involvement, with all those contacted agreeing to participate. These were sent a Q-sort task and short questionnaire (see Measures section).

Respondents (Questionnaire Research)

Newcomers. Response rates for newcomers were highest at time one, decreasing across subsequent measurements. At all measurements, proportionately more ENs than GNs responded. Also, response rates were low for supervisors; this was probably partly due to the difficulty for Human Resources staff of identifying an appropriate supervisor to rate each newcomer. This problem was highlighted by the small number of ABC employees who contacted me having been sent the supervisor questionnaire asking for feedback on a newcomer they had not heard of.

Table 4.2. Response Rates for ABC Newcomers.

	Time 1			Time 2			Time 3			T3 Supervisor		
	EN	GN	All	EN	GN	All	EN	GN	All	EN	GN	All
A	79	56	135	66	62	128	50	54	104	35	34	69
B	2	6	8	2	7	9	3	7	8	2	7	9
C	15	40	46	28	33	61	43	41	84	59	61	120
N	96	102	198	96	102	198	96	102	198	96	102	198

Note. A are respondents. B are non-respondents who identified themselves as not wishing to participate (this included one EN who left early on, not returning even the time 1 questionnaire, and a further two ENs who left before time 3). C comprises non-respondents who gave no explanation for not returning their questionnaires.

For the GNs, a two-thirds majority were male (67 men, 35 women), with an average age of 23 years ($M = 23.29$, $SD = 1.42$). All GNs entered at the lowest level of the organisational hierarchy. Similar to the GN sample, two-thirds of ENs were male (65 men, 31 women). The average age was 30 (range

21 - 51, $\underline{M}$ = 30.46, $\underline{SD}$ = 5.79), with 8 years of previous work experience ($\underline{M}$ = 8.13, $\underline{SD}$ = 5.82); most entered at the second of five levels in the organisational hierarchy, with none entering at the top level.

Insiders. No demographic information was requested from supervisors; it was felt that supervisors might be more reluctant to participate if they felt they could be identified.

For the sample of senior insiders, three quarters were male (15 men, 5 women), with an average age of 34 ($\underline{M}$ = 33.90, $\underline{SD}$ = 2.51 and 12 years of previous work experience ($\underline{M}$ = 11.85, $\underline{SD}$ = 3.05). The sample was selected as being senior, and this was confirmed since all respondents coming from the third and fourth levels of the five level hierarchy ($\underline{M}$ = 3.35, $\underline{SD}$ = 0.49).

Measures

Q-Sort Methodology

The Q-sort technique is a profile comparison process, originally conceived by Stephenson (1953) and subsequently developed by Block (1978), to allow individual cases to be quantified by expert judges. Both these researchers used the technique to quantify individuals' personality in a quasi-idiographic manner, but since then the technique has been adopted for uses where individuals quantify their own perceptions or opinions (Chatman, 1991; Gajdamaschko, Durning, & Selden, 1997). The technique consists of presenting respondents with a large number of items (usually about 50) which they are asked to sort into categories according to a criterion. The number of items per category varies according to a forced, symmetric, normal distribution. Since all cards are sorted relative to each other, this results in ipsative data.

There are a number of advantages and disadvantages in using the Q-sort technique. In its favour, the possibility of response sets and order effects is excluded by shuffling the item set before presenting it to respondents. The lack of independence of the data has been shown to have minimal effects on significance levels due to the large number of items (Block, 1978), allowing ipsative data to be used as if it were continuous, although with some constraints. Thus, the Q-sort provides data allowing comparisons both across

items and across individual profiles. The comparison of complete profiles has been particularly useful in past organisational research where the similarity or fit of profiles has been assessed, enabling comparisons of individuals with each other or other criteria such as job, group, or organisational profiles (Billsberry, 1997; Caldwell & O'Reilly, 1990; Chatman, 1988, 1991). However, the use of profiles in this global manner has been a source of considerable debate, with areas of contention relating to the loss of information due to the holistic comparison method and the issue of reliability. These issues are outlined and discussed next.

Loss of information when using profile similarity indices

Edwards (1993, 1994) has been one of the strongest opponents of using indices of profile similarity for global assessments where the research ignores the specific categories into which items have been sorted. Edwards (1993) outlines four main areas of concern. Two of these relate to using a global comparison to compare conceptually distinct elements; Edwards regards such comparisons as conceptually ambiguous and obscuring the actual elements which are responsible for the differences. However, both these concerns assume that researchers are interested in specific items. If the research clearly states that the aims of the research are to produce holistic comparisons, there is no conceptual ambiguity. Moreover, additional detailed analyses can be carried out subsequently if the research is also concerned with specific items in a profile.

As a further methodological concern, Edwards (1993) proposes that profile similarity indices discard information on the absolute level of items and the direction of their difference. His fourth criticism is that profile similarity indices impose a restrictive set of constraints on the coefficients used to reflect congruence. These last two points do not prohibit the use of profile similarity indices where absolute differences are not the research focus. Thus, past research comparing Q-sorts using correlation coefficients has shown them to have predictive validity (Chatman, 1988, 1991; Cable, 1995; O'Reilly, Chatman, & Caldwell, 1991). Therefore, there seems to be good

reason for their continued use, allowing results to be compared with previous research.

This being said, Edwards' (1993) conducted a small data simulation persuasively illustrating that the correlation coefficient may in some cases be too global in assessing similarity, since it ignores the magnitude of differences between entities. Moreover, where two profiles show close associations across items which are not in a linear manner, a low correlation coefficient will be obtained therefore obscuring a true relationship. Edwards examined the utility of a number of other measures which vary in the extent to which they account for the magnitude of differences, direction of such differences, and the overall relationship between items. The current research was not concerned with the direction of differences per se, and therefore such information would have been redundant. Nevertheless, it is useful to take account of the size of differences in item placement. This is because there is likely to be some error in item placement on the profile, which is likely to show up as small differences where items are misplaced by one category. Accordingly, Block (1978) recommends that only differences of at least two categories are taken into account. Hence, giving more weight to larger differences when comparing profiles is a sensible strategy. One index of the similarity of profiles which takes account of the size of differences in item placement, but not their direction, is the sum of the squared differences between profile elements, $\underline{D}^2$, or the Euclidean distance score. Squaring each difference score has two effects: first, it means that $\underline{D}^2$ is non-directional, treating positive and negative differences in the same manner; second, greater weight is given to differences of larger magnitude. For these reasons, Euclidean distance scores are also reported in this research where appropriate.

Issues of reliability when using profile similarity indices

A further elaboration of his argument against global comparisons of profiles was put forward by Edwards in a 1994 paper, regarding the calculation of estimates of reliability. He argues that using a large number of items leads to inflated estimates of reliability. In addition, he proposes that

the interpretation of reliability indices can be problematic as these assume that the items are measuring a common construct where there is a "true score"; in cases where a profile contains different dimensions, there is no true score for a common construct and therefore, Edwards argues, reliability indices are meaningless.

Opposing this, Tisak and Smith (1994) argue that profile similarity indices are valid and often preferable to other types of difference score because they consider not only the profile level, but also dispersion and shape. With regard to reliability, they argue that this is only dubious when the component items are unreliable and highly-correlated. Moreover, correlation coefficients are used in a number of ways as indicators of reliability for comparing profiles which differ from other statistical uses. Specifically, coefficients alphas between individual respondents' profiles when rating the same subject (e.g., a person or organisation) and the total profile provide an estimate of how likely it is that the same profile would emerge if the total population of those knowing that subject rated it. Also, the average inter-rater correlation shows how closely views of the subject are shared. Correlation coefficients are also used as indicators of test-retest reliability of Q-sort item sets, and are used to report changes over time. On the basis of their different use and interpretation in research using profile comparison techniques, Tisak and Smith conclude that the use of reliability indices such as coefficient alphas and correlation coefficients is justified.

Q-Sort Measure

The specific Q-sort item set used in this research is the Organizational Culture Profile (OCP) which Chatman developed as part of her PhD through literature and empirical review (Chatman, 1988). The OCP comprises 54 items which she proposes to represent the full range of values that may be present in an organisation's culture. Sample items are: flexibility, being innovative, being supportive, and high expectations for performance (see Appendix for the full OCP). Items were developed and confirmed as neutral, free from social desirability biases, and meeting criteria of completeness, relevance, readability and non-redundancy (Chatman, 1988, 1991). Chatman

calculated the test-retest reliability of the OCP as .73 over a one year period with 16 MBA students. As a further check of this, a small independent sample ($\underline{N}$ = 5) completed the Q-sort twice over a one month interval, using the same instructions as for organisational newcomers (see below). These respondents were all in stable employment situations, were not aware that they would be asked to do exactly the same task a second time, and their profile was not discussed with them after the first time in case this led to enhanced memory for the cards or their sorted order. Respondents were aged 24 - 28, three female and two male. The average inter-correlation of their individual OCPs over time was .77.

To date, the OCP has been proven to have consensual, construct, and criterion-related validity (Rousseau, 1990). With regard to consensual validity (inter-rater reliability), Chatman (1988) found that organisational insiders in eight firms showed high levels of agreement in rating their organisation's culture ($\underline{r}$ = .80 - .90). Industry experts were able to accurately identify the eight firms within the accounting industry on the basis of OCP results, confirming the OCP's construct validity (Chatman, 1988, 1991). Additionally, Chatman and Jehn (1994) found that OCP profiles vary more for organisations across than within industries. Lastly, P-O fit as measured by the OCP predicts outcomes of satisfaction, commitment and turnover, confirming its criterion-related validity (Chatman, 1991; O'Reilly et al., 1991).

In order to measure person-organisation fit, two comparable Q-sorts are needed, one representing the newcomer's preferred organisational profile and the other profile representing insiders' perceptions of organisational reality. Thus, the OCP was given in two forms which differed only in the instructions as to the criterion for sorting the values and the labels on the categorisation scheme.

Due to the complexity of the sorting task, the researcher was present for this which comprised the first section of the interview at week one and month four. Although this was more time-consuming, it afforded the opportunity to check that participants had selected the correct number of cards per category, ensuring good quality data. Also, on a few occasions the

instructions had obviously failed to make the requirements of the task clear to participants, and so the researcher was able to re-direct them. However, due to difficulties arranging suitable meetings, four ENs were sent Q-sorts at four months, with full instructions for completion. For ENs, the instructions were:

> Important values may be expressed in the form of *norms* or shared expectations about what's important, how to behave or what attitudes are appropriate. For each item, please consider the question *How important is it for this characteristic to be part of the organisation you work for?* Sort the 54 values into a row of nine categories from *most desirable* to *least desirable*, according to the categorisation scheme given.

Participants were then given a card showing the categorisation scheme: 2-4-6-9-12-9-6-4-2, and a brief demonstration of how they should start to form piles of cards. Participants were then asked if any part of the instructions were unclear and they required further explanation. Both the instruction card and the categorisation scheme card were given to participants for referral during the task. Newcomer participants took approximately 20 minutes to sort the cards on the first occasion, and about 10 minutes on the second occasion four months later. Although they were aware that they would have a second interview, they were not explicitly told that they would be doing the task again.

The procedure was changed for eliciting actual profiles of the organisation from insiders. Since face-to-face meetings were not needed to collect qualitative data, and due to time and geographical constraints both for the researcher and senior level participants, the OCP was sent to participants with fairly lengthy instructions on how to complete the task. Initial telephone conversations were used to try to establish some rapport with participants so that they would feel at liberty to contact the researcher if they were having any difficulties.

Since this aspect of the research was aimed at obtaining a profile of how the culture of ABC is perceived by experienced employees, the specific question used as the criterion was changed. Thus, the criterion respondents

were asked to bear in mind was *How characteristic is this aspect of the culture of ABC?*, with the nine categories ranging from *most characteristic* to *least characteristic*.

The "crystallisation" of ABC's culture, which Chatman (1988, 1991) defines as the strength or homogeneity of an organisation's culture, was investigated. This was examined by calculating an overall mean insider rating for each of the 54 items in the OCP and then computing the mean insider-total insider correlation. Chatman refers to the resulting statistic as an alpha coefficient, representing how similar each insiders' rating of the organisation is to the total organisation profile. The alpha coefficient calculated using Pearson correlation is .94 ($\underline{D}^2 = 11.29$). This indicates a high level of crystallisation within ABC. Further, of 219 inter-rater correlations, all but 18 were significant at $\underline{p} < .05$ showing that raters had similar views of ABC.

Questionnaire Measures

All scales used in this research are given in the Appendix, apart from socialisation knowledge which is detailed in Chapter 5 (Table 5.12).

Revisions to Quantitative Measures

As before, all items with references to "this organisation" or "my present employer" were replaced with ABC's name to increase the relevance and simplicity of these items. Similarly, "job" was again replaced with "role" since ABC employees work on a project basis and are sometimes between "jobs" potentially making this term confusing. "Role" had no specific connotations at ABC and was therefore preferable.

Socialisation Knowledge. The same socialisation knowledge measure was used as before, measuring four knowledge domains: social (8 items), role (5 items), interpersonal resources (3 items), and organisation (5 items). A Likert scale was used to measure all socialisation knowledge acquisition, from 1 "not at all" to 7 "totally".

Self Efficacy. The same measure of self-efficacy, adapted from Jones (1986), was used at ABC as in the first study with the British Army. This was

measured on a seven point scale, from "strongly disagree" to "strongly agree".

Socialisation Tactics. Of the six organisational socialisation tactics proposed by Van Maanen and Schein (1979), the two classified as "social" by Jones (1986) were used at ABC, namely serial - disjunctive and investiture - divestiture. Jones' five item measures were used for each of these dimensions, measured on 7 point scales from "strongly disagree" (1) to "strongly agree" (7).

Job Satisfaction. The same single item measure of satisfaction was used in the research at ABC as in the previous research with the British Army, with the same theoretical and practical reasons for this (see Method for Study 1). The item asked "How satisfied are you with your job/role in general?", and was scored on a 1 to 5 scale from "very dissatisfied" to "very satisfied".

Organisational Commitment. As in the research with the British Army, the nine positively-worded items from the OCQ were used (Mowday, Porter, & Boulian, 1974; Mowday, Steers, & Porter, 1979). Commitment was measured at the second two periods, with a 1 to 7 scale from "strongly disagree" to "strongly agree".

Intention to Quit. As in the first study with the British Army, turnover intentions were measured with Colarelli's (1984) three item scale. A 1 to 5 scale was used, from "strongly disagree" to "strongly agree".

Careerism. In this study, Rousseau's (1990) measure of careerism was again used to assess the extent to which an employee views his/ her job as being part of a career which will span a number of different organisations (high careerism), or whether he/ she anticipates a career within few or a single organisation (low careerism). Items were measured on a 1 to 5 scale, from "strongly disagree" to "strongly agree".

Personal Change. Nicholson and West's (1988) personal change scale was again used at this second research site, comprising four items asking about changes in values, personality, attitudes and career plans. Responses were measured on a 1 to 5 scale from "no change at all" to "a great deal of change".

Mentoring. Following Kram's (1983) research, mentoring is commonly conceived as helping protégés along two dimensions, namely career-related and psycho-social. Noe (1988) developed scales to measure these two aspects of mentoring, with these scales subsequently used by Chao, Walz and Gardner (1992) in their research on newcomers. In both studies, the career-related and psycho-social measures showed satisfactory reliability, Noe finding Cronbach's alphas of .89 and .92 respectively, whilst in Chao et al.'s research these were .79 and .84.

At ABC, a formal mentoring programme exists. Newcomers are assigned to mentors outside their work area, the rationale for this being that newcomers (protégés) will feel free to discuss developmental needs and work-related concerns only if they are sure that this will not negatively affect their current or future work. Hence, the focus is on the psycho-social mentoring function, the mentor providing support and guidance to the protégé. Thus, only the 14 item psycho-social scale developed by Noe (1988) was used with a 7 item Likert type scale ranging from 1 "strongly disagree" to 7 "strongly agree". In spite of ABC's policy on mentoring, preliminary research revealed that some newcomers did not have a mentor, for example in the intervals before a new mentor was assigned when the previous mentor left the firm or moved into too proximal a work area. Thus, an initial screening question asked respondents whether or not they had a mentor. 76% of respondents indicated that they had a mentor (time 3 respondents $\underline{N}$ = 114: 87 responded yes, 16 responded no, 11 did not indicate).

Fit. Two subjective measures of fit were included, each as single global assessments. Newcomers were asked "How well do you think you fit into the culture at ABC?", and newcomers' supervisors were asked "How well does this person fit into the culture at ABC?". Both were measured on a 1 - 7 scale, from "not at all" to "totally".

Qualitative Measures

Semi-structured Interviews. Interviews were semi-structured at both times to allow comparisons across ENs; the interview questions are included in the Appendix. All ENs agreed to participate. Only a few asked questions about the research, all of which were concerned with the research hypotheses and their individual responses rather than queries about how the data were to be managed.

Questionnaire Comments. All questionnaires included space for comments. Respondents were asked to give comments in three areas: (i) Please comment on any adjustment problems you have experienced as a new employee at ABC; (ii) Please comment on anything that particularly surprised you about your new job or about ABC; (iii) If you have anything else which you would like to add about your experience as a recent entrant into ABC, please write this in the space below. The majority of respondents wrote comments, sometimes at great length.

Chapter 5
Psychometric Validity and Investigation of Measures

Overview

The first part of this results chapter reports the series of preliminary checks and psychometric validations conducted on data used in subsequent analyses. It comprises four sections. The first of these details patterns of responding and how missing data are dealt with in the two studies at the British Army and ABC respectively.

The middle two sections look at specific construct measures used in this research. The first of these reports the results of the content validation of Jones' (1986) measures of organisational socialisation tactics, which was expected to show a strong six factor structure (Van Maanen & Schein, 1979). Subsequent to this, Hypothesis 1 proposed that recruits would perceive Phase 1 Army Training as involving tactics that are collective, formal, sequential, fixed, serial and divestiture in nature. Similarly, Hypothesis 2 proposed that training staff would also perceive Phase 1 Training as comprising this institutionalised set of tactics.

The third section investigates the measure of socialisation knowledge developed in this research, which was expected to show a four factor structure with similar patterns of factor loadings across measurements. This was investigated with data from newcomers to each organisations in turn.

The fourth and last section details all other constructs which were measured quantitatively. Only those which did not show the expected statistical properties are reported in detail, showing what actions were taken to revise these measures in order to allow them to be used in subsequent analyses.

Study 1: Data from the British Army

Respondent Attrition

Due to administrative problems at one ATR, both in the research liaison and the actual administration of the questionnaire, the final data collected from this ATR were omitted leaving data from only two ATRs. The data were investigated for possible biases in responding. Specifically, with longitudinal research there is a risk that respondent attrition will reflect non-random responding. For example, particular groups of people may opt out, leading to a biased sample or results that are not generalisable (Goodman & Blum, 1996). In most applied research, only respondents at one time point are included at the subsequent time point and so on iteratively, leading to a gradual reduction in the sample size. In this research, respondents continued to be present at the ATR with non-response due to timetable adjustments rather than recruits individually opting out. Evidence for this comes from respondents who are missing at one measurement but re-enter at a subsequent time. However, the reduced number of returned questionnaires in the latter time periods is also due to premature termination of questionnaire administration for some sections, leaving their data incomplete. It should be noted that individual non-response also occurred to a small extent, as was indicated by the return of blank questionnaires from administration sessions (approximate $\underline{n}$ = 10 overall). The number of respondents overall was 728, with only 186 respondents returning all five questionnaires, comprising approximately one quarter of the total sample.

Analyses were conducted to assess whether respondent attrition was truly random, as proposed. Goodman and Blum (1996) discuss the issue of non-random respondent attrition, and recommend the use of multiple logistic regression (MLR) to model the probability of being in one of two response categories, i.e. remaining in or leaving the sample. If this is non-significant, the sampling of respondents has been random within the population. Goodman and Blum emphasise the benefits of MLR in that it does not assume multivariate normality or equality of variance-covariance matrices between the two groups. Moreover, MLR simultaneously takes account of the

relationships among variables which is important if the data are to be analysed subsequently using multivariate techniques.

Since there were five time points in this research, there were 31 possible combinations of responding across time. Rather than assessing all pairs of these, two important comparisons were chosen. The first comparison was of those who responded only at time 1 with those who responded at times 1 - 5; since time 1 comprises the largest sample at a single time point whilst those responding at all times is the most restrictive, this is a conservative test of attrition. The second comparison was of the two longitudinal populations across the greatest number of measurements, respondents at times 1 - 5 with those responding at times 2 - 5. The independent variables for both analyses were all those at the earliest shared time point, to give the most comprehensive assessment of possible differences. These were time 1 for the first comparison and time 2 for the second comparison. The results of both MLRs were non-significant (see Table 5.1) indicating that the sample was not biased by non-random attrition.

Table 5.1. Comparison of Recruit Respondents at Different Measurements.

Measurement Intervals	X^2 (df)	p	Independent Variables
1 vs. 1 - 5	4.28 (4)	.37	self-efficacy, careerism, satisfaction, intent to quit
1 - 5 vs. 2 - 5	6.34 (5)	.28	self-efficacy, social knowledge, role knowledge, interpersonal resources knowledge, organisation knowledge.

Effects of Individual Differences

In addition, the data were analysed to investigate whether any significant differences existed between recruits having previous experience of the Army. Two variables were relevant to such experiences, of whether recruits had such experiences 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. Effects of gender were

also investigated. MANOVAs were used to investigate differences, looking at variables across time which might plausibly be affected by these demographic differences. This strategy allowed listwise deletion across the demographic variables for each psychological variable across time. MANOVAs were conducted for univariate constructs (e.g., self-efficacy), a multi-factor construct (knowledge domains), and also the psychological contract expectations at the item level.

Table 5.2. Army Recruits: Effects of Demographic Variables.

Variable	Times	df	Sex F	Family F	Exp. F	Age F (df)
Self-Efficacy	1 - 5	4, 137	2.34	0.85	2.03	1.33 (5, 143)
Careerism	1, 4, 5	2, 204	0.99	0.38	0.65	3.57* (3, 212)
Satisfaction	1, 4, 5	2, 209	0.46	0.53	0.56	0.63 (3, 217)
Intent to Quit	1, 4, 5	2, 213	0.49	1.84	0.09	2.66*a (3, 221)
Commitment	4, 5	2, 213	2.58	0.14	0.08	1.30 (2, 199)
Knowledge (4)	2, 3, 4, 5	3, 159	1.99	0.03	1.04	0.83 (16, 155)
Psy Contract	1, 5	13, 201	1.46	0.74	0.87	
Psy Contract#	1	(14, 634)				3.68‡ b
Psy Contract	5	(14, 224)				0.99

Note. * p < .05; † p ≤ .01; ‡ p ≤ .001. Exp. = years of work experience. # The regression analyses were done separately for the psychological contract dimensions at times 1 and 5 due to the number of variables involved; the sample size was not sufficient to examine these simultaneously. a The significant difference was for intent to quit at time 1 with age, with older recruits having less intention of leaving the Army at day 1 (B = -.18, p < .016). b The significant difference was for expectation of the effects of Army life on family, with older recruits having poorer expectations of this (B = -.14, p < .0035).

Table 5.2 reports the between-subjects effects, in other words the MANOVAs for each demographic variable, and also regression analyses for the one continuous variable, age. Where F was significant, it was followed up with univariate tests with Bonferroni correction according to the number of measurements; these are reported where significant. Only two significant differences were found, both for age which had effects on time 1 intent to quit

and expectations of the effects of Army life on family. These effects are accounted for because these two time 1 variables are only used in analyses of differences which control for time 1 by investigating change from entry to a subsequent measurement.

Missing Data

An unfortunately unnoticed error was made on the questionnaire for the response scales relating to the social knowledge items, with nine response scales given for eight questions. The majority of respondents omitted the same response scale and therefore responses on this scale were not included in the data. However, this still left markedly fewer respondents with complete data for this scale than for any others. To remedy this, scale scores were calculated where at least three quarters of the items had responses (i.e., at least six of eight responses were given). This had little effect on the means or reliabilities (see Table 5.3), and enabled a larger sample size to be used. Thus, the number of cases for subsequent multivariate analyses would not be unduly affected by this error.

To maintain a maximum sample for comparisons, instead of listwise deletion across the whole data set, a strategy of listwise deletion within each analysis conducted was employed. This was deemed acceptable given that respondent attrition was confirmed as random (Goodman & Blum, 1996).

Table 5.3. Comparative Descriptive Statistics for Social Knowledge for Two Data Deletion Strategies.

Measurement	Sample A			Sample B		
	M	SD	N	M	SD	N
Time 2	5.79	0.83	533	5.74	0.84	693
Time 3	5.90	0.81	460	5.88	0.82	576
Time 4	6.03	0.89	411	6.01	0.88	509
Time 5	6.17	0.84	247	6.15	0.84	316

Note. Sample A latent variables computed using listwise deletion; sample B latent variables computed using at least three quarters of items present.

Study 2: Data from ABC

<u>Respondent Attrition</u>

From Table 5.4, which shows response rates for ABC newcomers, it can be seen that respondent attrition was random over time. Thus, approximately one third of respondents returned questionnaires only once, a similar proportion returned two questionnaires, and a further third returned all three questionnaires.

Table 5.4. Number of ABC Newcomers Responding for Each Combination of Measurements.

Measurement	1	2	3	1, 2	1, 3	2, 3	1, 2, 3	none	total
<u>N</u>	24	13	11	36	14	19	60	21	198

As in the previous study, MLR analyses were conducted to assess the presence of non-random sampling (Goodman & Blum, 1996). Since there were three time points, there were seven possible combinations of responding across time. Rather than assessing all pairs of these, two important comparisons were chosen: time 1 vs. times 1 - 2 , and time 1 vs. times 1 - 3. The independent variables were those at the earliest shared time point, i.e. time 1. The results of both MLRs were non-significant (see Table 5.5) indicating that the sample was not biased by non-random attrition.

Table 5.5. Comparison of ABC Newcomer Respondents at Different Measurements.

Comparisons	X^2 (df)	p	Independent Variables
1 vs. 1 & 2	7.95 (10)	.63	age, gender, grade, EN/ GN, self-efficacy, social knowledge, interpersonal support resources knowledge, role knowledge, organisational knowledge.
1 vs. 1 - 3	10.39 (10)	.41	age, gender, grade, EN/ GN, self-efficacy, social knowledge, interpersonal support resources knowledge, role knowledge, organisational knowledge.

The data were analysed further to investigate whether any significant differences existed between newcomers according to their gender, age and previous work experience (ENs only). MANOVAs and multiple regressions were used to investigate differences, looking at variables across time which might plausibly be affected by these demographic differences (see Table 5.6). Where F was significant, it was followed up with univariate tests with Bonferroni correction; these are reported where they were significant. Two significant differences were found, both for social knowledge at time 1, with older newcomers and ENs with more years of work experience rating themselves as having less social knowledge at time 1. As with Study 1, this does not present a problem as the time 1 data were only analysed in relation to differences from entry to subsequent measurements.

Table 5.6. ABC Newcomers: Effects of Demographic Variables.

Variable	Times	Gender F (df)	Age F (df)	Yrs. Wk. Exp. (df)[1]
Self-Efficacy	1 - 3	2.00 (2, 60)	1.98 (3, 59)	1.44 (3, 29)
Careerism	1 - 3	0.16 (2, 62)	1.13 (3, 61)	1.12 (3, 30)
Satisfaction	1 -3	0.03 (2, 61)	0.14 (3, 60)	1.63 (3, 29)
Intent to Quit	1 - 3	0.91 (2, 61)	0.21 (3, 60)	0.12 (3, 30)
Commitment	2, 3	1.08 (2, 76)	1.40 (2, 62)	0.48 (2, 31)
Social K.	1, 2, 3	0.86 (2, 55)	10.96 (3, 56)[‡a]	5.56 (3, 25)[†b]
Role K.	1, 2, 3	1.51 (2, 58)	2.29 (3, 57)	1.69 (3, 26)
Int. Res. K.	1, 2, 3	2.54 (2, 59)	0.45 (3, 58)	2.86 (3, 28)
Orgstn. K.	1, 2, 3	0.41 (2, 57)	2. 15 (3, 56)	1.14 (3, 26)

Note. [1] EN only. Yrs. Wk. Exp. = Years of Work Experience; Int. Res. = Interpersonal Resources; Orgstn. = Organisation; K. = Knowledge. [a b] The two significant differences are of older newcomers ([a]) and older experienced newcomers ([b]) giving lower social knowledge ratings at time 1 ([a] B = -0.57, p < .001; [b] B= -0.43, p < .05).

Missing Data

The number of respondents at ABC was relatively small, as can be seen from Table 5.4. Only a small amount of data were missing and analyses

showed these to be mostly random. Therefore, an analysis strategy was used with the scale variables to maximise the number of cases. Specifically, in calculating scale scores, means were calculated on the basis of at least two-thirds of the items being present. This made little difference to the means and standard deviations of variables but allowed a slight increase in the number of cases included, as can be seen from the examples of the intent to quit and social knowledge variables in Table 5.7.

Table 5.7. Comparative Descriptive Statistics for Intent to Quit and Social Knowledge Across all Three Measurements.

Time/ Variable	Sample A			Sample B		
	M	SD	N	M	SD	N
T1 Intent to Quit	1.23	0.46	139	1.24	0.48	141
T2 Intent to Quit	1.47	0.70	123	1.47	0.71	125
T3 Intent to Quit	1.76	0.97	112	1.76	0.97	112
T1 Social Knowledge	4.49	1.43	125	4.42	1.43	132
T2 Social Knowledge	5.21	0.98	123	5.20	0.99	125
T3 Social Knowledge	5.36	0.97	111	5.37	0.98	112

Note. Sample A latent variables computed using listwise deletion; sample B latent variables computed using at least two thirds items present.

Results for the Organisational Culture Profile

For the Organisational Culture Profile (OCP) (Chatman, 1988, 1991), a small number of respondents only completed this at one time point. Two respondents had left by time 2 and a further five were unable to participate at time 2, with one other returning an OCP through the mail which was unusable (n = 8); two people were not free at time 1 but participated at time 2. A direct logistic regression analysis was performed to assess whether those responding at only one measurement point could be predicted on the basis of age, years of work experience, department or gender. Age data were unavailable for one respondent who left before time 2, leaving a total of 81 respondents (time 1 and time 2 = 69; time 1 or time 2 = 13). A test of the full model with all four predictors against a constant-only model was non-significant X^2 (7, N = 81) = 4.84, p = .68, indicating that these variables do not

reliably distinguish between those responding at only one measurement period and those responding at both. Prediction success for non-respondents was 0.0%. Thus, those that responded at only one time point were excluded ($\underline{n}$ = 13) from further analyses, leaving a paired sample of 74 respondents.

Implications of the smaller data set for multivariate analyses

The small number of respondents at ABC, in particular for the OCP measure of newcomer-organisation fit, affects the analyses that can be conducted on this data. Thus, there are insufficient data for most structural equation models that would be of interest, such as confirmatory factor analysis across measurement points, due to the low ratio of cases to variables (Schumacker & Lomax, 1996). However, for factor analysis at individual time points, the ratio of cases to data is sufficient.

The smaller data set may affect the replicability of some multiple regression analyses. Tabachnick and Fidell (1996) recommend Green's (1991) formulae of $\underline{N} \geq 50 + 8\underline{m}$ (where $\underline{m}$ is the number of independent variables) for testing the multiple correlation and $\underline{N} \geq 104 + \underline{m}$ for testing individual predictors. Where these criteria are not met, the results of the regression analysis may not replicate. To illustrate the problem, only 114 responses were received at time 3, limiting the number of independent variables that can be individually tested to 10 ($114 \geq 104 + 10$). However, a number of the regression analyses conducted on the data pertaining to newcomers to ABC were replications of analyses conducted with the larger data set collected from new Army recruits. Thus, significant findings were expected to replicate across settings.

The exception to this is for research relating to person-organisation fit. A number of hypotheses were proposed for objectively-measured fit using Chatman's (1988, 1991) Organisational Culture Profile. Given that this measure was only used with experienced newcomers, the sample size is restricted and therefore no regression analyses were possible with this measure of fit.

Organisational Socialisation Tactics

<u>Overview</u>

Two hypotheses were proposed with regard to Jones' (1986) measures of the six organisational socialisation tactics. Hypothesis 1 proposed that new recruits would report the tactics used by the British Army as collective, formal, sequential, fixed, serial and divestiture in nature, with Hypothesis 2 asserting that Army training staff would have similar perceptions of these socialisation tactics.

<u>Confirmatory Factor Analysis</u>

Recruits in the British Army experiencing Phase 1 Training were asked to rate their perceptions of organisational socialisation tactics at time 3. As a single organisation was used for this validation study, there was a possibility that items might show restriction of range, skewness and kurtosis. On a seven point scale, all showed standard deviations greater than 1; one item showed kurtosis ($CI4 = 3.14$). Tabachnick and Fidell (1996) state that the effects of significant skewness or kurtosis with a large sample rarely make a difference to the analysis and consequently the variable was not transformed. The data were next assessed for their suitability for factor analysis. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.89 and the Bartlett test of sphericity was 5451.06 ($p < .001$). The ratio of cases to items was 482:30, or 16:1, and less than 30% of the residuals were significant. Based on these criteria, the data set was judged suitable for factor analysis.

Based on previous theory, confirmatory factor analysis was conducted via maximum-likelihood extraction with varimax rotation specifying 6 factors (although it should be noted that 8 eigenvalues were greater than 1). This solution accounted for 45.6% of the variance, and is shown in Table 5.8. The first factor accounted for 24.3% of the variance, with 12 items loading at .4 or above. These included all four sequential tactic items, four of the five serial tactic items, one fixed tactic item, two of Jones' (1986) original investiture tactic items, and one collective tactic item. Two of these serial tactic items cross-loaded on the fourth factor. Factors two, three and four all had four items loading, with only factor three showing consistent loadings from only

Table 5.8. Factor Analysis of Organisational Socialisation Tactics.

Item	Item Question	I	II	III	IV	V	VI
CI1	During my training, I have been frequently involved with other new recruits in common, job-related training activities.	.36	.10	-.05	.20	.04	**.59**
CI2	Other new recruits have been important in helping me to understand my role requirements	.31	.14	-.14	.10	.08	**.63**
CI3	The Army puts all new recruits through the same set of learning experiences	**.50**	-.06	-.05	.22	.08	18
CI4	Most of my training has been carried out with other new recruits	.19	-.15	-.06	.39	.08	.33
FI1	I have been through a set of training experiences which are designed to give new recruits a thorough knowledge of job-related skills	**.50**	.04	.05	.28	.06	.36
FI2	I will not perform any of my normal job responsibilities until I am thoroughly familiar with Army procedures and work methods	.19	.31	-.05	.38	.10	.11
FI3	I will not be assigned a formal position until I know how to do the job effectively	.25	.11	-.06	**.56**	.13	.06
FI4	I have gained the majority of my job knowledge through coursework	.35	.35	.00	.18	.20	.11
SR1	There is a clear pattern in the way one part of our training leads to another	**.64**	.09	.01	.33	.07	.05
SR2	Each stage of the training process has, and will, expand and build upon the knowledge gained during the earlier stages of the process	**.55**	-.01	.00	**.47**	.06	.13
SR3	The movement from job to job to build up experience is very clear in the Army	**.62**	.08	.06	.37	.12	.08
SR4	The Army puts new recruits through an ordered set of learning experiences	**.59**	-.09	-.05	**.44**	.11	.11
FV1	I can predict my future career development in the Army by observing other people's experiences	.14	**.46**	-.03	.02	.15	.08
FV2	I know how long it will take me to go through the various stages of the training process in the Army	**.44**	.06	-.13	.10	.33	.14
FV3	I have been clearly told the fixed timetable of events through which I will progress	.35	.10	-.13	.03	**.81**	.04
FV4	I have a clear idea of the course timetable of Phase 1 Training	.28	.17	-.06	.13	**.76**	.07
FV5	Most of my knowledge of what may happen to me in the future comes informally, through the grapevine, rather than through formal Army communications[R]	-.06	**-.47**	.17	-.08	.03	-.06

SD1	Experienced soldiers see training new recruits as one of their main job responsibilities in the Army	**.57**	.02	-.12	.08	.12	.15
SD2	I am gaining a clear understanding of my role as a soldier in the Army from observing my seniors	**.75**	.09	-.04	.10	.08	.19
SD3	I have received a lot of guidance from experienced soldiers in the Army as to how I should perform	**.70**	.05	-.01	.05	.13	.09
SD4	I have very little contact with people who have previously been through Phase 1 Training[R]	-.03	-.30	.09	-.09	.01	.02
SD5	In general, I have been left alone to discover what my role should be in the Army[R]	.28	**-.67**	.03	-.07	.03	-.01
ID1	I have been made to feel that my skills and abilities are very important in the Army	**.67**	.15	-.12	-.14	.24	.10
ID2	The majority of senior training staff have been supportive of me personally	**.62**	.33	-.03	-.13	.18	.03
ID3	I have had to change my attitudes and values to be accepted in the Army[R]	-.10	-.07	**.77**	.03	-.08	-.07
ID4	I feel that experienced soldiers have held me at a distance until I conform to their expectations[R]	.00	-.27	**.48**	-.17	-.02	.01
IDR1	The Army tries to change the values and beliefs of new recruits[R]	.06	-.15	**.56**	-.10	-.04	-.08
IDR2	I have learned that certain behaviours and attitudes of mine are not considered acceptable in the Army[R]	-.14	-.02	**.73**	-.02	-.04	-.01
IDR3	The following statement describes the attitude of the Army towards new recruits: "We like you as you are; don't change"	.18	**.63**	-.07	-.17	.17	-.01
IDR4	In the Army, you must "prove yourself" before you are fully accepted[R]	-.00	-.11	.17	-.36	.09	-.07
Eigenvalues		7.28	1.93	1.60	1.31	0.95	0.60
Variance Explained		24.3	6.4	5.3	4.4	3.2	2.0

Note. N = 482. CI = collective - individualised; FI = formal - informal; SR = sequential - random; FV = fixed - variable; SD = serial - disjunctive; ID = investiture - divestiture; IDR = Ashforth and Saks' (1995, Ashforth, Saks & Lee, 1997) measure of investiture - divestiture measure. Items are shown in the order they were presented in the questionnaire, with the exception of ID4 which was between IDR2 and IDR3.

one tactic, investiture. These factors accounted for 6.4%, 5.3% and 4.4% of the variance respectively. Factor five had two fixed tactic items loading, accounting for 3.2% of the variance, and factor six had two collective items loading which accounted for 2.0% of the variance. Three items had no loadings which reached .4. Two of these were for the fixed tactic, which is congruent with previous research which has found this to be a less internally consistent scale.

Cronbach alphas were calculated for the scales (see Table 5.9). Due to the poor factor analysis results, internal reliabilities for the six factors were expected to be poor. To reduce the necessity of scale revision, a lenient alpha of $\geq$ .65 was chosen as the criterion for acceptability without item revision rather than the more usual .70 (Nunnally, 1978). Only three of the tactics dimensions showed reliabilities at or above .65: sequential, collective and formal. Of these, the sequential tactic scale was the only one to show good reliability (α = .83). The two context tactics, collective and formal, had Cronbach alphas of .69 and .65 respectively.

The internal reliabilities of the fixed, serial and investiture tactics were all unacceptable as they were all below .65. Item-total intercorrelations were examined and items deleted with the aim of increasing the Cronbach alpha. Taking each of these three tactics dimensions in turn, the fixed scale showed poor reliability, with a Cronbach alpha of .53. Deletion of item FV5, the only reversed item for this scale, improved Cronbach alpha to .72. The serial scale was similarly low at .54, although this improved to .63 with the deletion of SD4 and to .76 with the deletion of SD5, the two reversed items for this scale. Interestingly, these three reversed items on the fixed and serial scales are also inconsistent with the reality of recruit training. Looking last at investiture, both the original scale by Jones (1986) and Ashforth, Saks and Lee's (1997) new scale had very poor Cronbach alphas of .20 and .21 respectively. It was decided to take the further step of investigating whether a combination of these items yielded a better scale. Deletion of ID1, ID2 and IDR3 improved the Cronbach alpha to .71. Thus, ID3, ID4, IDR1, IDR2 and IDR4 yielded a scale with better internal reliability. Interestingly, the three deleted items are

positive, those retained are phrased in the negative and reflect divestiture. The items included in each revised scale and their Cronbach alphas are shown in Table 5.9. Overall, there was partial support for Jones' (1986) scale representing six tactics: six factors were extracted and accounted for a good proportion of the variance, although the factor structure was unexpectedly poor, necessitating item deletion and scale integration (for investiture).

Recruits' perceptions of the socialisation tactics used in Phase 1 Training

The means and standard deviations for the final scales for both recruits and training staff are shown in Table 5.9; these statistics are based on the scales as shown in Table 5.9 with acceptable reliabilities. From this, it is clear that recruits view their socialisation as predominantly an institutionalised process. Further, they perceive it to involve divestiture rather than investiture, that is, they feel that their personal characteristics are not valued and that they are expected to change in order to gain approval. These results confirm Hypothesis 1.

Table 5.9. Descriptive Statistics for Organisational Socialisation Tactics.

Tactic	Items	Recruits				Training Staff	
		N	M	SD	α	M	SD
Collective	CI1 CI2 CI3 CI4	566	5.51	0.97	.69	5.32	1.31
Formal	FI1 FI2 FI3 FI4	544	5.11	1.03	.65	4.65	1.32
Sequential	SR1 SR2 SR3 SR4	564	5.61	1.00	.83	4.99	1.07
Fixed	FV1 FV2 FV3 FV4	558	5.36	1.20	.72	5.01	1.33
Serial	SD1 SD2 SD3	561	4.89	1.21	.76	4.93	1.29
Investiture	ID3 ID4 IDR1 IDR2 IDR4	551	2.85	1.14	.71	2.77	1.10

Note. Training staff N = 23; α = Cronbach's alpha. No reliability data are reported for TS due to the small sample.

Training Staff's perceptions of the tactics used in Phase 1 Training

Hypothesis 2 proposed that training staff would perceive the same socialisation tactics to be used in Phase 1 Training as recruits, these being collective, formal, sequential, fixed, serial and divestiture. First, a MANOVA was conducted to assess whether there were any significant differences

between training staff across sites; this was non-significant (F (12, 30) = 2.02, p = .06) showing that training staff have similar perceptions of the socialisation tactics used by the Army during Phase 1 Training. Means and standard deviations for training staff's perceptions of the tactics used in Phase 1 Basic Training are shown in Table 5.9. These appear similar to those of new recruits. Further reliability analyses were not conducted with the data from training staff due to the small number of respondents (N = 23).

Comparison of recruit and training staff's perceptions of Phase 1 Training socialisation tactics

To investigate whether recruits and training staff have similar perceptions of the socialisation tactics used by the Army, a mixed-design between- and within-respondents MANOVA was conducted to assess whether any differences existed. This was non-significant (F (5, 640) = 1.03, p = .4), thus confirming Hypothesis 2, that Army training staff perceive that the organisational tactics used by the British Army to socialise new recruits are institutionalised. This also accords with my own observation of these tactics and independent researchers' categorisation of military socialisation tactics used with new recruits (Marsh & Smith, 1991; Van Maanen & Schein, 1979).

Summary

It was expected that a clear six factor structure would be evident from the data. Although a good proportion of the variance was accounted for (45.6%), the factor loadings were not as clear as anticipated, with a substantial number of cross loadings and poor internal reliabilities for the six scales. Three scales with Cronbach alpha of .65 or greater were retained without amendment (collective, formal and sequential tactics); item deletion for the remaining three tactics was used to improve their internal reliability (Cronbach alpha) above .65.

Two hypotheses were proposed with regard to how the Army's socialisation tactics were perceived. Hypotheses 1 and 2 were confirmed, with both recruits and training staff reporting the tactics used by the British Army as collective, formal, sequential, fixed, serial and divestiture in nature.

The Acquisition of Socialisation Knowledge

<u>Overview</u>

Following a review of previous research on the content of learning that newcomers acquire as part of the process of organisational socialisation, it was proposed that these could be represented by four primary domains and a measure of these domains was developed. Psychometric analyses of this measure were conducted to ascertain whether the measure showed a four factor structure as proposed, with the same pattern of factor loadings across time. The measure was first analysed with the larger sample of responses collected from Army recruits, with the knowledge items included at times 2 - 5. An exploratory principal components analysis was conducted, followed by confirmatory factor analyses. Second, further confirmatory factor analyses were conducted on ABC newcomers' responses to the measure at times 1 - 3. The psychometric properties of the socialisation knowledge measure are analysed and discussed at these two organisations in turn.

Study 1: Data from the British Army

<u>Exploratory Factor Analysis</u>

Following listwise deletion, complete time 2 data on the socialisation questionnaire items were available for 513 newcomer recruits. Items were examined for skewness, kurtosis and intercorrelations; all were acceptable. Data were then assessed for their suitability for factor analysis. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.92 and the Bartlett test of sphericity was 4776.02 (p < .001). The ratio of cases to items was 513:22, or 23:1. Less than 30% of the residuals were significant. Based on these criteria, the data were judged suitable for factor analysis.

A principal components analysis was performed on the data using two criteria for extraction, of Cattell's (1966) scree test and Kaiser's criterion of eigen values greater than one. This resulted in four components being extracted, with the first component accounting for 34.8% of the variance and the four components jointly accounting for 58.1% of the total variance (see Table 5.10). On consideration of the item ("I have mastered the new skills taught to me in training"), it was decided that both the reference to training and the assumption that new skills needed to be learnt might not hold for all newcomers. Since this would limit the generalisability of the measure, this item was omitted. A second item designed to load on organisation knowledge also loaded on role knowledge, and more strongly ("I know what the Army values (that is, the things that are important to the Army"). However, in this case it was decided that knowing the organisation's values is an important aspect of organisation knowledge, likely to be relevant across different organisations. This item had high inter-correlations with the other four organisational items (mean inter-item correlations for this item and for the total scale of .39 and .43 at time 2; .47 and .48 at time 3; .52 and .50 at time 4; and .51 and .49 at time 5). Therefore, this item was retained, leaving a total of 21 items.

<u>Confirmatory Factor Analyses</u>

The analysis was then repeated with the time 2 data specifying four factors to be extracted via maximum likelihood with varimax rotation. This

solution accounted for 50.1% of the total variance (see Table 5.11). Parallel confirmatory analyses were performed on the data for times 3, 4 and 5. The factor loadings were similar across time points, with the four factor solution accounting for 57.7%, 61.8% and 62.6% of the variance respectively. The order of extraction of factors was uniform across time (social, role, organisation, interpersonal resources), apart from at time 3 where interpersonal resources accounted for more variance than organisation knowledge and hence was extracted third. Cronbach alpha reliability coefficients ranged from .78 to .93 indicating acceptable levels of internal homogeneity for all four factors (see Table 5.11). The stability coefficients, reflecting test-retest reliability, range from .55 to .69 (average: social .66; role .61; organisational .64; interpersonal .56); these were not expected to be high since change is expected to occur in the form of increased knowledge. Similarly, the moderate to strong significant correlations between scales within time points, and moderate significant correlations between scales across times, were also expected given that socialisation knowledge is gradually acquired in these different domains over time (see Table 5.13). The two domains relating to establishing relationships with insiders, social knowledge and interpersonal resources knowledge, were no more strongly correlated with each other than with other domains, confirming these as distinct relational domains.

Table 5.10. Army: Principal Components Analysis with Varimax Rotation on Time 2 Socialisation Knowledge Items.

Code	Item Question	S	R	O	IR
S1	I know how to get along with others in my section	.73	.26	.02	.05
S2	I know the characters of others in my section	.69	.05	.24	.05
S3	I enjoy spending time with others in my section	.72	.26	.02	.16
S4	Others in my section usually tell me the section gossip/news	.66	.11	.08	.03
S5	Others in my section usually include me in social outings (e.g., to the Naafi)	.68	.26	.08	.01
S6	I can easily be identified as "one of the team"	.75	.30	.13	.02
S7	I know who to trust in my section	.64	.00	.23	.24
S8	I've made some close friends in my section	.67	.01	.21	.31
R1	I understand what my personal responsibilities are	.31	.61	.31	.09
R2	I know what the training staff consider as good performance	.21	.62	.16	.25
R3	I have mastered the new skills taught to me in training	.25	.41	.43	.12
R4	I know the limits of my authority	.12	.64	.15	.15
R5	I know what behaviour in punished in this section	.12	.78	.04	.19
R6	I know what it takes to do well in basic training	.12	.72	.24	.08
IR1	I feel there is someone I can go to for advice related to training	.06	.27	.09	.80
IR2	I have someone I feel comfortable going to if I need help with course preparation	.23	.24	.15	.79
IR3	I have someone I feel comfortable going to if I need help with personal problems	.11	.15	.15	.80
O1	I know what the Army values (that is, the things that are important to the Army)	.23	.59	.34	.12
O2	I am familiar with the history of my Regiment/Corps	.09	.12	.64	.01
O3	I know the rank structure of the Army	.20	.12	.66	.17
O4	I have learnt how things really work in the Army	.13	.28	.78	.14
O5	I am familiar with the unwritten rules of how things are done in the Army	.08	.27	.73	.12
Eigenvalues		7.65	2.25	1.55	1.33
Variance Explained		34.8	10.2	7.0	6.1

Note. N = 513. S = social, R = role, O = organisational, IR = interpersonal resources.

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Table 5.11. Army: Confirmatory Factor Analyses of Socialisation Knowledge Items, Times 2 - 5

Time:	Social				Role				Organisational				Interpersonal Resources			
	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5
S1	.68	.62	.76	.72	.23	.41	.28	.37	.02	.21	.17	.14	.08	.06	.15	.23
S2	.62	.69	.67	.49	.08	.21	.25	.49	.20	.20	.20	.28	.06	.10	.12	.11
S3	.68	.72	.76	.71	.24	.18	.18	.28	.05	.07	.13	.18	.17	.15	.17	.22
S4	.58	.64	.76	.80	.11	.20	.16	.19	.09	.02	.11	.24	.06	.05	.09	.14
S5	.64	.70	.79	.73	.24	.27	.23	.30	.09	.11	.18	.22	.05	.07	.10	.25
S6	.73	.73	.81	.78	.28	.28	.22	.31	.15	.17	.14	.24	.00	.07	.13	.17
S7	.58	.65	.67	.42	.05	-.01	.21	.40	.22	.29	.22	.23	.19	.07	.12	.19
S8	.62	.66	.65	.56	.02	.09	.16	.13	.21	.26	.25	.32	.26	.15	.20	.28
R1	.31	.37	.30	.30	.55	.62	.74	.67	.30	.24	.25	.21	.12	.17	.13	.18
R2	.23	.17	.24	.30	.54	.66	.75	.69	.18	.25	.24	.19	.25	.20	.18	.27
R4	.15	.15	.25	.38	.53	.55	.51	.64	.19	.25	.24	.26	.16	.04	.12	.09
R5	.14	.24	.24	.15	.71	.69	.68	.64	.10	.13	.24	.35	.20	.13	.22	.04
R6	.14	.21	.29	.47	.64	.72	.60	.62	.27	.19	.27	.18	.10	.18	.24	.29
IR1	.08	.09	.19	.39	.26	.27	.33	.18	.12	.11	.20	.20	.72	.79	.73	.77
IR2	.24	.17	.27	.21	.21	.23	.21	.12	.15	.16	.15	.28	.78	.83	.82	.81
IR3	.13	.13	.12	.16	.16	.05	.11	.18	.15	.18	.20	.10	.68	.84	.73	.73
O1	.24	.21	.28	.17	.52	.60	.53	.53	.34	.37	.49	.51	.14	.18	.17	.17
O2	.12	.16	.14	.20	.17	.15	.15	.11	.43	.48	.48	.44	.04	.12	.14	.16
O3	.22	.20	.20	.19	.15	.26	.27	.36	.49	.50	.51	.44	.18	.17	.14	.08
O4	.14	.21	.19	.25	.25	.31	.33	.28	.81	.71	.76	.72	.14	.11	.15	.19
O5	.11	.17	.22	.21	.24	.32	.22	.31	.69	.72	.72	.67	.13	.13	.15	.19
Eigen.	6.77	7.86	9.23	9.96	1.74	1.90	1.81	1.30	1.12	1.51	1.21	1.23	0.88	0.83	0.73	0.66
σ^2	32.3	37.4	44.0	47.4	8.3	9.1	8.6	6.2	5.4	7.2	5.7	5.9	4.2	4.0	3.5	3.1
α	.87	.89	.93	.93	.82	.86	.89	.88	.78	.81	.83	.82	.81	.90	.87	.89

Note. Time 2 $\underline{N}$ = 513; Time 3 $\underline{N}$ = 442; Time 4 $\underline{N}$ = 391; Time 5 $\underline{N}$ = 238. σ^2 = variance explained; α = Cronbach's alpha; Eigen = eigenvalue.

Study 2: Data from ABC

<u>Confirmatory Factor Analyses</u>

Following listwise deletion, data for over one hundred cases were available at all three measurement times ($\underline{N}$s = 115, 122, 106) giving a ratio of cases to expected factors of approximately 5:1 (115:21, 122: 21, and 106:21). In their 1989 book, Tabachnick and Fidell propose that this ratio of variables to cases is at the lower bound of recommended minimum sample size for such analyses, being adequate when there are strong, reliable correlations and only a few, distinct factors. However, in a recent update (Tabachnick & Fidell, 1996), they propose that it is desirable to have 300 cases, although 150 cases may be sufficient where there are several high loadings (>.80). For the socialisation measures, few loadings were this high in the first study. However, the other criteria assessing whether the data are suitable for factor analysis were satisfied: the items were normally distributed (acceptable skewness and kurtosis values); the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.91; the Bartlett test of sphericity was 1786.12, ($\underline{p}$ < .001); and less than 30% of residuals were significant. Thus, the data were factor analysed bearing in mind that the solution might be less clear due to the smaller sample size.

Both Cattell's (1966) scree test and the Kaiser criterion (eigenvalues greater than one) indicated a four factor solution. A confirmatory factor analysis using maximum likelihood extraction and varimax rotation was conducted on the data at all times, accounting for 67.1%, 60.2% and 64.1% of the variance respectively. The order of extraction of factors was the same as in the previous study, in the order: social, role, organisation, interpersonal resources, except at time 3 where both the third and fourth factors comprised organisation items. Overall, the factor loadings were slightly less clear for newcomers to ABC, with six cross loadings at time 1 (S7, R1, P2, O1, O4, O5) and one item loading on a different factor (P3 loading exclusively on role knowledge). At time 2, loadings were clearer, with only two cross-loadings

Table 5.12. ABC: Confirmatory Factor Analyses of Socialisation Knowledge Items, Times 1 - 3.

	Social			Role			Organisational			Interpersonal Resources		
Time:	1	2	3	1	2	3	1	2	3	1	2	3
S1	.74	.58	.65	.28	.28	.25	.19	.18	.26	.34	.14	.03
S2	.68	.70	.55	.34	.30	.19	.15	.20	.29	.13	.03	.01
S3	.70	.60	.66	.19	.15	.22	.26	.04	.36	.32	.38	.10
S4	.75	.69	.81	.29	.09	.28	.11	.04	-.05	.16	.30	.10
S5	.81	.72	.78	.24	.05	.21	.19	.02	-.04	.06	.21	.12
S6	.86	.66	.75	.24	.27	.24	.17	.13	.14	.08	.16	.08
S7	.65	.62	.50	.42	.30	.46	.09	.26	.14	.06	.02	.08
S8	.66	.67	.68	.30	.30	.19	.31	.13	.18	-.05	.24	.13
R1	.42	.38	.37	.56	.50	.18	.09	.26	.43	.41	.21	.03
R2	.35	.30	.53	.79	.65	.44	-.02	.11	.25	.30	.26	.14
R4	.38	.24	.46	.70	.60	.35	.11	.28	.44	.19	.16	.16
R5	.30	.26	.32	.79	.86	.65	.08	.10	.19	.07	.08	.04
R6	.32	.21	.35	.71	.82	.81	.22	.14	.06	.21	.21	.15
IR1	.08	.27	.31	.17	.13	.77	.32	.04	.07	.72	.70	.06
IR2	.30	.20	.26	.44	.16	.79	.03	.09	.05	.63	.89	.18
IR3	.19	.26	.28	.51	.24	.84	.18	.09	.05	.21	.47	.21
O1	.31	.21	.14	.56	.61	.71	.45	.43	.47	.17	.06	.23
O2	.14	.13	.16	.05	.06	.06	.66	.74	.69	.25	.11	.34
O3	.19	.14	.11	.07	.06	.04	.63	.77	.52	.11	.04	.57
O4	.25	.13	.16	.47	.39	.38	.75	.71	.19	-.06	.03	.89
O5	.22	.07	.12	.69	.44	.55	.42	.67	.20	-.04	.07	.56
Eigen.	10.35	8.15	5.03	1.47	1.92	5.76	1.27	1.28	1.70	1.01	1.29	0.98
σ^2	49.3	38.8	23.9	7.0	9.1	27.4	6.0	6.1	8.1	4.8	6.1	4.7
α	.94	.90	.90	.92	.88	.92	.84	.86	.87	.73	.77	.79

Note. Time 1 $\underline{N}$ = 115; Time 2 $\underline{N}$ = 122; Time 3 $\underline{N}$ = 106. σ^2 = variance explained; α = Cronbach's alpha; Eigen. = eigenvalues.

(O1 and O5 loading on role). At time 3, only the social knowledge scale emerged as a clear factor, with one social knowledge item cross-loading on the role knowledge factor (S7). Two of the five role items loaded exclusively on role, with the three interpersonal resources knowledge items also loading on the role factor and two organisation knowledge items. The third and fourth extracted factors predominantly comprised organisation knowledge items, with two role knowledge items loading on the third factor. For those items which cross-loaded, corrected item-total correlations were examined to assess whether they were related to other items for the correct factor. This was confirmed in all cases ($r \geq .56$), indicating that these were inter-related as expected.

Cronbach alpha coefficients ranged from .73 to .94 indicating acceptable levels of internal homogeneity and reliability for all four factors (see Table 5.12). The stability coefficients, reflecting test-retest reliability, range from .46 to .80 (average: social .61; role .60; organisational .60; interpersonal resources .58); these were not expected to be high since change is expected to occur in the form of increased knowledge. Similarly, the moderate to strong significant correlations between scales within time points, and between scales across times, were also expected given that socialisation knowledge is gradually acquired in these different domains over time. As in the previous study, social and interpersonal resources knowledge were no more strongly correlated with each other than with other domains (see Table 5.14), confirming that they measure different dimensions of interpersonal relationships with organisational insiders.

Summary

Based on the research literature, a four factor measure of socialisation knowledge was proposed and items developed accordingly. It was expected that psychometric analyses across the Army and ABC would show the measure to have a four factor structure that was stable across time.

For newcomers to both the Army and ABC, the scree plot and Kaiser's criterion (eigenvalues greater than one) suggested a four factor solution at all

time points. For new recruits to the Army, factor loadings were highly similar across time, with the exception of one organisation knowledge item (O1) which cross-loaded on role knowledge. On the basis of both theoretical and statistical reasons (inter-item correlations), this item was retained on the organisation knowledge factor. The four factor solution accounted for approximately 50 - 60% of the variance across time. Cronbach's alphas ranged from .78 to .93, showing that the scales have high internal reliability.

For the data from newcomers to ABC, the factor loadings were less clear with more cross loadings. This may have been due to the small number of respondents across the three measurements (Ns of 115, 122 and 106 respectively) resulting in a less stable solution. In spite of this, the four factor solution accounted for 61 - 67% of the variance across the three measurements, with Cronbach's alphas ranging from .73 to .94, showing the scales to have good internal reliability. In summary, there is strong support for the psychometric robustness of this socialisation knowledge scales, measuring four knowledge domains: social, role, interpersonal resources and organisation.

Analyses of Other Quantitative Measures

<u>Preliminary Analyses</u>

All remaining psychological constructs that were measured by multi-item scales were analysed to ensure that they met a number of criteria. First, descriptive statistics were checked for each item to verify that data were normally distributed. This was confirmed for all measures. Second, confirmatory factor analyses were performed using Maximum Likelihood extraction and varimax rotation, to ensure that items on each scale did reflect a single construct. Where factor loadings were not clear, inter-item and item-scale correlations were examined to ascertain the extent to which items did not cohere. Items were deleted if they exhibited low inter-item and item-scale correlations, and if their deletion substantially improved the internal homogeneity of the scale as shown by Cronbach's alpha. The means, standard deviations, internal reliabilities and inter-correlations for all scales are shown in Tables 5.13 and 5.14 for the Army and ABC respectively. Only those which do not show the expected statistical properties are discussed further.

<u>Revisions to Scales used with the British Army</u>

<u>Organisational Commitment</u>. Reichers (1985) criticises several items in the organisational commitment questionnaire (Mowday et al., 1974; Mowday et al., 1979) that are closely related to measures of intent to leave or stay; only one of these was used in our research, "I would accept almost any type of job assignment in order to stay in the Army". It was also anticipated that another question might not be valid in the current research: "I talk about the Army to my friends as a great organisation to work for". Soldiers are required not to talk about their work and, since recruits may consider "friends" to refer to civilians, they may indicate a response reflecting that they should not talk about the Army however positively they may feel about it. Yet it is likely that this rule is commonly ignored. Thus, the results for these two variables were investigated. Their corrected item-total correlations are .60 and .58 respectively, showing that they are consistent with other items in the scale, and hence they were retained.

Intent to Quit. The measure of recruits' intentions of leaving the Army comprises three items which are all worded positively, although one item refers to an intent to stay and two items refer to an intent to quit in the next 12 months. The intent to stay item showed a poor corrected item-total correlation of .18 with the intent to quit items at time 1, although this improved slightly at times 4 and 5, being .39 and .25 respectively. Although the measure has shown good internal reliability in previous research, this has exclusively investigated graduate newcomers. Thus, given the poor internal reliability at time 1, the scale was shortened to comprise the two intent to leave items at all time points.

Careerism. This scale comprises five items, two of which are phrased in the negative and the remaining three in the positive. Analysis of the scale's reliability with British Army recruits showed that the two items phrased in the negative correlated poorly with the three items phrased in the positive. Average item-total correlations at time 1, 4 and 5 for these two items were .04, .19; -.01, -.02; and -.00, .08 respectively. The reliability of the scale was much poorer with all five items than with only the three positive items. Yet even with only the three positively worded items, the reliability was .67 at time 1, lower than the .70 criterion normally considered to show acceptable homogeneity. However, given that this criterion was met for the three item scale at times four and five, this lower reliability was deemed acceptable and a three item careerism scale was generated for all three time points.

As a further check on the independence of the measures of intent to quit and careerism, the remaining items from both scales were factor analysed jointly using Maximum Likelihood extraction and varimax rotation, specifying extraction of factors on the criterion of eigenvalues which were greater than 1. This resulted in two factors which represented careerism and intent to quit; the loadings were strongly supportive of these two constructs being separable on the basis of these items, with factor loadings of between .40 and .82 on the correct factor and .22 or below on the other factor.

Revisions to Scales used at ABC

Intent to Quit. In this second study, the three items measuring intent to quit showed moderate to strong inter-item correlations. Again, the items showed lower internal consistency at time 1 due to the first item which referred to intent to stay rather than intent to quit. Corrected item-total correlations were .38, .57 and .72. Since this difference was small and the internal consistency was good at the second two measurements, this item was retained. Further, retaining intent to quit as a three item scale facilitates equivalent comparisons with past research on graduate samples that used the same measure. Thus, the Cronbach's alpha at time 1 was low but deemed acceptable (.66).

Socialisation Tactics. The two "social" tactics of serial - disjunctive and investiture - divestiture loaded primarily on one factor when factor analysed specifying a two factor solution, with two investiture - divestiture items loading on a second factor. Past research has found that these two tactics load together, both representing the "social" dimension of organisational socialisation tactics (Jones, 1986). Thus, a one factor structure is an acceptable solution. However, further investigation of the internal homogeneity of the two scales revealed poor results for the investiture - divestiture measure. Specifically, one of the two items phrased to represent divestiture ("I have had to change my attitudes and values to be accepted at ABC") showed poor inter-item correlations (.01 - .21) and similarly an inadequate item-total correlation (.17). Deletion of this item improved the internal reliability of the scale from .64 to .68, with a standardised alpha of .70. The remaining divestiture item showed the poorest item-total correlation of .29; however, given that the measure is meant to represent divestiture as well as investiture, and that the standardised alpha met the criterion value of .65 used for revising the tactics scales in Study 1, it was decided to retain this measure as comprising four items.

Table 5.13. Army Recruits: Descriptive Statistics and Correlations Amongst Variables.

	Mean	SD	N	sex	age	fam	prex	s-e	sat	car	quit	T2	s-e	soc.k	rol.k	int.k	org.k	T3	s-e	soc.k	rol.k	int.k	org.k
sex	1.22	0.42	725																				
age	19.19	2.48	725	.16‡																			
ATR	1.63	0.48	699	.09*	.06																		
fam	1.64	0.48	723	-.03	.06																		
prexp	1.65	0.48	725	.17‡	.06	.11†																	
T1 s-e	4.29	0.93	697	-.16‡	.04	-.04	-.08*	.76															
sat	3.82	0.92	715	-.06	-.03	-.00	-.06	.42‡	----														
car	2.68	0.96	710	-.00	-.11	-.01	.05	.12†	-.06	.67													
quit	1.71	0.84	711	-.00	-.16	-.02	.03	-.20†	-.35‡	.33‡	.66												
T2 s-e	4.57	1.05	672	.11†	.04	-.08*	-.19‡	.57‡	.29‡	.08	-.16‡		.83										
soc.k	5.74	0.84	693	-.04	-.03	-.06	-.03	.26‡	.20‡	-.03	-.12†		.43‡	.87									
rol.k	6.08	0.77	692	-.14‡	.03	-.09	-.08*	.25‡	.20‡	.02	-.13†		.45‡	.49‡	.78								
int.k	5.61	1.26	692	-.04	-.03	-.04	-.12*	.14	.07	.03	-.05		.31‡	.38‡	.44‡	.81							
org.k	5.03	1.00	694	-.14†	-.05	-.10*	-.22‡	.30‡	.23‡	-.01	-.06		.52‡	.41‡	.50‡	.38‡	.78						
T3 s-e	4.59	1.14	544	-.15‡	.01	-.08	-.04	.41‡	.21‡	.05	-.11*		.55‡	.21‡	.34‡	.12‡	.31‡		.85				
soc.k	5.88	0.82	576	-.10*	.03	-.01	-.02	.26‡	.12*	.02	-.19‡		.40‡	.64‡	.43‡	.30‡	.34‡		.36‡	.89			
rol.k	6.03	0.85	579	-.11†	.01	-.10*	-.07	.30‡	.26‡	-.02	-.20‡		.42‡	.28‡	.64‡	.25‡	.44‡		.41‡	.54‡	.84		
int.k	5.36	1.48	579	-.06	.03	-.05	-.08	.14†	.10*	.05	-.03		.24‡	.24‡	.30‡	.55‡	.28‡		.31‡	.34‡	.42‡	.90	
org.k	5.23	0.97	573	-.07	-.01	-.10*	-.16	.29‡	.19‡	-.03	-.14†		.45‡	.34‡	.43‡	.28‡	.62‡		.47‡	.45‡	.55‡	.39‡	.81
T4 s-e	4.82	1.08	488	-.17‡	.05	.00	-.08	.43‡	.18‡	.15†	-.07		.58‡	.30‡	.28‡	.22‡	.37‡		.51‡	.39‡	.41‡	.23‡	.41‡
sat	3.91	1.03	500	-.08	.07	-.06	-.05	.27‡	.27‡	.04	-.05		.30‡	.20‡	.25‡	.21‡	.27‡		.25‡	.28‡	.30‡	.25‡	.26‡
com	5.63	1.14	469	.06	.13*	-.01	-.09	.21‡	.12*	-.04	.14†		.25‡	.20‡	.18‡	.19‡	.22‡		.23‡	.27‡	.38‡	.22‡	.28‡
car	2.81	1.08	497	-.07	-.15†	-.04	.09	.09	.04	.50‡	.25‡		.16‡	.13*	.10*	.06	.08		.12*	.09	-.02	.05	.02
quit	1.97	1.07	497	-.09	-.24‡	-.02	.02	-.08	-.07	.14†	.27‡		-.19‡	-.13†	-.09	-.11*	-.07		-.13*	-.17†	-.16‡	-.06	-17‡
soc.k	6.01	0.88	509	-.05	-.01	-.11	.00	.23‡	.11*	.05	-.05		.31‡	.57‡	.35‡	.25‡	.30‡		.18‡	.65‡	.40‡	.19‡	.38‡
rol.k	6.16	0.81	510	-.14†	.00	-.04	-.08	.29‡	.19‡	.06	-.11†		.37‡	.35‡	.55‡	.28‡	.37‡		.26‡	.46‡	.68‡	.32‡	.47‡
int.k	5.62	1.29	509	-.11*	.01	-.06	-.11	.16‡	.11*	.09	-.00		.27‡	.32‡	.30‡	.53‡	.25‡		.13‡	.36‡	.35‡	.56‡	.31‡
org.k	5.56	0.93	509	-.16‡	.02	-.07	-.13	.29‡	.19‡	.07	.06		.43‡	.37‡	.42‡	.24‡	.55‡		.28‡	.48‡	.51‡	.26‡	.64‡

	Mean	SD	N	sex	age	fam	prex	s-e	sat	car	quit	T2	s-e	soc.k	rol.k	Intp	org.k	T3	s-e	soc.k	rol.k	int.k	org.k
T5 s-e	5.03	1.02	302	-.07	-.07	-.02	-.03	.43‡	.13*	.17†	-.02		.53‡	.32‡	.23‡	.24‡	.18‡		.43‡	.31‡	.24‡	.20†	.26‡
sat	4.06	0.97	316	-.04	-.06	-.09	-.03	.22‡	.17†	.09	-.13*		.24‡	.32‡	.09‡	.19‡	.10‡		.17†	.25‡	.15*	.22‡	.18*
com	5.80	1.04	307	.08	-.05	-.09	-.03	.25‡	.16†	-.02	-.06		.31‡	.33‡	.14‡	.16‡	.14‡		.11	.17*	.18†	.10	.20†
car	2.71	1.14	314	-.03	-.15	-.01	.00	.15*	-.01	.57‡	.22‡		.15*	-.01	.03	.00	.03		.06	-.01	-.07	.01	-.01
quit	1.84	1.18	313	-.07	-.02	.10	-.00	-.03	-.12*	.24‡	.27‡		-.17†	-.16*	-.07	-.11	-.15*		-.16*	-.14*	-10	-.06	-.12
soc.k	6.15	0.84	316	-.00	-.07	-.07	.11	.33‡	.15*	.08	-.12		.42	.53‡	.33‡	.28‡	.30‡		.18*	.53‡	.35‡	.23†	.36‡
rol.k	6.32	0.73	316	-.01	.00	-.16†	.03	.30‡	.17†	.04	-.13*		.35‡	.34‡	.40‡	.28‡	.24‡		.16*	.38‡	.50‡	.25‡	.35‡
int.k	5.69	1.30	316	.10	.05	-.08	.04	.19‡	.06	.07	-.05		.26‡	.33‡	.24‡	.40‡	.18†		.09	.30‡	.25‡	.52‡	.25‡
org.k	5.73	0.83	312	-.01	.00	-.10	-.09	.28‡	.17†	.11	-.11		.32‡	.37‡	.36‡	.22‡	.41‡		.17†	.42‡	.39‡	.31‡	.52‡

	T4	s-e	sat	com	car	quit	soc.k	rol.k	int.k	org.k	T5	s-e	sat	com	car	quit	soc.k	rol.k	int.k	org.k
T4 s-e		.84																		
sat		.41‡	----																	
com		.51‡	.52‡	.92																
car		.20‡	.01	-.15‡	.72															
quit		-.27‡	-.46‡	-.56‡	.30‡	.79														
soc.k		.40‡	.33‡	.35‡	.13*	-.24‡	.93													
rol.k		.47‡	.39‡	.48‡	.10*	-.30‡	.58‡	.87												
int.k		.37‡	.43‡	.40‡	.06	-.24‡	.44‡	.51‡	.87											
org.k		.50‡	.37‡	.40‡	.08	-.20‡	.48‡	.60‡	.44‡	.83										
T5 s-e		.61‡	.29‡	.26‡	.15*	-.13*	.47‡	.38‡	.28‡	.31‡		.85								
sat		.20†	.41‡	.34‡	-.03	-.31‡	.26‡	.21‡	.32‡	.17†		.38‡	----							
com		.25‡	.35‡	.52‡	-.10	-.36‡	.30‡	.30‡	.26‡	.27‡		.45‡	.51‡	.92						
car		.19†	.00	-.16*	.55‡	.21‡	.13	.07	.03	.18†		.18†	.02	-.14*	.77					
quit		-.06	-.27‡	-.38‡	.27‡	.52‡	-.09	-.14*	-.17†	-.04		-.15†	-.41‡	-.45‡	.40‡	.87				
soc.k		.36‡	.26‡	.24‡	.13	-.15*	.69‡	.50‡	.35‡	.35‡		.53‡	.44‡	.45‡	-.00	-.25‡	.93			
rol.k		.33‡	.28‡	.39‡	.07	-.27‡	.55‡	.64‡	.38‡	.36‡		.42‡	.31‡	.47‡	-.04	-.28‡	.70‡	.87		
int.k		.18†	.28‡	.24‡	.03	-.18†	.40‡	.39‡	.57‡	.27‡		.38‡	.36‡	.35‡	.06	-.13*	.51‡	.44‡	.89	
org.k		.33‡	.27‡	.25‡	.18†	-.13*	.52‡	.51‡	.49‡	.62‡		.39‡	.34‡	.39‡	.09	-.10	.59‡	.58‡	.47‡	.82

Note. * $p < .05$; † $p < .01$; ‡ $p < .001$. For correlations with ordinal data, Spearman's rho is reported. Correlations were calculated using pairwise deletion. s-e = self-efficacy; sat = job satisfacton; car = careerism; quit = intent to quit; soc.k = social knowledge; rol.k = role knowledge; int.k = interpersonal resources knowledge; org.k = organisation knowledge; com = organisational commitment.

Table 5.14. ABC Newcomers: Descriptive Statistics and Correlations Amongst Variables.

	mean	SD	N	sex	engn	age	s-e	sat	fit	car	quit	soc.k	rol.k	int.k	org.k	T2	s-e	sat	fit	com	car	quit
sex	1.33	0.47	198																			
engn	0.48	0.50	198	-.02																		
age	27.22	5.65	144	.22†	.72†																	
T1 s-e	4.36	0.80	137	-.06	.20*	.18*	.72															
sat	3.99	0.79	136	-.01	-.08	-.04	.21*	----														
fit	5.06	1.12	141	-.02	-.21*	-.19*	.31†	.35†	----													
car	3.18	0.82	141	-.20*	-.01	-.17*	-.10	-.21*	-.22†	.77												
quit	1.24	0.48	141	.07	-.10	-.12	.00	-.40‡	-.31‡	.28†	.66											
soc.k	4.42	1.43	132	.10	-.60‡	-.57‡	.02	.22*	.41‡	-.11	.07	.94										
rol.k	4.12	1.49	136	.09	-.29‡	-.42‡	.32†	.27†	.46‡	-.17*	.07	.69‡	.73									
int.k	4.38	1.39	135	.04	-.02	-.20*	.21*	.31‡	.31‡	-.14	-.01	.50‡	.66‡	.92								
org.k	4.02	1.19	138	.08	-.30‡	-.30‡	.11	.17*	.44‡	-.15	-.00	.54‡	.62‡	.46‡	.84							
T2 s-e	4.63	0.95	126	.07	.16	.02	.60‡	.25*	.12	-.18	-.14	.03	.28†	.27†	.11		.79					
sat	3.73	0.91	126	.05	-.09	.04	-.00	.45‡	.01	-.35†	-.23*	.10	.07	.18	-.07		.37‡	----				
fit	4.91	1.31	126	.13	-.12	-.13	.17	.39‡	.47‡	-.26*	-.27†	.37‡	.37‡	.39‡	.41‡		.42‡	.46‡	----			
comi	5.27	1.04	123	.12	-.06	-.01	.04	.45‡	.27†	-.30†	-.34‡	.17	.17	.24*	.30†		.26†	.60‡	.62‡	.90		
car	3.42	0.83	126	-.22*	.07	-.13	-.23*	-.18	-.19	.75‡	.13	.08	-.13	-.16	-.15		-.19*	-.32‡	-.25†	-.32‡	.76	
quit	1.47	0.71	125	-.07	-.00	-.04	.04	-.33‡	-.12	.36†	.44‡	-.05	-.06	-.05	-.05		-.15	-.62‡	-.38†	.61‡	.29‡	.79
soc.k	5.21	0.99	125	.24†	-.15	-.47‡	.11	.19	.22*	-.09	.00	.55‡	.54‡	.45‡	.46‡		.27‡	.40‡	.48‡	.45‡	-.12	-.28†
rol.k	4.81	1.14	125	.20*	-.10	-.26*	.29†	.25*	.21*	-.20*	.05	.33‡	.58‡	.45‡	.35‡		.33†	.37‡	.47‡	.36‡	-.10	-.19*
int.k	4.73	1.30	125	.31‡	.03	-.14	.25	.25*	.25*	-.24	-.08	.27†	.35‡	.51‡	.27†		.37‡	.38‡	.39‡	.37‡	-.15	-.26†
org.k	4.69	1.15	125	.08	-.14	-.17	.14	.15	.15	-.24*	-.03	.31†	.41‡	.29†	.64‡		.19*	.19*	.47‡	.33‡	-.17	-.12
T3 s-e	4.75	0.91	111	.05	.13	-.07	.62‡	.13	-.01	.02	-.06	-.01	.32†	.19	-.01		.73‡	.31†	.19	.29†	-.15	-.08
sat	3.59	1.01	111	-.02	-.16	-.01	-.04	.34†	.16	-.25*	-.29†	.15	.18	.23*	.23*		.19	.55‡	.32†	.54‡	-.30†	-.50‡
fit	4.76	1.38	111	.03	-.01	-.16	.22*	.35‡	.39‡	-.11	-.32†	.16	.32†	.38‡	.37‡		.50‡	.48‡	.76‡	.66‡	-.14	-.42‡
comi	4.92	1.09	112	.02	-.16	-.11	-.03	-.25*	.41‡	.74‡	.25*	-.10	-.03	-.09	-.14		-.17	-.51‡	-.25*	.84‡	-.33†	-.53‡
car	3.30	0.97	112	-.25†	.03	-.23*	.09	.43‡	-.18	-.31†	-.43‡	.27*	.28*	.30†	.42‡		.36‡	.54‡	.57‡	-.51	.72‡	.43
quit	1.76	0.97	112	-.11	.07	.03	.13	-.29†	-.18	.41‡	.54‡	-.07	.00	-.01	-.12		-.05	-.47‡	-.24*	-.53	.43‡	.73
soc.k	5.37	0.98	112	.15	.16	-.30†	.29†	.26*	.29†	-.16	-.16	.46‡	.48‡	.34†	.38‡		.47‡	.47‡	.52‡	.43‡	-.12	-.29†
rol.k	5.12	1.20	112	.09	-.04	-.17	.37†	.34†	.25*	-.26*	-.19	.33†	.56‡	.42‡	.25*		.47‡	.48‡	.39‡	.40‡	-.13	-.19
int.k	4.75	1.33	112	.20*	-.09	-.16	.26*	.30†	.30†	-.19	-.22*	.38‡	.37‡	.48‡	.28†		.48‡	.56‡	.56‡	.57‡	-.27*	-.38‡
org.k	4.86	1.07	111	.04	-.06	-.18	.12	.26*	.26*	-.15	-.11	.21	.33†	.39‡	.52‡		.27*	.25*	.42‡	.45‡	-.05	-.22
chang	2.51	0.89	103	-.04	-.04	-.19	-.31†	.08	.00	.16	-.05	.20	.07	-.01	.16		-.17	-.23*	-.07	-.02	.14	.12
tacinv	4.40	1.05	106	.12	-.02	-.07	.38‡	.38‡	.26*	-.13	-.29†	.15	.38‡	.29†	.29†		.45‡	.46‡	.48‡	.49‡	-.20	-.30†
tacser	4.10	1.13	106	.04	-.18	-.19	.20	.22	.18	-.23*	-.18	.30†	.39‡	.22*	.27*		.36‡	.43‡	.40‡	.39‡	-.13	-.23*
ment	3.45	0.76	82	-.06	.02	-.03	.15	.19	-.07	.23	.15	.11	.13	.49‡	.16		.26*	.47‡	.24	.25	-.11	-.09

	mean	SD	N	sex	engn	age	s-e	sat	fit	car	quit	soc.k	rol.k	int.k	org.k	T2	s-e	sat	fit	com	car	quit
supfit	5.10	1.33	67	.18	-.13	-.07	.03	-.05	-.03	.04	.01	.11	-.11	-.01	.13		.22	.15	.18	.13	-.29*	.02
t1 fit	.26	.18	85	-.11	#	.05	.03	.02	.03	-.00	-.25*	.09	.06	.00	.23		.12	.22	.21	.56‡	-.03	-.16
t3 fit	.22	.21	76	-.09	#	.05	-.17	-.09	.15	-.11	-.34†	.04	.01	.01	.15		.12	.15	.20	.50‡	.01	-.30*

	soc.k	rol.k	int.k	org.k	T3	s-e	sat	fit	com	car	quit	soc.k	rol.k	int.k	org.k	chng	tacinv	tacser	ment	supft
T2																				
soc.k	.90																			
rol.k	.60‡	.90																		
int.k	.54‡	.47‡	.77																	
org.k	.38‡	.52‡	.27†	.86																
T3 s-e	.27†	.33‡	.37‡	.19*	.77															
sat	.40‡	.37‡	.38‡	.19*	.23*	----														
fit	.48‡	.47‡	.39	.47‡	.37‡	.48‡	----													
comi	.43‡	.36‡	.37	.33‡	.28†	.64‡	.71‡	.91												
car	-.12	-.10	-.15	-.17	-.02	-.38‡	-.29	-.51‡	.84											
quit	-.28†	-.19*	-.26†	-.12	-.07	-.74‡	-.37‡	-.60‡	.49‡	.87										
soc.k	.81‡	.59‡	.56‡	.38‡	.39‡	.43‡	.56‡	.52‡	-.23*	-.28†	.90									
rol.k	.52‡	.72‡	.50‡	.47‡	.50‡	.43‡	.50‡	.45‡	-.23*	-.29†	.62‡	.92								
int.k	.57‡	.44‡	.75‡	.39‡	.43‡	.55‡	.59‡	.54‡	-.25†	-.38‡	.69‡	.61‡	.79							
org.k	.41‡	.43‡	.36‡	.61‡	.24†	.29†	.53‡	.51‡	-.23*	-.24†	.40‡	.54‡	.44‡	.84						
chang	-.09	-.20	-.17	.02	-.12	-.13	-.09	.01	.18	.13	-.14	-.16	-.23*	.10	.79					
tacinv	.40‡	.40‡	.40‡	.32†	.51‡	.49‡	.64‡	.56‡	-.19	-.29†	.57‡	.64‡	.58‡	.49‡	-.14	.68				
tacser	.40‡	.45‡	.32†	.32†	.35‡	.54‡	.51‡	.57‡	-.22*	-.33‡	.51‡	.59‡	.53‡	.30†	-.09	.66‡	.74			
ment	.41‡	.33*	.41‡	.10	.11	.21	.31†	.28*	-.18	-.08	.27*	.21	.31†	.24*	-.09	.32†	.29†	.92		
supfit	.25	-.02	.09	.22	.13	.32*	.21	.17	-.19	-.12	.23	.07	.29*	.14	-.15	.28*	-.01	.08	----	
t1fit	.16	.04	.07	.04	.25	.22	.26	.47‡	-.18	-.30*	.18	.02	.20	.12	.11	.19	.30*	.30	-.06	
t3fit	.26	.09	.23	.09	.16	.29*	.36*	.49‡	-.22	-.47‡	.20	.05	.22	.11	-.11	.08	.06	.19	.11	

Note. For correlations with ordinal data, Spearman's rho is reported. Correlations were calculated using pairwise deletion. * p =< .05; ‡ p ≤ .001; † p ≤ .01. engn = experienced newcomer (1) or graduate newcomer (0); s-e = self-efficacy; sat = job satisfacton; fit = self-rated fit; car = careerism; quit = intent to quit; soc.k = social knowledge; rol.k = role knowledge; int.k = interpersonal resources knowledge; org.k = organisation knowledge; com = organisational commitment; chang = personal change; tacinv = investiture; tacser = serial; ment = mentoring; supfit = supervisor's fit rating; t1fit = OCP-based fit at time 1; t3fit = OCP-based fit at time 3.

Longitudinal Changes

Introduction

The second part of this results chapter focuses on longitudinal patterns of change as newcomers become socialised and adjust to the organisation. The first section reports the analyses of four uni-dimensional psychological constructs that were measured longitudinally, using structural equation modelling. The aim of these analyses was to establish whether these variables showed change and, if they did, whether this represented true mean change (alpha) or whether error change was also implicated (gamma and/ or beta change). Analyses were conducted for only the first study with the British Army for two reasons: first, a larger sample was anticipated, giving reliable results for each scale. Second, the same measures are used in the second study so their longitudinal reliability will already have been examined.

Following this, the second section details the longitudinal process of organisational socialisation, showing how newcomers adjust over time at both the Army and ABC. This is further subdivided into two parts, the first of which concerns changes evident within a number of uni-dimensional constructs reflecting newcomers' perceptions of and reactions to the organisational socialisation process. The second details the progression of newcomers' learning both within and between the four knowledge domains proposed to compose the main aspects of socialisation learning.

Analysis of True and Error Change

<u>Overview of Analyses</u>

As outlined in Chapter 3, patterns of change in longitudinal data may reveal true changes between means (alpha), but it is also possible that two other types of error change may affect results, namely gamma and beta change (Golembiewski, Billingsley, & Yeager, 1976; Schmitt, 1982). Gamma change refers to respondents reconceptualising the construct they are being asked about, whereas beta change occurs where respondents change the meaning they assign to the intervals on the measurement scale. Hypothesis 15 proposed that organisational commitment, intent to quit, careerism and self-efficacy would show no significant gamma or beta change across time. Thus, the AMOS programme (Arbuckle, 1995) was used to conduct structural equation modelling (SEM) investigating patterns of change. Listwise deletion was used, with Maximum Likelihood as the extraction technique (Hu & Bentler, 1995). In line with previous SEM research, results in this section are reported to three decimal places.

To briefly recap the analysis strategy, this consists of three stages (full details are given in Chapter 3). First, data from different measurement periods are treated as coming from distinct groups to assess whether these 'groups' differ. This shows whether changes are present in the data (specifically, in the variance - covariance matrices), providing a rationale for further analyses investigating the sources of such differences. However, since this initial omnibus test is not always dependable (Byrne, 1989; Muthén, 1988), further analyses investigating error change are conducted even where this preliminary analysis is non-significant.

The second stage assesses a sequence of four models with increasing restrictions imposed to reflect possible sources of gamma and beta change. If these restrictions have the effect of significantly worsening the model's fit to the data over the previous model, this indicates the presence of such change. If gamma or beta changes are present and the initial omnibus analysis shows significant differences across time, the last stage is conducted to investigate

whether alpha change is present and, if so, where the differences are (Thomas, Cunningham-Snell, & Anderson, 1998).

A number of fit indices are reported, with the rationale for these provided in Chapter 3. In overview, the preliminary model is assessed primarily by the chi-square value, with the CFI, TLI, GFI, AGFI and NC providing additional information. These same indices are used for assessing subsequent models, with the CFI and TLI principally focused on. For consecutive nested models of gamma and beta change, and subsequently of alpha change, the chi-square difference statistic is primarily used since it allows direct comparison of models. Additionally, for each nested model in turn to be acceptable, at least one of the CFI or the TLI fit indices should continue to meet the .90 criterion with the other fit indices also showing that the model fits the data reasonably well.

The analyses for organisational commitment are presented first because, in past research with newcomers, the measure used here has been shown to be free of gamma and beta change, yet show alpha change (Schaubroeck & Green, 1989; Vandenberg & Self, 1993). Thus, it is likely that the full analysis process through to alpha change will be required for organisational commitment, providing an overview of the sequence of analyses. The rationale behind each analysis is given in detail.

Organisational Commitment

Preliminary analyses of organisational commitment

Organisational commitment was measured twice, at times 4 and 5, with complete data available across these two measurements for 221 recruits. The scale has nine items, giving an acceptable ratio of cases to variables of 221 : 18, or 12 : 1 (Schumacker & Lomax, 1996). Full results for the SEM analyses of commitment are shown in Table 5.15. As discussed in Chapter 3, the first step requires an assessment of the equivalence of the variance - covariance matrices by treating the two measurements points as two different groups (Vandenberg & Self, 1993). Table 5.15 shows that this preliminary model (Pre.) has a significant chi-square, such that the variance-covariance matrices are not equivalent across the different measurements of commitment and

thus, since change has occurred, further analyses are warranted. The other fit indices are included for completeness, but are not used as criteria for this stage of the analysis. These show that the model mostly gives a good fit to the data.

Table 5.15. Tests for the Presence of Gamma, Beta and Alpha Change in Organisational Commitment.

Model	X^2	df	NC	ΔX^2	Δdf	CFI	TLI	GFI	AGFI
Pre.	275.336‡	63	4.370			.923	.912	.869	.813
1	505.535‡	134	3.773			.876	.858	.778	.716
1R	404.909‡	131	3.091	100.626‡	3	.909	.893	.821	.767
2	#								
3	406.627‡	132	3.081	1.718	1	.908	.894	.821	.768
4	419.335‡	139	3.017	12.708	7	.906	.897	.818	.776
A fr	419.335‡	139	3.017			.981	.977		
A fx	434.261‡	141	3.102	14.926‡	1	.980	.976		

Note. N = 221. * p < .05; † p < .01; ‡ p < .001. Pre. = preliminary model. A = comparisons of freely estimated (fr) vs. equivalence constrained means (fx) across all measurements. NC = Normed Chi-Square; CFI = comparative fit index; TLI = Tucker Lewis index; GFI = goodness of fit index; AGFI = adjusted goodness of fit index.
Model 2 cannot be configured as there is only one covariance.

Gamma and beta change in organisational commitment

The second analysis phase consists of assessing whether gamma or beta change are present in the data, by proposing four further models and assessing each in sequence for a significant decrement in the model's fit to the data. In Model 1, gamma change is assessed by specifying the data as coming from the same sample across time with a similar factor structure. The NC index shows the model to be parsimonious, whilst the CFI and TLI indicate that the model does not give an acceptable fit to the data; at least one of these fit indices should exceed .9 to allow the model to be accepted (Schaubroeck & Green, 1989). The lack of fit may be due to the effects of sample size (< 250) and/ or that variables are dependent (Hu & Bentler, 1995). Since these factors are likely to lead to overly-conservative CFI and TLI values, one solution to

this problem would be to set a more lenient criterion value. However, although suggested by some authors (e.g., Hu & Bentler, 1995), no values are proposed due to the lack of research on different distributions across sample sizes. Hence, a more common strategy was chosen of checking the modification indices for suggested improvements to the model. The largest modification indices suggested the model would be improved by adding parameter constraints in the form of correlated measurement errors for the same measurement items between the two time periods. This is acceptable in psychological and particularly longitudinal research, reflecting method variance for that particular item, and does not change the interpretation of the results (Byrne, Shavelson, & Muthén, 1989; Hoyle & Panter, 1995; Millsap & Hartog, 1988). Modifications, each allowing an item's measurement error to covary across measurements, were conducted in sequence resulting in significant increases in chi-square, until one of the fit indices reached the .90 criterion. Specifically, the error terms for items 2, 4 and 5 were allowed to covary across times 4 and 5, these three items having the largest modification indices (see Appendix for item wording). These adjustments improved the fit of the model greatly (Model 1R): chi-square was reduced by approximately one fifth, this change being significant, and one fit index (CFI) exceeded the .9 criterion, confirming that the factor structure was similar across measurements and that no gamma change in the form of the underlying structure of the measure occurred. These three additional parameter constraints were included in all subsequent models.

In Model 2, the covariances between latent means are specified to be equal. However, Model 2 is redundant with less than three measurement periods, since this is the minimum needed to have multiple covariances between the latent constructs. Thus, Model 2 is irrelevant for organisational commitment in this research design. Based on Model 1, there is no gamma change in organisational commitment over the two measurements.

Models 3 and 4 assess whether beta change is present, investigating whether there is a change in either the variance of the construct (Model 3) or the way observed variables correspond to the underlying construct (Model 4).

Thus Model 3 constrains the variances for the latent means to be equal. Compared with Model 1, Model 3 did not show a significant chi-square change and there were minimal or no changes in the fit indices. Model 4 specifies equal factor loadings for each item across measurements. For commitment, adding this constraint across times 4 and 5 did not produce a significant difference in fit from Model 3, as indicated by the non-significant chi-square change statistic and the small changes in the other fit indices. Models 3 and 4 showed that there is no evidence for beta change in commitment between times 4 and 5. To summarise, the results of Models 1, 3 and 4 show no evidence of either gamma or beta change. In other words, respondents' interpretation of the construct and measurement scales used to reflect organisational commitment remain stable across measurements. In turn, this means that assessment of alpha change is warranted.

<u>Alpha change in organisational commitment</u>

The last stage investigates whether alpha change is present by comparing two models, both with the constraints imposed to assess gamma and beta change. An initial model where the latent means are freely estimated is evaluated against a model in which means are constrained to be equal (Model A fr and A fx respectively). A worsening in the fit of the model to the data for the constrained model shows that the means vary and hence that alpha change is present. For organisational commitment, the fit indices for both models were good and closely matched. The chi-square difference was significant, indicating that Model A fr, allowing means to be freely estimated, gave a better fit to the data and hence there was alpha change. This agrees with the t-test conducted in SPSS which also showed a significant difference between these means (t = -2.22, p < .05). The means estimated by SEM were 4.86 and 5.29 across times 4 and 5, whereas calculated on the basis of the raw item scores equally weighted they were 5.68 and 5.83 respectively. This is similar to past research where they differ slightly across the two methods, showing the effects of the additional constraints on mean estimation (Vandenberg & Self, 1993). Nonetheless, the pattern of results is similar, both sets of means showing increases in recruits' commitment.

Summary of changes in organisational commitment

In summary, the preliminary model showed an adequate fit to the data, but the significant chi-square indicated the presence of change such that further analyses were warranted. Model 1 was revised by adding covariance paths between three measurement items. Subsequently, Models 1, 3 and 4 showed good fit to the data, with no significant worsening as successive constraints were added and hence a lack of gamma or beta change. Last, a model where means were freely estimated gave a significantly better fit to the data than one in which they were constrained to be equal (Models A fr and A fx respectively). A t-test showed the same significant result. Since both methods showed that recruits' experienced a significant increase in organisational commitment from time 4 to time 5, the minor non-significant gamma and beta changes accounted for by SEM did not affect the interpretation of the means. Thus, for the organisational commitment measure, the change over time indicated by the omnibus tests reflects true change, with recruits increasing their commitment to the Army from time 4 to time 5. This is in line with Hypothesis 15.

Intent to Quit

Preliminary analyses of intent to quit

Intent to quit was measured at times 1, 4 and 5, with complete data across these three measurements for 224 respondents. The three item scale for intent to quit was examined above (Chapter 5) and, for recruits entering the Army, one item was deleted to improve the internal homogeneity of the scale. However, a two item model is unidentifiable in SEM since there are insufficient constraints on the model or, put alternatively, too many free parameters to be estimated. Since SEM accounts for error, any statistical abnormalities associated with the third item would be revealed and therefore the full three item scale was used to enable the analyses to be conducted. However, it should be kept in mind that the third item was found to be less highly correlated than the other two items and may introduce error change into the construct that would not be present for the two item measure. Furthermore, analysing the three item measure gives no information on

whether the two-item measure actually used in the results from Army recruits contains true or error change.

The intent to quit measure analysed here comprised three items and was measured thrice, giving an acceptable ratio of cases to variables of 224 : 9, or 25 : 1 (Schumacker & Lomax, 1996). Table 5.16 shows the SEM analyses for this construct, with the chi-square for the preliminary omnibus model being significant. This shows that the variance-covariance matrices are not equivalent across the different measurements and therefore further analyses were warranted to detect the location of these changes.

Gamma and beta change in intent to quit

Model 1, defining factor structures as equivalent, shows a reasonable fit to the data but neither of the incremental fit indices (CFI and TLI) meet or exceed .9. The modification indices were checked to ascertain where additional constraints would improve the fit of the model. By adding a covariance path between the error terms for item 1 between times four and five, the fit of the model improved (Model 1R): the chi-square change was significant, and the CFI was greater than .9. Subsequent models included this covariance path. The changes from Models 1 to 2, and from Models 3 to 4 were both significant ($p < .05$). However, in both cases the CFI remained greater than .9, with other indices close to this, and acceptable NCs of 2.918 and 2.693 respectively. Vandenberg and Self (1993) highlight the difficulties of interpretation when the statistical indices provide incongruent results. Moreover, all these fit statistics are less reliable with dependent variables and a sample size less than 250, as is the case here (Hu & Bentler, 1995). Thus, the same approach was taken as is explicitly endorsed by Vandenberg and Self, and tacitly by Schaubroeck and Green (1989) in that unless all fit indices supported the presence of error change (gamma or beta), further analyses were conducted. Furthermore, these differences are only significant at .05. If type 1 error were to be controlled over all analyses, the logic of planned comparisons would make it more appropriate to assess these at $\leq .0125$ (.05/4 for Models 1 - 4.), in which case these differences would not be significant.

Table 5.16. Tests for the Presence of Gamma, Beta and Alpha Change in Intent to Quit.

Model	X^2	df	NC	ΔX^2	Δdf	CFI	TLI	GFI	AGFI
Pre.	18.570[†]	6	3.095	-	-	.971	.957	.984	.951
1	84.419[‡]	24	3.517	-	-	.891	.837	.924	.858
1R	64.698[‡]	23	2.813	19.921[‡]	1	.925	.883	.943	.889
2	72.961[‡]	25	2.918	8.263[*]	2	.914	.876	.936	.886
3	75.059[‡]	27	2.780	2.098	2	.913	.885	.933	.889
4	83.469[‡]	31	2.693	8.41[*]	4	.906	.890	.927	.895
A fr	83.469[‡]	31	2.693			.982	.973		
A fx	447.136[‡]	34	13.151	363.667[‡]	3	.855	.808		
B fr	33.284[‡]	11	3.026	-		.988	.977		
B fx	370.415[‡]	13	28.493	337.131[‡]	2	.803	.682		
C fr	33.927[‡]	10	3.393			.988	.974		
C fx	340.415[‡]	12	28.368	306.488[‡]	2	.829	.701		

Note. N = 224. $^*p < .05$; $^†p < .01$; $^‡p < .001$. Pre. = preliminary model. A = comparisons of freely estimated (fr) vs. equivalence constrained means (fx) across all measurements; B = comparisons of freely estimated (fr) vs. equivalence constrained means (fx) across times 1 and 4; C = comparisons of freely estimated (fr) vs. equivalence constrained means (fx) across times 4 and 5. NC = Normed Chi-Square; CFI = comparative fit index; TLI = Tucker Lewis index; GFI = goodness of fit index; AGFI = adjusted goodness of fit index.

Alpha change in intent to quit

The last stage investigates whether alpha change has occurred. From Table 5.16, it can be seen that allowing the latent means to be estimated results in a better fit than constraining them to be equal. The chi-square difference between Models A fr and A fx is significant and the fit indices show deterioration from Model A fr to Model A fx. Thus, alpha change has occurred. The latent means for times 1, 4 and 5 are 1.51, 1.91 and 1.67 respectively. As mentioned for organisational commitment, these differ slightly from the means for the three item measure computed with items given equal weight and no constraints, which in this case were 1.66, 1.80 and 1.68 (Vandenberg & Self, 1993). Overall, the results of the SEM analysis at this stage do not agree with the repeated measures ANOVA conducted on the

three item measure ($\underline{F}$ (2, 223) = 2.92, $\underline{p}$ = .056), showing that controlling for minor gamma and beta change *does* affect findings concerning alpha change. Follow up comparisons with SEM showed significant differences both across measurements 1 and 4 (Models B fr and B fx), and 4 and 5 (Models C fr and C fx). The ANOVA results were also followed up to allow further comparison. Neither of these differences was significant ($\underline{t}$ (223) = -2.14, $\underline{p}$ > .05; $\underline{t}$ (223) = 1.94, $\underline{p}$ > .05).

Thus, the two analysis strategies gave different results; SEM indicated that the differences between means were significant, with recruits showing increased intentions of leaving the Army from time 1 to time 4 and subsequently a reduced intention of leaving from time 4 to time 5. However, the ANOVA results did not show any differences. In spite of Schaubroeck and Green (1989) and in turn Vandenberg and Self (1993) accepting small gamma and beta changes, in their data these did not affect the interpretations of mean differences. In this data, the gamma and beta change were sufficient to influence the patterns of mean change. However, analyses were conducted on the three item scale, one item of which was suspected of showing considerable error variance for new recruits to the Army. The findings do not address whether this third item was the cause of the error change, nor do they address the stability of the two item measure. Further analyses of recruit data involving the intent to quit construct used only the two items that were more closely associated, with no evidence either for or against the temporal robustness of this two item scale. Although not ideal, this strategy is in line with previous research which has not investigated apparent mean change; here the possibility of error change is acknowledged even though it cannot be investigated.

Careerism

Preliminary analyses of careerism

As with intent to quit, careerism was measured at times 1, 4 and 5. The original measure contains five items but, following initial psychometric analyses, it was revised to three items to improve it's internal homogeneity. The total sample size across these three measurements was 314, giving an

acceptable ratio of cases to items of 314 : 9, or 35 : 1 (Schumacker & Lomax, 1996). Table 5.17 shows the SEM analyses for careerism. The chi-square of the preliminary model was non-significant, showing equivalence of the variance-covariance matrices across measurements. Since careerism was not expected to show alpha change, a reduction in sources of change would limit the amount of change available for the omnibus test to identify. Thus, as outlined in Chapter 3, in spite of the good fit of the preliminary model to the data, further analyses were conducted to investigate only whether gamma or beta change existed (Byrne, 1989; Muthén, 1988).

Table 5.17. Tests for the Presence of Gamma and Beta Change in Careerism.

Model	X^2	df	NC	ΔX^2	Δdf	CFI	TLI	GFI	AGFI
Pre.	11.306#	6	1.884			.992	.988	.992	.977
1	147.937‡	24	6.164	--	--	.843	.764	.869	.755
1R	88.555‡	22	4.025	59.382‡	2	.916	.862	.919	.835
2	93.669‡	24	3.903	5.114	2	.912	.868	.913	.838
3	93.880‡	26	3.611	0.211	2	.914	.881	.913	.850
4	98.153‡	30	3.272	4.273	4	.914	.896	.911	.866

Note. $N = 314$. # = .079. * $p < .05$; † $p < .01$; ‡ $p < .001$. Pre. = preliminary model. NC = Normed Chi-Square; CFI = comparative fit index; TLI = Tucker Lewis index; GFI = goodness of fit index; AGFI = adjusted goodness of fit index.

Gamma and beta change in careerism

Model 1, examining the equivalence of the factor structure across time, fell below acceptable fit criteria, with both CFI and TLI below .9 and NC greater than 5. The modification indices were checked to see whether additional constraints would improve model fit. Two covariance paths were added, for the error terms of item 3 between times 1 and 4, and for the error terms of item 1 between times 1 and 5. This improved the fit of the model, with a significant reduction in the value of chi-square, an NC below 5, and both CFI and GFI greater than .9. These two additional constraints were included in subsequent models. For Models 2 - 4, the fit indices show that each successive model continues to give a good fit to the data with no

significant changes in chi-square. Thus, there is no evidence of gamma or beta change in the careerism measure.

Alpha change in careerism

The last stage normally assesses whether alpha change is present. However, the preliminary model for careerism showed no significant changes across measurement periods, with Models 1 through to 4 computed to confirm that the data do not contain gamma or beta change. Having affirmed this, the non-significant results of the preliminary model make further analysis redundant. Overall, the results confirm Hypothesis 15 for careerism, showing that no gamma or beta error change are present in this construct.

Self-Efficacy

Self-efficacy was measured with an eight item scale and was the only variable that was measured at all five periods; these two factors make it the most complex of the four constructs to model using SEM. Due to the random pattern of responding and the criterion of complete data on all eight variables at five measurement times, complete data were available for only 150 respondents. With 40 measured variables (8 items times 5 measurements), this gives a ratio of cases to items 150 : 40, or 3.75 : 1. This is less than the minimum recommendation of Bentler and Chou (1987) of 5 : 1, and is substantially less than more common recommendations of a minimum of 10 : 1 (Schumacker & Lomax, 1996). Thus, due to the insufficient sample size, changes in self-efficacy across measurements could not be examined through SEM.

Summary of True and Error Changes for Organisational Commitment, Intent to Quit, Careerism and Self-efficacy

Hypothesis 15 proposed that the four variables of organisational commitment, intent to quit, careerism and self-efficacy would show no gamma or beta change across all measurements. This could not be tested for self-efficacy due to the inadequate sample size for this measure across all five times. The results for organisational commitment and careerism were in keeping with Hypothesis 15, with no gamma or beta change occurring in either measure, and organisational commitment further showing alpha

change. For the three item measure of intent to quit, SEM analyses showed that assessing and controlling for gamma and beta change can affect the apparent pattern of true alpha change. In this case, SEM found evidence of mean changes which were not found through a traditional ANOVA.

Overall, the benefit of these SEM analyses is in confirming the lack of gamma and beta ("error") changes for organisational commitment and careerism such that these measures can be used confidently in further analyses. For intent to quit, the three item measure was not intended to be used for recruits, with this decision confirmed by the analyses presented here. However, for both the two item intent to quit measure and self-efficacy, the robustness of these constructs could not be analysed with SEM. However, confirmatory factor analyses of these variables across time conducted in SPSS with maximum likelihood extraction showed satisfactory replication of their factor structures (see above, this Chapter) and hence they were used in subsequent analyses.

Longitudinal Experiences of Organisational Socialisation

<u>Overview</u>

A number of hypotheses were put forward in Chapter 3 regarding newcomers' experiences of and reactions to organisational socialisation as the process occurs over time. These comprised proposals about newcomers' adjustment on measures of self-rated personal change, job satisfaction, organisational commitment, intent to quit, careerism, self-efficacy and socialisation knowledge.

Reviewing these hypotheses in more depth, personal change was included as the only subjective measure of newcomer adjustment and was measured only at the last measurement point at both organisations. As a subjective measure of change, it also provides a benchmark for comparing the other objective measures showing newcomer adjustment. Thus, the first part of this results section details the hypotheses for these subjective and objective indicators of adjustment for newcomers to both the Army and ABC.

The second section details the results of investigating the patterns of temporal change in newcomers' socialisation knowledge, reflecting a gradual learning process over time. Since socialisation knowledge comprises four dimensions, the patterns of change both within and across these dimensions are of interest, as well as the extent to which they reflect the process of adjusting from newcomer to insider. The results are presented for newcomers to the Army and ABC in turn.

Subjective Assessments of Change

As a self-rating of adjustment, personal change was measured at the last measurement period at both organisations, comprising four dimensions of values, personality, attitudes and career plans. Hypothesis 16 proposed that newcomers to both the Army and ABC would perceive themselves to have undergone significant personal change, with newcomers to the Army reporting a higher degree of personal change than newcomers to ABC.

New recruits to the Army reported a relatively large amount of personal change (mean = 3.86 on a 1 - 5 scale), whilst newcomers to ABC reported moderate personal change (mean = 2.53), confirming that newcomers had experienced meaningful personal change. To allow a comparison of these two organisations, a repeated measures multivariate analysis of variance was conducted (MANOVA) across the four personal change dimensions, with organisation (Army or ABC) as the between-subjects factor. This was followed by a set of follow-up independent t-tests directly comparing dimensions across the two organisations.

Table 5.18. A Comparison of Subjectively-Perceived Personal Change for Newcomers to the Army and to ABC.

Personal Change	Army T5		ABC T3		F / t (df)
	M	SD	M	SD	
Overall Interaction	3.86	1.02	2.53	0.89	12.08 (3, 417) ‡
Dimensions					21.58 (3, 417) ‡
Army vs. ABC					81.98 (1, 419) ‡
1. Values	3.75	1.39	2.42	1.24	-8.65 (419)‡
2. Personality	3.69	1.39	2.36	1.14	-8.81 (419)‡
3. Attitudes	3.61	1.40	2.16	1.05	-11.18 (228.53)‡
4. Career Plans	3.77	1.46	3.12	1.08	-4.88 (232.79)‡

Note. N = 421. Levene's test for equal variance showed differences between the Army and ABC for attitudes and career plans, hence t values are for unequal variance.

The results of these analyses, shown in Table 5.18, confirmed that newcomers to the Army and ABC significantly differ, with Army recruits perceiving greater levels of personal change as a result of organisational

socialisation than newcomers to ABC. T-tests showed significantly greater change perceived by Army recruits across all four dimensions of values, personality, attitudes and career plans. Overall, the results confirm Hypothesis 16.

Objective Assessments of Change

Separate patterns of change were proposed for newcomers to the Army and ABC. Specifically, under Hypothesis 17, Army recruits' job satisfaction, organisational commitment and intent to quit were proposed to show an overall improvement although, for intent to quit, it was proposed that a negative dip would be evident during the early stages of socialisation. Further, recruits' careerism was proposed to remain stable and their self-efficacy to gradually increase. Where constructs were measured at three or more times and are expected to show change, a primacy effect was predicted. For ABC newcomers, Hypothesis 18 proposed that their job satisfaction, organisational commitment and intent to quit would show a small but significant negative adjustment during organisational socialisation, whereas their careerism would remain stable and their self-efficacy would gradually increase. Again, for constructs expected to show change and measured three or more times, a primacy effect was proposed.

Each of these five constructs investigated (job satisfaction, organisational commitment, intent to quit, careerism and self-efficacy) is discussed briefly for newcomers to both organisations and then the pattern of results is summarised separately for each organisation in relation to the hypotheses.

Analyses. Since significant differences were proposed a priori, the rationale of planned comparisons obviates the need for analyses of variance (ANOVAs) (Tabachnick & Fidell, 1996). For all constructs, proximal measurements were compared with t-tests. For each construct measured longitudinally, since changes might not be linear, the first and last measurements were also compared to assess whether the overall changes were significant. Thus, for all constructs measured more than twice (i.e., excluding commitment), the number of comparisons exceeds the degrees of

freedom for effects (equal to the number of levels) and hence Type 1 error needs to be controlled using Bonferroni correction (Keppel & Zedeck, 1989; Tabachnick & Fidell). Since hypotheses proposed the direction of changes, all tests were one-tailed. The majority of constructs require three comparisons (times 1, 4 and 5 for Army recruits and times 1 -3 for ABC newcomers), hence these are deemed significant at $< .017$ ($.05/ 3 = .0166$). The remaining longitudinal comparison is for Army recruits' self-efficacy, for which results are significant at $< .01$ ($.05/ 5 = .01$). Results are shown in Table 5.19. Additional analyses were conducted comparing the two types of newcomer at ABC, GN and EN, and these results are also reported.

Job satisfaction. Job satisfaction reflects how content newcomers are with their new job or role itself, rather than the organisation, and was measured at times 1, 4 and 5 for Army recruits and times 1 - 3 for ABC newcomers. At both organisations, levels of job satisfaction were relatively high throughout the socialisation period, with a mean of approximately four on the five point scale in both settings. For new recruits to the Army, no changes in levels of job satisfaction were apparent over time from the ANOVA results, although a direct t-test of times 1 and 5 indicated that the increase in recruits' job satisfaction was significant. Thus, although the increments from entry to week four and from week four to week eight were themselves not significant, the overall increase over the eight week period was significant.

At ABC, the direct t-test of times 1 and 3 indicated a significant decrease in newcomers' job satisfaction over time. The significant t-test results indicate a decrease in job satisfaction between times 1 and 2 with no further significant change. This illustrates a primacy effect for ABC newcomers' adjustment of job satisfaction, with most change occurring during the first eight weeks post-entry.

Organisational commitment. Organisational commitment was measured at the last two time points at each organisation. At both organisations, newcomers showed moderate to high levels of organisational commitment, with these appearing slightly greater for Army than ABC

Table 5.19. Longitudinal Experiences of Organisational Socialisation.

	M	SD	Comparison	t (df)
Job Satisfaction				
Army T1	3.91	0.84	T1 - T5	- 2.35 (221) [†]
Army T4	4.00	0.90	T1 - T4	-1.35 (221)
Army T5	4.09	0.93	T4 - T5	-2.34 (221)
ABC T1 [a]	3.94	0.85	T1 - T3	2.97 (63) [†]
ABC T2	3.66	0.89	T1 - T2	2.66 (63) [†]
ABC T3	3.52	1.04	T2 - T3	1.24 (63)
Organisation Commitment				
Army T4	5.63	1.14	T4 - T5	-2.22 (220) [*]
Army T5	5.80	1.04		
ABC T2 [b]	5.27	1.04	T2 - T3	3.29 (78) [‡]
ABC T3	4.92	1.09		
Intent to Quit				
Army T1	1.51	0.93	T1 - T5	-1.88 (225) [ø]
Army T4	1.91	1.15	T1 - T4	-3.69 (225) [‡]
Army T5	1.75	1.10	T4 - T5	1.94 (225) [#]
ABC T1 [c]	1.24	0.82	T1 - T3	-4.32 (63) [‡]
ABC T2	1.47	0.83	T1 - T2	-3.42 (63) [‡]
ABC T3	1.76	0.97	T2 - T3	-2.66 (63) [†]
Careerism				
Army T1	2.68	0.96	T1 - T5	-0.51 (216)
Army T4	2.81	1.08	T1 - T4	-1.28 (216)
Army T5	2.71	1.14	T4 - T5	0.73 (216)
ABC T1 [d]	3.13	0.82	T1 - T3	-1.06 (64)
ABC T2	3.41	0.77	T1 - T2	-4.46 (64) [‡]
ABC T3	3.22	0.95	T2 - T3	2.24 (64) [*]
Self-Efficacy				
Army T1	4.33	0.88	T1 - T5	-9.53 (149) [‡]
Army T2	4.72	0.97	T1 - T2	-5.41 (149) [‡]
Army T3	4.71	1.01	T2 - T3	0.08 (149)
Army T4	4.86	1.08	T3 - T4	-1.62 (149)
Army T5	5.10	1.02	T4 - T5	-3.21 (149) [‡]
ABC T1 [z]	4.35	0.80	T1 - T3	-3.23 (62) [‡]
ABC T2	4.63	0.95	T1 - T2	-2.48 (62) [†]
ABC T3	4.75	0.91	T2 - T3	-0.86 (62)

Note. One -tailed tests: [ø] = .031; [#] = .027; [*] $p \le .017$; [†] $p \le .01$; [‡] $p \le .001$. All measures used a 1 - 5 scale, apart from commitment and self-efficacy which used a 1-7 scale. There was no significant effect of type of newcomer - GN or EN: [a] (F (1, 63) = 0.06, $p > .05$; [b] (F (1, 77) = 1.46, $p > .05$; [c] (F (1, 63) = 0.87, $p > .05$; [d] (F (1, 62) = 0.26, $p > .05$. There was a significant difference between GN and EN: [z] (F (1, 61) = 4.12, $p < .05$): although the pattern of results was similar for both types of newcomer, ENs had higher self-efficacy than GNs at time 1 (M_{EN} = 4.64; M_{GN} = 4.09; t (135) = 3.01, $p < .001$).

newcomers. The results show that new recruits to the Army increased their commitment to the Army between times 4 and 5 whilst newcomers to ABC exhibited a decrease in commitment from time 2 to time 3.

Intent to quit. Intent to quit was measured at three points at both organisations: it was measured at times 1, 4 and 5 of Phase 1 Training for Army recruits and at times 1 - 3 for ABC newcomers. Newcomers to both organisations show fairly low intentions of quitting at all times (see Table 5.19). For new recruits to the Army, the overall change just fails to reach significance. From entry to time 4, recruits intentions of quitting increase, with the subsequent slight decrease to time 5 approaching significance. There was, therefore, some evidence for a dip in leaving intentions. For newcomers to ABC, their intentions of quitting increase overall, with significant increases across both intervals (times 1 to 2 and times 2 to 3).

Careerism. As with intent to quit, careerism was measured three times at both organisations. Specifically, it was measured at times 1, 4 and 5 for Army recruits and at times 1 - 3 for ABC newcomers. As shown in Table 5.19, newcomers to both the Army and ABC indicated moderate levels of careerism across time, with these appearing relatively constant. Analyses of the responses revealed that there was no change in the careerism of new recruits entering the Army. For newcomers at ABC, the overall t-test was non-significant but in fact newcomers' careerism increased between times 1 and 2 and subsequently decreased to time 3. This negative dip is similar to that proposed for Army recruits' intent to quit.

Self-efficacy. Self-efficacy was measured at all times in both organisations (times 1 - 5 in the Army and times 1 - 3 at ABC). Looking at the means shown in Table 5.19, these are above the midpoint for newcomers at both organisations and appear to increase across time. The overall patterns of change for newcomers to both the Army and ABC reflect significant increases in role self-efficacy, indicated by significant overall t-test results. Comparisons of adjacent measurements for Army recruits showed increases between times 1 and 2, and times 4 and 5; thus, there is an initial primacy effect and a subsequent increase over the longest interval. At ABC, the only

significant increase was between times 1 and 2. Comparisons between GNs and ENs at ABC showed that, for self-efficacy only, their self-ratings differed. Specifically, ENs had high self-efficacy at time 1, with no significant differences thereafter.

Summary of Organisational Socialisation for Army Recruits

Overall, new recruits into the Army perceived themselves to have undergone considerable personal change during organisational socialisation, with this greater than the personal change experienced by ABC newcomers, confirming Hypothesis 16.

Looking at attitudinal constructs, recruits' levels of job satisfaction showed a change over the eight weeks of training. Recruits' commitment to the Army increased over the last four weeks of training. For recruits' intentions of leaving the Army, the overall change just failed to reach significance, and the longitudinal pattern was similar to the inverted U shape predicted, but with only the initial increased intent to quit over the first four weeks of training being significant and the subsequent decrease just failing to reach significance. Hence, intent to quit showed a primacy effect.

Over the eight week measurement period, Army recruits increased their role-related self-efficacy considerably, with increases over the first week of training and between weeks four and eight. This reflects a primacy effect during the first week, with subsequent further significant gains over the longer four week interval between the last two measurements. In contrast, there were no significant changes in recruits' careerism. Of four constructs that could show a primacy effect, two did so, namely intent to quit and self-efficacy. In summary, these results are largely consistent with Hypothesis 17.

Summary of Organisational Socialisation for ABC newcomers

Newcomers perceive themselves as having changed moderately during the first four months at ABC, reporting significantly less change over this period than Army recruits report over their first two months (eight weeks) confirming Hypothesis 16.

With regard to attitudinal outcomes, newcomers to ABC showed a decrease in job satisfaction over only the first eight weeks following

organisational entry, their intentions of leaving increased over both the first and second eight week periods, and their commitment to ABC decreased over the second eight week period. These showed the general slight reduction in positive attitudes expected. Moreover, although there was no change in careerism over the first sixteen weeks when the first and last measurements were compared, a negative dip was apparent, as proposed for Army recruits' intent to quit. Thus, newcomers' careerism increased over the first eight weeks and decreased over the next eight weeks. It is notable that this increase agrees with the pattern of results for other attitudinal results where slight reductions in positive adjustment were expected and observed. Newcomers' self-efficacy relating to their role increased over the first eight weeks but not over the second eight week period, reflecting a primacy effect for self-perceived role mastery. Of four constructs which were measured longitudinally and hence could show a primacy effect, two did so, namely job satisfaction and self-efficacy. Overall, the results are mostly consistent with Hypothesis 18.

Patterns of Knowledge Acquisition during Organisational Socialisation

<u>Overview</u>

These next two sections report the results found for newcomers'
acquisition of knowledge during organisational socialisation. Newcomer
learning was proposed to be comprehensively and parsimoniously
categorised by four dimensions of social, role, interpersonal resources and
organisation knowledge. Scales developed to measure these four domains
were shown to be psychometrically robust earlier in Chapter 5. Here,
newcomers' acquisition of knowledge across time and across domains is
presented.

Three hypotheses were proposed with regard to newcomers'
knowledge acquisition, the first two of these being equivalent for newcomers
to the Army and ABC. Hypothesis 19 proposed that newcomers' levels of
knowledge in all four domains would increase across measurement periods,
with a primacy effect apparent. Further, Hypothesis 20 proposed that social
knowledge would be greater than the other knowledge domains during the
early phase of organisational socialisation, that role knowledge would be
greater than for the other domains at the later stages of organisation
socialisation, and last that organisation knowledge would be acquired most
slowly relative to the other knowledge domains throughout organisational
socialisation. A further hypothesis was proposed which was only
investigated at ABC. Specifically, Hypothesis 21 proposed that newcomers'
levels of knowledge would become more similar to those of insiders over the
measured period of organisational socialisation. The results for newcomers'
knowledge acquisition, both within and across domains, are first reported for
new recruits to the Army, followed by the results for newcomers to ABC.

Army Recruits' Socialisation Knowledge Acquisition

Overview of the Descriptive Statistics

Recruits' were asked to rate their social, role, interpersonal resources and organisation knowledge at times 2 - 5. The means and standard deviations for the four knowledge domains across these four periods are shown in Table 5.20. Looking first at the standard deviations, these are similar for each domain across time showing that self-ratings remained evenly distributed across measurements. For most domains, the means are high and appear to increase steadily across time, with the exception of role and interpersonal resource knowledge from times 2 to 3, both of which show decreases.

Table 5.20. Means and Standard Deviations of the Socialisation Knowledge Domains Across Time for Army Recruits.

Domain	Time 2 M	SD	Time 3 M	SD	Time 4 M	SD	Time 5 M	SD	Differences
Social	5.81^y	0.84	5.94^y	0.81	6.11^y	0.78	6.23^y	0.84	2<3†; 3<4‡; 4<5†
Role	6.17^x	0.73	6.12^x	0.73	6.24^x	0.76	6.35^x	0.74	3<4†; 4<5†
Int. Res.	5.62^y	1.25	5.58^z	1.20	5.72^z	1.19	5.85^z	1.23	
Orgstn.	5.06^z	0.93	5.38^z	0.90	5.61^z	0.91	5.80^z	0.84	2<3‡; 3<4‡; 4<5‡

Note. N = 184. † $p \leq .01$; ‡ $p \leq .001$. Int. Res. = interpersonal resources; Orgstn. = organisation. All the domains were measured on a 1 - 7 scale. Knowledge domains with different subscripts (x through to z) are significantly different at $p < .008$.

Changes in Domains

A number of hypotheses proposed differences either across time or across domains. To verify that the domains differed within and between time points, a repeated measures MANOVA was carried out with domain and time period as the within-subjects variables. This showed significant main effects for domains (F (3, 181) = 143.02, $p < .001$) and time (F (3, 181) = 21.98, $p < .001$) and a significant domain by time interaction (F (9, 175) 13.29, $p < .001$),

indicating that the amount of knowledge recruits have differs between domains across time.

Changes in Domains across Time

Hypothesis 19 proposed that knowledge would increase in all domains across time and that a primacy effect would be apparent. Looking at the descriptive statistics, it is unlikely the first part of this hypothesis would be confirmed for role and interpersonal resource knowledge across the first two measurements, yet these decreases could be significant. Thus, $\underline{t}$-tests were carried out within each knowledge domain between adjacent times (times 2 - 3, 3 - 4 and 4 - 5). Type 1 error was controlled within domains by assessing results at the more stringent significance level of $\underline{p} < .0125$ (.05 /4 = .0125 within each domain).

As can be seen from Table 5.20, recruits perceived themselves as having made significant gains in both social and organisation knowledge domains across all time points. For role knowledge, significant increases occurred from times 3 to 4, and from 4 to 5. However, there were no significant changes in recruits' ratings of their interpersonal resources knowledge. Thus, Hypothesis 19 is partially confirmed, with temporal increments in three of the four knowledge domains but no evidence of a primacy effect.

Changes in Knowledge Across Domains

A single hypothesis was proposed with regard to relative differences across domains. Specifically, it was proposed that the acquisition of social knowledge would be most rapid, that role knowledge would be highest in the later stages of socialisation, and that knowledge of the organisation would be gained most slowly. $\underline{T}$-tests were performed within each time period for the various domains to test these hypotheses. As before, the possibility of inflating type 1 error was considered and hence significance was restricted to $\underline{p} < .008$ within each time point (.05/6 = .0083).

At time 2, recruits' role knowledge was unexpectedly greater than all other domains. Social and interpersonal resources knowledge were in turn both greater than organisation knowledge. Approximately this same pattern

of results was found at times 3, 4 and 5, with the change that social knowledge is greater than interpersonal resources knowledge, whilst the latter does not differ from organisation knowledge. Thus, with respect to Hypothesis 19, the primacy of social knowledge was not confirmed. Role knowledge was significantly greater than all other domains later on in the socialisation process, giving support to Hypothesis 20, although this was in fact the case throughout the seven week period investigated (weeks one to eight of training). Last, organisation knowledge was lower than all domains at week one, and lower than role and social knowledge at weeks two, four and eight. Overall, Hypothesis 20 was largely confirmed.

ABC Newcomers' Socialisation Knowledge Acquisition

<u>Overview of the Descriptive Statistics</u>

The means and standard deviations for the four knowledge domains across time are shown in Table 5.21. The standard deviations are similar although they tend to become slightly smaller across measurements. Mean levels of knowledge for all domains across all measurements were consistently above the scale midpoint showing higher levels of knowledge acquisition. Across all four domains, newcomers' mean ratings appear to increase steadily. Replicating the analyses conducted for Army recruits, a repeated measures MANOVA was conducted with listwise deletion ($\underline{N}$ = 56) to confirm that the domains differed within and between time points, with domain and time period as the within-subjects factors. There were significant main effects for domains ($\underline{F}$ (3, 52) = 6.19, $\underline{p}$ =< .001) and time ($\underline{F}$ (2, 53) 11.05, $\underline{p}$ < .001) but a non-significant domain by time interaction ($\underline{F}$ (6, 49) 2.00, $\underline{p}$ > .05). This indicates that the amount of knowledge recruits have differs across domains and across time, but not between domains across time.

Table 5.21. Means and Standard Deviations of the Socialisation Knowledge Domains Across Time for ABC Newcomers.

Domain	Time 1		Time 2		Time 3		Differences
	$\underline{M}$	$\underline{SD}$	$\underline{M}$	$\underline{SD}$	$\underline{M}$	$\underline{SD}$	
Social	4.64	1.22	5.23^x	0.98	5.43^x	0.99	1<2‡; 2<3*
Role	4.39	1.27	4.88^y	1.15	5.12^y	1.21	1<2‡
Interpersonal	4.68	1.41	4.79^y	1.34	4.86^y	1.16	
Organisation	4.36	1.15	4.93^y	1.09	5.12^y	1.03	1<2‡

<u>Note</u>. $\underline{N}$ = 59. * $\underline{p}$ < .025; † $\underline{p}$ < .01; ‡ $\underline{p}$ < .001. All the domains were measured on a 1 - 7 scale. Knowledge domains with different subscripts (x or y) are significantly different ($\underline{p}$ < .008). EN vs. GN differences were evident for time 1 social knowledge ($\underline{M}_{EN}$ = 3.63, $\underline{M}_{GN}$ = 5.29, $\underline{t}$ (112.01) = 8.36, $\underline{p}$ < .001); role knowledge (3.71 and 4.60, $\underline{t}$ (133.67) = 3.67, $\underline{p}$ < .001); and organisation knowledge ($\underline{M}_{EN}$ = 3.85, $\underline{M}_{GN}$ = 4.62 ;$\underline{t}$ (137) = 4.20, $\underline{p}$ < .001) (NB All $\underline{t}$ values are for unequal variances).

Changes in Knowledge Across Time

Hypothesis 19 proposed that all domains would increase over time with a primacy effect apparent. T-tests were carried out for each knowledge domain between adjacent times (times 1 - 2 and 2 - 3); alpha was again adjusted within domains (.05/2 = .025). The t-tests showed that these gains were significant for social knowledge across both times, and for role and organisation knowledge from times 1 to 2. Changes for knowledge of interpersonal resources were not significant. Thus, Hypothesis 19 was partially confirmed, with three of the four knowledge domains showing change and evidence of a primacy effect for two of these.

Changes in Knowledge Across Domains

A single hypothesis related to the relative pattern of learning across domains, this being the same for ABC newcomers as for Army recruits. Specifically, Hypothesis 20 proposed that the acquisition of social knowledge would be most rapid, that role knowledge would be highest in the later stages of socialisation, and that knowledge of the organisation would be gained most slowly. T-tests were performed within each time period for the various domains to assess this, with the results of these analyses shown in Table 5.21. As before, the possibility of inflating type 1 error was considered and hence significance levels were reduced to $p < .008$ within each measurement period (.05/6 = .0083).

At time 1, there were no differences across the four domains, but by time 2, social knowledge was greater than all other domains, and this pattern was repeated at time 3. Thus, social knowledge remained predominant, with no evidence for role knowledge increasing above the levels of the other domains, as proposed in Hypothesis 20. Nor was there supporting evidence for lower levels of organisation knowledge, as proposed by Hypothesis 20. In summary, in the first week following entry to ABC, newcomers' levels of knowledge did not differ across domains; however, by week 8 newcomers rated their social knowledge as greater than the other domains, with this difference still in evidence at week 17. There was partial support for Hypothesis 20.

Experienced vs. Graduate Newcomer Differences

No differences were hypothesised between GNs and ENs. However, at time 1 only, GNs reported higher levels of social, role and organisation knowledge. There were no further significant differences.

Summary of Army Recruits and ABC Newcomers' Socialisation Learning

Looking first at newcomers' learning across time, at both organisations newcomers reported significant increments in social knowledge across all measurements yet no changes in knowledge of interpersonal resources. Role knowledge increased over the initial eight weeks for ABC newcomers, and from the end of week two to week four, and again to week eight for Army recruits. Similarly, ABC newcomers reported increased organisation knowledge over the initial eight weeks, whilst Army recruits reported increases from the end of their first week through all measurements to the end of week eight. Thus, newcomers at the two organisations show a degree of similarity in their patterns of knowledge acquisition during organisational socialisation.

The actual patterns of socialisation learning across domains show more differences between domains at the Army than at ABC. ABC newcomers report higher social knowledge at times 2 and 3, this being the only difference between domains. Similar to this, Army recruits consistently rate one domain as higher than the others, although for recruits this is role knowledge and it is highest at all measurements. The approximate pattern across the other three knowledge domains for Army recruits is that higher levels of social knowledge are reported at all periods, except at entry where this is similar to interpersonal resources knowledge. Organisation knowledge is lower than role and social domains at all measurement times, and lower than interpersonal resources knowledge at time 1 only.

A Comparison of Newcomers and Insiders' Knowledge

Hypothesis 21 proposed that newcomers' learning across the four domains would result in a gradual reduction in the distance between newcomers' and insiders' ratings of their respective levels of knowledge. Table 5.22 shows insiders' means and standard deviations across the four knowledge domains. Looking first at the means, these were all above the scale midpoint for insiders. Insiders report high levels of role knowledge in particular and surprisingly low levels of interpersonal resources knowledge. Further, for the latter domain, the standard deviation is markedly larger than for the other domains indicating a wider range of ratings of interpersonal resources knowledge.

A univariate ANOVA was conducted to assess whether the differences for insiders' knowledge among the four domains were significant. The difference across domains was confirmed as significant (F (3, 17) = 6.17, p < .01), and was therefore followed up with t-tests; since there were no theoretical reasons for expecting certain domains to be higher, all pairwise comparisons were conducted with type 1 error controlled (.05 / 6 = .0083). These showed that interpersonal resources knowledge was significantly lower than the other three domains.

Table 5.22. Comparisons of Socialisation Knowledge for Newcomers at Times 1, 2 and 3 with Insiders.

	Time 1	Time 2	Time 3	Insider M	Insider SD
Social	4.64‡	5.23	5.43	5.65[y]	0.75
Role	4.39‡	4.88‡	5.12[†]	5.81[y]	0.59
Interpersonal	4.68	4.79	4.86	4.35[z]	1.24
Organisation	4.36‡	4.93	5.12	5.36[y]	0.85

Note. Newcomer N = 59, Insider N = 20. [†] = p < .01; ‡ = p < .001. Insiders' knowledge domains with different subscripts (y or z) are significantly different (p < .008).

In order to compare newcomer and insider levels of knowledge, MANOVAs were conducted and Hotelling's T used to indicate significant

differences. As a preliminary check, background variables of gender, age, years of work experience, level in the hierarchy and department were assessed as covariates, but none reached significance and therefore these were not included. There was a significant difference between newcomers at all times and insiders ($\underline{T}^2_{t1}$ = .31, $\underline{p}$ < .001; $\underline{T}^2_{t2}$ = .18, $\underline{p}$ < .001; $\underline{T}^2_{t3}$ = .14, $\underline{p}$ < .01). Levene's test for equality of variances showed that there were differences between the two populations, and therefore the results reported in Table 5.22 are for $\underline{t}$-tests with unequal variances assumed. At time 1, insiders had significantly greater knowledge across social, role and organisation domains, but not interpersonal resources. At times 2 and 3, insiders had greater levels only of role knowledge. These results mostly support Hypothesis 21: of the three domains which significantly differed immediately post-entry, only one of these (role knowledge) remained significantly different at week eight and week seventeen.

Chapter 6
Newcomer Learning and Cultural Assimilation

Introduction

    This next chapter comprises two parts, the first investigating factors in newcomer learning and the second taking a cultural assimilation perspective. Outlining these in more detail, the first part is divided into three sections, the first of which looks exclusively at the influence of Army Phase 1 Training organisational socialisation tactics in predicting outcomes and also changes in outcomes. The second section comprises hypotheses about the relationship between socialisation knowledge and traditional outcome measures, with this examined for newcomers to the British Army and to ABC in turn. These two themes, of the organisation's socialisation tactics and the newcomers' knowledge acquisition, are integrated in the third section which examines the relationship between these, with knowledge acquisition propounded to mediate the relationship between organisational socialisation tactics and attitudinal outcomes.

    The second part of this Chapter comprises two sections relating to newcomers' cultural assimilation. The first section investigates new Army recruits' psychological contract development, with four hypotheses examined that look at this adjustment both temporally and relative to other cultural and learning factors. The second section looks at ABC newcomers' P-O fit, examining the inter-relationship of different measures of P-O fit and the changes in fit over time, and both the organisational tactics and learning factors affecting newcomers' P-O fit and also the effect of P-O fit on attitude measures indicating socialisation outcomes.

The Effects of Organisational Socialisation Tactics on Outcomes

Overview

Hypothesis 3 proposed that, in line with previous research, an institutionalised pattern of socialisation tactics would be associated with more positive outcomes and with positive changes in outcomes. Thus, tactics that were collective, formal, sequential, fixed, serial and investiture were hypothesised to positively predict job satisfaction, organisational commitment, self-efficacy and personal change, and negatively predict intent to quit and similarly predict changes in these outcomes in the same direction. Related to this, Hypothesis 4 proposed that the two social tactics, serial and investiture, would have stronger effects than the two content tactics, sequential and fixed, which in turn would have greater effects than the two content tactics, collective and formal.

The effects of socialisation tactics on outcomes

These hypotheses were tested with multiple regression analyses, with each of the recruits' reported outcomes at time 5 regressed on the six organisational socialisation tactics measured at time 3. The likelihood of multicollinearity amongst the tactics was recognised; inter-scale correlations do not exceed the .70 criterion suggested by Tabachnick and Fidell (1996) ($\underline{r}$s range from .16 to .68; mean $\underline{r}$ = .38), and therefore these may all be included.

The results of these analyses are shown in Table 6.1, with socialisation tactics accounting for significant variance in satisfaction (10%), commitment (12%), self-efficacy (8%) and personal change (6%) but having no significant relationship with intent to quit. Sequential and fixed tactics positively predicted job satisfaction. For organisational commitment, recruits' perception that an investiture tactic was used (rather than divestiture, the mean perception amongst recruits) was a significant positive predictor of this. Although the regression for self-efficacy was significant, no single tactic was significant although the beta weights were higher for sequential, fixed and serial tactics, being positive for all of these, suggesting that the combination

Table 6.1. Regression Analyses of Army Socialisation Tactics on Traditional Outcome Measures

Variable	Tactics	$\underline{R}$	$\underline{R}^2$	$A \underline{R}^2$	$\underline{F}$ (df)	Int.	$\underline{B}$	B
Satisfaction		.31	.10[†]	.07	3.87 (6, 221)[‡]	2.13		
	Collective						-.02	-.02
	Formal						-.07	-.07
	Sequential						.21*	.20
	Fixed						.22[†]	.18
	Serial						.03	.03
	Investiture						.06	.05
Commitment		.35	.12[‡]	.10	4.81 (6, 213)[‡]	3.22		
	Collective						.11	.11
	Formal						.04	.04
	Sequential						.17	.17
	Fixed						.01	.01
	Serial						.09	.08
	Investiture						.16*	.14
Self-Efficacy		.28	.08[†]	.05	2.99 (6, 214)[†]	2.25		
	Collective						.03	.03
	Formal						-.04	-.04
	Sequential						.11	.10
	Fixed						.14[¥]	.12
	Serial						.11	.09
	Investiture						-.00	-.00
Personal Change		.25	.06*	.04	2.41 (6, 217)*	3.08		
	Collective						-.05	-.05
	Formal						.07	.07
	Sequential						-.03	-.03
	Fixed						.02	.02
	Serial						.20*	.19
	Investiture						-.10	-.09
Intent to Quit		.20	.04	.02	1.59 (6, 221)	3.39		
	Collective						-.14	-.17
	Formal						.03	.02
	Sequential						-.04	-.05
	Fixed						-.14	-.15
	Serial						.05	.05
	Investiture						-.04	-.04

Note. [¥] $\underline{p}$ = .093; [#] $\underline{p}$ = .065; * $\underline{p}$ < .05; [†] $\underline{p}$ < .01; [‡] $\underline{p}$ < .001. A $\underline{R}^2$ = adjusted $\underline{R}^2$; Int. = intercept.

of these tactics was predictive of self-efficacy. Last, for personal change, serial was the only significant tactic.

Thus, Hypothesis 3 was supported for four of the five outcomes: institutionalised socialisation tactics significantly predicted recruits' job satisfaction, organisational commitment, self-efficacy and personal change, but did not predict intentions of leaving the Army. There was only weak evidence for Hypothesis 4, which proposed that the social tactics would be most important as predictors: the investiture tactic was significant in only one analysis, being a positive predictor of organisational commitment whilst the serial tactic predicted personal change. The two content tactics, sequential and fixed, were significant in predicting job satisfaction whilst for self-efficacy, these two content tactics and one social tactic, serial, were the most important predictors. In sum, there is some weak evidence, with both social and content tactics predicting socialisation outcomes, but with both having lesser effects than expected.

The effects of organisational socialisation tactics on changes in outcomes

A second part of Hypotheses 3 and 4 proposed essentially the same argument but with one alteration: that an institutionalised pattern of tactics would predict changes in these outcomes, with social and then content tactics having the strongest effects. Four outcomes were assessed, namely job satisfaction, organisational commitment, self-efficacy and intent to quit. It should be noted that personal change was only measured at the last data collection point and therefore cannot be included in these analyses of temporal change.

The analysis for each outcome consisted of a multiple hierarchical regression with two steps, with the time 1 outcome entered at the first step and the organisational socialisation tactics entered at the second step. The results of these analyses are shown in Table 6.2.

The regression for job satisfaction was significant, with socialisation tactics accounting for 9% of the variance in the change in job satisfaction during training. The only significant tactic was fixed, with the other content tactic, sequential, approaching significance. For the remaining three

Table 6.2. Hierarchical Multiple Regression Analyses of Army Socialisation Tactics on Traditional Outcome Measures, Controlling for Initial Levels of the Outcomes.

Variable	T1 & Tactics	$\underline{R}$	$\underline{R}^2$	A $\underline{R}^2$	$\underline{R}^2\Delta$	$\underline{F}$/ $\underline{F}\Delta$ (df)	Int.	$\underline{B}$	B
Satisfaction	Satisfaction	.07	.00	.00		0.93 (1, 207)			
	Collective	.31	.09[+]	.06	.09	3.33 (6, 201)[+]	2.13	-.04	-.04
	Formal							-.07	-.06
	Sequential							.21[#]	.20
	Fixed							.24[+]	.20
	Serial							.01	.01
	Investiture							.08	.06
Commitment	Commitment	.59	.35[‡]	.34		87.60 (1, 164)			
	Collective	.62	.39[‡]	.36	.04	1.77 (6, 158)	2.17	.12	.10
	Formal							.08	.07
	Sequential							.03	.02
	Fixed							-.03	-.02
	Serial							.06	.04
	Investiture							.12	.09
Self-Efficacy	Self-Efficacy	.38	.14[‡]	.14		32.33 (1, 197)			
	Collective	.43	.18[‡]	.15	.04	1.56 (6, 191)	2.25	.02	.02
	Formal							-.09	-.09
	Sequential							.10	.10
	Fixed							.14[¥]	.12
	Serial							.06	.06
	Investiture							.04	.03
Intent to Quit	Intent to Quit	.32	.10[‡]	.10		23.48 (1, 210)			
	Collective	.37	.14[‡]	.11	.04	1.43 (6, 204)	1.85	-.14	-.16
	Formal							-.00	-.00
	Sequential							.06	.07
	Fixed							-.16[¢]	-.16
	Serial							.10	.11
	Investiture							-.00	-.00

Note. [¥] $\underline{p}$ = .086; [#] $\underline{p}$ =.07; [¢] $\underline{p}$ =.053; [*] $\underline{p}$ < .05; [+] $\underline{p}$ < .01; [‡] $\underline{p}$ < .001. A $\underline{R}^2$ = adjusted $\underline{R}^2$; Int. = intercept.

outcomes of organisational commitment, self-efficacy and intent to quit, the overall regressions were not significant. However, for both intent to quit and self-efficacy, the fixed tactic approached significance.

Overall, out of the four outcomes only job satisfaction showed the hypothesised relationship with socialisation tactics with one of the two content tactics, fixed, significantly predicting satisfaction. When initial outcome levels were controlled for the remaining three outcomes, organisational socialisation tactics did not significantly predict the changes in these outcomes. Moreover, content tactics appeared more important than social tactics in predicting changes in outcomes. Overall, these results give limited support to Hypotheses 3 and 4.

Summary of the effects of organisational socialisation tactics on outcomes

In summary, perceiving socialisation tactics as conforming to an institutionalised pattern was associated with better positive outcomes of job satisfaction, organisational commitment, self-efficacy and personal change, but not to a reduction in negative outcomes (intent to quit), and only for job satisfaction do tactics appear to influence a change in the outcome over time. Overall, Hypothesis 3 is partially supported, with strong support for the direct effects of socialisation tactics on positive outcomes but only partial support for their effects on adjustment of outcomes.

Further, the findings partially support Hypothesis 4 in that social and content tactics were more influential during Phase 1 Training than the context tactics, and particularly the fixed tactic (a content tactic). Thus, both sequential and fixed tactics predicted job satisfaction after eight weeks of training, and the fixed tactic predicted changes in job satisfaction during training. One social tactic, investiture, was associated with organisational commitment at the end of training, whilst the other social tactic, serial, was associated with higher personal change at the end of Phase 1 Training. Thus, the results are mostly supportive in showing the greater relative effects of social and content tactics.

The Effects of Knowledge Acquisition on Outcomes

Overview

A single hypothesis was proposed for the relationship between newcomers' acquisition of socialisation knowledge with outcomes. Specifically, Hypothesis 5 proposed that higher levels of knowledge would be directly related to more positive socialisation outcomes, with increases in socialisation knowledge related to changes in outcomes that reflected positive adjustment. This hypothesis is investigated in turn for Army recruits and then for newcomers to ABC.

The Effects of Army Recruits' Knowledge Acquisition on Outcomes

<u>Preliminary Analyses</u>

Since the relationship of the new knowledge acquisition measure with outcomes has not been investigated previously, a preliminary check was conducted that there were significant relationships. The time 5 correlations are shown in Table 5.13, and confirm that the four knowledge domains are significantly associated with outcomes of job satisfaction, organisational commitment, self-efficacy and intent to quit. The relationships are fairly strong and positive for all four knowledge domains with job satisfaction, organisational commitment and self-efficacy, and more moderate and negative for the knowledge domains with intent to quit, with no relationship between organisation knowledge and intent to quit. Thus, higher levels of knowledge in the four domains are related to higher self-efficacy, satisfaction and commitment, and lower intent to quit. Correlations for social and role knowledge with these four outcome measures tend to be slightly greater than those for knowledge of interpersonal resources and the organisation. The correlations in Table 5.13 also show that the multicollinearity between the knowledge domains is within acceptable boundaries, since inter-scale correlations do not exceed .70 (Tabachnick & Fidell, 1996).

<u>The effects of changes in knowledge on changes in outcomes</u>

To examine in more detail the relationships between the knowledge domains and outcomes, multiple regressions were conducted on data from time 5, regressing each outcome in turn on the four knowledge domains. Conducting such regressions has the additional advantage of resolving any issues of shared variance since the knowledge domains are forced to compete in explaining variance in the outcome.

The results of these multiple regressions are shown in Table 6.3. These show significant relationships between the four knowledge domains and all four traditional socialisation outcomes. Across the four socialisation outcomes, the four knowledge domains predicted 9 - 26% of the variance.

Looking at the four outcomes in turn, for job satisfaction, social and interpersonal resources knowledge positively predicted this, accounting for

21% of the variance. Organisational commitment was also positively predicted, with 26% of the variance in commitment accounted for by social and role knowledge, with organisation knowledge approaching significance. Socialisation knowledge also predicted 26% of the variance in self-efficacy, with social and interpersonal resources knowledge significant. For intent to quit, 9% of the variance was explained with role and organisation knowledge significant and social knowledge approaching significance. The knowledge domains were expected to be negatively associated with intent to quit, such that greater knowledge is associated with a lower intention of quitting.

Table 6.3. Army: Multiple Regression Analyses of Socialisation Knowledge Predicting Traditional Socialisation Outcomes.

Variable	Domain	R	R^2	A R^2	F (df)	Int.	B	B
Satisfaction		.46	.21‡	.20	20.26 (4, 300)‡	0.86		
	Social						.32‡	.38
	Role						-.05	-.07
	Int. Res.						.16†	.12
	Orgstn.						.09	.11
Commitment		.51	.26‡	.25	25.52 (4, 292)‡	1.32		
	Social						.17*	.21
	Role						.23†	.31
	Int. Res.						.07	.06
	Orgstn.						.13#	.15
Self-efficacy		.51	.26‡	.25	25.70 (4, 288)‡	0.72		
	Social						.25‡	.31
	Role						.12	.17
	Int. Res.						.15*	.12
	Orgstn.						.10	.12
Intent to quit		.31	.09‡	.08	7.80 (4, 300)‡	4.22		
	Social						-.16¥	-.23
	Role						-.28‡	-.45
	Int. Res.						.02	-.02
	Orgstn.						.22†	.31

Note. # p = .064, ¥ p = .051, * p < .05; † p <.01; ‡ p ≤.001. A R^2 = Adjusted R^2; Int. Res. = Interpersonal Resources; Orgstn. = Organisation.

Although this was the case for role knowledge and also for social knowledge which approached significance, organisation knowledge had a significant positive relationship with intent to quit.

The effects of changes in knowledge on changes in outcomes

To further test Hypothesis 5, analyses were undertaken to determine whether socialisation learning, measured as changes in newcomers' knowledge, predicted changes in traditional socialisation outcomes. A number of multiple hierarchical regressions were computed with time 5 outcomes as the dependent variables. For each outcome, variance due to the time 1 score for that variable was controlled for by entering it as the first variable in the regression. Change in the outcome due to change in acquired knowledge was then investigated by entering the time 2 measures for all four knowledge domains at the second step (their first measurement), followed by the time 5 knowledge domain results at the third step. A significant R-squared change for the entry of a time 5 knowledge domain indicates that a change in knowledge for that domain significantly predicts a change in the outcome measure. The exception to this was organisational commitment, which was not measured at time 1, the earliest measurement being at time 4. Thus, for commitment, the analysis is more rigorous since changes in socialisation knowledge are examined for their effects on changes in organisational commitment across a period of only four weeks between times 4 and 5. In sum, four multiple hierarchical regressions were carried out, one for each outcome, with each regression comprising three blocks.

The results of the multiple hierarchical regressions are shown in Table 6.4. These indicate that newcomer learning significantly predicted changes in all four outcomes of job satisfaction, organisational commitment, self-efficacy and intent to quit, with gains in knowledge accounting for 5 - 13% of the change in these outcomes. Increases in socialisation knowledge significantly predicted the adjustment of all four outcomes. Looking at each analysis in turn, increases in social and interpersonal resources knowledge accounted for 9% of the variance for the change in job satisfaction. Increased social knowledge predicted 13% of the variance in the change of organisational

commitment from time 4 to time 5. Increased social knowledge was also the only significant domain predicting increases in self-efficacy, accounting for 7% of the variance. Last, for the only negative socialisation outcome, intent to quit, role and organisation knowledge accounted for 5% of the change in intent to quit over time. These were the same two domains showing the same pattern as when only time 5 data was examined. Thus, less acquisition of role knowledge was associated with a greater intent to quit, whereas increased organisation knowledge was associated with a greater intent to quit.

Table 6.4. Army: Hierarchical Multiple Regression Analyses Investigating whether Changes in Socialisation Knowledge Predict Changes in Traditional Socialisation Outcomes.

Variable	Block 3	R	R^2	A R^2	$R^2\Delta$	$F\Delta$ (df)	Int.	$\underline{B}$	B
Satisfaction		.54	.29‡	.26	.09	7.31 (4, 228)‡	.62		
	Social							.21*	.25
	Role							-.04	-.05
	Int. Res.							.17*	.13
	Orgstn.							.10	.11
Commitment		.65	.43‡	.40	.13	10.22 (4, 183)‡	1.07		
	Social							.33‡	.39
	Role							.01	.01
	Int. Res.							.05	.04
	Orgstn.							.10	.12
Self-efficacy		.58	.33‡	.30	.07	5.44 (4, 217)‡	0.09		
	Social							.19*	.24
	Role							.04	.06
	Int. Res.							.08	.10
	Orgstn.							.08	.09
Intent to quit		.46	.21‡	.18	.05	3.43 (4, 231)†	3.50		
	Social							-.08	-.12
	Role							-.24*	-.39
	Int. Res.							.02	.02
	Orgstn.							.24†	.34

Note. * < .05; † p ≤ .01; ‡ p ≤ .001. A R^2 = Adjusted R^2; Int. Res. = Interpersonal Resources; Orgstn. = Organisation.

Summary

To summarise, Army recruits' knowledge acquisition significantly predicted all four outcomes of job satisfaction, organisational commitment, self-efficacy and intent to quit and increased knowledge significantly predicted changes in these outcomes. For the only outcome which reveals a negative socialisation experience, intent to quit, relationships with the knowledge domains were not as expected. For both analyses, although lower role knowledge predicted a greater intent to quit, so too did greater organisation knowledge. Similarly, for adjustment in intent to quit, increased role knowledge predicted a reduction in this whilst increased organisation knowledge predicted increased intentions of quitting.

With regard to the four knowledge domains, increased social knowledge is the best predictor of outcomes generally for Army recruits. Overall, Hypothesis 5 is fully supported for positive outcomes, and partially supported for the negative outcome.

The Effects of ABC Newcomers' Knowledge Acquisition on Outcomes

<u>Preliminary Analyses</u>

The same hypothesis was proposed for newcomers to ABC as for new Army recruits with regard to the association between newcomers' acquisition of socialisation knowledge and outcomes. First, that these would be directly related, with higher levels of newcomer knowledge acquisition associated with positive adjustment on other outcome measures and further that increases in the socialisation knowledge of ABC newcomers would predict positive changes in these outcomes.

Looking first at the time 3 correlations for ABC newcomers in Table 5.14, these show that the four knowledge domains have significant relationships with outcomes of job satisfaction, organisational commitment, self-efficacy and intent to quit. The relationships are strong and positive for all four knowledge domains with job satisfaction, organisational commitment and self-efficacy, and more moderate and negative for the knowledge domains with intent to quit. Thus, higher levels of knowledge in the four domains are related to higher self-efficacy, satisfaction and commitment, and lower intent to quit. Interpersonal resources knowledge appears to have slightly larger associations with these outcomes than the other knowledge domains. As before, inter-scale correlations between the knowledge domains do not exceed .70 and therefore multicollinearity is not problematic (Tabachnick & Fidell, 1996).

<u>The effects of knowledge on outcomes</u>

To test Hypothesis 5 in more detail, multiple regressions were conducted on data from ABC newcomers at time 3, regressing each outcome in turn on the four knowledge domains. The results of these four multiple regressions are shown in Table 6.5 and are all significant, revealing that socialisation knowledge acquired during organisational socialisation predicts all four outcomes measured, accounting for 16 - 41 % of their variance.

For job satisfaction, interpersonal resources knowledge significantly positively predicted this, explaining 32% of the variance. Social, interpersonal resources and organisation knowledge positively predicted 41% of the

variance in organisational commitment. Role knowledge was the only significant domain for self-efficacy, positively predicting 28% of the variance. Last, interpersonal resources knowledge predicted 16% of the variance in intent to quit, with this relationship being negative as anticipated.

Table 6.5. ABC: Multiple Regression Analyses of Socialisation Knowledge Predicting Traditional Socialisation Outcomes.

Variable	Domain	R	R^2	A R^2	F (df)	Int.	B	B
Satisfaction		.57	.32‡	.30	12.52 (4, 106)‡	1.17		
	Social						.04	.04
	Role						.14	.12
	Int. Res.						.44‡	.34
	Orgstn.						.00	.00
Commitment		.64	.41‡	.39	18.22 (4, 106)‡	1.12		
	Social						.23*	.26
	Role						-.05	-.05
	Int. Res.						.26*	.22
	Orgstn.						.32‡	.33
Self-efficacy		.53	.28‡	.25	10.30 (4, 105)‡	2.59		
	Social						.02	.02
	Role						.38†	.29
	Int. Res.						.21#	.14
	Orgstn.						-.03	-.02
Intent to quit		.40	.16†	.12	4.91 (4, 106)†	3.39		
	Social						.01	.01
	Role						-.05	-.04
	Int. Res.						-.33*	-.24
	Orgstn.						-.08	-.07

Note. # p = .094; * p < .05; † p <.01; ‡ p ≤.001. A R^2 = Adjusted R^2; Int. Res. = Interpersonal Resources; Orgstn. = Organisation.

The effects of changes in knowledge on changes in outcomes

The second part of Hypothesis 5 proposed that changes in newcomers' knowledge would predict changes in these secondary indicators of positive organisational socialisation. This was tested using multiple hierarchical regression analyses. Four of these were conducted, one for each outcome,

with each regression comprising three blocks. In the first block, the time 1 data for the outcome measure were entered such that only a change in the outcome was being measured. The second block consisted of the four knowledge domains measured at time 1, with the third block comprising the four knowledge domains at the last measurement, time 3. A significant change in the variance accounted for by adding this third block shows that a change in newcomers' knowledge from time 1 to time 3 predicts a change in the outcome across the same period. As before, the exception to this is organisational commitment which was not measured at time 1; thus, the first block entering the regression comprises commitment measured at time 2, with a significant effect on entering the third block indicating that socialisation learning predicts commitment over a shorter eight week time span from time 2 to time 3.

The results of the multiple hierarchical regressions are shown in Table 6.6. Although all four regressions were significant overall, the change in newcomers' knowledge over time was only significant in predicting the changes in two of the four outcomes, namely job satisfaction and self-efficacy. For job satisfaction, increased role knowledge accounted for 20% of the variance in the adjustment of this outcome. Similarly, an increase in role knowledge predicted 20% of the variance in the increase in self-efficacy from time 1 to time 3.

Although the change at the third step was non-significant for intent to quit, showing that overall changes across the four knowledge domains did not predict significant additional variance, one knowledge domain was significant at this third step. Interpersonal resources knowledge was a significant negative predictor, with acquisition of interpersonal resources knowledge predicting reduced intentions of leaving. To follow this up, a multiple hierarchical regression was run as before with one modification: only interpersonal resources knowledge was entered in the third block. The results remained essentially the same, with the adjusted R^2 improving slightly (from .26 to .29), and the additional 7% of variance accounted for by interpersonal resources being significant ($p < .01$).

Table 6.6. ABC: Hierarchical Multiple Regression Analyses Investigating whether Changes in Socialisation Knowledge Predict Changes in Traditional Socialisation Outcomes.

Variable	Block 3	R	R^2	A R^2	$R^2\Delta$	$F\Delta$ (df)	Int.	$\underline{B}$	B
Satisfaction		.59	.35‡	.27	.20	5.23 (4, 67) ‡	1.02		
	Social							.03	.03
	Role							.12	.10
	Int. Res.							.47†	.33
	Orgstn.							-.06	-.05
Commitment		.88	.77‡	.72	.03	1.62 (4, 48)	-0.83		
	Social							.13	.16
	Role							.07	.06
	Int. Res.							-.01	-.01
	Orgstn.							.07	.08
Self-efficacy		.80	.63‡	.58	.20	9.24 (4, 67) ‡	1.41		
	Social							.10	.10
	Role							.30*	.23
	Int. Res.							.16	.11
	Orgstn.							.13	.12
Intent to quit		.59	.35‡	.26	.07	1.85 (4, 68)	1.52		
	Social							.04	.04
	Role							-.00	-.01
	Int. Res.							-.33*	-.24
	Orgstn.							-.02	-.02

Note. * < .05; † $p \le$ .01; ‡ $p \le$ .001. A R^2 = Adjusted R^2; Δ = Change; Int. Res. = Interpersonal Resources; Orgstn. = Organisation.

Summary

Newcomers' socialisation learning was confirmed as predicting positive adjustment for all four outcomes investigated. Furthermore, increases in newcomers' knowledge over the first four months at ABC predicted increases in job satisfaction and self-efficacy, and predicted a decrease in intent to quit when further analyses were conducted. However, knowledge acquisition did not predict the change in organisational commitment from the end of the second to the end of the fourth month.

Looking at the knowledge domains implicated, for the direct relationship of knowledge with outcomes, interpersonal resources knowledge was the most frequent significant predictor of outcomes, whilst for the effects of increased knowledge in predicting the adjustment of outcomes, only interpersonal resources and role knowledge significantly predicted adjustment of outcomes.

Overall Summary of the Relationships Between Army and ABC Newcomers' Knowledge Acquisition and Attitudes

Overall, the results for these analyses were mostly in line with Hypothesis 5. The results show that, over the first eight weeks of Phase 1 Training in the Army and the first four months at ABC, newcomers' socialisation knowledge across the four domains was related to four secondary measures of positive adjustment with increased knowledge predicting improvements in outcomes.

Taking each outcome in turn, for job satisfaction new recruits to the Army with higher levels of social and interpersonal resources knowledge at the end of the first eight weeks of training had higher levels of job satisfaction at this time. Moreover, increases in these two knowledge domains, social and interpersonal resources, from the end of the first week through to week eight following entry predicted increases in job satisfaction during training. At ABC, newcomers' interpersonal resources knowledge after four months and the increase in interpersonal resources knowledge over this four month period predicted the final level and the increase in job satisfaction respectively.

Taking organisational commitment next, Army recruits' with higher levels of socialisation knowledge after eight weeks of training also had higher organisational commitment, with both social and role knowledge implicated. Further, increases in social knowledge during training predicted increases in organisational commitment over the last four weeks of training. ABC newcomers' organisational commitment at the end of the first four months was predicted by higher levels of social, role and interpersonal resources knowledge. However newcomers' socialisation learning across the first four

months of organisational socialisation did not predict changes in organisational commitment from the end of month two to the end of month four.

For self-efficacy rated by Army recruits, higher levels of social and role knowledge positively predicted recruits' self-efficacy at the end of Phase 1 Training, with increased social knowledge during training predicting an increase in self-efficacy over the same period. ABC newcomers' self-efficacy at the end of four months and an increase in their self-efficacy over four months were predicted by greater role knowledge at four months and the increase in role knowledge over the first four months respectively.

For the outcome reflecting a negative socialisation experience, intent to quit, the results for Army recruits differed from predictions. After eight weeks of training, recruits' intentions of quitting were predicted by lower levels of role knowledge and higher levels of organisation knowledge. Similarly, a decrease in role knowledge and an increase in organisation knowledge predicted an increase in recruits' intentions of quitting. At ABC, newcomers' with lower interpersonal resources knowledge at the end of four months were more likely to intend to leave ABC. Further, when other knowledge domains were entered at time 1 only, acquiring greater interpersonal resources knowledge over the first four months was related to a decreased intention of leaving.

Last, looking at the knowledge domains implicated in predicting these outcomes at each organisation, for Army recruits' in Phase 1 Training, social knowledge was the most important knowledge domain. Recruits' social knowledge after eight weeks of training accounted for significant variance in the three positive outcomes, with increases in social knowledge during training predicting increases in these outcomes over the same period. For newcomers at ABC, interpersonal resources knowledge was the most frequent significant predictor of outcomes, predicting three outcomes directly and with increased knowledge of interpersonal resources predicting changes in two outcomes.

The Mediating Effects of Knowledge Acquisition on the Relationship Between Organisational Socialisation Tactics and Outcomes

Overview

Based on previous research, Hypothesis 6 proposed that newcomers' knowledge acquisition would mediate the relationship between organisational socialisation tactics and traditional socialisation outcome measures of job satisfaction, organisational commitment, self-efficacy and intent to quit and, building on this, that the same mediating relationships would be found for adjustment of these outcomes. Since all six organisational socialisation tactics were only measured at the British Army, this section focuses exclusively on the organisational socialisation of new Army recruits.

Mediation Effects

This next section briefly outlines the criteria that, according to Baron and Kenny (1986), must be met before mediation can be investigated. Whereas they discuss unique independent and mediator variables, in this research clusters of variables were treated as equivalent to this (Chao, Kozlowski et al., 1994; Saks & Ashforth, 1997b). That is, the four socialisation knowledge domains were treated as the mediating variable and the six socialisation tactics were treated as the independent variable. The three criteria are discussed next.

First criterion. The first criterion that Baron and Kenny (1986) propose is that variations in the levels of the independent variable must significantly account for variations in the presumed mediator. In this research, the independent variables are the organisational socialisation tactics and the mediator variables are socialisation knowledge. These were investigated through regression analyses, with each of the four socialisation knowledge domains measured at time 5 regressed on the tactics measured at time 3.

The results of these four regression analyses are shown in Table 6.7, and reveal that socialisation tactics accounted for a significant proportion of variance for all four knowledge domains, ranging from 9 - 19%. This fulfils the first criterion for mediation.

Table 6.7. Multiple Regression Analyses showing Organisational Socialisation Tactics' Prediction of Socialisation Knowledge.

Knowledge Domain	R	R^2	A R^2	F (df)
Social	.33	.11	.09	4.51 (6, 221) ‡
Role	.42	.18	.16	8.00 (6, 219)‡
Interpersonal Resources	.30	.09	.07	3.71 (6, 221)†
Organisation	.43	.19	.16	8.30 (6, 217)‡

Note. * $p < .05$; † $p < .01$; ‡ $p < .001$. A R^2 = adjusted R^2.

Second criterion. The second criterion proposed by Baron and Kenny (1986) is that variation in the mediator significantly accounts for variation in the dependent variable. Analyses in the previous section of this chapter have confirmed the relationship between socialisation knowledge and these four outcomes, therefore meeting this second criterion.

Third criterion. The third criterion stipulated by Baron and Kenny (1986) is that, when the mediator enters the regression before the independent variable, the relationship between the independent and dependent variables is no longer significant. However, they acknowledge that with psychological constructs, a reduction may be sufficient. Saks and Ashforth (1997b) use this more lenient criterion, that the relationship should be reduced, although neither they nor Baron and Kenny refer to any specific decision criterion.

Implied in this criterion of a reduction in the relationship between the independent and dependent variables is that these two are related. The relationships between socialisation tactics and job satisfaction, organisational commitment and self-efficacy were confirmed above (Table 6.7). However, socialisation tactics were not significant predictors of intent to quit. Thus, the mediation hypothesis is only examined for the three indicators of positive adjustment outcomes. Furthermore, the third criterion proposed by Baron and Kenny limits the analysis of adjusted outcomes since socialisation tactics only predicted the change in one outcome, namely job satisfaction. Thus, this second part of the proposition regarding the mediating effects of socialisation

knowledge on the relationship between socialisation tactics and adjustment in traditional outcome variables can only be tested for job satisfaction.

Mediation Analyses

To test for mediation, a series of multiple hierarchical regressions were conducted. As well as testing the possible mediating effects of the knowledge domains on the relationship between tactics and outcomes, the inverse relationship was tested. That is, the possibility that tactics mediated the relationship between knowledge acquisition and outcomes was also investigated to fully reveal the inter-relationship of these variables. This is important, since the knowledge domains and socialisation tactics are likely to account for some of the same variance in the outcome. For mediation to be proven, socialisation knowledge has to account for a sufficient amount of the variance that socialisation tactics previously accounted for to render socialisation tactics non-significant in the regression, as well as having to account for further variance such that, when socialisation tactics are entered first, socialisation knowledge accounts for additional variance. The same strategy was used for investigating the adjustment of job satisfaction as for the investigation of mediation effects on direct outcomes, with two regression analyses computed. The only difference was that the first independent variable entered into each equation was job satisfaction at time 1 to control for its effects.

The results of these regression analyses are shown in Table 6.8; these show the mediation effects of socialisation knowledge on outcomes and then also on the adjustment of one outcome, job satisfaction. In broad overview, the results of the regression analyses are supportive of the knowledge domains mediating the effects of socialisation tactics on outcomes, supporting the mediation effects proposed in Hypothesis 6 for all places where these were possible. The significance of the first step in each analysis, that is that either the knowledge domains or socialisation tactics account for a significant amount of variance in the outcome variable, fulfils Baron and Kenny's (1986) second criterion, that variations in the mediator significantly account for variations in the dependent variable.

Table 6.8. Mediating Effects of Socialisation Knowledge Domains & Organisational Socialisation Tactics on Traditional Socialisation Outcomes.

Variable	Step	Variable Entered	R	R^2	$A\ R^2$	$R^2\Delta$	$F\Delta$ (df)
Satisfaction	1	Tactics	.30	.09[†]	.07	.09	3.64 (6, 214)[†]
	2	Domains	.48	.23[‡]	.19	.14	9.38 (4, 210)[‡]
Satisfaction	1	Domains	.44	.20[‡]	.18	.20	13.06 (4, 216)[‡]
	2	Tactics	.48	.23[‡]	.19	.04	1.61 (6, 210)
Commitment	1	Tactics	.34	.12[‡]	.09	.12	4.47 (6, 207)[‡]
	2	Domains	.50	.25[‡]	.22	.14	9.28 (4, 203)[‡]
Commitment	1	Domains	.48	.23[‡]	.21	.23	15.34 (4, 209)[‡]
	2	Tactics	.50	.25[‡]	.22	.03	1.11 (6, 203)
Self-Efficacy	1	Tactics	.28	.08[†]	.05	.08	2.94 (6, 207)[†]
	2	Soc. Domains	.51	.26[‡]	.22	.18	12.95 (4, 203)[‡]
Self-Efficacy	1	Domains	.49	.24[‡]	.23	.24	16.81 (4, 209)[‡]
	2	Tactics	.51	.26[‡]	.22	.01	0.59 (6, 203)
Satisfaction	1	Satisfaction (T1)	.10	.01	.00	--	1.82 (1, 200)
	2	Tactics	.31	.10[†]	.06	.09	3.09 (6, 194)[†]
	3	Domains	.48	.23[‡]	.18	.13	7.96 (4, 190)[‡]
	1	Satisfaction (T1)	.10	.01	.00	--	1.82 (1, 200)
	2	Domains	.44	.19[‡]	.17	.19	11.27 (4, 196)[‡]
	3	Tactics	.48	.23[‡]	.18	.03	1.27 (6, 190)

Note. * $p < .05$, [†] $p < .01$; [‡] $p < .001$. A R^2 = Adjusted R^2.

Outlining the results in more detail, both the knowledge domains and tactics are significant as independent predictors of job satisfaction. When knowledge domains are entered first, the effects of socialisation tactics become non-significant, whereas for the reverse order, knowledge domains predict an additional 14% of variance. This supports the hypothesis that knowledge domains act as a mediator between socialisation tactics and job satisfaction.

A similar pattern of results was found for the outcomes of organisational commitment and self-efficacy, with both tactics and knowledge acting as significant independent predictors of these. The relationship between socialisation tactics and these two outcomes becomes non-significant when the knowledge domains are entered first in the regression. For both

outcomes, when organisational socialisation tactics are entered first, the knowledge domains are significant at the second step, showing a lack of mediation by these tactics. Again, this supports the hypothesis that the knowledge domains mediate the effects of socialisation tactics on organisational commitment and self-efficacy, accounting for an additional 14% and 18% of variance respectively.

With regard to the mediation of adjustment in job satisfaction, newcomers' knowledge acquisition was confirmed as mediating the relationship between socialisation tactics and the change in job satisfaction over time. Knowledge acquisition was still significant in predicting adjustment in job satisfaction following the entry of socialisation tactics into the regression, but rendered the relationship of tactics with adjusted job satisfaction non-significant when knowledge was entered first (the variance explained by the socialisation tactics decreased from 9% to 3%).

Summary of the mediating effects of socialisation learning on traditional socialisation outcomes

In summary, for all outcomes where a mediating effect of socialisation knowledge on the relationship between socialisation tactics and positive outcomes could be tested, a mediation effect was confirmed. The effects of tactics used by the Army to socialise new recruits on outcomes of job satisfaction, organisational commitment and self-efficacy, and their adjustment of job satisfaction over the first eight weeks of training, are mediated by recruits' socialisation knowledge. Further, the mediating effects of the four knowledge domains are reasonably strong given the eight week duration of the research, with an additional 14 - 18% of variance in outcomes accounted for.

Cultural Assimilation

Overview

In line with a cultural assimilation perspective on organisational socialisation, two further theoretical approaches to this process were investigated. First, the psychological contracts of new recruits experiencing Phase 1 Army Training were examined. Four hypotheses were proposed, two of which focused solely on the psychological contract itself, postulating changes in recruits' expectations of their employer and in the salience of these (Hypotheses 7 and 8). A further two hypotheses related more closely to newcomers' cultural assimilation, proposing that recruits' would adjust the salience of psychological contract dimensions towards insider norms (Hypothesis 9) and that the changes in their expectations would be directly influenced by socialisation learning (Hypothesis 10).

A second theoretical framework that fits within a cultural assimilation perspective is that of person-organisation (P-O) fit. Hypotheses were postulated about the changes in fit over time, and the inter-relationship of self-rated, supervisor-rated and objectively measured P-O fit (Hypotheses 11a - c). In addition, a number of hypotheses were propounded relating to the effects of organisational socialisation on fit, that is with P-O fit as the dependent variable. Thus, certain organisational socialisation tactics, as well as socialisation learning, were proposed to lead to increased fit over time (Hypotheses 12 - 13). A third group of hypotheses investigated the predictive power of P-O fit at entry on traditional socialisation outcomes (Hypotheses 14a and 14b).

Psychological Contract Adjustment

Overview

Research on newcomers' psychological contracts was conducted in the first study with the Army. For this, seven dimensions were identified which were proposed to form part of newcomer recruits and experienced soldiers' psychological contracts, reflecting what they expected from their job in the Army. These seven dimensions were career prospects, job security, job satisfaction, social and leisure aspects, pay, effects on family and accommodation. Recruits gave ratings at times 1 and 5 of their expectations of the Army for each dimension (1 to 7 scale) and then the importance of each of these (1 to 3 scale); importance ratings for each dimension were also taken from soldiers. Hypotheses 7 - 10 proposed that, as a result of organisational socialisation, recruits would adjust their psychological contract. Specifically, it was hypothesised that they would increase their expectations of the Army, that they would change the relative importance assigned to these expectations, and that these importance ratings would become more closely aligned with those of experienced soldiers (Hypotheses 7, 8 and 9 respectively). Further, it was proposed that changes in recruits' psychological contracts, as evidenced by adjustments in their expectations of the Army, would be predicted by their socialisation learning (Hypothesis 10).

Overview of Recruits' Expectations of the Army

The descriptive statistics for these dimensions are given in Table 6.9, detailing both recruits expectations and the relative importance they assign to these. Looking first at recruits' expectations of the Army at time 1 and then again at time 5, the means are fairly high and all fall above the midpoint of four on the seven point scale. The normality of the distribution of the data was assessed in a number of ways: the standard deviations are not overly narrow, and the skewness and kurtosis values were acceptable at both times. In terms of the range of responses, recruits used all seven points on the scale except for job security at time 1 and job satisfaction at time 5, where the lowest response option was not used (1 "very poor").

Table 6.9. Descriptive Statistics and T-tests comparing Psychological Contract Expectations and their Importance Ratings, for Recruits at times 1 and 5 and Soldiers.

Psy. Cont. Dimension	Recruits Expectations T1	T5	Importance T1	T5	Soldiers Importance SI	t [a]	t [b]	t [c]	t [d]
Career prospects									
M	6.12	6.11	2.83	2.85	2.80	0.39	-0.40	1.62	1.79
SD	0.96	1.04	0.38	0.38	0.43				
Job security									
M	5.97	6.25	2.90	2.91	2.77	-3.07‡	-0.17	5.97‡	5.26‡
SD	1.13	1.09	0.30	0.30	0.46				
Job satisfaction									
M	5.85	6.03	2.82	2.85	2.86	-1.55	-1.00	-3.50‡	-1.42
SD	1.11	1.17	0.40	0.37	0.38				
Social/ leisure									
M	5.15	5.46	2.62	2.72	2.31	-3.05‡	-2.35*	11.07‡	12.11‡
SD	1.49	1.45	0.51	0.47	0.62				
Pay									
M	4.91	5.17	2.55	2.68	2.80	-2.28*	-3.07‡	-9.53‡	-3.61‡
SD	1.24	1.43	0.56	0.51	0.41				
Effects on Family									
M	4.63	4.98	2.59	2.75	2.82	-2.85‡	-3.67‡	-9.81‡	-2.91‡
SD	1.38	1.50	0.52	0.45	0.44				
Accommodation									
M	4.63	5.08	2.39	2.48	2.52	-4.69‡	-1.99*	3.81‡	-0.81
SD	1.31	1.49	0.63	0.60	0.58				

Note. Recruit N = 224, Soldier N = 1157. * p < .05; † p < .01; ‡ p < .007. Psy. Cont. = psychological contract. SI = soldiers' importance ratings. t [a] = recruits' expectations time 1 vs. time 5; t [b] = importance ratings for recruits time 1 vs. time 5; t [c] = importance ratings for recruits time 1 vs. soldiers; t [d] = importance ratings for recruits time 5 vs. soldiers.

Looking at both recruits and soldiers' importance ratings for the psychological contract dimensions, these were also all above the midpoint on the scale. Since only a three point scale was used, there was a restriction of range and responses were anticipated to be more likely to show kurtosis. Although the full three point scale was used at both times by recruits and also by soldiers, several variables in both the recruit and soldier samples had large kurtosis values (> 3). Tabachnick and Fidell (1996) state that negative kurtosis

with samples greater than 100 and positive kurtosis with samples greater than 200 are not problematic, as at these sample sizes the effects of kurtosis, in terms of underestimates of variance, disappear. Since both the recruit and soldier samples were greater than 200, variables showing kurtosis were not transformed.

Changes in Recruits' Expectations of the Army

Hypothesis 7 proposed that recruits' expectations of the Army would increase significantly across time. The means in Table 6.9 show an increase from time 1 to time 5 for all seven dimensions. The overall significance of these differences was confirmed by a repeated measures MANOVA (time 1 vs. time 5: F (6, 243) = 77.71, p < .001; interaction: F (6, 243) = 3.11, p < .01) and hence followed up with paired t-tests for each dimension across time, with type 1 error controlled using Bonferroni correction (.05/ 7 = .007). The results, shown in Table 6.9, indicate that four of these changes were significant with recruits increasing their expectations of job security, social and leisure aspects, effects on family and accommodation from time 1 to time 5. This partially supports Hypothesis 7.

Changes in the Importance Recruits' Assign to their Expectations of the Army

Recruits' importance ratings for the seven psychological contract dimensions are shown in Table 6.9. Hypothesis 8 proposed that these would show adjustment over time as a result of organisational socialisation. There appears to be little change across time for career prospects, job security and job satisfaction, with more adjustment evident for the other four dimensions. A repeated measures MANOVA was conducted to investigate whether there was an overall significant difference across time for recruits' importance ratings. This was significant (time 1 vs. time 5: F (6, 233) = 33.99, p < .001; interaction: F (6, 233) = 2.55, p < .05) and therefore was followed up with paired t-tests using Bonferroni correction (.05/ 7 = .007). At this criterion, two of the dimensions showed significant increases over time, namely pay and effects on family, with the increased importance of two other dimensions, social and leisure aspects and accommodation, approaching significance. These results provide limited support for Hypothesis 8, with recruits'

changing their perceptions of the importance of only two of the seven psychological contract dimensions, both of these being increases.

Comparisons of the Recruits and Soldiers' Importance Ratings

Hypothesis 9 proposed that, as a result of organisational socialisation, new recruits' would adjust their importance ratings to be more similar to those of soldiers with greater experience of Army employment. Table 6.9 shows that recruits' importance ratings varied both above and below those of soldiers, but overall show considerable similarity. Two separate MANOVAs were conducted, comparing soldiers' ratings with recruits' time 1 and time 5 ratings respectively. These were both significant (time 1: $\underline{F}$ (7, 1818) = 62.66, $\underline{p}$ < .001; time 5: $\underline{F}$ (7, 225) = 28.67, $\underline{p}$ < .001), and were followed up with independent sample $\underline{t}$-tests with Bonferroni correction as before ($\underline{p}$ < .007). These are given in Table 6.9 and show that, relative to soldiers, recruits at time 1 assigned more importance to job security and social and leisure aspects, and less importance to job satisfaction, pay, effects on family and accommodation. Thus, at the start of their time in the Army, new recruits differed from more experienced soldiers on six of the seven dimensions. At time 5, recruits differed from soldiers on four dimensions, assigning more importance to job security and social and leisure aspects, and less to pay and effects on family. Thus, the lower ratings for recruits on the importance of job satisfaction and accommodation were increased during Phase 1 training such that they did not differ from those given by soldiers. Overall, there is limited support for Hypothesis 9, with changes apparent in the importance of two of the six dimensions on which recruits differed from soldiers at time 1 at the start of Phase 1 Training.

The Role of Socialisation Learning on Psychological Contract Adjustment

Hypothesis 10 proposed that recruits' socialisation learning during Phase 1 Training would influence the changes in recruits' psychological contracts. Recruits' expectations of the Army changed for four of the seven dimensions that were measured, these being increases for job security, social and leisure aspects, effects on family and accommodation. Hence, as a preliminary check that these constructs were associated, correlations were

calculated for the four domains making up socialisation learning with the four expectation dimensions showing change. From Table 6.10, it can be seen that recruits' expectations on these four dimensions measured at time 1 were, for the most part, significantly positively correlated with the knowledge domains measured at time 2 (their earliest measurement). The exception to this was accommodation, which showed only one small significant correlation with social knowledge. Hence, further analyses testing Hypothesis 10 were warranted.

Table 6.10. Correlations of Expectations showing Change and Knowledge Domains.

Psy. Cont. Dimension	Social	Role	Interpersonal Resources	Organisation
Job security	.18 ‡	.19 ‡	.12 †	.12 †
Social/ Leisure	.13 †	.14 ‡	.11 †	.15 ‡
Effects on Family	.18 ‡	.18 ‡	.17 ‡	.14 ‡
Accommodation	.10 *	.07	.04	.03

Note. N = 567. * p < .05; † p < .01; ‡ p < .001. Psy. Cont. = psychological contract. Expectations were measured at time 1; knowledge was measured at time 2.

Hypothesis 10 was tested using a hierarchical multiple regression strategy that accounted for the possible overlap between knowledge domains. Multiple regressions were conducted separately for each expectation, with recruits' ratings of that dimension at time 5 as the dependent variable. Independent variables were entered in blocks, with the first step consisting of recruits' rating of that dimension at time 1 such that subsequent independent variables entered into the regression analysis would only account for the change in the expectation from time 1 to time 5. In the second step, recruits' ratings of all four socialisation knowledge domains at time 2 were entered together, and in the third step these four domains at time 5 were entered jointly. This strategy of joint entry at the third step forced the knowledge domains to compete for variance to control for possible overlap between them, ensuring that variance was assigned uniquely. In overview, the aim of

this analysis strategy was to assess whether changes in recruits' socialisation learning in any of the four domains predicted adjustments in their expectations. Thus, four regressions were conducted, one for each expectation showing significant change during Phase 1 Training; the results for these are shown in Table 6.11.

Table 6.11. Multiple Regression Analyses Investigating the Influence of Changes in Socialisation Knowledge on Changes in Traditional Socialisation Outcomes.

PC	Block 3	R	R^2	A R^2	$R^2\Delta$	FΔ (df)	Int.	$\underline{B}$	B
Job security		.50	.25‡	.22	.07	4.94 (4, 223)‡	1.76		
	Social							.21*	.28
	Role							.18#	.28
	Int. Res.							.05	.04
	Orgstn.							-.23†	-.29
Social/ Leisure		.42	.18‡	.15	.06	4.36 (4, 232)†	1.07		
	Social							.03	.56
	Role							.12	.22
	Int. Res.							-.01	-.01
	Orgstn.							.18*	.30
Effects on Family		.42	.17‡	.14	.05	3.40 (4, 232)†	2.38		
	Social							.16¥	.29
	Role							-.10	-.19
	Int. Res.							.11	.13
	Orgstn.							.13	.22
Accommodation		.43	.19‡	.15	.02	1.04 (4, 230)	1.98		
	Social							.04	.07
	Role							-.12	-.24
	Int. Res.							-.06	-.07
	Orgstn.							.17#	.28

Note. ¥ p < .10; # p ≤ .057; * p < .05; † p ≤ .01; ‡ p < .001. Psy. Cont. = psychological contract. Int. Res = interpersonal resources knowledge; Orgstn. = organisational knowledge. A R^2 = Adjusted R^2.

The results show that the change in knowledge during Phase 1 Training accounted for significant additional variance for three of the four regressions. Taking the non-significant result first, the change in recruits' expectations of accommodation was not predicted by their increased socialisation knowledge, although an increase in organisation knowledge approached significance. The non-significant result is understandable given the minimal association between this variable and the four socialisation knowledge domains.

For the remaining three regression analyses, an increase in socialisation knowledge predicted 5 - 7 % of the adjustment in recruits' expectations during the first eight weeks of Phase 1 Training. For job security, social knowledge positively predicted while organisation knowledge negatively predicted the increase in recruits' expectations of job security provided by the Army, with the positive influence of role knowledge approaching significance. For social and leisure aspects, an increase in recruits' organisation knowledge predicted an increase in expectations of the social and leisure aspects of Army life. For the last dimension, effects on family, none of the knowledge domains were significant independently, although social knowledge approached significance. Thus, their combined effects accounted for the change in the expectations of the influence of Army life on family matters.

Overall, the results mostly support Hypothesis 10: increases in recruits' socialisation knowledge account for significant amounts of variance in the changes for three of the four psychological contract dimensions which show significant adjustment during Phase 1 Training. Knowledge gained about the Army overall, and about co-workers, are the most important in predicting these adjustments.

Summary of Recruits' Psychological Contract Adjustment

Four hypotheses were posited with regard to the development of recruits' psychological contracts. All of these received at least marginal support. Hypothesis 7 proposed that recruits' would increase their expectations of the Army during Phase 1 Training, and this was found for

four of the seven dimensions (job security, pay, effects on family and accommodation). Hypothesis 8 propounded that recruits' would show adjustment in the importance assigned to the various psychological contract dimensions; this was found for only two dimensions, and were both increases (pay and effects on family). Related to this, it was anticipated that recruits' would adjust these importance ratings towards those held by soldiers (Hypothesis 9). This was found for only two dimensions, for which recruits increased their importance ratings towards those of soldiers (job satisfaction and accommodation). Last, Hypothesis 10 proposed that recruits' psychological contract adjustment would be predicted by their socialisation learning, such that increased knowledge would account for changes in recruits' expectations. This was found for three of the four dimensions which showed change (job security, effects on family, and social and leisure aspects), with increases in social and organisation knowledge domains predicting these.

Person-Organisation Fit

Overview of Research on Person-Organisation Fit

Measuring Person-Organisation Fit

To briefly review, P-O fit was measured in three ways. Two of these were single-item measures included on questionnaires, asking newcomers to rate their fit with ABC at entry and after two and four months, and also asking their supervisors to rate newcomers' fit at four months. A third measure was based on a 54 item value sort called the Organisational Culture Profile (OCP) developed by Chatman (1988). ENs completed this at entry and after four months according to their preferred organisational culture; a sample of organisational insiders also completed the OCP to indicate their perceptions of ABC's culture. The match between newcomers' and insiders' profiles provided the third, objective measure of P-O fit.

Overview of Research Hypotheses

The hypotheses relating to P-O fit for newcomers to ABC can be grouped into three areas. A first set of hypotheses examined the relationships between the various measures of P-O fit and the changes in fit that would be apparent over time (Hypotheses 11a - c). The second set of hypotheses relate to P-O fit as a dependent variable, looking at the influence of three organisation socialisation tactics and also newcomers' knowledge acquisition on P-O fit (Hypotheses 12 - 13). For each set of predictors, these were proposed to both predict P-O fit at month 4 and also predict the change in fit over the first four months. The third set of hypotheses concerned P-O fit as an independent variable predicting traditional socialisation outcomes of job satisfaction, organisational commitment and intent to quit. For these, initial levels of P-O fit and changes in P-O fit over time were hypothesised to influence these three outcomes (Hypotheses 14a and 14b).

As stated in the initial results section (Chapter 5), the sample size for the OCP was small and therefore investigations using regression analyses would likely yield sample-specific findings. This limited hypothesis testing with the OCP, since results might not be stable.

Objectively Measured Fit Using the Organisational Culture Profile

Preliminary Investigation of Control Variables

Initial investigations were conducted to assess whether objective fit measured at times 1 and 3 (OCP1 and OCP3 respectively) were significantly predicted by age or years of work experience. Regression analyses were conducted in spite of the small sample size, with the rationale for these being that these were investigating for possible effects of the sample rather than generalisable findings. Thus, two multiple regressions were carried out for the OCP data, which was only collected from ENs, investigating whether age and/ or work tenure predicted these. Neither regression was significant (OCP1: F (2, 65) = .70, p > .05) (OCP3: F (2, 57) = .80, p > .05), showing that actual P-O fit is not predicted by age or years of work experience, and hence these variables were not controlled for in subsequent analyses.

Newcomers' Preferred and ABC's Actual Organisational Culture

Since the OCP gives a detailed picture of both cultural value preferences (from newcomers) and actual organisational characteristics (from insiders), the summarised results for the OCP are presented first. Chatman (1988) proposes that looking at the ten items placed at each end of the OCP after it has been sorted provides a useful qualitative technique for identifying pivotal items. Table 6.12 shows newcomers' top and bottom ten preferred organisational values at week 1 and month 4, and also those that senior insiders proposed as representative of ABC.

Looking first at the top ten values characterising ABC, these show it to be a demanding place to work. Specifically, a focus on results, achievement and performance, as well as long hours and a competitive environment reveal the picture of an organisational culture focused on striving for success.

Examining newcomers' values, these also portray a picture of a preference for a demanding, results-oriented work environment with a focus on performance and quality. Newcomers retain three of these four same items across the first four months of socialisation, namely "opportunities for professional growth", "enthusiasm for the job" and "achievement

Table 6.12. The Ten Highest and Ten Lowest Ranked Values from the OCP, for EN Preferences at Week 1 and Month 4, and ABC's Characteristics.

Ten Highest-Ranked Values					
EN at entry	M	EN at month 4	M	ABC Insiders	M
Opportunities for professional growth	2.55	Opportunities for professional growth	2.71	Being results oriented	2.00
Enthusiasm for the job	3.01	Enthusiasm for the job	2.78	Having high expectations for performance	2.26
An emphasis on quality	3.45	Achievement orientation	3.55	Achievement orientation	2.68
Achievement orientation	3.49	Being team oriented	3.56	Being demanding	2.89
High pay for good performance	3.57	Being innovative	3.58	Working long hours	3.11
Being results oriented	3.67	Having high expectations for performance	3.64	Action orientation	3.16
Having a good reputation	3.69	High pay for good performance	3.66	An emphasis on quality	3.37
Having high expectations for performance	3.71	An emphasis on quality	3.70	Emphasising a single culture throughout the organisation	3.53
Taking individual responsibility	3.73	Having a good reputation	3.71	Being competitive	3.63
Being innovative	3.74	Offers praise for good performance	3.75	Having a good reputation	3.74

Ten Lowest-Ranked Values					
EN at entry	M	EN at month 4	M	ABC Insiders	M
Informality	6.20	Stability	6.14	Being socially responsible	6.42
Stability	6.31	Informality	6.21	Being supportive	6.47
Being calm	6.34	Being calm	6.21	Low level of conflict	6.53
Being easy going	6.57	Low level of conflict	6.27	Respect for the individual's right	6.58
Low level of conflict	6.70	Being easy going	6.32	Not being constrained by many rules	6.68
Being careful	7.07	Being careful	7.07	Predictability	6.74
Working long hours	7.39	Predictability	7.41	Tolerance	6.74
Predictability	7.53	Working long hours	7.59	Informality	6.89
Being aggressive	7.64	Being aggressive	7.63	Being reflective	7.16
Being rule oriented	7.79	Being rule oriented	7.97	Being easy going	7.84

Note. M = mean; 1 - 9 scale.

orientation". From this and other items in the top ten, it is clear that ENs entering ABC are motivated and professionally oriented overall.

Comparing newcomers' top rankings at both measurements with those representing ABC, there is much similarity between the profiles. For example, "achievement orientation", "an emphasis on quality" and "having high expectations for performance" rank highly both in newcomers' preferences and in ABC's culture. It should be mentioned that "being team oriented", although only ranked in the top ten for newcomers at month 4, is ranked 11 for newcomers at week 1 and ranked at 12 by insiders, and is therefore given a high ranking across all profiles. One salient difference is that the item "working long hours" is in the top ten for organisational characteristics, and in the bottom ten of newcomers' preferences.

Examination of the ten least characteristic values at ABC is also revealing. ABC's culture, as rated by insiders, is not perceived as being supportive or socially responsible; rather, these lowest ten values further support the picture of a formal work environment which is rule-bound, focused on rapid action, and lacking in tolerance and predictability. Newcomers' lowest-ranked values match ABC's culture reasonably well, with ENs preferring not to be in a culture that is slow-paced or predictable. However, their least preferred values include being rule-bound, working long hours and being aggressive; ABC's culture is typified as being rule bound and requiring long hours of work, whilst "being aggressive" is ranked eighteenth in ABC's actual profile. Furthermore, ENs rate "being supportive" in the top half of their value preferences (ranked 21 at entry and 19 at month four).

Overall, although there is considerable similarity across these top and bottom values between ENs preferences and insiders' perceptions of ABC, there are also notable differences. Last, newcomers' preferences appear relatively stable during the first four months of organisational socialisation, at least in terms of their top and bottom value preferences, with eight values remaining in the top ten over the first four months, whilst the bottom ten remain the same although their relative order changes slightly.

Preliminary Data Investigation

The effects of work experience on person-organisation fit

In order to be able to combine the self-ratings of experienced and graduate newcomers (ENs and GNs), preliminary analyses were necessary to investigate whether these two groups showed significant differences in their subjective P-O fit. Mean self-ratings of fit at times 1, 2 and 3 appear similar, and were 5.03, 4.69 and 4.74 for ENs, and 5.03, 4.87 and 4.83 for GNs (using listwise deletion). As an initial test for differences, a repeated measures MANOVA was conducted to see whether there were changes across time and between groups. This was non-significant (F (2, 62) = 0.20, p > .05), showing that subjective perceptions of P-O fit did not change over time according to whether newcomers were ENs or GNs. Moreover, the univariate ANOVAs for time and type of newcomer were weak and non-significant (time: F (2, 62) = 1.40, p > .05; newcomer: F (1, 63) = 0.11, p > .05). Overall, there was no evidence of an interaction of type of newcomer across time and no univariate differences either between ENs and GNs or across time.

As a further investigation of possible differences, supervisors' ratings of P-O fit were assessed for differences for ENs and GNs with a t-test. This was non-significant (M_{GN} = 5.24, M_{EN} = 4.97, t (61.79) = .83, p > .05), confirming that supervisors' fit ratings are not significantly different according to newcomers' previous work experience. To summarise, there are no differences between ENs and GNs either in their self-ratings of their fit at ABC at entry or across time, nor are there differences in their supervisors' ratings.

Overview of the relationships between the person-organisation fit measures

As mentioned above, in addition to the OCP, P-O fit was measured through self-ratings on all three questionnaires and by supervisor-ratings at time 3. For both measures, respondents used the full range of ratings (1 to 7) at all measurement times, apart from self-ratings at time 1 which ranged from 2 to 7. Following listwise deletion, complete self-report data across all three times was available for 65 respondents. Supervisor ratings at time 3 were available for 67 respondents. As anticipated, listwise deletion greatly reduced

the sample size. Thus, complete data across the three self-ratings (times 1, 2 and 3), the supervisor rating (time 3) and the two OCP-based fit measures (times 1 and 3) were available for 23 respondents. Given this restricted number of cases, case deletion was done individually for variables included in each analysis.

Table 6.13. Descriptive Statistics for the Person-Organisation Fit Measures.

P-O Fit	$\underline{M}$	$\underline{SD}$	$\underline{N}$	OCP1	OCP3	$\underline{D}1$	$\underline{D}3$	T1 Self	T2 Self	T3 Self
OCP1	.27	.19	74							
OCP3	.22	.21	74	.74[†]						
$\underline{D}1$	14.80	1.73	74	-.98[†]	-.71[†]					
$\underline{D}3$	15.16	1.85	74	-.74[†]	1.00[†]	.71[†]				
T1 Self	5.10	1.09	129	.19	.13	-.20	-.12			
T2 Self	4.91	1.35	118	.21	.17	-.20	-.16	.48[†]		
T3 Self	4.75	1.40	108	.26	.36*	-.25	-.34*	.38[†]	.76[†]	
T3 Sup.	5.12	1.32	65	-.06	.11	.12	-.09	-.14	.18	.21

Note. * $p \le 05$; [†] $\le .01$. Listwise deletion $\underline{N} = 23$. Pairwise deletion $\underline{N}$ ranges 31 - 129. $\underline{M}$ = mean; $\underline{SD}$ = standard deviation; $\underline{D}$ = Euclidean distance score; Self = self-rating; Sup. = supervisor's rating.

The means, standard deviations, sample sizes and correlations between all P-O fit measures are shown in Table 6.13. From this, it can be seen that the mean self- and supervisor-ratings are close to 5 on the 7 point scale, showing that both parties perceive a good level of P-O fit for newcomers. The OCP1 and OCP3 means show more moderate levels of fit, these being slightly higher at time 1 than time 3.

Table 6.13 includes Euclidean distance scores for OCP1 and OCP3 ($\underline{D}1$ and $\underline{D}3$), which show the expected strong, positive significant correlations (.92 - 1.00) with the correlation scores, indicating that each pair of these reflect different measures of the same relationship. The Euclidean distance scores show essentially similar relationships with the other fit measures to those from Pearson correlations in these and subsequent analyses. Hence, for

simplicity and due to their use in past research, only the correlational results are presented and discussed.

Relationships Between Person-Organisation Fit Measures

Hypothesis 11a proposed that the subjective and objective measures of P-O fit would be positively correlated, with these correlations increasing over time. Further, Hypothesis 11b proposed that supervisors' ratings of newcomers' P-O fit would be more similar to objective than to newcomers' subjective ratings of P-O fit.

Looking at the results in Table 6.13, self-ratings are significantly positively correlated with OCP-generated ratings at time 3 (r = .36) but not time 1 (r = .19), showing moderate agreement between the subjective and objective measures of fit after 4 months tenure. This gives partial support to Hypothesis 11a. Supervisor ratings of fit were not significantly correlated with either OCP-based or with self-ratings of fit. Thus, there is no support for Hypothesis 11b.

Changes in Person-Organisation Fit over Time

Both objective and subjective P-O fit measures (OCP and self-ratings) show decreases over time and therefore further analyses were conducted to investigate whether these are significant, as proposed in Hypothesis 11c. First, looking at actual fit as measured by the OCP, a paired t-test was conducted to investigate whether OCP1 differed significantly from OCP3. This was significant, t (74)= 2.75, p < .01, showing that there was a decrease in actual person-organisation fit. Second, a repeated measures ANOVA was conducted to assess whether the apparent decline in self-ratings over time was significant. The results showed that self-ratings did not significantly differ across time (F (2, 63) = 1.50; p > .05). As a further less stringent check of the overall difference, a paired t-test was conducted comparing time 1 and time 3 self-ratings; this was also non-significant (t (86) = 1.73, p > .05) confirming that newcomers' self-ratings of P-O fit remain stable across the first four months at ABC. Self-ratings analyses were conducted only on EN as well as the mixed EN-GN sample, and again no significant differences emerged over time. In summary, objectively measured fit ratings decreased

over time whereas subjective self-evaluations of P-O fit remained stable, giving partial support to Hypothesis 11c.

Factors Affecting Person-Organisation Fit

Socialisation variables affecting person-organisation fit

Hypothesis 12 proposed that organisational socialisation tactics would have a positive effect on newcomers' organisational fit, and would further predict an increase in P-O fit during organisational socialisation. Three tactics were measured which were hypothesised to affect fit, namely investiture and serial organisational socialisation tactics, and the informal socialisation effects of mentoring. Of 105 respondents indicating whether or not they had a mentor, only 82 respondents reported mentoring relationships in spite of ABC's policy that all employees are mentored. Thus, analyses were carried out using mentoring measured both as a dichotomous variable (mentored vs. non-mentored) and as a continuous variable for those who reported having a mentor (quality of mentoring). For the OCP-based fit measure, complete data across all four variables (i.e., the three socialisation tactics and OCP3) was available for less than 50 respondents with both measures of mentoring. This falls short of the criteria proposed by Green (1991; see Results Chapter 5) and therefore these regressions were not conducted.

Thus, two multiple regression analyses were conducted to assess whether the three socialisation tactics of serial, investiture and mentoring (mentor/ non-mentored and quality of mentoring) affect self-rated P-O fit. The relative influence of the three socialisation variables at time 3 were assessed by entering them as one block. The results of these regression analyses were both significant (see Table 6.14). For the regression with mentoring vs. non-mentoring as a predictor, both this and the investiture tactic were significant predictors, accounting for 45% of the variance in time 3 self-rated fit. Where quality of mentoring was included as an independent variable, the investiture tactic was the only significant predictor, with the overall regression accounting for 47% of the variance in self-rated fit.

Further investigation of the data was conducted for the second part of Hypothesis 12, that these three socialisation tactics predicted an increase in

self-rated fit from time 1 to time 3. Due to the small sample size for the OCP-based measure, again only self-rated fit was further examined; also as before, regression analyses were conducted for each mentoring measure. Two hierarchical multiple regression analyses were conducted, with time 1 self-rated fit entering at the first step and the three socialisation tactics entering in the second step.

Table 6.14. Regression Analyses Investigating Socialisation Tactics as Predictors of Time 3 Self-Rated Person-Organisation Fit.

Independent Vars.	Step	R	R^2	A R^2	ΔR^2	Int.	<u>B</u>	B
mentor/ non-mentor	1	.67	.45‡	.43		1.42	.16*	.63
serial	1						.14	.17
investiture (104)	1						.57‡	.76
mentoring quality	1	.69	.47‡	.45		.29	.09	.16
serial	1						.18	.22
investiture (81)	1						.52‡	.69
t1 s-r P-O fit	1	.42	.17‡	.16		-.93	.25†	.31
mentor/ non-mentor	2	.73	.53‡	.51	.36‡		.13	.47
serial	2						.06	.07
investiture (80)	2						.59‡	.77
t1 s-r P-O fit	1	.28	.08*	.06		-.33	.09	.10
mentoring quality	2	.73	.53‡	.49	.45‡		.13	.20
serial	2						.10	.12
investiture (60)	2						.59‡	.77

Note. # p = .065; * p < .05; † p < .01; ‡ p < .001. A $\underline{R^2}$ = adjusted $\underline{R^2}$; Int. = intercept.

For the regression where mentoring vs. non-mentoring was included as a predictor, time 1 self-rated fit was significant at the first step and the overall regression was significant with 53% of the variance in time 3 self-rated fit accounted for. In the second block, only investiture was significant, accounting for 36% of the variance in newcomers' adjustment of their self-rated fit. Where quality of mentoring was included, the predictors overall again predicted 53% of the variance in newcomers' adjusted self-rated fit. Time 1 self-rated fit became non-significant once the socialisation tactics were

entered into the regression, with investiture being the only significant predictor, as found before, accounting for an additional 45% of the variance in time 3 self-rated P-O fit.

Thus, Hypothesis 12 was supported, with ABC newcomers' perception that they were valued for the skills and abilities they brought to ABC (i.e., investiture) the most important predictor of self-rated fit at four months and the change in self-rated fit over the first four months at ABC. When the variable of being mentored or not was included, being mentored predicted self-rated fit at time 3, but not the change in fit. In contrast, the quality of the mentoring was not a significant predictor. This hypothesis could not be tested for the objective measure of fit, that is the OCP results, due to the small sample size, hence no conclusions can be reached as to the effects of socialisation tactics on actual P-O fit.

The influence of socialisation knowledge of person-organisation fit

Hypothesis 13 outlined a fairly complex set of proposals about the role of newcomers' knowledge acquisition in predicting P-O fit. It was proposed that knowledge would predict P-O fit at time 3; that increases in knowledge would predict increases in fit; and that organisation and social knowledge would have the strongest effects from among the knowledge domains. Listwise deletion of data across the four knowledge domains and the OCP-based fit measure yielded too small a sample for multiple regression ($\underline{N}$ = 45; Green, 1991); therefore analyses for this hypothesis were only conducted for self-rated fit. This also precluded testing for differences between subjectively and objectively measured fit.

A single multiple regression was conducted regressing the four knowledge domains measured at time 3 on self-rated fit at time 3. The results of this regression (see Table 6.15) were highly significant with 47% of the variance in P-O fit accounted for. The beta weights show that organisation, interpersonal resources and social knowledge were all significant in predicting fit, with organisation knowledge being the strongest predictor.

Table 6.15. Regression Analyses Investigating Knowledge Acquisition as a Predictor of Time 3 Self-Rated Person-Organisation Fit.

Independent Vars. (N)	Step	$\underline{R}$	$\underline{R^2}$	A $\underline{R^2}$	ΔR^2	Int.	$\underline{B}$	B
t3 Social Knowledge	1	.69	.47‡	.45		-.47	.32*	.23
t3 Role Knowledge	1						-.02	-.01
t3 Int. Res. Knowledge	1						.33†	.32
t3 Orgstn. Knowledge	1						.40‡	.32
(107)								
t1 s-r P-O fit	1	.42	.18‡	.17		-.60	.25†	.29
t1 Social Knowledge	2	.53	.28	.23	.10		-.26*	-.26
t1 Role Knowledge	2						.01	.01
t1 Int. Res. Knowledge	2						.12	.12
t1 Orgstn. Knowledge	2						-.01	-.01
t3 Social Knowledge	3	.76	.58‡	.53	.31‡		.42†	.56
t3 Role Knowledge	3						-.17	-.18
t3 Int. Res. Knowledge	3						.25#	.24
t3 Orgstn. Knowledge	3						.24*	.29
(76)								

Note. # p = .065; * p < .05; † p < .01; ‡ p < .001. Int. Res. = interpersonal resources; Orgstn. = organisational. A $\underline{R^2}$ = adjusted $\underline{R^2}$; Int. = intercept.

A second, related proposal was that the same effect would be found for an increase in socialisation knowledge from time 1 to time 3 predicting an increase in P-O fit also between times 1 and 3. However, the sample size with listwise deletion for this analysis was small (N = 76) given the number of independent variables (9). This means that the results of the overall analysis are likely to be stable but the predictive strength of the individual variables may be sample specific.

A single hierarchical multiple regression was conducted, with time 1 data for self-rated P-O fit and the four knowledge domains entered as the first and second blocks respectively, and the four knowledge domains measured at time 3 entered as the third block. The results of this analysis are shown in Table 6.15 are highly significant with 59% of the variance of self-rated P-O fit at time 3 accounted for in the regression. The beta weights show that initial

self-rated fit and social knowledge are significant in the equation, the latter negatively; controlling for these, an increase in relevant knowledge significantly predicts 31% in the variance in adjustment of P-O fit. Specifically, increases in social and organisation knowledge predict the increase in P-O fit, with interpersonal resources knowledge approaching significance.

Overall, Hypothesis 13 was mostly confirmed although only tested for self-rated fit: socialisation knowledge across the four domains significantly predicted self-rated fit at time 3 and increases in socialisation knowledge significantly predicted increases in fit. The two domains of organisation and social knowledge were significant in both regression equations as proposed, with interpersonal resources knowledge also significant in directly predicting self-rated fit at time 3.

The Effects of Person-Organisation Fit

Person-organisation fit was hypothesised to have a number of effects on newcomers' outcomes at the end of month 4. These outcomes were job satisfaction, organisational commitment and intent to quit. Hypothesis 14a stated that P-O fit at entry would be positively related to job satisfaction and organisational commitment and negatively with intent to quit and that increases in P-O fit would positively predict job satisfaction and organisational commitment, and negatively predict intent to quit. Hypothesis 14 b proposed that subjective P-O fit would show stronger relationships than objective measures of fit.

As in previous analyses, the sample for the OCP-based results is just below that recommended and therefore this objective measure of fit could not be included in regression analyses. Instead, correlation analyses were conducted, shown in Table 6.16, investigating the relationships between subjective and objective P-O fit at times 1 and 3 with the three outcomes. These are discussed in relation to the first part of Hypothesis 14a and for Hypothesis 14b, with the proposal regarding the positive effects of increased fit investigated last for only self-rated fit (Hypothesis 14a).

Table 6.16. Correlation Analyses Between Subjective and Objective Person-Organisation Fit Measures with Traditional Socialisation Outcomes.

P-O Fit	Satisfaction	Commitment	Intent to Quit
T1 Self-Rated	.16	.41‡	-.18
T3 Self-Rated	.48‡	.71‡	-.37‡
OCP1	.22	.47‡	-.30*
OCP3	.29*	.49‡	-.47‡

Note. N = 48 - 111 (pairwise deletion); * p < .05; † p < .01; ‡ p ≤ .001.

Looking at time 1 measures of fit first, neither self-rated nor OCP-measured P-O fit at entry are associated with job satisfaction at time 3, yet both are quite strongly positively associated with organisational commitment, whilst only OCP-measured fit is correlated with intent to quit, this being a moderate negative correlation. Thus, at entry, higher levels of objective fit are associated with higher organisational commitment and lower intent to quit at month four, and higher levels of self-rated fit are associated with higher levels of organisational commitment.

In contrast to this, all time 3 measures of fit and outcomes are moderately to highly correlated. Thus, higher levels of both subjective and objective fit at month four are associated with higher levels of job satisfaction and organisational commitment, and lower intentions of leaving ABC. The results for both measures of P-O fit at time 1 give some support to the positive effects of P-O fit at entry, with both measures of P-O fit at the end of month four consistently showing results in the direction hypothesised, strongly supporting Hypothesis 14a.

Hypothesis 14b propounded that subjective ratings of P-O fit would be more strongly related to attitudinal outcomes than an objective measure of P-O fit. These two methods of measuring P-O fit can be compared by transforming the correlations to z scores using Fisher's (1921, cited in Howell, 1992) r to z transform, and calculating the difference between z scores (zd). Since subjective measures of fit are proposed to be more strongly related to these outcomes, a one-tailed test was used. Four comparisons were conducted where both subjective and objective fit measures were significantly

correlated with outcomes, namely time 1 fit measures with organisational commitment and all time 3 fit measures with outcomes. There were no differences for time 1 commitment ($\underline{zd}$ = -.04), time 3 satisfaction ($\underline{zd}$ = 1.26) or time 3 intent to quit ($\underline{zd}$ = -.65); the only significant difference was for time 3 commitment, for which self-rated fit showed a significantly stronger correlation ($\underline{zd}$ = 1.94, $\underline{p}$ < .05). In addition to this one significant difference between significant correlations, for time 1 intent to quit only, the objective measure of P-O fit showed a significant correlation, this being negative. In summary, there is little evidence to support the proposition that subjective measures of fit are more strongly related to attitudinal outcomes than objective measures of fit.

The remaining part of Hypothesis 14a, which can only be tested for self-rated fit, proposed that increases in P-O fit would positively predict job satisfaction and organisational commitment, and negatively predict intent to quit. The analyses for this are shown in Table 6.17. A two-step hierarchical regression was conducted for each outcome. At the first step, time 1 self-rated fit was entered ($\underline{R}$ at this stage is equivalent to the Pearson's correlations shown in Table 6.17, the only difference being that the sign of $\underline{R}$ is always positive). In the second step of the regression analyses, the time 3 fit measure was entered.

Within Hypothesis 14a, it was proposed that increases in P-O fit would positively predict changes in outcomes, except for intent to quit for which the relationship would be negative. As Table 6.17 shows, increases in self-rated fit from week 1 to the end of month 4 significantly predicted the three outcomes investigated. For job satisfaction and intent to quit, the first step of entering time 1 self-rated fit was non-significant, agreeing with the correlational results discussed above. The change in self-rated fit accounted for significant additional variance as follows: 19% of the variance in job satisfaction, 35% of the variance in organisational commitment, and 8% of the variance in intent to quit. These results further show that the change in self-rated fit over the first four months is a stronger predictor of all three outcomes of job satisfaction, organisational commitment and intent to quit

than is self-rated P-O fit at entry alone. It is also interesting to note that self-rated fit showed stronger relationships with organisational commitment than the other two outcome variables.

Table 6.17. Regression Analyses Investigating the Influence of Person-Organisation Fit on Traditional Socialisation Outcomes.

DV at Time 3	IV Self	Step	$\underline{R}$	$\underline{R^2}$	A $\underline{R^2}$	$\Delta\underline{R^2}$	Int.	$\underline{B}$	B
Satisfaction	T1 Self	1	.17	.03	.02			-.02	-.02
	T3 Self	2	.47	.22‡	.20	.19‡	1.94	.48	.35
Commitment	T1 Self	1	.41	.17‡	.16			.16	.17#
	T3 Self	2	.72	.52‡	.50	.35‡	1.45	.64	.54‡
Intent to quit	T1 Self	1	.18	.03	.02			-.06	-.05
	T3 Self	2	.34	.12†	.10	.08‡	3.10	-.23	-.23

Note. $\underline{N}$ = 86; # $\underline{p}$ = .056; * $\underline{p}$ < .05; † $\underline{p}$ < .01; ‡ $\underline{p}$ < .001. Self = self-rated P-O fit. A $\underline{R^2}$ = adjusted $\underline{R^2}$; Int. = intercept.

Summarising the results for Hypothesis 14a, partial support was found for P-O fit at entry being positively associated with job satisfaction and organisational commitment, and negatively with intent to quit. Self-rated fit was significantly positively correlated with only organisational commitment whilst OCP-based fit was significantly positively correlated with organisational commitment and negatively with intent to quit. The effects of increases in P-O fit could only be investigated for self-rated fit, and these were all found to add significantly to predicting the three outcomes as hypothesised. The strongest effects were found for organisational commitment. These show stronger effects for adjustments in fit than fit at entry, showing fit following socialisation to have stronger effects than fit at selection in predicting attitudes.

Since increases in P-O fit could not be investigated for the OCP-based measure, time 3 correlations were computed. Both self-rated and OCP-based fit showed moderate to strong correlations with all three outcomes, these being positive for job satisfaction and organisational commitment and negative for intent to quit. Under Hypothesis 14b, it was proposed that subjective measures of fit would be more strongly associated with these

attitudinal outcomes, although a comparison of the relative strength of the correlations gave little support to this. Only two differences were apparent, with only objective fit at entry significantly predicting intent to quit and subjective fit at the end of month four being a stronger predictor of organisational commitment.

Summary of Results for ABC Newcomers' Person-Organisation Fit

Looking first at the descriptive statistics, the OCP results showed a reasonable fit between the pivotal organisational values of newcomers and those present at ABC. Both newcomers and knowledgeable senior insiders gave high rankings to organisational values that reflect a demanding, achievement-oriented, professional, high performance environment, and gave low rankings to a slow-paced, predictable work environment. For the OCP-based profiles overall, newcomers' preferences and ABC's reality showed moderate fit at entry and month 4. Higher rankings of P-O fit, of about 5 on a 7 point scale, were given for newcomers' when self-rating their fit at entry, and after two and four months, and by their supervisors after four months.

Summarising the results for the various hypotheses proposed, subjective and objective fit (i.e. self-rated and OCP-based measures) were not correlated at entry as expected, but were significantly positively correlated at month four, partially confirming Hypothesis 11a which proposed an increasingly close relationship over time. Hypothesis 11b proposed that supervisors' ratings would be more aligned with fit assessed by the OCP than self-ratings. However, supervisors' ratings of newcomers' P-O fit were not associated with either of the other P-O fit measures, giving no support to Hypothesis 11b. Hypothesis 11c was phrased at a general level, that changes in fit would be found. This was confirmed for OCP-based fit which decreased across the first four months at ABC. No change was evident for self-ratings. Overall, Hypothesis 11c was partially confirmed.

For subsequent hypotheses, more complex analyses were required which, due to the small sample size for the OCP-based measure of fit, largely precluded its inclusion in analyses. Two hypotheses related to the effects of various socialisation experiences on P-O fit. First, Hypothesis 12 proposed

that investiture, serial and mentoring socialisation tactics would predict both P-O fit at four months and changes in fit over the first four months. Given the smaller than expected number of newcomers reporting having a mentor, these analyses were conducted for mentoring measured both as mentor/ non-mentor and quality of mentoring, doubling the number of analyses for this hypothesis to four. It was found that the investiture tactic positively predicted both self-rated fit at month four and increased self-rated fit over the first four months. Mentoring was only significant in one of the four regressions, with being mentored (vs. non-mentored) jointly predicting self-rated P-O fit after four months. These results support Hypothesis 12, with the investiture tactic predominating in predicting P-O fit.

For Hypothesis 13, newcomers' learning across the four knowledge domains was proposed to positively predict P-O fit at four months and also an increase in knowledge was proposed to positively predict an increase in fit over this period. Both of these proposals were confirmed. Further, for both of these it was proposed that organisation and social knowledge would be the strongest predictors. This was confirmed, with interpersonal resources knowledge at entry also a significant predictor of outcomes. Overall, the results mostly confirmed Hypothesis 13.

A last hypothesis related to the predictive power of P-O fit. First, Hypothesis 14a proposed that P-O fit, and increases in P-O fit, would positively predict job satisfaction and organisational commitment, and negatively predict intent to quit. Related to both propositions, Hypothesis 14b propose that these effects would be stronger for subjective (self-rated) than objective (OCP-based) fit. Hypothesis 14b could only be investigated through correlations, limiting the test of this proposition. The results were largely in line with Hypothesis 14a for the relationships of both the fit measures with outcomes, with strong confirmation of the positive effects of increased self-rated fit in predicting positive outcomes but no consistent support for Hypothesis 14b, since the relationships of subjective measures of fit with attitudinal outcomes were not uniformly stronger than those for objective fit.

Chapter 7: Discussion

Overview

This next chapter discuss the results in the order of the results chapters. The first section comprises the psychometric analyses of the tactics measures and socialisation knowledge measures, followed by the more complex investigations of alpha, beta and gamma change using structural equation modelling. Next, the rate of socialisation is discussed, including adjustments in both attitudes and socialisation knowledge. Third, the influence of both organisational tactics and individual learning in affecting outcomes are discussed both individually and then for their relative effects. Last, the two aspects of the thesis relating to cultural assimilation are discussed, namely Army recruits' psychological contract adjustment and ABC newcomers' person-organisation fit.

For each section, the results are briefly reviewed in relation to hypotheses, these are then discussed in detail, followed by a summary and, last, suggestions for future research are propounded.

Psychometric Analyses of the Organisational Socialisation Tactics Measure
Review of the Results

The aim of this aspect of the thesis was to establish the construct validity of Jones' (1986) measures of the six socialisation tactics in a known setting. It was expected that a six factor structure would be found, confirming the discriminant validity of the measure (Ashforth et al., 1997; Jones). However, the factor loadings were less clear than anticipated: three of the six scales had acceptable reliabilities (sequential, collective and formal), with item deletion necessary to the remaining three tactics (fixed, serial and investiture) to produce acceptable internal reliabilities. For the fixed and serial scales, negatively worded items showed poor internal reliability and were therefore omitted, whilst for investiture, positively worded items were deleted.

Following scale revision, Hypotheses 1 and 2 were confirmed, with both Army recruits and training staff perceiving Phase 1 Training as comprising collective, formal, sequential, fixed, serial and divestiture tactics, making up an institutionalised pattern of organisational socialisation (Van Maanen & Schein, 1979). Overall, although the scales did not show the degree of convergent and discriminant validity expected, this was satisfactory following revision, and their construct validity was confirmed (see Tables 5.8 and 5.9).

Explanations for the Poor Psychometric Analysis Results

This next section outlines four possible reasons for the poor psychometric results, namely that these were due to item revision, or difficulties in comprehending items due to either negative wording or their contradiction of recruits' situation in Phase 1 Training and, last, subjectivity of response. These may individually or jointly explain the results.

Item revision. One possible explanation for the poor psychometric properties found for the tactics measures is that item revision may have biased the measures (see Table 5.8). Item revision of the scales was conducted to increase the clarity and comprehensibility of the items, using both experts in questionnaire research and in research with the Armed Forces, and also item piloting with all levels of Army personnel at ATRs. These amendments

were conducted uniformly across items and therefore are unlikely to account for the specific pattern of results (see Method, Chapter 4).

Negative wording. The poor performance of the socialisation tactics items in this research may have been due to the inclusion of negatively worded items. Feedback during item piloting indicated that a number of the negatively worded items were perceived as being more difficult to respond to, and hence these items were amended or deleted. A mixture of positively- and negatively-worded items remained only in the scales for the three tactics that showed the poorest psychometric properties, namely fixed, serial and investiture.

Negatively worded items are frequently included in scales to prevent acquiescence bias (respondents' bias to agree with the statements presented), which is presumably the reason for their inclusion by Jones (1986). However, acquiescence bias is no longer commonly believed to affect responding, making the rationale for including negatively worded items redundant (Campion & Wagner, 1994; Marsh, 1996; Schuman & Presser, 1981). More importantly, recent research on negatively and positively worded items has shown that they may be differently interpreted by respondents, and frequently appear as distinct factors in analyses, undermining the assumption that such items are measuring the same construct (Bagozzi, 1993; Marsh, 1986, 1996; Porter et al., 1979). For example, Marsh (1996) investigated Rosenberg's (1965) self-esteem scale, which includes both positive and negative items, and confirmed that a single latent factor model gave the best fit with consistent but "substantively irrelevant method effects" (p. 815) which were associated primarily with the negative items. Importantly, consistent with his earlier proposals (Marsh, 1986), these method effects from negative items were more prevalent amongst younger and less verbally able respondents.

Extrapolating from Marsh's (1996) findings to the current research, the mean age of Army recruits was 19 and the mean age of leaving full-time education was 17. Thus, the poor results may have been partly due to method effects from the negatively worded tactics items, which were worse for the Army recruit sample in the current research than for the graduate samples

more commonly used. Further support for this explanation comes from the psychometric analyses of the only two other scales used in the research with negatively worded items, namely intent to quit and careerism. For both of these, the negatively worded items showed poor internal reliability from Army recruits' responses and were therefore omitted (Chapter 5).

Situationally-false items. An alternative explanation is that recruits found the items on the fixed, serial and investiture scales more difficult to respond to at a conceptual level, due to their content rather than their format. There are two possible reasons for this. The first is that recruits may have perceived these items as obviously untrue in the setting, possibly thinking they were trick questions, and therefore recruits responded to give the "correct" response. Thus, for the investiture - divestiture tactic, the negative items gave the clearest loading and the best internal reliability, consistent with recruits' perception that Phase 1 Training involves divestiture processes. However, a bias to respond "correctly" does not explain the specific different effects between positively and negatively worded items, since the untrue items would likely show clear negative loadings.

Difficulties in interpreting items. A further reason why recruits found the items for the fixed, serial and investiture tactics more conceptually difficult to respond to might have been because these items required greater individual interpretation. This is especially true for the two social tactics, serial and investiture, where subjective judgements are required, whereas for context variables in particular, these are clearly observable. Further, for the fixed tactic, although the training stages are in themselves of fixed duration, recruits may have been uncertain of their future personal progress due to fears of failing critical tests or becoming injured, leading to delays in their training.

Additional analyses. Further examination of the standard deviations was conducted to look for possible differences. For the collective, formal and sequential items, standard deviations were between 1.17 and 1.62 (mean = 1.35). For the remaining three tactics scales which required revisions, namely fixed, serial and investiture, standard deviations were slightly higher, ranging

from 1.37 to 2.04 (mean = 1.66), but with no differences for positively and negatively worded items. The larger variation in responses to these items represents more diversity in recruits' chosen responses, possibly indicating that these items were more complex to respond to.

Summary of explanations for the poor psychometric analysis results

Overall, a combination of reasons seems most plausible in explaining why the results of the factor analysis were less clear than anticipated. Negatively and positively worded items did show different loadings and therefore method effects are likely to form part of the explanation. Analysis of the standard deviations revealed that the items underlying the three tactics scales which showed least psychometric robustness also exhibited slightly greater variance. This indicates that responses to these items were more differentiated, suggesting that these items were more complex. This may have been due to the items requiring greater subjective interpretation. It should be noted that past validation research with the tactics measures has also found poorer results than anticipated. For example Jones (1986) found a four factor solution from his data, whilst Ashforth et al. (1997) found six factors gave the best fit to the data but did not reach acceptable levels of fit according to structural equation modelling criteria.

Summary

In summary, the current results begin to address Ashforth et al.'s (1997) criticism that "survey research has used the most popular measure of socialization tactics quite uncritically" (p. 210). These results provide some construct validity for the socialisation tactics measures in a known setting, but suggest that further psychometric development is necessary. Moreover, this research confirmed that an institutionalised pattern of tactics can include divestiture, as proposed by Van Maanen and Schein (1979) as well as investiture (Jones, 1986), with the pattern of tactics employed by organisations likely dependent on both the type of newcomers entering an organisation and their roles (Ashforth et al., 1997; Feldman, 1977). The tactics used by organisations are also confirmed as having predictive validity in subsequent results discussed in this chapter.

Future Research

Based on these findings and concurring with Ashforth et al.'s (1997) recommendation, it is proposed that further developmental work on the items underlying the tactics scales is needed. It is recommended that only positively worded items are used in the rating scales (Marsh, 1996; Schuman & Presser, 1981). Where researchers are concerned about likely response sets, negatively worded items may be included to disrupt these but omitted from subsequent analyses (Marsh, 1986, 1996). Revisions of this measure should enable it to be similarly comprehensible to a range of newcomers of different ages and education levels (Marsh, 1996). Particular attention should be paid to ensuring that items measuring the social and content tactics are clear and unambiguous, since such items are more open to individual interpretation. Revisions should also heed Ashforth et al.'s (1997) suggestion that the tactics measures need to be made more differentiable, since poor factor analysis results may be due to multicollinearity between tactics (Jones, 1986).

Ashforth et al. (1997) propose that past research has tended to confirm investiture as an institutionalised tactic due to the samples used. Hence, Ashforth et al. (1997) recommend that the tactics should be assessed across "more diverse samples of newcomers and by targeting occupations and industries that - collectively - employ a variety of socialization tactics, including divestiture" (p. 212). The current research, which followed Van Maanen and Schein's (1979) proposal that divestiture is commonly associated with an institutionalised pattern of tactics, is a preliminary step toward this greater range of newcomers. The findings suggest that more research is needed in a greater diversity of research settings and samples. In addition, revised tactics measures should be construct validated by conducting research in other known settings, that is, using newcomers entering organisations where the tactics can be independently corroborated.

The Socialisation Knowledge Measure

<u>Review of the Results</u>

A second psychometric aspect of this thesis, and indeed one of its major aims, was to develop a valid measure of socialisation knowledge. This is consistent with the common view of organisational socialisation as a process of learning and adjustment (Anderson & Thomas, 1996; Fisher, 1986; Louis, 1980; Saks & Ashforth, 1997a), with a knowledge measure having the potential to yield greater insights into both the process and effects of various organisational socialisation programmes. Thus, as an original contribution to organisational socialisation research, a measure of socialisation knowledge was developed, comprising four domains of social, role, interpersonal resources and organisation knowledge.

Analyses of the twenty-one item measure of socialisation knowledge showed it to have acceptable psychometric properties. The results for data collected from Army recruits showed greater stability of the four factor structure across time than the data from ABC newcomers, although the latter results were likely due to the small sample size. The scales for all four domains showed good internal reliabilities at both the Army and ABC. Subsequent research discussed below indicates that the measure also has good discriminant validity, with newcomers showing different patterns of knowledge acquisition over time and the different knowledge domains having different predictive utility. Overall, there is strong support for the theoretical and empirical four factor structure of socialisation knowledge.

<u>Future Research</u>

Additional research using this measure in different settings is needed to further establish both its statistical properties and theoretical utility. Further item development could also be useful for the interpersonal resources domain, to ensure comprehensive sampling, since this currently has fewer items than the other three domains.

Analyses Investigating True and Error Changes

Review of the Results

Structural equation modelling (SEM) was used to investigate four variables which were measured at two or more times in research with new Army recruits. The four variables of organisational commitment, intent to quit, careerism and self-efficacy were hypothesised to show no gamma or beta change across all measurements. The sample size for self-efficacy was inadequate and therefore no analyses could be conducted on this variable. Further, intent to quit could only be tested for the three item measure whereas the research with recruits used intent to quit comprising two items due to the poor inter-item correlations shown by the third item. Unsurprisingly, the three item measure performed poorly in the analyses, showing error change. Although this confirms the decision not to include all three items in this latent variable for the Army research, it does not establish whether the two item measure was temporally stable. Thus, for both self-efficacy and intent to quit variables, although confirmatory factor analyses showed satisfactory replication of their factor structures across time, the more rigorous SEM techniques were unable to shed light on whether the scales, as used, were free of gamma and beta changes.

For the two variables which could be adequately tested, organisational commitment and careerism, the SEM analyses showed results which were in keeping with Hypothesis 15. That is, no gamma or beta change occurred in either measure; further, only organisational commitment showed alpha change. This confirmed the utility of such SEM analyses to allow researchers to establish the robustness of latent variables measured with multi-item scales.

Future Research

To date, three studies in different organisational settings (new PhD students, new bank employees and, in the current study, Army recruits) have confirmed the longitudinal robustness of Porter et al.'s (1979) organisational commitment measure (Schaubroeck & Green, 1989; Vandenberg & Self, 1993). Further research investigating the robustness of other commonly used

psychological measures, conducted across a variety of settings, would usefully establish whether such measures are suitable for longitudinal research. The confirmation of the stability of careerism over time is a first step towards this, as is the apparent changeability of a commonly used intent to quit measure (Colarelli, 1984), suggesting caution in using this measure pending additional research on its temporal stability. The latter finding gives further support to researchers' recommendations that all longitudinal research, especially that focusing on change, should investigate whether error change is present as an essential preliminary step (Thomas et al., 1998; Vandenberg & Self, 1993).

Longitudinal Patterns of Change

<u>Review of the Results</u>

In this next section, the overall patterns of change in newcomers' attitudes and knowledge are discussed. First, the results are summarised for newcomers to both the Army and ABC. Next, the main themes in the results are highlighted, namely evidence for a primacy effect, for non-linear change, and also unexpected patterns of change, which comprises the existence of negative as well as positive adjustment and also variables whose patterns of change differed from predictions. The lack of differences between the organisational socialisation of GNs and ENs at ABC is also discussed here. Last, the organisational socialisation process at the two organisations is discussed in more detail, drawing from the temporal results to assess whether essentially the same organisational socialisation process is occurring at the Army and ABC, or whether it is substantively different.

<u>Subjective Changes</u>

Newcomers to both the Army and ABC perceived themselves as having undergone considerable personal change at the last measurement taken (eight and sixteen weeks respectively), with Army recruits rating their personal change as greater than ABC newcomers (see Table 5.18). These results confirmed Hypothesis 16, with the difference between organisations confirming that organisational socialisation in the Army is a more intensive adjustment process in spite of the shorter time frame. The fact that newcomers feel that they have personally adjusted in the process of adapting to their new organisational environment further justifies research using newcomers' self-reports (see also Chapter 8).

<u>Objective Changes</u>

Looking first at the results for Army newcomers, recruits showed mostly positive attitude adjustment, with no overall change in careerism or intent to quit, although there was an initial increase in the latter over the first four weeks (Table 5.19). These results mostly confirm Hypothesis 17. For socialisation knowledge, Army recruits showed increases over time across the social, role and organisation domains, but not for the interpersonal resources

domain (Table 5.20). This mostly confirmed Hypothesis 19. Across domains, role knowledge was higher than the other knowledge domains at all measurements, followed by social knowledge, with interpersonal resources knowledge only greater than organisation knowledge at the end of the first week of training. These results partially confirm Hypothesis 20.

In contrast to this pattern of positive adjustment for Army recruits, newcomers to ABC showed negative adjustment over time for job- and organisation-related attitudes (Table 5.19). The exceptions were increases in self-efficacy, and a non-significant overall change for careerism, although this showed a significant dip reflecting an increased and then decreased level of careerism. These results were largely in line with Hypothesis 18. For socialisation knowledge, newcomers to ABC showed similar results to Army recruits, with increases in the three domains of social, role and organisation knowledge, but not the interpersonal resources knowledge domain (see Table 5.21). Again, this largely confirmed Hypothesis 19. Although there were no differences across domains at week one, newcomers reported higher levels of social knowledge relative to the other three knowledge domains at weeks eight and sixteen. This gave some confirmation to Hypothesis 20. Last, ABC newcomers and insiders' knowledge were compared for differences. Hypothesis 21 proposed that these would become more similar over time, and this was confirmed (see Table 5.22).

Patterns of Temporal Change

This next section looks at the overall patterns of change over time for both attitudinal and socialisation knowledge outcomes. The evidence for a primacy effect, non-linear change and also unexpected patterns of change are discussed in turn.

Evidence for a primacy effect

Where changes in attitude occurred, approximately half of these showed a primacy effect. Thus, there were four primacy effects across the eight attitudes which were measured three times or more. Newcomers to both organisations showed initial increases in self-efficacy, indicating rapid role performance gains. The other two primacy effects were negative, with

Army recruits showing initial increased intention of quitting and ABC newcomers showing decreased job satisfaction.

For the eight places where primacy effects could occur for socialisation knowledge at the two organisations, these were only apparent in two, both at ABC (role and organisation knowledge). The lack of a primacy effect for Army recruits' socialisation knowledge acquisition is intriguing, with the three knowledge domains that showed increases generally changing across all measurements. Recruits may not have shown a primacy effect because Phase 1 Training focuses strongly on continual learning. This is encouraging news for the British Army, with no sign of reduced learning up to the eight weeks measured. Further, because only the first eight weeks were measured, the design of the research may have restricted the opportunity to find a primacy effect. Thus, there may have been less change after 8 weeks, as at ABC, as Phase 1 Training drew to a close and Phase 2 Training took its place. Both of these explanations seem likely, and therefore the combination of these is posited as explaining the lack of a primacy effect for Army recruits' knowledge acquisition.

Overall, there is fairly strong evidence for newcomers showing early adjustment during organisational socialisation, with this occurring in the first eight weeks for the attitudes and learning of newcomers to a professional services firm, ABC, and over even shorter periods of four weeks for the attitudes of newcomers entering the British Army. These results agree with previous research showing that newcomers adjust rapidly during the early part of organisational socialisation (Ashforth & Saks, 1995; Bauer & Green, 1994; Morrison, 1993a).

Non-linear change

Based on past research (Datel & Lifrak, 1969), an inverted U shape pattern of adjustment was proposed for Army recruits' intent to quit. Approximately this pattern was found, but only the initial increase in intent to quit was significant, with no significant overall change (see Table 5.19). A longer measurement interval might have shown the subsequent decrease to continue, and hence yielded a significant result. Nevertheless, such a

negative dip was found for ABC newcomers' careerism, which showed both a significant negative adjustment over the initial eight weeks followed by a re-adjustment to entry levels over the next eight week period, such that the overall adjustment was non-significant.

These results suggest that an inverted U shape may be present for some attitudes: over the course of organisational socialisation, newcomers may show an initial worsening in their attitudes reflecting negative perceptions of their new environment followed by an improvement. This is particularly significant given that most previous models of organisational socialisation have presumed a gradual, uni-directional, cumulative change process (Bauer & Green, 1994; Feldman, 1976). Datel and Lifrak (1969), in discussing their results, do not explain the U-turn to improvements in later periods. These are likely to be due to adjustment to the new environment and reduced uncertainty and/ or anxiety. The factors facilitating this later positive re-adjustment are important, since knowing what processes are involved will enable organisations and newcomers to try and achieve these earlier.

Unexpected Patterns of Change

The results of the current research differed from predictions in two ways. First, there was negative adjustment in some attitudinal variables whereas positive outcomes are normally assumed. Second, the temporal adjustment of certain variables was other than expected. These two different aspects of the results are discussed in turn.

Positive versus negative adjustment

Researchers have commonly assumed that the socialisation process is one of cumulative change reflecting positive adjustment (Feldman, 1976; Wanous, 1992). However, the current research tells a different story. First, it was confirmed that organisational socialisation can indeed be characterised as positive in terms of increases in newcomers' self-efficacy and socialisation knowledge. However, looking at the remaining four attitude variables gives a more detailed reflection of newcomers' reactions during this learning process. Although new recruits going through Phase 1 Training showed

fairly positive outcomes over the eight weeks, their intentions of quitting increased over the first four weeks, although the overall change across Training was non-significant. The overall adjustment process was less positive for ABC newcomers, who showed decreases in job satisfaction and organisational commitment, and increases in their intent to quit and in careerism over the initial eight weeks, although the latter re-adjusted to entry levels by sixteen weeks.

In summary, the results show that negative adjustment in attitudes is a possible outcome of organisational socialisation as well as positive adjustment. This suggests that stage models proposing the gradual assumption of positive attitudes may not accurately represent organisational socialisation across organisations. Moreover, with organisational socialisation conceived of as essentially a learning process, these results confirm the utility of a knowledge acquisition approach since newcomers' knowledge in the various domains still showed increases in spite of less positive newcomer attitude change.

<u>Unexpected patterns of temporal change in variables</u>

Two variables showed patterns of change that were other than expected, namely careerism and the interpersonal resources knowledge domain. Taking careerism first, this was expected to remain relatively stable over time, which was confirmed for Army recruits, yet ABC newcomers' reported an increase and subsequent decrease in careerism, with both these significant but no overall significant change. This is in line with previous research showing a negative dip during organisational socialisation, although this has usually been found in more intensive socialisation settings (Datel & Lifrak, 1969). It is also interesting to note that job satisfaction also only declined over the initial eight weeks, with these two findings perhaps suggesting that this initial period of adjustment is the most difficult. However, newcomers' intentions of leaving ABC increased across both periods and organisational commitment showed decreases over the second eight weeks. This could reflect continued effects from earlier adjustment, or experiences within this later period itself. For both explanations, the results

seem to indicate that there are substantive differences over the organisational socialisation period, with different attitudes adjusting at different rates over time, further suggesting that the process is not one of gradual, cumulative change but rather that adjustment occurs in a more differentiated manner.

Turning to interpersonal resources knowledge, this was the only domain which showed no change over time according to newcomers' self-reports at both organisations. Looking at possible reasons for this at each organisation in turn, Army recruits have access to a formal system of interpersonal resources for help, including their training officer, the padre, and the voluntary support service. Discussions with recruits in training, both in groups and individually, revealed that talking about problems with staff not directly involved in training could cause considerable negative stigma for the recruit seeking such support. Thus, it seems that although there were formal resources in place, these were not perceived as employable by Army recruits and hence there was no change in the interpersonal resources knowledge domain.

At ABC, comments revealed that newcomers felt uncertain about particular organisational procedures and that they lacked people to turn to for help. Thus, one newcomer reported frustration at having to ask similar-level or senior peers for help even with trivial matters. A number of reasons were likely to underlie this difficulty in establishing such contacts, including the size and fluidity of the organisation, making it difficult to know who was currently responsible for the information required. It was also perceived to be relatively difficult to make useful contacts prior to being assigned to a project team. Last, in a professional environment, newcomers may perceive that the risks associated with asking for information are large, and therefore prefer to make do without if possible (Ashford & Northcraft, 1992).

Notwithstanding these comments, there were no significant differences between newcomers and insiders' levels of interpersonal resources knowledge for comparisons at all three measurements at ABC, suggesting that it is difficult to develop interpersonal resources for all employees. Measurement of the knowledge domains with experienced soldiers could

usefully reveal whether this is also the case in the Army. It may be a generalisable finding that interpersonal resources knowledge takes longest to establish since seeking help relies on trust and could potentially backfire on the newcomer (Ashford & Northcraft, 1992; Feldman, 1976).

Summary

There was fairly strong evidence supporting a primacy effect, with this found for newcomers' adjustment in attitudes at both organisations and knowledge acquisition at ABC only. With regard to non-linear patterns of change, this was only significant for ABC newcomers' careerism in the current research although the results suggested that both more proximal measurements and longer measurement periods overall might uncover such patterns of change in other variables. Last, the results for the attitude variables showed that organisational socialisation can result in negative adjustment, with this particularly evident at ABC. Moreover, two variables showed unexpected patterns of change: although stable for Army recruits, careerism increased amongst ABC newcomers. In addition, at both organisations, the expected increases in interpersonal resources knowledge were not present.

Comparison of Graduate vs. Experienced Newcomers at ABC

There were few differences between GNs and ENs at ABC. For attitude variables, the only difference was that ENs had higher self-efficacy at time 1. Conversely, GNs had higher levels of knowledge in three domains at time 1 only, namely of social, role and organisation knowledge. Thus, at entry, ENs perceive that they are more able to perform their role whereas GNs generally perceive themselves to be more knowledgeable about their new environment.

It is interesting that the only differences between GNs and ENs are at the first measurement. There are two possible reasons for this initial difference, based on the individuals and on the organisation respectively. Taking the individual explanation first, the differences may be due to the greater work experience of ENs. However, if this were the case it might be expected that ENs would feel more confident than GNs about their

knowledge as well as their role performance, although this is not in fact the case. These lower levels of knowledge may be because ENs' past experiences provided a benchmark which made their lack of knowledge at ABC more salient, resulting in lower ratings.

Turning to the organisational explanation, the structured nature of socialisation over the first six weeks for GNs could also explain their greater knowledge during the first week. This would also explain the lower relative level of self-efficacy: since they are being explicitly treated as novices, they would not expect to feel confident about role performance at this stage. This second explanation is also more in line with the lack of differences between GNs and ENs at subsequent measurements, since these are at eight and sixteen weeks which comes after GNs had completed collective training and, like ENs, were either on a project or waiting assignment. The fact that there were few apparent differences between GNs and ENs seems to indicate that it is the experience of the organisational socialisation process itself and/ or features of the new environment which frame newcomer adjustment (Ashford & Black, 1996) that are more powerful than individual differences in previous work experience, according with the views of earlier researchers during the "people processing era" (Anderson & Thomas, 1996; Van Maanen & Schein, 1979).

Alternative Explanations for the Patterns of Organisational Socialisation

One aim of this research was to give greater insight into the process of organisational socialisation over time. Recognising that it is a period of dynamic adjustment, the research design was longitudinal with newcomers' attitudes and, in particular, their knowledge acquisition proposed to reflect the learning and adjustment which are key to the organisational socialisation process (Saks & Ashforth, 1997a). However, the process appears to differ between the Army and ABC: newcomers to both organisations showed fairly steady knowledge acquisition, but newcomers to the Army showed largely positive changes in attitudes whereas newcomers to ABC showed mostly negative attitude changes. There are a number of possible explanations for the differences in the two sets of findings, of which two seem particularly

possible, that either the different findings reflect different rates of an equivalent organisational socialisation process, or that the process is substantively different between organisations. These are discussed next.

Evidence for the Equivalence of Organisational Socialisation

Taking the first explanation, that the findings represent different rates of a similar organisational socialisation process, this requires one to believe that organisational socialisation follows an inverted U shape, with an initial downturn in newcomers' attitudes followed by a subsequent return and increase over entry levels. Thus, the socialisation process for Army newcomers was so rapid that, in general, only the upward positive adjustment was evident whilst for the slower process measured at ABC, only the initial negative adjustment was measured. The evidence is reviewed first with regard to the rate of organisational socialisation and then for the underlying process.

Evidence for differences in the rate of adjustment

Looking at the measurement in more detail, change at both organisations was measured from soon after entry onwards, but Army newcomers were followed up over eight weeks whereas ABC newcomers were investigated over seventeen weeks. The question, then, is how far through the socialisation process were newcomers at these two organisations by the end of the research measurement period. Different researchers have divergent views on the exact time frame within which socialisation occurs, i.e. the time required for newcomers to become insiders, with estimates ranging from three months (Wanous, 1976), four months (Ashforth & Saks, 1995), through to nine (Bauer & Green, 1994) and ten months (Saks & Ashforth, 1997b), and more vaguely six to twelve months (Marshall & Cooper, 1976).

Although the endpoint of organisational socialisation is not known, the rate of organisational socialisation is relevant in determining how rapidly it is approached. Turning to the speed of the socialisation process in the current research, the Army believes that the majority of socialisation is achieved over the ten weeks of Phase 1 Training, reflecting a rapid adjustment process. Following this, recruits will likely experience further learning and adjustment

relating to their specific job and regiment, with most of this achieved through Phase 2 Training and initial postings. The intensity of the training experience is revealed by the continued learning across the three knowledge dimensions up to eight weeks, and that recruits experienced fairly high personal change, with this being significantly greater than that of ABC newcomers. Further confirmation comes from recruits' comments on questionnaires about how hard Training was.

At ABC, insiders' knowledge was measured to explore the relationship of this with newcomers' knowledge acquisition, and hence give some initial insights into the pace of learning, relative to the norm, during organisational socialisation. The results show that, by four months, insiders only had greater levels of role knowledge. Thus, the majority of newcomer learning in the other three domains, or as much as is possible to reach insider levels, seems to have occurred by this point. Qualitative data is also pertinent to the rate of organisational socialisation at ABC. Discussions with Human Resources staff and comments from ENs revealed a much slower process of moving from newcomer to insider than for Army newcomers. Human Resources staff's general consensus was that it takes a year or longer to fully adjust. In line with this, one EN commented on the time 3 questionnaire "I originally expected it to take 4 to 6 months to really integrate into ABC, I now expect that it will take 18-24 months".

Thus, looking at the results in relation to this proposition in more detail, it seems that the rate of socialisation differs across these two organisations, with newcomers to the Army experiencing a rapid organisational socialisation process whereas this progresses at a slower pace for ABC newcomers.

Evidence for similarities in the process

The question remains, then, of whether the same process underlies organisational socialisation at the Army and ABC. That is, that organisational socialisation shows an inverted U shape such that there is early negative adjustment followed by an improvement over initial levels. Reviewing the evidence for this first from the results for attitude variables, there is some

weak evidence for an inverted U shape for Army recruits' intent to quit and ABC newcomers' careerism. For Army recruits, there is no evidence of initial negative adjustment preceding week 4 measurements for job satisfaction or careerism. However, since Datel and Lifrak (1969) found a negative dip in distress that peaked during week 2 or 3 of initial military training, it is possible that a negative adjustment phase occurred but was unmeasured in the interim between the first and second attitude measurement of entry and week four.

For ABC newcomers' longer socialisation process, there is evidence for positive re-adjustment in ABC newcomers' attitudes for careerism only, which showed a U-shaped adjustment. Again, this may be a limitation of the measurement used, since more positive re-adjustment for other variables might be found over a longer time period. Overall, with regard to attitude variables, there is some weak evidence for an inverted U-shape at both organisations but the hypothesis principally depends on assuming that there were approximately equivalent changes in organisation-related attitudes which were not captured due to the measurement intervals chosen.

Looking next at the patterns of knowledge acquisition, although there were similarities across time, there were fewer across domains. In terms of longitudinal changes, newcomers to both the Army and ABC showed increases in the same three domains of social, role and organisation knowledge, whilst interpersonal resources knowledge showed no changes. This suggests similarities in the organisational socialisation process at the two organisations.

In spite of these similarities in longitudinal changes within knowledge domains, there were differences across domains. Thus, role knowledge was greater for Army recruits from the end of week one onwards whereas social knowledge was greatest for ABC newcomers at weeks eight and sixteen. This could be explained by an extremely rapid acquisition of social knowledge for Army recruits across the first week with role knowledge subsequently overtaking this, although this seems an unlikely explanation. Thus, the

differences in patterns of knowledge acquisition again suggest differences in the socialisation experienced by newcomers to the two organisations.

Summary

Overall, it seems likely that the socialisation process is unfolding at different rates. There is the possibility that a similar pattern is occurring with regards to newcomers' adjustment in their work-related attitudes, although further measurement is required to substantiate what is currently a supposition. With regard to knowledge acquisition, there is evidence of similar patterns of learning over time although this differs across domains, confirming that there are some fundamental differences in newcomers' socialisation across these two organisations. Thus, the proposition of process similarity rests until further research is conducted. In the meantime, the current evidence suggests that organisational socialisation is substantively different across these two organisations.

Future Research

Further research is needed to investigate how similar the process and rate of organisational socialisation is in other settings. Recommendations for future research are made particularly in respect of research design issues. Using closely-spaced, proximal measurements, with a minimum of three measurements overall would benefit research by showing more precisely the patterns of change. In addition, a longer overall measurement period (depending on the intensity of the socialisation process) would reveal where patterns of adjustment stabilise (Saks & Ashforth, 1997a).

The Effects of Organisational Socialisation Tactics on Outcomes

Review of the Results

In line with Hypothesis 3, it was confirmed that an institutionalised pattern of organisational socialisation tactics (collective, formal, sequential, fixed, serial and investiture) positively predicted job satisfaction, organisational commitment, self-efficacy and personal change. However, these were not significantly related to intent to quit. Thus, institutionalised socialisation tactics appear to generally bring about positive outcomes but be unrelated to leaving intentions.

More conservative analyses investigating the effects of institutionalised tactics on adjustment in outcomes showed that these only predicted a change in job satisfaction. Hence the significant results for socialisation tactics in predicting organisational commitment and self-efficacy were rendered non-significant when the initial levels of these were controlled for. Thus, there was little support for this part of Hypothesis 3.

Turning to Hypothesis 4, there was some evidence for stronger effects for social, content, and context tactics in that order. Both social and content tactics were significant in predicting positive outcomes, although overall these results were quite weak.

Institutionalised organisational socialisation tactics' prediction of outcomes

The confirmation that institutionalised tactics predict positive outcomes is consistent with previous research (Jones, 1986; Laker & Steffy, 1995; Saks, 1996; Saks & Ashforth, 1997b). In this research, higher personal change was treated as a positive outcome since this was in line with recruits' questionnaire comments on their experiences of personal change. Turning to the null result, although much past research has shown socialisation tactics to predict newcomers' intent to quit (Ashforth & Saks, 1996; Laker & Steffy, 1995; Mignerey, Rubin, & Gorden, 1995; Saks & Ashforth, 1997b), research by Chao, Kozlowski, et al. (1994) showed similar findings to those here. They used a combination of socialisation tactics, role ambiguity and role conflict, and found this variable to be positively related to job satisfaction and organisational commitment at six months but unrelated to turnover

intentions. Thus, it may be that the security offered by a more structured programme of learning (Ashforth et al., 1997) is associated with positive attitudes towards the job or role and the organisation, but does not change the more behaviourally focused variable of intending to leave.

It is also interesting that, compared with past research, the results of the socialisation tactics in predicting work adjustment over a shorter time frame were fairly similar to previous research using a longer time frame (Ashforth et al., 1997; Saks & Ashforth, 1997b). The fact that significant results were found over such a short time period is likely to reflect both the intensity of Phase 1 Training and also a primacy effect. This is consistent with the only two previous studies investigating the impact of socialisation tactics longitudinally, with both showing greater effects at the earlier measurement (Chao, Kozlowski et al., 1994; Saks & Ashforth, 1996). Moreover, there is little risk of common method variance and/ or priming effects affecting the current results because socialisation tactics and outcomes were measured at different periods (Saks & Ashforth, 1997a).

Institutionalised organisational socialisation tactics' prediction of changes in outcomes

That job satisfaction was the only variable for which socialisation tactics predicted the change over this eight week period is largely due to the fact that time 1 and time 5 job satisfaction are more weakly related than the first and last measurements of the other three variables (organisational commitment, self-efficacy and intent to quit) (see Table 6.2). This analysis is in line with the recommendations of recent reviewers to examine data more conservatively, in this case providing a more stringent test of the influence of socialisation tactics in effecting changes in outcomes (Bauer et al., 1998; Saks & Ashforth, 1997a). Thus, although this conservative analysis strategy purposely restricted the amount of variance available to be predicted by other factors such as organisational socialisation tactics, this had different effects for job satisfaction from the other three variables. The results appear to show that job satisfaction is a more labile variable, varying more widely from its initial level than other variables. This may be an inherent quality of job

satisfaction and/ or due to tactics having a greater influence on this than on other attitudes.

The relative influence of social, content and context tactics

With regard to the relative effects of the organisational socialisation tactics, the positive effects of knowing the sequence and duration of socialisation stages (sequential and fixed tactics respectively) were related to greater overall job satisfaction and increased job satisfaction. It seems plausible that this effect may have been due to certainty about the organisational socialisation process leading to a reduction in anxiety, and hence greater satisfaction with the job (Ashforth et al., 1997; Saks & Ashforth, 1997a). Investiture was associated with organisational commitment at the end of training, such that recruits who perceived that the Army valued their skills, abilities and identities were, in turn, more committed to the Army. The other social tactic, serial, was associated with higher personal change at the end of Phase 1 Training. Again, this result is clearly interpretable since those recruits who felt that role models were available and interested in helping them to become socialised experienced more personal change through emulating such role models.

Summary

In summary, the results show that organisational socialisation tactics predict *outcomes* of job satisfaction, organisational commitment, self-efficacy and personal change, but only predict *adjustments* in job satisfaction, and do not significantly predict intent to quit. The conservative analysis strategy results show that organisational socialisation tactics are non-significant in predicting changes in outcomes of organisational commitment and self-efficacy, suggesting that it is attributed too great a role when these earlier levels are not accounted for. Moreover in an institutionalised socialisation process involving divestiture, social and content variables had less effect than in previous research with graduate samples where investiture processes were used.

Future Research

The confirmation of the predictive validity of organisational socialisation tactics, even with revision to ensure their comprehensibility and internal homogeneity, again confirms their utility in socialisation research. However, the current results suggest that the role of organisational tactics in newcomer adjustment may have been inflated in past research where other factors are not taken account of, such as earlier levels of outcome variables. Given this, it seems even more imperative that further psychometric validation of these tactics is conducted which, in turn, may show stronger effects of the tactics in predicting attitudes and, importantly, their adjustment (Ashforth et al., 1997).

In addition to improving the tactics measures themselves, further research is needed to investigate how they have their effects. Over the last decade, much socialisation research has been longitudinal (Bauer & Green, 1997; Bauer et al., 1998), allowing a greater understanding of what is occurring during socialisation, and particularly that the content of learning is as important as the process used. For example, research on the socialisation of expatriate managers has found that institutionalised tactics lead them to be more innovative, rather than the usual custodial responses that such tactics bring about (Black, 1992). From this, it seems likely that, rather than themselves bringing about positive outcomes, institutionalised socialisation tactics function by delivering unambiguous messages (Mignerey et al., 1995; Saks & Ashforth, 1997a). Direct investigations of how socialisation tactics have an influence, in terms of the content and delivery of socialisation messages, may enable more generalisable theories to be developed. It should be noted that this will also require further research in known organisational settings such that data on the content of socialisation messages, such as whether or not newcomers are encouraged to role innovate, can also be collected.

Related to this, the consistent confirmation of the influence of organisational socialisation tactics on outcomes may be due, to some extent, to past research having primarily investigated samples of newcomers lacking

organisational experience. Moreover, it seems at odds with the consistent research finding that informal socialisation experiences are more useful (Chatman, 1991; Louis et al., 1983; Nelson & Quick, 1991). Related to this, research has consistently shown the interpersonal aspects of organisational socialisation to be the most influential, including Jones' own research (1986; for other research see Comer, 1991; Louis, Posner & Powell, 1983; Ostroff & Kozlowski, 1992; Van Maanen & Schein, 1979; for a review see Anderson & Thomas, 1996). Much of the organisational socialisation process is therefore likely to be outside of direct organisational efforts, and instead through information from other new employees and more experienced organisational members. Moreover, in some cases, only such informal socialisation practices may be acceptable: comments from ENs at ABC suggest that they would react negatively to a prolonged formal programme. Thus, the positive effects of institutionalised tactics need to be investigated for other samples, and relative to individualised tactics, with this also having practical implications for organisations.

The Effect of Socialisation Knowledge on Outcomes

Review of the Results

A single hypothesis was proposed for the relationship of socialisation knowledge with outcomes, with this investigated for both Army and ABC newcomers. Hypothesis 5 proposed that higher levels of knowledge would be directly related to more positive socialisation outcomes, with increases in socialisation knowledge related to positive adjustment in outcomes. The four outcomes investigated were job satisfaction, organisational commitment, self-efficacy and intent to quit. Overall, there was strong support for Hypothesis 5, with the results showing the positive effects of acquiring socialisation knowledge on facilitating newcomers' adjustment at both organisations (see Tables 6.3 - 6.6).

There was, however, one anomalous result which is discussed here briefly. Hypothesis 5 proposed that socialisation learning would result in positive adjustment, i.e. a decreased intention of quitting. Nonetheless, for Army recruits, role knowledge negatively predicted intent to quit whereas organisation knowledge unexpectedly positively predicted this. Thus, although recruits' learning about their specific role resulted in positive adjustment, learning about the Army itself had negative effects. This fits with the fairly high level of turnover (between 10 - 12 % annually) from Phase 1 Training which the Army are constantly trying to reduce. This suggests that the recruitment and selection process might benefit from greater realism about the Army itself, as well as the soldier role, in order to help potential recruits to develop realistic expectations and have the opportunity to self-select out (Wanous, 1977; Wanous, Poland, Premack, & Davis, 1992).

Summary

There was strong confirmation of Hypothesis 5 at both organisations, with newcomers' knowledge acquisition and increased knowledge predicting both positive outcomes and adjustment towards more positive outcomes in nearly all analyses. These results also confirmed the predictive validity of the socialisation knowledge measure overall and also the discriminant validity of the four domains since, for newcomers to both the Army and ABC, all four

knowledge domains were significant across some of the regression equations. Looking at the results in more detail, social knowledge acquired by Army recruits was significant in predicting outcomes more frequently than the other knowledge domains whilst for ABC newcomers, interpersonal resources knowledge was the most frequent predictor of outcomes. This further confirms the importance of co-workers in the socialisation process, and gives additional validation to the interpersonal resources knowledge domain (Feldman, 1976; Kramer, 1993; Louis et al., 1983; Major et al., 1995).

The results are also in line with the above proposition that the organisational socialisation process is substantively different at these two organisations, since the results show knowledge domains have different predictive utility for outcomes across the Army and ABC. There is some overlap, for example interpersonal resources knowledge predicts job satisfaction for both analyses (direct and adjusted relationships) at the Army and ABC. Yet for other outcomes there is no overlap in the predictive knowledge domains at the Army and ABC. For example, Army recruits' self-efficacy is predicted by social and interpersonal resources knowledge whereas ABC newcomers' self-efficacy is predicted by role knowledge.

Previous research on newcomers' socialisation knowledge

It is also interesting to compare these results with past investigations of the predictive utility of knowledge content measures. As previously discussed, two knowledge content measures have been developed previously and used to predict attitude measures (Chao, Kozlowski et al., 1994 using the measure developed by Chao, O'Leary-Kelly et al., 1994 and Ostroff & Kozlowski, 1992). The commonalities and differences between these studies are discussed further below, first outlining the results of each, and then discussing these in relation to the results of the current research.

Different knowledge domains

First, summarising the results for each study with regard to the most influential knowledge domains, Ostroff and Kozlowski (1992) found role and group knowledge to show the strongest correlations with outcomes, with changes in task knowledge a significant predictor of changes in some

outcomes. It is possible that only task knowledge was a significant predictor due to overlap with role knowledge, which were the only two domains to increase over time. Chao, Kozlowski et al. (1994) consistently found three of six knowledge domains to be significantly correlated with traditional socialisation outcomes, namely people, goals and values, and history. Knowledge significantly predicted outcomes but the specific knowledge domains are not identified, although multicollinearity makes it unlikely that all of these knowledge domains were significant in the regression analyses. Interestingly, in the current research, no domains showed complete domination across outcomes and organisations. Social knowledge was a consistently strong predictor of outcomes for Army recruits and interpersonal resources knowledge was the most common predictive domain for ABC newcomers, yet at each organisation, the other domains were significant in predicting at least one outcome.

Looking at the different domains in more detail, there is a degree of overlap between these different knowledge domains across studies. Hence, it would be expected that, if parallel organisational socialisation processes were occurring across organisations, the findings would show that similar domains were predicting newcomer adjustment. Looking first at knowledge relating to insiders, the current research includes interpersonal resources and social domains, Ostroff and Kozlowski (1992) use a group domain, and Chao, O'Leary-Kelly et al.'s (1994) scale contains a people domain. As a second area of overlap, all three knowledge measures contain domains relating to the newcomer's role, with this being one of the four domains in the current research, task and role knowledge are included in Ostroff and Kozlowski's measure, and Chao, O'Leary-Kelly et al.'s measure includes a performance domain. A third area of overlap relates to general organisational knowledge, with both the current research and Ostroff and Kozlowski including an organisation domain, whilst Chao, O'Leary-Kelly et al.'s scale includes two relevant dimensions of organisational goals and values, and organisational history.

Similarity across knowledge domains is discussed for the three studies. For Chao, Kozlowski et al.'s (1994) and Ostroff and Kozlowski's (1992) research, the correlational results will be discussed. Regressions were used in the current research to resolve issues of shared variance, representing a more conservative analysis than correlation, and hence the resultant beta weights are used as indications of relationships. The results for these three areas of overlap are shown in Table 7.1, focusing only on the three traditional indicators of socialisation, namely job satisfaction, organisational commitment and intent to quit.

Table 7.1. Comparison of the Relationships Between Knowledge Domains and Outcomes in Four Different Studies.

	Army	ABC	Ostroff & Kozlowski	Chao, Kozlowski et al.
Job satisfaction	S IR	IR	R G	P GV H
Organisational commitment	S R	S IR O	R G	P PP GV H
Intent to quit	R O	IR	--	P GV H

Note. S = social, IR = interpersonal resources, R = role, G = group, O = organisation, P = people, PP = performance proficiency, GV = goals and values, H = history.

Looking at the domains relating to the development of relationships with co-workers and other insiders, the various domains across the studies reflecting this knowledge area were all associated with job satisfaction and organisational commitment. Thus, relationships with insiders seem to be key to newcomers' being satisfied with their jobs and, at a broader level, feeling committed to their organisation. Insider-related domains were also significant in predicting intent to quit for ABC newcomers and for newcomers in Chao, Kozlowski et al.'s (1994) research. Overall, knowledge reflecting relationships with insiders appears to be highly important.

Taking role knowledge next, this domain or its equivalent was significant in predicting organisational commitment for Army newcomers but

not ABC newcomers, and for the newcomers in the research of both Ostroff and Kozlowski (1992) and Chao, Kozlowski et al. (1994). This suggests that newcomers with greater knowledge of how to conduct their role tend to be more committed to their organisation. However, differences are also apparent: role knowledge is associated with intent to quit for Army newcomers only and with job satisfaction in only Ostroff and Kozlowski's research. Thus, although there is some similarity in the associations between outcomes and the role knowledge domain, there are also differences.

The third area of overlap is organisation knowledge. This showed less similarity across studies, with Chao, Kozlowski et al. (1994) finding organisation-related knowledge domains to be associated with all three traditional outcomes yet Ostroff and Kozlowski (1992) found no significant associations for this with these three outcomes. In the current research, organisation knowledge was significantly associated with Army newcomers' intent to quit and with ABC newcomers' organisational commitment. Overall, there is a lack of overlap across the studies in the associations of organisation-related knowledge with outcomes.

Summary of research using different measures of newcomers' knowledge

The results for the different knowledge measures indicate some overlap, which is to be expected given that the measures were developed from the same base of organisational socialisation research. The most obvious similarities are that knowledge relating to relationships with insiders is related to both job satisfaction and organisational commitment, and role knowledge is consistently related to organisational commitment. Overall, the similarities across studies lend further confirmation to the importance of knowledge acquisition through its relationship with positive attitudes, and suggest means by which organisations might want to tailor newcomers' learning to facilitate certain outcomes. However, there are also differences across the studies, with the next section examining possible reasons for these differences in more depth.

Explanations of research differences

As briefly outlined above, the research designs of the three studies were all different. Thus, although there is similarity in the samples of more educated newcomers investigated at ABC and in both Ostroff and Kozlowski (1992) and Chao, Kozlowski et al.'s (1994) research, both the time frames and the knowledge measures differ slightly.

With regard to the measurement intervals, these range from entry to eight weeks (Army) through to four and eight months (Ostroff & Kozlowski, 1992). However, given the usual cumulative change found in outcomes, it would be expected that the same relationships would be found between knowledge domains and outcomes, with the strength of these differing according to the duration of the research. Thus, variations in the measurement periods do not shed light on the reasons for different knowledge domains being significant across the three studies.

A second explanation is that the various measures of socialisation knowledge used resulted in the differences. The analysis above shows that in some cases similar domains predict the same outcomes. However, different patterns were also found. Moreover, the results of both studies here showed all knowledge domains to have predictive power in the various regression analyses at the two organisations whereas this was not the case for either Ostroff and Kozlowski's (1992) or Chao, O'Leary-Kelly et al.'s (1994) measures. This shows that the four domains comprising the socialisation knowledge measure developed here all have relevance for newcomers' adjustment, suggesting that this may be a more comprehensive measure than those developed previously. This provides a plausible explanation for the different significance of the various knowledge domains across the different research results.

A further possible explanation is that there were substantive differences across organisations which resulted in distinct patterns of organisational socialisation and, as a reflection of this, variations in the relationships between knowledge domains and attitudes. This accounts for Ostroff and Kozlowski's (1992) finding that knowledge associated with the

specifics of carrying out the role (i.e., task knowledge) was the strongest predictor of outcomes whereas research by Chao, Kozlowski et al. (1994), using Chao, O'Leary-Kelly et al.'s (1994) measure, found organisational-level factors predictive of outcomes and also people, a socially-oriented domain. In contrast, the results of the present research found social (Army) and interpersonal resources knowledge (ABC) as the strongest predictors of outcomes. The likelihood of distinct patterns of socialisation which differ across organisations has been raised above, with the results in this section lending further support to this.

Summary

Three explanations were proposed for the different relationships between knowledge acquisition and outcomes in the current studies and those of Ostroff and Kozlowski (1992) and Chao, Kozlowski et al. (1994). These were that the variations were due to differences in the research design's measurement and subsequent comparisons of these, the domain measures used, or substantive differences in the organisational socialisation process. The last two of these provide viable explanations for the different patterns of results, since the knowledge measure in the current research showed all four domains to be related to outcomes in contrast to only some of the domains for the previous two studies and, overall, some different patterns of relationships with outcomes were found for similar knowledge domains suggesting substantively different processes.

Future Research

These results underline the need for further research to investigate organisational socialisation through a knowledge acquisition approach, and examine how newcomer learning predicts attitudinal outcomes. There are three particular avenues which future research could fruitfully explore. First, since there were similarities across the Army and ABC in terms of newcomers' acquisition of knowledge over time, it would be useful to investigate the extent to which these findings are generalisable to other organisational socialisation settings. Such studies would also provide further psychometric data on the measure of socialisation knowledge developed here.

To this end, several studies with this measure are being planned or currently conducted by the author as well as other researchers in the UK and abroad.

Second, related to the issue of psychometric validation, it would be useful to compare this new measure of knowledge acquisition with research using the two previous measures of newcomers' knowledge (Ostroff & Kozlowski, 1992; Chao, Kozlowski et al., 1994; Chao, O'Leary-Kelly et al., 1994). As well as future research on this using all three measures, retrospective investigation of past data using the same analysis strategies might yield useful insights.

Third and last, further research is needed on the relationship between knowledge and attitudes to investigate, for example, whether the relationships of learning in certain domains and outcomes is generalisable across a variety of settings. Related to this, integrated research is needed linking the antecedents with the consequences of newcomer learning, looking at moderators of this process as well as the role of knowledge as a mediator (Chao, Kozlowski et al., 1994; Morrison, 1993a, b; Saks & Ashforth, 1997a, b).

The Mediating Effect of Knowledge Acquisition on the Relationship Between Socialisation Tactics and Outcomes

Review of the Results

Both organisational socialisation tactics and newcomers' acquisition of knowledge focus on newcomer learning, but the former investigates this through the way the organisation structures this learning while the latter explicitly investigates newcomers' self-reports of their learning. Hence more complex analyses were conducted to explore the relationship between the organisation and the newcomer's roles in the learning process for their prediction of newcomer adjustment. Specifically, Hypothesis 6 proposed that knowledge acquisition would mediate the relationship between organisational socialisation tactics and traditional socialisation outcomes, and also the adjustment of outcomes, the latter providing a more stringent test of causality.

The number of analyses that could be conducted was limited due to the lack of significant relationships between socialisation tactics and some outcomes, precluding any mediation effects. Looking at the analyses where the mediating effects of knowledge acquisition could be investigated, this was confirmed for all four analyses, giving strong support to Hypothesis 6. Importantly, the results showed that the reverse was not true in that the socialisation tactics had no mediating effects for these outcomes. Thus, knowledge acquisition was found to mediate the relationship of socialisation tactics with job satisfaction, organisational commitment and self-efficacy, and for newcomers' adjustment of job satisfaction.

Comparison with Past Research

Similar mediation analyses are fairly rare in organisational socialisation research, although recent results illustrating their utility are likely to increase their usage (Chao, Kozlowski et al., 1994; Saks & Ashforth, 1997a, 1997b). Chao, Kozlowski et al. (1994) conducted somewhat similar mediation analyses to those here, although they used slightly different measures of the tactics and knowledge constructs. For organisational socialisation tactics, Chao, Kozlowski et al. combined this with role outcome measures as the overall

tactics measure, whilst for knowledge acquisition they used Chao, O'Leary-Kelly et al.'s (1994) measure. As in the present research, socialisation tactics were not associated with intent to quit and therefore mediation effects could not be investigated. Knowledge acquisition was confirmed as mediating the relationship of their combined socialisation tactics with both job satisfaction and organisational commitment. The current results confirm Chao, Kozlowski et al.'s (1994) results but extend them by using the organisational socialisation tactics measure alone. Moreover, this research shows the mediation effect of socialisation knowledge on outcomes measured at only eight weeks, although it is likely that, given the intensity of Phase 1 Training, this is equivalent to a longer time frame in other socialisation settings.

Summary

The current results give further support to the construct validity of the socialisation knowledge measures. Related to this, they also prove the utility of newcomer learning as a primary measure of organisational socialisation by confirming the ability of knowledge acquisition to predict secondary outcome measures of socialisation when other predictors are also included (Chao, O'Leary-Kelly et al., 1994; Chao, Kozlowski, et al., 1994). More specifically, these results address Chao, Kozlowski et al.'s proposal that "the utility of characterizing effective socialization as learning content hinges on the efficacy of learning of knowledge to provide an explanatory mechanism linking tactics ...to more traditional, theoretically relevant outcomes" (p. 11). The confirmatory results for Hypothesis 6 show socialisation knowledge as the more important predictor of outcomes than socialisation tactics where their relative effects could be tested, and confirm that organisational socialisation tactics facilitate positive attitudinal outcomes by providing the context for newcomer learning.

Future Research

Notwithstanding the stronger impact of knowledge acquisition than organisational socialisation tactics, the former is related to the latter. In the current research, an institutionalised pattern of tactics was found to be positively related to knowledge in the four domains, particularly the role and

organisation domains which are, arguably, more legitimately under the organisation's influence than the two domains relating to relationships with insiders (Chao, O'Leary-Kelly et al., 1994). If the argument is accepted that successful organisational socialisation can be conceived of as newcomer learning, in turn, the factors preceding and influencing that learning are also important. In addition to organisational socialisation tactics, possible factors include the newcomers' work context (Saks & Ashforth, 1997b; Major & Kozlowski, 1997) and newcomers' proactivity (Morrison, 1993a, b; Ostroff & Kozlowski, 1992; Saks & Ashforth, 1997b). Further research on the relative effects of these and other variables would provide more information on the most important factors affecting newcomers' adjustment.

Past research has shown the importance of newcomer learning in that it has important, mostly positive effects on newcomer adjustment. This is consistently found whether such learning is achieved through organisational socialisation tactics, newcomer information seeking, newcomer knowledge acquisition or insider sources (Jones, 1986; Louis et al., 1983; Morrison, 1993a, b; Ostroff & Kozlowski, 1992; Saks & Ashforth, 1997b). However, there is a lack of research on how knowledge is actually integrated into cognitive maps or knowledge structures (Louis, 1980; Shore & Tetrick, 1994), although the current results with respect to socialisation knowledge predicting newcomers' psychological contracts development lend further support to the validity of this supposition. Further direct investigations of the processes and structures underlying newcomer learning would greatly benefit organisational socialisation research and theory, with Cognitive Psychology possibly providing useful theoretical frameworks, such as mental models (Johnson-Laird, 1983, 1988) and learning through analogy (Karmiloff-Smith, 1992).

Army Recruits' Psychological Contract Adjustment

Review of the Results

Four hypotheses were proposed in relation to recruits' psychological contract development during Phase 1 Training. In line with previous research on employees' perceptions of the employer's side of the psychological contract, Hypothesis 7 proposed that, during Phase 1 Training, recruits would increase their expectations of what the Army would provide. This was found for four of the seven dimensions investigated, with upward adjustments for job security, social and leisure aspects, effects on family and accommodation, partially supporting Hypothesis 7.

Two hypotheses were made with regard to adjustments in the salience recruits attributed to aspects of their psychological contracts. Hypothesis 8 proposed that adjustments would be evident whilst Hypothesis 9 proposed that recruits would adjust their salience ratings towards those of experienced soldiers. Significant increases were found for two dimensions, pay and effects on family. Increases in the importance ratings of two other dimensions, accommodation and social and leisure aspects, approached significance ($p <$ .007), and might have been significant over a longer period. In addition, recruits adjusted the salience for two dimensions over time relative to soldiers' ratings, namely of job satisfaction and accommodation, which were increases towards soldiers' ratings. Salience ratings for four of the remaining five dimensions differed for recruits and soldiers at both times. Overall, Hypotheses 8 and 9 were partially supported.

Last, Hypothesis 10 relating to the influence of socialisation learning was mostly confirmed. Specifically, newcomers' knowledge acquisition during Phase 1 Training predicted the changes in three of the four psychological contract dimensions which showed adjustment (which was upwards in all cases), namely job security, social and leisure aspects and effects on family, but not accommodation.

Changes in Recruits' Expectations of the Army

Hypothesis 7 was mostly supported, with four of seven dimensions showing increases. The original hypothesis that recruits would increase their expectations of the Army was based on the work of Kotter (1973) and Robinson et al. (1994). For example, Robinson et al. found that MBA newcomers increased their perceptions of their employer's obligations to them on dimensions of advancement, high pay and performance-based pay but decreased their perceptions of the organisation's training obligation. This reflects an overall trend for employees to increase their perceptions of the transactional elements of the contract owed to them, that is, of the more economic aspects of the contract.

Although the current research similarly found upward adjustment of employees' perceptions of the employers' side of the psychological contract, the four dimensions that showed adjustment are here classified as relational rather than transactional (Downes, 1988; Manning, 1991; Rousseau & Parks, 1993). That is, the four dimensions of job security, social and leisure aspects, effects on family and accommodation are long term aspects of the contract that reflect the less tangible aspects of the exchange relationship between the Army and its employees, both recruits and soldiers. Only one of these dimensions has been used in previous research, job security, which has been empirically confirmed as being relational rather than transactional (Robinson et al., 1994; Rousseau, 1990). The other three are, however, similar to Herriot et al.'s (1997) "environment" dimension.

If this categorisation of job security, social and leisure aspects, effects on family and accommodation as relational is accepted, there are two particularly interesting implications of the increase in these relational aspects of recruits' psychological contracts. The first is that it shows that relational aspects of the contract can show upward change and second that these results differ from Robinson et al.'s (1994) showing mostly upward adjustment for only transactional elements of the contract. These are discussed in turn.

Upward change in relational dimensions of the psychological contract

Considering the likelihood of relational versus transactional adjustment to the psychological contract during organisational socialisation, it is plausible that newcomers, particularly recruits, are explicitly informed about transactional aspects such as pay and promotion early on since these are more closely related to the employment contract, and therefore these show little adjustment. In contrast, new recruits are less likely to be directly informed of relational aspects and therefore these may only be learned about indirectly or vicariously, subsequently showing greater adjustment (Shore & Tetrick, 1994). This is also in line with Rousseau's (1990) categorisation of the relational aspects of psychological contracts as dynamic, whilst transactional contracts are static.

Reasons for the different results obtained in this and Robinson et al.'s research

A second interesting implication of the increase in recruits' relational aspects of the psychological contract is that this disagrees with Robinson et al.'s (1994) research showing increases predominantly in its transactional elements. The most likely explanation for this difference is that the samples used differ greatly: Robinson et al. conducted research using MBA graduates entering professional work settings (e.g., investment banking). Gaining an MBA degree in itself is often perceived as a means of improving one's potential for receiving economic and status rewards (Robinson & Rousseau, 1994), suggesting that MBA graduates are likely to be more focused on transactional elements of the psychological contract (Hiltrop, 1995). In contrast to this, soldiers have traditionally had strong emotional attachments to the military (Holmes, 1985), and hence are likely to focus on relational dimensions of the psychological contract. These differences between MBA graduate and soldier samples are likely to affect which aspects of the contract these newcomers focus on, which in turn may limit which dimensions are re-evaluated and developed during organisational socialisation and beyond. Further research in different work settings would confirm whether the type of

newcomer and organisation have separate and/ or interactive effects on changes in newcomers' psychological contracts.

An alternative explanation for the difference in the current results and those of Robinson et al. (1994) is that this is due to the time frames used. For the same process to underlie the results at both organisations, it must be supposed that relational aspects of the contract undergo some upward adjustment in the initial period of organisational socialisation but that there is a subsequent downturn in these such that the overall changes are non-significant over longer periods. In contrast, transactional elements of newcomers' psychological contracts show adjustment later in the organisational socialisation process. Thus, newcomers may feel justified in increasing the transactional elements owed to them if they perceive themselves as having increased their skills and abilities which warrants similar transactional adjustments in the employers' side of the deal.

There is some empirical evidence supporting this proposition in relation to a primary focus on establishing relational aspects of the psychological contract but little supporting a subsequent shift with relational aspects decreasing and transactional dimensions increasing. Looking first at the evidence relating to relational types of variables, previous research has shown that newcomers establish an organisational identity during organisational socialisation, reflecting a relational or affective bond with the organisation, with this related to positive adjustment (Ashforth & Mael, 1989; Ashforth & Saks, 1996; Chao, O'Leary-Kelly et al., 1994; Mansfield, 1972; Reichers, 1987). Consistent with this, Army recruits showed increased organisational commitment during organisational socialisation.

In contrast, there is a lack of empirical evidence for a gradual, temporally-mediated shift of either reduced relational or increased transactional aspects of the psychological contract. Longitudinal research on organisational socialisation commonly reveals a primacy effect, with little further adjustment after the first few months and, where there is adjustment, initial levels of variables positively predict their later levels (Ashforth & Saks, 1996; Bauer & Green, 1994; Morrison, 1993b). Similar results were found for

variables measured longitudinally with Army recruits and, therefore, it seems unlikely that psychological contracts show reversed patterns over time.

However, a fairly rapid shift to a more transactional emphasis in the psychological contract may occur where employees perceive the employer to have broken the contract. Robinson and Rousseau (1994) found that 55% of MBA graduate newcomers reported a contract violation after two years, but they emphasise that these results may not be generalisable given that MBA graduates may be subjected to particularly zealous recruitment practices and hence establish less realistic contracts. It is also possible that, since MBA graduates are highly marketable and usually have short-tenure (Robinson & Rousseau, 1994), they are pre-disposed to interpret their employer's actions as violating their contract. Thus, although the research on MBA graduate newcomers provides evidence that psychological contracts are broken quite frequently, this may be primarily due to the sample used; moreover, there is no evidence that there is a gradual shift in the nature of the contract from relational to transactional, although a sudden shift following contract violation is plausible.

Thus, with respect to the discrepancy between the current results showing increases in relational elements of newcomers' psychological contracts and those of Robinson et al. (1994) showing transactional elements increasing, the most likely explanation for this is the differences in the samples used. Armed forces employees are likely to hold primarily relational-focused contracts whilst MBA-qualified employees are likely to hold contracts that principally emphasise transactional elements. There may also be a shift in the focus of the contract over time from relational to transactional, which is most likely to occur where the employee feels their employer has broken the psychological contract.

Changes in the Salience of Recruits' Expectations of the Army

Increases in the importance ratings of two dimensions, pay and effects on family, were found in relation to Hypothesis 8. These results give further support to the relevance of salience as a dimension of psychological contracts. Recruits' comments during qualitative research at the ATRs and on

questionnaires revealed that some recruits had not anticipated having to pay for items of kit for their personal use, particularly relating to camping equipment, nor had a number of recruits anticipated the homesickness they felt. These results are in line with Louis' (1980) proposal that unexpected events may change the salience of different aspects of organisational life, with the two aspects here showing increases. Thus, the qualitative data substantiates these quantitative results for pay and effects on family.

It is also interesting that the trend was for the salience of dimensions to increase. No proposals were made regarding the direction for changes in importance ratings due to the lack of previous research. Since organisational socialisation is a period of surprises and sense-making during which newcomers learn new things about their organisation (Louis, 1980; Weick, 1995), it seems more likely that such learning would lead to increases in the salience of contract dimensions rather than decreases. Further research is needed to establish whether the increases in salience found here reflect a generalisable trend. It is also possible that once these events are no longer surprising but rather taken for granted, their salience may consequently reduce (Major et al., 1995). In other words, the increase in salience may be largely a result of unanticipated events or experiences.

Combining these increases in salience with the increased expectations of the Army, recruits tended to increase their perceptions of the Army's side of the psychological contract. This may represent a risky situation for the Army, with higher standards in employees' contracts, combined with these being more important, making it both harder for the Army to maintain these levels and yet more important to do so, since breaking the contract may have more negative effects.

Recruits' Psychological Contract Adjustment Relative to Insider Norms

There was marginal support for Hypothesis 9, with only two of seven dimensions showing adjustment towards soldier norms. One explanation for the weak results is that recruits' interactions with training staff were not sufficient to inform them about experienced soldiers' psychological contracts. This may have been due to the small number of experienced soldiers as

training staff available at the ATR, limiting the opportunities for recruits to learn psychological contract norms from insiders. Further, training staff are in a formal position as teachers and therefore are likely to focus learning more on course-related attainments required for recruits to "pass out" than on informal aspects that would facilitate psychological contract adjustment towards insider norms.

However, in defence of these results, for the two dimensions showing adjustment, this was towards insider norms suggesting that future research may give stronger confirmation to this hypothesis. Thus, the primary explanation for these weak results is the collective and formal nature of Phase 1 Training itself. On the basis of this, greater adjustment towards insider norms for the remaining dimensions would be expected during subsequent training phases and the recruits' first posting. Further research is warranted both on this, including temporal and interaction variables, and also to investigate whether there is a difference in adjustment towards insider norms between formal and collective settings versus socialisation processes which afford greater opportunity for informal interactions between newcomers and experienced insiders.

The Effects of Socialisation Knowledge on Psychological Contract Adjustment

Hypothesis 10 was largely confirmed, with three of the four changes in expectations partly predicted by increases in newcomers' socialisation knowledge. These preliminary results support the proposition that newcomer learning facilitates psychological contract adjustment. It is possible that where newcomers show greater adjustment in their psychological contracts, perhaps where organisational socialisation is investigated over a longer period or newcomers have more opportunities for interactions with insiders, stronger predictive effects of socialisation knowledge would be found.

Looking at the predictive knowledge domains, organisation knowledge was significant in two of the regressions (job security and social and leisure aspects), social knowledge was significant in one (job security), with social and role knowledge approaching significance in one regression

each (effects on family and job security respectively). Interestingly, an increase in organisation knowledge predicted an increase for social and leisure aspects whereas an increase in organisation knowledge predicted the decrease in job security. As stated in Chapter 2, knowledge gained during socialisation is likely to enable newcomers to develop more accurate psychological contracts, with recruits' expectations possibly increasing or decreasing towards this reality. Thus, it is plausible that greater knowledge of the Army itself, the organisation knowledge domain, should lead to either an increase or a reduction in newcomers' expectations of what the organisation will provide for them.

Summary of Recruits' Psychological Contract Adjustment

The results confirmed that, during the first eight weeks of Army Phase 1 Training, recruits show adjustments in their perceptions of the employer's side of the psychological contract. Specifically, recruits showed increases both in their expectations of the Army (four of seven dimensions) and in their salience (two dimensions). The results also give preliminary confirmation that recruits' adjustment of the salience of aspects of the psychological contract is towards insider norms (two dimensions) and that their psychological contract adjustment is a result of increased knowledge (three of the four dimensions showing change). Thus, the results show rapid early adjustment, in line with a primacy effect, with this process reflecting cultural assimilation as recruits adjust their contracts on the basis of knowledge, and towards insider norms.

The current findings add to previous research in a number of ways. First, past psychological contract research has almost exclusively used graduate samples; the exception to this is Herriot et al.'s (1997) research which used a representative sample of the UK working population. The current study contributes in that it shows the applicability of the psychological contract to employees with a lower educational background.

A second novel contribution is the shorter time frame used. The current study is one of a handful investigating newcomers' psychological contract development longitudinally, with previous research's earliest second

measurement being eighteen months (Robinson, 1995, 1996; Robinson et al., 1994; Robinson & Rousseau, 1994). Thus, the short eight week period of the current research is innovative in revealing the rapidity with which the newcomers begin to change their contracts, giving confirmation that newcomers' psychological contracts are "dynamic and evolving" from the very earliest stages of organisational socialisation (Robinson et al., 1994, p. 149).

Future Research

Several areas seem particularly fruitful for future research on the psychological contract. With regard to newcomers' psychological contract development, there is a need for longitudinal research using more than two measurements and a time frame that comes between the two months used here and the eighteen to twenty-four months used in research by Robinson and her colleagues (Robinson, 1995, 1996; Robinson et al., 1994; Robinson & Rousseau, 1994). Using multiple measurements and a longitudinal time frame would increase our knowledge of what causes and results from psychological contract change when this happens either implicitly, or through explicit re-negotiation, or through violation. The latter seems particularly important, given the high frequency of violation for some employees, as well as the negative implications of this (Robinson & Rousseau, 1994). As well as job tenure, Rousseau (1989) hypothesised that seniority and interactions would all affect the consistency of contracts; she proposes this with respect to implied contracts (i.e., those assessable by observers), but greater congruence also seems plausible for psychological contracts. Research on this is overdue.

A second area of research relates to the organisation's side of the psychological contract. There has been considerable debate over whether it is valid to measure this or whether this anthropomorphises the organisation. However, past researchers have proposed that an organisation is no more than the sum of its parts, that is its employees (Hofstede et al., 1990; Schneider, 1987a, b), and indeed past research has used management to represent the organisation's psychological contract (Herriot et al., 1997; Kotter, 1973), with senior employees at ABC used in this research to decipher

organisational values. In spite of this, there has been no empirical research investigating how organisations' psychological contracts are communicated to newcomers. It has been proposed that elements of the psychological contract are first communicated during recruitment (Baker, 1996; Dunahee & Wangler, 1974; Robinson & Rousseau, 1994), and Rousseau (1990) investigated the messages that recruiters thought they were putting across, but no empirical research has been conducted to ascertain to what extent and what level of accuracy organisational messages relevant to psychological contracts are received by job candidates. It would be interesting to assess the degree to which newcomers' incorporate these and subsequent messages regarding the organisation's expectations into their own contracts. This could also have implications for subsequent organisational violations: if newcomers feel they have included the organisation's side of the exchange in their contracts and responded to these, perceptions that the organisation has broken its side of the contract may have more negative consequences.

Further research is also needed to redress the balance in terms of samples used. For example, the results in the current research show newcomer adjustment of relational aspects of recruits' contracts whereas as previous research using graduate samples has found this for only transactional aspects (Robinson et al., 1994). This difference is mooted as due to research being conducted on different samples, each focusing on disparate aspects of the contract. Hence, further investigation of this proposal is needed. Further, research in different work settings would confirm whether the type of newcomer and organisation have separate and/ or interactive effects on changes in newcomers' psychological contracts (Major et al., 1995).

From a practical perspective, organisations may want to conduct their own research into their employees' psychological contracts. Since previous researchers have found that cognitive and affective outcomes are predicted by the psychological contract (Guzzo et al., 1994; Robinson & Rousseau, 1994), employers should aim to understand their employees' contracts, particularly investigating the most salient dimensions and aiming to safeguard these (Herriot & Pemberton, 1996; Hiltrop, 1995; Louis, 1980; Robinson, 1995;

Sparrow, 1996). Where either party to the contract desires change, understanding the other party's perceptions should lead to a more informed negotiation and, subsequently, reduced likelihood of violations by either party (Baker, 1996; Herriot & Pemberton).

ABC Newcomers' Person-Organisation Fit

Review of the Results

The OCP results showed a reasonable fit between the pivotal organisational values of newcomers and those present at ABC, with this objective measurement showing moderate levels of P-O fit. Higher rankings of P-O fit, of about 5 on a 7 point scale, were given for newcomers' when self-rating their fit at entry, and after two and four months, and by their supervisors after four months.

Summarising the results for the various hypotheses proposed, subjective and objective fit (i.e., self-rated and OCP-based measures) were not correlated at entry as expected, but were significantly positively correlated at month four, partially confirming Hypothesis 11a which proposed an increasingly close relationship over time. Hypothesis 11b proposed that supervisors' ratings would be more aligned with fit assessed by the OCP than self-ratings, although in fact supervisors' ratings of newcomers' P-O fit were unrelated to either of the other P-O fit measures. With regard to changes in fit over time, these were only found for OCP-based fit, which decreased across the first four months at ABC. This partially confirmed Hypothesis 11c.

For subsequent hypotheses, more complex analyses were required which, due to the small sample size for the OCP-based measure of fit, largely precluded its inclusion in analyses. Various socialisation experiences were proposed to influence both P-O fit at month four and its adjustment. First, in regard to organisational tactics influencing fit, the investiture tactic positively predicted both self-rated fit at month four and increased self-rated fit over the first four months. Mentoring was only significant in one of the four regressions, with being mentored (vs. non-mentored) jointly predicting self-rated P-O fit after four months. These results support Hypothesis 12, with the investiture tactic predominating in predicting P-O fit.

Hypothesis 13 was largely confirmed, with newcomers' learning across the four knowledge domains positively predicting P-O fit at four months and also an increase in knowledge positively predicting an increase in fit over this period. Further, as proposed, organisation and social knowledge were the

strongest predictors, with interpersonal resources knowledge at entry also a significant predictor of outcomes. Overall, the results mostly confirmed Hypothesis 13.

A last hypothesis related to the predictive power of P-O fit, and changes in fit, for three traditional outcomes of organisational socialisation: job satisfaction, organisational commitment and intent to quit. The results were largely in line with Hypothesis 14a for the relationships of both the fit measures with outcomes, but there was no consistent support for Hypothesis 14b, of stronger relationships for subjective than objective measures of fit with attitudinal outcomes. Further, there was strong confirmation of the positive effects of increased self-rated fit in predicting positive outcomes.

Objective person-organisation fit measured with the OCP

Consistent with Chatman's (1988) research, newcomers showed only moderate levels of objective fit, as measured by the OCP, and there was little change in the average levels. The current research used an experienced sample and showed a small but significant decrease in fit from .27 to .22 over four months. This contrasts with Chatman's research where GNs in firms similar to ABC showed a non-significant decrease over a twelve month period, from .22 to .19. Thus, the current research shows that significant adjustments in fit are possible, with this found over a shorter time frame than previously used, and extending research to a population with previous work experience. The results also confirm that the average EN at ABC experiences a slight decrease in fit during the first four months post-entry. Nevertheless, perhaps not too much emphasis should be placed on this decrease for two reasons. First, it is fairly small and, second, there is a considerable range in the degree to which newcomers' organisational preferences match ABC's culture. The standard deviations for EN-ABC congruence at both entry and month four are only slightly smaller than the mean values (see Table 6.13), with Chatman's (1991) research showing similar findings. Thus, the small decrease in itself may be of less practical significance that the actual implications of objective P-O fit for newcomers' adjustment.

Comparisons of subjective and objective measures of person-organisation fit

In contrast to the moderate levels of P-O fit shown by the OCP measure, self-ratings were quite high. A number of other differences were apparent between the objective and subjective measurement of P-O fit. First, during the first four months, objective fit showed a slight significant decrease whereas the decrease in self-rated fit was non-significant. In addition, newcomers were more consistent in their objective than their subjective P-O fit across time, with time 1 to time 3 correlations of .74 and .38 respectively. Further, partially supporting Hypothesis 11a, the objective and subjective P-O fit measures were only positively correlated at four months (.36) and not at entry (.19).

These results suggest substantive differences in what the objective and subjective P-O fit measures actually measure. This may reflect a difference between objective and subjective measurement (Kristof, 1996; Nicholson & West, 1988), with a self-rating giving newcomers the opportunity to reflect their conscious and subjective interpretation of their personal fit with ABC, whereas the OCP reduces respondents' insight influencing the process. Alternatively, it could be a methodological artefact, with the greater number of items in the OCP leading to better test-retest reliability and reducing error variance whereas the single-item self-rating is less stable. Against this explanation, Edwards (1993, 1994) proposes that using correlations as an index of profile similarity, such as the OCP, leads to attenuation in results. Further, some researchers have proposed that single holistic items are highly interpretable and therefore less prone to such instability (Scarpello & Campbell, 1983; Schneider, 1985; Wanous et al., 1997).

Supervisors' ratings of newcomer-organisation fit

Supervisors' ratings of fit were unrelated to self- and OCP-based ratings. One possible explanation for this is that the measure used with supervisors was poor; however, supervisors' are responsible for newcomers' feedback appraisals and their evaluations are therefore deemed valid at ABC. Moreover, the design of this fit measure was carefully considered and used equivalent wording to the self-rating. The lack of a difference between

supervisors' ratings of the two types of newcomers, ENs and GNs, suggests that this procedure was effective. Moreover, evaluations of fit through both methods were moderately high such that supervisors were positive about newcomers' adjustment.

An alternative explanation for the lack of significant relationships is the nature of the work conducted by ABC employees, with individuals relatively autonomous for their own role within projects. This may reduce the amount of work-related interaction between supervisors and newcomers, in turn making such ratings less accurate. Notwithstanding this, feedback from supervisors' did not indicate any difficulty with such appraisals although occasional cases occurred where the correct supervisor responsible for the newcomers work had not been identified, in which case further research was undertaken to find the correct supervisor. Thus, this explanation may have validity in some cases, where newcomers had only been recently assigned to a project and started work with a supervisor, but there is no evidence that this explanation is suitable for the whole sample of ABC newcomers.

A third explanation is that supervisors differed in their basis for assessing fit from both newcomers themselves and the values underlying the OCP measure. One possibility is that supervisors based their evaluations on the more informal aspects of ABC's culture, such as doing things according to ABC procedures. In contrast, both newcomers and the OCP-based measures of fit, which showed moderate agreement after four months, may reflect the deeper, less explicit aspects of ABC's culture such as understanding what the organisation's values and norms are (Rousseau, 1990). A further possibility is that supervisors' ratings might have been based on themselves as models of "a person who fits the culture" and therefore there was no ordered relationship between this rating with either of the other two P-O fit measures. Follow-up discussion of this issue with supervisors might have helped resolve this issue; however, this could have been perceived to infringe on both supervisors' anonymity and their time, and therefore would not have been appropriate.

Predictors of Person-Organisation Fit

The influence of ABC's socialisation tactics on newcomer-organisation fit

Of the three socialisation tactics, serial, investiture and mentoring (mentor vs. non-mentor and quality of mentoring) propounded to influence P-O fit and adjustment of this (Hypothesis 12), the investiture tactic was the most important predictor. It is somewhat surprising that having a mentor had only weak effects, whilst quality of mentoring had no effects. This contrasts with Chatman's (1991) research where mentoring, measured as time spent with mentor, was a significant predictor of P-O fit after one year and predicted change in fit over this one year period. Further examination of the inter-relationships of the two non-significant tactics variables, serial and mentoring, with self-rated fit is revealing. Both quality of mentoring (but not mentor/ no mentor) and the serial tactic were positively correlated with self-rated fit at four months (.31 and .51 respectively). However, partial correlations controlling for the investiture tactic were non-significant, showing that the investiture tactic accounted for the variance in these relationships (partial correlations of .13 and .20 respectively). Thus, it is not that these other tactics are unrelated to P-O fit, but rather that their influence is mostly included within the investiture tactic.

One possible reason for the weak effects for mentoring is that, over four months, many of those assigned mentors may not yet have established a relationship with the mentor such that measuring the quality of mentoring was not yet meaningful. In line with this, one GN wrote after four months "Need to have a more pro-active mentor (I haven't met mine yet!)." Similarly, an EN commented that "I found it very difficult to answer the questions on the mentor as I still have not had any one-to-one contact!".

Whether these results are generalisable, they show that in predicting newcomers' self-rated fit at ABC, the effect of whether or not newcomers feel valued (investiture) includes the factors of whether they feel that their seniors are actively involved in socialising them (serial) and whether they perceive their mentoring relationship to offer positive psycho-social support. If these results are generalisable, future research focusing on newcomer adjustment

may prefer to only measure investiture as a more comprehensive approach, since the positive effects of mentoring and the serial socialisation tactic would be subsumed within this. However, before taking this step, further research is needed, particularly on mentoring since stronger effects might be found if this construct were further differentiated to separate non-mentored, assigned but inactive mentoring and active mentoring relationships.

The influence of ABC's socialisation knowledge on newcomer-organisation fit

The results strongly confirmed that newcomers' learning over the first four months helps newcomers to feel that they fit. The organisation and social knowledge domains were significant predictors of fit, with increases in these predicting improved fit and interpersonal resources knowledge also predicting P-O fit at month four.

As well as largely confirming Hypothesis 13, these results give further support to the validity of the socialisation knowledge measure developed in this research. Thus, in line with the purely theoretical proposition, the two domains predicted to account for variance in person-organisation fit did so, further confirming the underlying theoretical division of knowledge content. Moreover, at a more general level, the results show the utility of the measure developed in this research for predicting newcomer adjustment and, in doing so, add support to the validity of a knowledge acquisition approach to organisational socialisation (Chao, O'Leary-Kelly et al., 1994; Major, 1994).

The Effects of Person-Organisation Fit

The comparison of the predictive power of subjective and objective measures of fit was intended to test Kristof's (1996) proposition that subjective measures of fit would be more strongly associated with subjectively-rated attitudinal outcomes. However, there was no evidence for consistent differences. This is intriguing, and contrasts with initial results in this section showing weak relationships between the P-O fit measures at entry and month four, suggesting substantive differences. Rather than addressing these differences, the current research seems to add to them, making the need for further comparative research even greater (Kristof).

In general, both fit measures at entry and month four were related to the outcomes as expected. Due to the small sample size for the OCP, correlations were conducted preventing any conclusions about causality. However, subsequent confirmations of the effects of adjustments in self-rated fit predicting outcomes make it seem most credible that P-O fit should result in positive attitudes rather than that positive attitudes lead to better fit, although reciprocal feedback loops are plausible. Moreover, Chatman (1988, 1991) also found P-O fit at entry, and adjustments in fit (over one year), to predict attitudinal outcomes.

These last findings, that increased self-rated fit positively predicted outcomes as hypothesised, and that adjustments in fit account for more variance in outcomes than fit at entry, concur with Chatman's (1991) results and extend them in several ways. First, Chatman's results are extended to a different P-O fit measure, self-rated fit. Second, the results show that adjustments in fit over only four months significantly predict outcomes. Third, as with Chatman's results, the adjustments in fit were stronger than the effects of fit at entry, showing that socialisation over the first four months has stronger effects than selection. Again, part of the explanation for the ability to find significant effects over this shorter interval may be due to primacy effects in adjustment.

Summary

Following her research on objective fit, Chatman (1991) questions whether one year is long enough for socialisation processes to have an effect on values. The current research confirms that socialisation processes have an effect even over a shorter period of four months, with objective fit decreasing over this time, and organisational tactics and newcomer learning both influencing subjective fit. Moreover, both subjective and objective fit are associated with attitudinal outcomes, with subjective fit following socialisation confirmed as having additional and greater effects that subjective fit following selection, at entry. In addition, the results add to the previous research by showing the rapidity with which socialisation processes can affect P-O fit. Future research investigating whether these same patterns hold true

for objectively measured P-O fit over this shorter period would increase our understanding of newcomers' adjustment.

In the current research, the sample size for the OCP-based P-O fit measure was smaller than anticipated by the author and ABC, precluding conducting regression analyses with this measure. Given the potentially rich comparisons that could be conducted for objective and subjective measures of fit, further research on this is warranted, with the self-rating measure developed here, and Chatman's (1988, 1991) OCP measure, providing tools for this.

With regard to the measures used here, taking the OCP first, the current results give further support to previous research showing this to be a useful methodological tool (Chatman, 1988, 1991; Caldwell & O'Reilly, 1990). However, the correlations between newcomers and the organisation's values on this measure are only moderate, less than would be expected given that self- and supervisor-ratings of fit are moderate to high. One solution to this may be to tailor the selection of values from the measures in each study. For example, the high congruence between the pivotal values of ABC (as judged by insiders) and newcomers suggests that a method of using the match of only the more extremely placed values would show stronger results, possibly being more consistent with those from self-ratings. This strategy is equivalent to assuming that the middle values are akin to error variance, hence omitting these will give clearer results.

It was also notable in this research that the OCP had good face validity. In conducting the research with ENs, many wanted to talk further about their approach and thoughts on the OCP. A few people complained about using a forced distribution, in particular stating that there were many more values that they found desirable than undesirable. Thus, although a symmetrical distribution is statistically preferable, further research may be warranted to investigate the method that best represents how participants prefer to sort values. For example, given newcomers' comments about more of the values being desirable than undesirable, a sloping distribution might be better although this would introduce statistical difficulties due to non-normality.

With regard to the other main measure of P-O fit, self-rated fit, this was developed for the current research. Encouragingly, the measure had both predictive validity and also appears to have construct validity from its high correlations with organisational commitment. It seems likely that the measure may be useful in future research.

Future Research

The current results with regard to P-O fit are based on the argument that better fit is desirable, whilst acknowledging that it is likely that these should only be for pivotal values rather than producing a system of cloning (Judge & Ferris, 1992; Schein, 1971). For example, Schneider et al. (1996) propose that P-O fit may be good at the individual level, resulting in greater job satisfaction and reductions in turnover and work group conflict, but at the organisational level it may reduce effectiveness. Judge and Ferris put forward a similar scenario, arguing that the relationship of P-O fit with overall organisational performance and effectiveness needs to be investigated.

These issues seem particularly relevant when the current research, in line with previous studies, has conceived and measured the organisation as the sum of the people in it (or in this research, a sample of insiders) (Hofstede et al., 1990; Schneider, 1987). Such research presumes that measuring individual-level outcomes will reflect similar patterns of positive adjustment when aggregated to represent the organisation. Further research at the organisational level is needed, with longitudinal studies using organisational-level outcome measures. This seems to be a frequent recommendation of research, although rarely put into practice, and seems particularly relevant given the changing nature of the work place (discussed further in Chapter 8).

It is also questionable whether greater P-O fit is actually a good outcome for all individuals or organisations. Schneider et al. (1996) give the example of the good fit of a person with a Type A personality to a high stress environment; however much he or she enjoys this situation, it is likely to have negative individual consequences such as stress and burnout. This suggests that some of the implicit assumptions of P-O fit research must be questioned, including whether organisational adjustment will necessarily follow from

individual adjustment and also whether P-O fit can also have negative outcomes (Schneider et al.). One possibility is that organisations should attempt to achieve greater P-O fit where ongoing, co-operative work is important but aim for diversity of values, experiences, and outlook for those roles where finding the correct solution is paramount, for example in long-term decision-making roles.

Chapter 8: Discussion

<u>Overview</u>

This last chapter presents an overview of the research, focusing on the major results of the two studies at the Army and ABC, and discussing the theoretical and methodological contributions of this research to the organisational socialisation literature. This is divided into three sections. First, at a theoretical level, the main findings and novel contributions of this thesis are outlined. Next, the methodological strengths and limitations are discussed. Last, future research directions are suggested, both increasing the connections between different themes within the organisational socialisation literature and extending beyond this to other areas of Work and Organisational Psychology.

The Main Contributions of the Thesis

Overview

The contributions of this thesis are organised along the same lines as in the initial Overview. Thus, the organisation perspective is discussed first, followed by a focus on the individual newcomer, and then the integration of these within a learning framework. Next, cultural assimilation is discussed, as revealed by research on newcomers' psychological contract development and P-O fit. Subsequently, temporal aspects of organisational socialisation research are commented on.

Organisation Perspective

The main aspect of the organisation-focused perspective was the thorough investigation of the measure Jones (1986) developed of socialisation tactics according to Van Maanen and Schein's (1979) original theory. The psychometric analyses of this measure agreed with the results of other recent research (Ashforth et al., 1997) in that, although a six factor structure gave an adequate solution to the data, the measure still requires improvement through item development. Subsequent research using this measure again concurred with previous research in showing that tactics have significant direct effects on attitudinal outcomes. However, importantly, when the effects of socialisation tactics on adjustment in outcomes was investigated, the tactics only had significant effects for only one of the four outcomes, namely job satisfaction.

These results suggest that the large body of research published on the basis of finding significant direct effects of the tactics on outcomes may well be over-estimating the influence of the tactics by failing to analyse the relationship sufficiently conservatively (Allen & Meyer, 1990; Ashforth et al., 1997; Jones, 1986; Laker & Steffy, 1995). Indeed, to some extent it is surprising that researchers have continued to use this construct of organisational socialisation tactics so widely since research has consistently shown that newcomers find organisational efforts at socialisation less helpful than informal learning from their colleagues (e.g., Bauer & Green, 1998; Louis et al., 1983; Major et al., 1995; Morrison, 1993a, b; Nelson & Quick, 1991; Ostroff &

Kozlowski, 1992; Posner & Powell, 1985). To some extent, the continued use of the tactics scales may have been due to the perceived likelihood of obtaining significant effects. Overall, the difference between the results found for the direct influence of tactics on outcomes (significant for four of five outcomes) from their effects on adjustment in outcomes (one of four outcomes) confirms Saks and Ashforth's (1997a) suggestion that future research should investigate adjustment in outcomes instead of direct effects.

Individual Newcomer Perspective

A new self-report measure of socialisation knowledge was successfully developed in this research, focusing on individual newcomers' self-report. This measure showed excellent psychometric results and also proved a strong predictor of outcomes. Direct analyses of the relationship of socialisation knowledge with four outcomes, and more conservative analyses investigating the influence of increased knowledge on adjustment in outcomes, were conducted for both Army and ABC newcomers. All analyses of direct effects were significant (i.e., eight analyses). For the more conservative analyses, Army recruits' increased socialisation knowledge from week 1 to week 8 post-entry and ABC newcomers' increased socialisation knowledge from week 1 to month 4 predicted adjustment in job satisfaction, self-efficacy and intent to quit over the same period. The adjustment in organisational commitment was not predicted by increased socialisation knowledge in either study, yet this is likely partly due to the more restricted analysis for commitment which was only measured at the mid-way and last measurements (weeks 4 and 8 for Army recruits and months 2 and 4 for ABC newcomers), restricting the amount of variance available for prediction.

In addition to showing strong predictive validity for the adjustment of attitudes in these stringent analyses, increases in socialisation knowledge predicted three of the four increases in Army recruits' psychological contract expectations. Also within this cultural assimilation research perspective, socialisation knowledge had direct effects on ABC newcomers' subjective P-O fit, and increases in socialisation knowledge predicted increases in subjective P-O fit. This latter research also gave construct validation to the socialisation

knowledge measure, with confirmation of predictions that two specific domains (organisation and social knowledge) would be significant in these analyses.

Analyses comparing the organisation's and individual's roles in socialisation showed the individual perspective to have stronger effects. This was tested with recruits in Army training, who are undergoing an extremely pressurised socialisation experience. Yet even in this situation, where the organisation is recognised to have a great influence, newcomers' learning mediated the effects of the Army's socialisation tactics. Thus, in this research, a learning-focused perspective proved more useful in understanding how individual's adjust.

In summary the socialisation knowledge measure showed acceptable to good predictive validity in all analyses. Social knowledge was the strongest predictor of attitudes for Army recruits whilst interpersonal resources knowledge was the strongest predictor for ABC newcomers. Nonetheless, all knowledge domains had significant utility in some analyses at both organisations. This shows the four domains to provide a parsimonious measure without redundancy amongst domains. This confirms the utility of an individual perspective on organisational socialisation, and specifically a focus on newcomer learning as a useful approach for increasing our understanding of this process.

Cultural Assimilation Perspective

Two theoretical approaches were examined within this cultural assimilation perspective, namely theories of psychological contract development and person-organisation (P-O) fit. In both cases, the research in this thesis confirmed and extended previous findings, and showed adjustment over shorter time frames than previously investigated.

Taking the psychological contract first, this research investigated the rapidity of contract adjustment and also the role of salience for the various factors included in the contract. Specifically, research on Army recruits' adjustment in their psychological contracts during the first 8 weeks post-entry confirmed that recruits do show adjustment in their expectations of the Army

even over this short period which are mostly predicted by knowledge acquisition. Further, the research confirmed that recruits showed some adjustment of the salience of their expectations of the Army towards experienced soldier norms. This provides evidence for rapid early psychological contract development, adding to previous psychological contract research where the shortest interval for newcomer measurement has been entry to eighteen months (Robinson, 1995, 1996) and showing that relational elements can adjust, contrasting with previous findings where primarily transactional elements changed (Robinson et al., 1994).

Looking next at the P-O fit results, the current research is one of the few studies to investigate both subjective and objective measures of this (Enz, 1988; Kristof, 1996). The results were intriguing, with these measures uncorrelated at entry but moderately correlated after 4 months, yet both fit measures at entry and after four months showed similar, fairly strong relationships with attitudinal outcomes. In contrast, supervisor-rated P-O fit was unrelated to the other P-O fit measures and did not predict any outcomes, casting doubt on supervisors' ability to appraise newcomers after four months in an organisation. Unfortunately, due to the limited sample size for the objective fit measure, most P-O fit hypotheses were only investigated for subjective P-O fit.

Previous research by Chatman (1991) was ground-breaking in investigating newcomers P-O fit and comparing selection and socialisation. However, the measures which Chatman used were fairly limited and, for socialisation, focused primarily on the organisation. This research investigated a wider range of factors, including organisational and individual variables. Thus, organisational tactics (mentoring, investiture and serial tactics) and newcomer socialisation learning were confirmed as predicting newcomers' subjective fit and adjustments in this over the shorter four month post-entry period. Chatman's research was also extended in looking at the effects of fit at entry and following socialisation, with the latter again proven to have stronger effects over a four rather than twelve month period.

In summary, the research on newcomers' psychological contract development (Army recruits) and P-O fit (ABC newcomers) has shown that socialisation is a period of rapid adjustment, with newcomers quickly assimilating to the organisation's culture on the basis of information from insiders and increased knowledge.

Temporal Perspective

The fourth over-arching perspective of this research was to investigate the time-frame of organisational socialisation. The majority of results in this research (referred to above) were significant, in spite of much shorter measurement intervals than have been commonly used in the past. The current research shows just how rapidly newcomers adjust to their new organisational environment. Newcomers' temporal adjustment was more closely investigated by assessing changes between proximal measurements within these shorter periods. The two ways in which this was done are briefly discussed next.

First, the possibility of methodological error influencing results was recognised and hence assessments of such effects conducted. Specifically, previous researchers have identified that change over time may not only reflect alpha change, but that beta and gamma changes may also occur (Golembiewski et al., 1976; Schaubroeck & Green, 1989; Schmitt, 1982; Thomas et al., 1998; Vandenberg & Self, 1993). This is key to longitudinal socialisation research, where both significant findings and null results for alpha change may be influenced by beta and gamma change. More specifically, beta and gamma change have been proposed to be more likely to occur in research with newcomers who may cognitively reconstruct their organisational reality (Louis, 1980; Schaubroeck & Green; Vandenberg & Self; Weick, 1985).

In order to assess the stability of the attitude constructs in the current research, these were assessed for beta and gamma change using structural equation modelling techniques on the larger data set from Army recruits. For the two constructs meeting the criteria for modelling and which matched the measurement scales as used in the research (organisational commitment and careerism), these were confirmed as showing no beta or gamma change.

Thus, analysis of change was illustrated as a useful technique in organisational socialisation research, with Mowday et al.'s (1974, 1979) organisational commitment measure again confirmed as free from beta or gamma change (Schaubroeck & Green, 1989; Vandenberg & Self, 1993). Further, this was extended to Rousseau's (1990) measure of careerism, also proven as being free from beta and gamma change. The poor results for Colarelli's (1984) frequently used intent to quit measure is of more concern, and proves that this technique can uncover self-report scale change which researchers should be aware of.

A second investigation of temporal adjustment focused on the close, proximal measurements of both attitude and socialisation knowledge measures which were taken to reveal more closely the process of organisational socialisation. In line with recent propositions that newcomer learning is the most accurate reflection of socialisation, newcomers at both the Army and ABC showed increased knowledge over time (Chao, O'Leary-Kelly et al., 1994; Saks & Ashforth, 1997a). However, relative differences were also apparent. Army newcomers adjusted more rapidly and more positively, with most attitude measures showing increases over the measurement period. In contrast, ABC newcomers more commonly showed decreases in their attitude measures.

Returning to the socialisation knowledge measure, the exact patterns of knowledge acquisition were differentiated across the two organisations. In general, role knowledge was learned more rapidly for Army recruits, whereas social knowledge was primary for ABC newcomers. In different settings, different knowledge areas may be key to adjusting, with attainment of a critical threshold level essential to positive outcomes. It is clear that Phase 1 Training for Army recruits focuses on getting them up to speed in their roles. Although this requires an intense socialisation process, the rapid reduction in uncertainty may be painful to newcomers in the short-term but beneficial in the longer term. Indeed, recruits' questionnaire comments revealed a common understanding that Training was inevitably tough, but that everything beyond was better and worth it. In contrast, newcomers to ABC

have fairly high expectations from day one, but have few formal learning opportunities relative to Army recruits. They are assigned roles and often have to define the parameters of these. By four months, role knowledge was the only domain for which newcomers did not meet insiders' levels of knowledge. It is proposed that this may be the key area of learning, with newcomers wanting to be able to conduct their role proficiently in order to prove themselves of value to their new organisation and feel confident and comfortable. Only once newcomers' stressful uncertainty relating to their role has been overcome can newcomers adjust more positively. Achieving role knowledge more rapidly may also help reduce any disillusionment with the role or the organisation more generally.

Importantly, by conducting research at two organisations, the thesis shows that socialisation cannot be assumed to progress similarly across organisations. The fact that the patterns of organisational socialisation differ so greatly provides evidence that previous stage models of socialisation are inaccurate (e.g., Feldman, 1976). Rather, the process appears unique to each organisation. Interestingly, there were few differences between the two types of newcomers at ABC, GNs and ENs, which suggests that organisational factors are the stronger influence on socialisation. This may seem paradoxical to the earlier assertion that individual influences are greater than those of the organisation, with newcomers' knowledge mediating the effects of organisational socialisation tactics on attitudes. However, it is proposed that the organisation effects are not necessarily wrought through formal aspects but rather through the provision of learning opportunities, with the rate of socialisation largely dependent on the degree to which insiders are willing to act as information resources (Louis, 1980; Louis et al., 1983; Major et al., 1995; Reichers, 1987). Thus, it is the commonality between the everyday experiences of newcomers to an organisation, relating to cultural aspects surrounding informational norms and interactions between insiders and newcomers, that strongly influence how socialisation progresses.

Methodological Strengths and Limitations

<u>Overview</u>

In their review of the past five years of organisational socialisation research, Saks and Ashforth (1997a) highlight a number of shortcomings that need to be addressed. It is encouraging to note that the current research addressed several of these. These strengths are discussed briefly below as well as weaknesses and future research design recommendations. Saks and Ashforth's (1997a) critical evaluation is used as a framework, with methodological critiques in two areas, the first dealing with longitudinal research and the second relating to measurement itself.

<u>Longitudinal Research</u>

According to Saks and Ashforth (1997a), further development is required to measure organisational socialisation as a process of change. They propose this particularly with respect to organisational socialisation tactics, stating that there is a "pressing need for more longitudinal research designs in future research on socialization tactics" (p. 257). Hence, the current research begins to redress this. Further, this research also avoids their criticism of the vast majority of previous research in this area of measuring the tactics and the outcomes they are predicted to influence at the same time period.

A second point made by Saks and Ashforth (1997a) is the need for more research to begin to address the time frame of socialisation and, therefore, its appropriate measurement. Related to this, they also note the lack of research on the rate of organisational socialisation. Indeed, it is surprising that, given the number of longitudinal studies in recent years (Bauer et al., 1998), there has been a dearth of research on this. Again, the current research aimed to provide answers to these questions, focusing on the common primacy effect in socialisation and hence measuring the early period of adjustment when most change is likely to be occurring (Bauer & Green, 1994). Further, this also begins to answer questions about the rate of socialisation by showing the pattern and amount of adjustment occurring over repeated, proximal, equal tenure measurements and where change is no longer apparent. The research at ABC also compared insiders and

newcomers' levels of knowledge to explore the issue of when organisational socialisation, from a learning perspective, tails off.

Two measurement issues are also mentioned by Saks and Ashforth (1997a) in the context of longitudinal research. First, they note the importance of measuring and controlling for outcomes at entry so that the relationships between processes and outcomes are not over-estimated. This was done in the current research, with outcomes investigated both in the traditional direct manner, to allow comparison with past research, and with the initial levels of outcomes controlled to show the more restricted effects of predictors on changes in outcomes. The second measurement issue that Saks and Ashforth (1997a) warn researchers to be alert to is the possibility of beta and gamma change (see also Golembiewski et al., 1976; Thomas et al., 1998) which, again, was recognised and addressed in the current research.

In terms of the samples and sites studied, Saks and Ashforth (1997a) suggest that further research is needed comparing either different types of newcomer in similar programmes, or common types of newcomer in different programmes. The research conducted here begins to address these issues, with the research at ABC using two different samples, in terms of work experience, going through a common process for role specific socialisation. Further, the rate of socialisation and the underlying learning and change processes were compared for two organisations with different socialisation programmes and types of newcomer. The use of more diverse samples also begins to address Saks and Ashforth's (1997a) criticism of past research relying on only a handful of populations, using mostly graduate students entering accountancy. Again, the current research used more diverse samples; although graduate newcomers to a professional services firm (ABC) were included, these gave continuity with past research to allow comparison with this and also within the research design. Moreover, other samples met the criteria of being less educated relative to previous graduate samples (Army recruits) or being older and having greater previous work experience (ENs at ABC).

Measurement Issues

Two particular issues are highlighted by Saks and Ashforth (1997a) relating to problems with common measurement methods in organisational socialisation research, namely the use of self-report data and of traditional outcomes measures. These are discussed in turn.

Self-report data is commonly used in organisational socialisation research and this is generally accepted when the research is concerned with determining employees' reactions to work (Bauer & Green, 1994). Indeed, past research has argued for the usefulness of subjective measures over and above objective techniques (e.g., profile similarity indices, change scores) (Kristof, 1996; Nicholson & West, 1988) and research has also shown self reports to have greater predictive power than more objective methods (Ashforth & Saks, 1996). As a further argument in defence of self-report methods, Ostroff and Kozlowski (1992) propose that asking respondents to give a large number of ratings reduces the issue of self-report resulting in increased common method variance through memory effects. This is applicable to the current research, where questionnaires were quite lengthy and asked about a variety of different perceptions and attitudes.

However, as Wanous and Colella (1989) had argued previously, Saks and Ashforth (1997a) propose measures from other sources are needed. Again, this was considered in the current research and, where practically possible, alternative measures were taken. First, alternative insider sources were used: in research with Army recruits, data were also collected from ATR training staff (organisational socialisation tactics) and experienced soldiers (psychological contract salience), as well as documentation and observation (e.g., organisational socialisation tactics). At ABC, insider sources were again used, with newcomers' supervisors (P-O fit) and experienced insiders (OCP profile for ABC) used as additional sources. In addition, at ABC, subjective measurement of P-O fit was complemented with an objective measure of this. Further, at both organisations, site visits gave considerable opportunity for observation of typical organisational behaviours and a feel for the work environment, these being particularly frequent at ABC. Also, face-to-face

qualitative research was conducted at both sites, with this data as well as comments on questionnaires aiding interpretation of the data and ensuring that this was not based on the quantitative results alone.

With regard to specific measures, Saks and Ashforth (1997a) discuss this in relation to four constructs, of socialisation tactics, self-efficacy, previous work experience and outcome measures. Taking these in turn, for socialisation tactics, Saks and Ashforth note the need for further research on the scales, including the need to refine and validate them. This was recognised in the current research, with item piloting used to refine the scales, the construct validity of the scales confirmed for the research with Army recruits, and the need for further revision to the scales recognised, particularly for negatively-worded items.

For self-efficacy, the current research used Jones' (1986) measure of self-efficacy which was developed for newcomer research. However, Saks and Ashforth (1997a) propose that a more relevant measure is needed that relates specifically to the various aspects of organisational socialisation, such as having a self-efficacy scale for each area of newcomer knowledge acquisition.

With regard to previous experience, this was measured in the Army according to new recruits' experience in military organisations (e.g., the Territorial Army) or having close family members (father, mother, brother, or sister) in the Armed Forces. In the second study, ABC's classification was used according to whether or not newcomers' previous work experience was deemed as constituting relevant and sufficient for them to enter as experienced newcomers. Thus, the current approach was to use measures relevant to the organisational setting. A generalisable measure, as suggested by Saks and Ashforth (1997a) would have utility in allowing greater comparison of this variable across settings, although this generalisability could be at the expense of specific relevance to individual organisations.

The last issue that Saks and Ashforth (1997a) discuss with regard to measurement weakness in organisational socialisation research is the poor outcome measures used. Specifically, they criticise the continued use of

traditional outcome measures, mostly relating to affective responses or behavioural intentions, and propose that "more theoretically relevant outcomes must be assessed, including learning, knowledge, skill acquisition, social integration, and person-organization fit" (p. 261). Clearly, the aim of the current research in developing and validating a new knowledge acquisition measure to more directly reflect organisational socialisation is in line with this, as is the research on newcomers' psychological contract development and P-O fit. Saks and Ashforth also propose that more behavioural outcomes should be taken, such as organisational citizenship and absenteeism; however, these would be unlikely to show much differentiation over the short post-entry time frames of the current research.

Other Research Issues

Precautions were taken in this research to ensure that the most relevant variables were included. For example, human resources staff at ABC emphasised the important influence of mentoring on newcomers' adjustment and therefore this was included in the research. In spite of this, it is possible that other variables would have shown more significant effects if measured. Other variables which might provide further insights into the organisational socialisation process are discussed in the next section.

Summary

It is most encouraging that the majority of criticisms which Saks and Ashforth (1997a) level at past organisational socialisation research were recognised in the design of the current research prior to the publication of their article, and that these were addressed. Thus, the current research is strong in a number of areas. Looking first at research contributions in regard to the constructs used, the construct validity of the organisational socialisation tactics measure was confirmed, yet the need for further scale revision; developing a new measure of newcomer knowledge acquisition with good content and predictive validity evidence across two research sites and a large number of outcomes; and confirming the utility of a P-O fit approach using both subjective and objective measures.

Second, in terms of design strengths, these included the use of a longitudinal design with more measurement periods over a shorter time period than previous research, allowing in-depth knowledge of patterns of adjustment, primacy effects, reducing problems of attrition through turnover, and greater evidence for temporal and causal effects; the inclusion of two very different organisations and types of newcomer in the research and using similar time frames and constructs to allow direct comparisons; measuring outcomes early on so that their initial levels could be controlled for; and further developing structural equation modelling techniques to investigate different types of change (alpha, beta and gamma) and showing their utility for organisational socialisation research.

Practical Implications

<u>Overview</u>

A number of practical recommendations can be made on the basis of this thesis, both from the literature reviewed as part of the research process and from the results themselves. The suggestions are divided into three sections, reflecting the chronological order of the socialisation process of pre-entry, the initial entry period, and longer term adjustment. Within each section, actions are discussed at three levels: formal organisational processes, those that newcomers' colleagues can implement and strategies that newcomers themselves can engage in.

<u>Pre-Entry</u>

<u>Formal organisational processes</u>. The pre-entry process comprises recruitment and selection. These should be structured to give new recruits accurate and sufficient information on the organisation so that they can decide whether or not the job offer and organisation suit them. Those representing the organisation during the recruitment process should ensure that they give out realistic information and encourage potential recruits to ask any questions they want. Organisations may wish to develop lists of issues which previous newcomers have either asked about or which have been sources of surprise, including positive and negative factors. This is likely to be particularly important when recruiting and selecting experienced candidates who may react more negatively to a lack of information, perhaps perceiving this as deliberate withholding of information (as was the case for some experienced newcomers at ABC). Also, the current research at ABC revealed the difficulties of assessing experienced recruits and fitting them into a different organisation's grading system, with both over- and under-grading apparent. This issue is likely to become more pertinent as careers become increasingly multi-organisational (Howard, 1996). One solution is to introduce a system of under-grading and then allowing early assessment and rapid promotion, clearly signalling that the organisation values the contributions of experienced newcomers.

Newcomers' colleagues. Both pre-entry and during the initial post-entry period, organisations should also aim to provide opportunities for interactions between new employees and insiders, especially members of the potential new recruits' work group. This would begin the process of establishing new relationships, and allow new employees to gain further information through informal sources, which are more useful than organisationally-sanctioned messages (Louis et al., 1983). Organisations might consider prompting insiders to provide information on the organisation's culture and values, any work demands that affect employees' lifestyles, and the average amount of time newcomers take to adjust.

Newcomers. During the recruitment and selection process, newcomers should obtain sufficient information to clarify any issues either about expectations of them, or that they have of the organisation. For example, do organisational procedures and practices match their own career aspirations, ways of working, and desired methods of recognition (e.g., secure employment)? If the organisation's selection processes do not give them sufficient detail in areas where they have concerns, the newcomer should take responsibility for requesting clarification. For example, newcomers wanting more information on the experience of working for the organisation could ask for a meeting with an insider in a similar role and functional area to that which they are considering.

Initial Entry Period

Formal organisational processes. On arrival at the organisation, newcomers need a considerable amount of practical information to enable them to become oriented to their new work environment. Useful and necessary information ranges from emergency procedures and fire drills through to the location of toilets, facilities for making drinks, and so on.

Wider cultural issues are also important aspects of the workplace that the newcomer will need to learn. Some helpful information can be given directly to the newcomer through documents such as mission statements, Human Resources policies and procedures (which reflect the organisation's espoused values), codes of conduct, and so forth. New recruits could also be

given explicit directions on cultural norms in relation to details such as dress codes, correct communication procedures (e.g. whether the preferred communication medium is telephone, email, paper, or face-to-face), behavioural norms (e.g. introductions to colleagues). Some of these issues may appear minor but are important for the newcomer to understand acceptable standards and feel comfortable.

Also at the macro-level, steps can be taken to ensure that organisation-wide efforts help newcomers get up to speed. For example, encouraging a culture that recognises the advantages of helping newcomers such that they learn and adjust more rapidly, and hence become effective contributors to the organisation. Behavioural norms could be established for helping newcomers, with insiders introducing themselves to newcomers and being ready to assist them. Regular information bulletins could be distributed listing new joiners, and their background and relevant previous experience, providing a basis for conversing and developing links with insiders.

Newcomers' colleagues. Those who are in direct working relationships with newcomers should play a principal part in newcomer socialisation. Newcomers' co-workers, and particularly their supervisor, should take responsibility for providing clear information on the newcomer's role, desired standards of performance and timely, constructive feedback on how well these are being met. The supervisor and co-workers should also supply newcomers with practical role-related information, for example how to use equipment, where supplies are stored, and how to get help for different types of problem. These colleagues should also be aware that interacting with the newcomer will provide an opportunity for relationships to develop and the newcomer to feel supported, and will have the further benefit of providing the newcomer with informal learning opportunities. Practices such as taking the newcomer for coffee breaks, lunch, and post-work drinks would all help to facilitate this.

Newcomers. Newcomers should also take some of the responsibility for their own socialisation. Newcomer proactivity has been shown to promote positive outcomes (Morrison, 1993a, b; Saks & Ashforth, 1997b), with

tactics such as observing co-workers and directly asking for feedback accelerating the rate at which newcomers are able to perform their roles competently and achieve positive attitudinal outcomes.

Longer-Term Organisational Socialisation

Formal organisational processes. It is recommended that organisations monitor the adjustment of newcomers such that they are able to benchmark the effects of their socialisation practices over time, and compare different types of newcomer in terms of how well they are able to adapt. This also allows organisations to investigate the effects of any changes in their socialisation practices. As well as being useful to the organisation, such a practice has the additional benefit of illustrating to newcomers that the organisation is genuinely concerned about their adjustment, and that resources are being invested to monitor this process.

A further consideration is whether newcomers have the opportunity to gain information and support from other newcomers. Where collective socialisation tactics are used, this immediately provides newcomers with a network. For individually socialised newcomers, organisations should consider facilitating connections and interactions between newcomers, for example through regular newcomer social events.

Newcomers' colleagues. A large number of organisations have a policy of not giving newcomers a formal assessment for a considerable period of time (e.g., one year) (ABC is such an organisation). The rationale for this is that it reduces performance pressures on newcomers, allowing them time to adjust. However, this lack of formal feedback can be frustrating if newcomers want constructive feedback to ensure that they are usefully contributing to the organisation. Hence, it is up to colleagues and the supervisor to ensure that the newcomer is aware of both good and inadequate performance, and has the opportunity to rectify this. This process can be given more structure through regular supervisory meetings. A further practice used by some organisations to considerable benefit is to provide the newcomer with a helper colleague, usually from the same work group and with a similar level of seniority to the newcomer. This colleague can provide both concrete

advice and feedback on role performance and, as appropriate, other informal instructions about political issues that will help to prevent the newcomer from making avoidable errors.

Newcomers. Having mentioned the value to organisations of monitoring the socialisation of newcomers, it should be noted that newcomers can also assess this for their individual benefit. Several of the tools used in the current research would enable newcomers to evaluate their adjustment, assessing their levels of knowledge in various domains (TASQ) and also their values relative to organisational value norms (OCP) (Chatman, 1988). Even without such tools, newcomers can identify low-risk sources of feedback and ask for evaluations of the degree to which they are perceived to be performing, fitting in and becoming socialised.

Future Research

<u>Overview</u>

Suggestions for future research are divided into three sections. The first specifies the types of samples that future organisational socialisation research could most usefully focus on, outlining growing sectors of the workforce as well as socio-demographic issues. Second, the importance of methodological triangulation is briefly discussed, relating both to qualitative and quantitative data collection, and using data from multiple sources. Last, specific measures are discussed, and the overlap between organisational socialisation with three theoretically contiguous areas briefly outlined.

<u>Who to Measure</u>

Previous useful research has been conducted comparing non-movers, intra-organisational and inter-organisational job movers (Chao, O'Leary-Kelly et al., 1994; Nicholson & West, 1988). Further research with such samples would likely prove useful. Related to this, research with workers who frequently enter new environments could yield useful insights, with potential samples including flexible project team members and external consultants. Research on culture change could also add to our understanding of adjustment processes underlying organisational socialisation (Schein, 1990). This could include significant individual newcomers (e.g., Chief Executive Officers) as well as organisation level changes resulting from acquisitions, take-overs and mergers.

As is frequently noted in the research literature, the nature of work and employer-employee attachments is changing (Howard, 1996; Rousseau & Wade-Benzoni, 1996), particularly as fewer employees fit the "job for life" category. Thus, research on employees with different organisational attachments would be interesting, including temporary, part-time, contract, and tele-workers (Guest, Mackenzie-Davey, & Smewing, 1998; Oborne, 1996; Saks & Ashforth, 1997a). In addition, as the working population is becoming more diverse, research is needed on different socio-demographic groups including less educated newcomers (e.g., Zahrly & Tosi, 1989), women (Aitkenhead & Liff, 1991; Buono & Kamm, 1983; Nicholson & West, 1988),

ethnic minorities (Jackson et al., 1991, 1993) and people with disabilities (Colella, 1994). Such research on different types of newcomer, both in terms of roles and organisations, and socio-demographic differences, will reveal to what extent socialisation processes and research findings are generalisable and ensure that socialisation research is relevant to the whole workforce rather than a limited mainstream subsample (Bauer et al., 1998; Saks & Ashforth, 1997a).

Although the bias of previous researchers to use large organisations is understandable on the basis of practical reasons relating to research design and samples, research is needed on newcomers to both smaller and different types of organisations. This is particularly important given that a newcomer to a small firm represents a larger proportion of the organisation, and therefore research findings in these settings may have more practical utility. In addition, new ways of working, such as tele-working, are likely to make organisational socialisation a more difficult process. Yet, paradoxically, organisational socialisation is likely to become all the more important for these sectors to enable newcomers to understand the organisational culture and function within it (Chatman & O'Reilly, 1996). As a related issue, traditional socialisation outcome measures such as organisational commitment and intent to quit will have less relevance to these types of employees. This further promotes the argument that more direct measures, such as knowledge acquisition, are preferable since they have utility with such newcomer samples (Chao, O'Leary-Kelly et al., 1994; Chao, Kozlowski et al., 1994; Ostroff & Kozlowski, 1992).

How to Measure

In reviewing previous research, Fisher (1986) criticised this for being overly anecdotal and lacking in longitudinal, quantitative studies. Two recent reviews of the last five (Saks & Ashforth, 1997a) and ten years (Bauer et al., 1998) of research reveal that the pendulum has swung the other way, with much quantitative research but little qualitative research. The current research showed the utility of site visits for ensuring construct relevance, observation, item piloting, and gaining a greater understanding of the

organisational setting where socialisation occurs. Further, discussions with various newcomers and experienced insiders at both organisations provided additional research insights. Thus, it is recommended that future research should combine both quantitative and qualitative techniques to allow both methods to validate each other. In other words, researchers should ensure that the constructs and specific scales they are using are valid and comprehensible, the measurement periods they are using practicable and relevant, and that their interpretation of quantitative data is accurate.

Related to this, there has been a lack of research looking at multiple levels, with early research focusing primarily on the organisation's role and more recent research investigating the newcomer (Anderson & Thomas, 1996). Exclusively focusing at one level is likely to give a false picture of the organisational socialisation process. Thus, research here showed that organisation effects (tactics) were rendered non-significant where newcomer influence (knowledge acquisition) was measured. Related to this, Bauer and Green (1998) showed that newcomer effects were no longer significant when insider influences were considered. This suggests that a more useful research approach would be to focus at a number of levels, including newcomers (e.g., knowledge acquisition), the work group (e.g., social interactions between newcomers and various insiders), and the organisation (e.g., strength of organisational culture).

What to Measure

At the individual level, Bell and Staw (1989) propose that personality and personal control variables should be integrated into socialisation research to balance the emphasis of power between organisation and individual newcomer. Other psychology theories might also be useful, particularly from Social and Cognitive Psychology, for example Social Identity Theory (Ashforth & Mael, 1989; Tajfel & Turner, 1979), Relative Deprivation Theory (Stouffer, Suchman, DeVinney, Star, & Williams, 1949; Runciman, 1966) Cognitive Dissonance Theory (Festinger, 1957) and Mental Models (Johnson-Laird, 1988; Shore & Tetrick, 1994).

In line with the consistent confirmation of the importance of newcomers' interactions with insiders, a number of measures reflecting these relationships might be useful. For example, Major et al. (1995) found significant effects for both team-member exchange (Seers, 1989; Seers, Petty, & Cashman, 1995) and leader-member exchange (Bauer & Green, 1998; Liden, Wayne & Stilwell, 1993). Other potentially useful variables include physical proximity (Saks & Ashforth, 1997a), task interdependence (Major & Kozlowski, 1997), cultural attitudes towards newcomer proactivity (Black & Ashford, 1996) and work group norms and acceptable socialisation roles for insiders (Anderson & Thomas, 1996). In respect to the latter suggestion, a measure of insiders' commitment to the socialisation of newcomers would also be useful, particularly for organisations using an individualised socialisation process (Jones, 1986; Van Maanen & Schein, 1979) where insiders are likely to have a greater role in socialising newcomers.

At the organisation and environment levels, research has rarely investigated multiple organisations but, where this has been done, interesting results have been found (Chatman, 1988, 1991; Chatman & Jehn, 1994; Saks & Ashforth, 1997b). Where organisational sector has been recorded in past research, retrospective analyses might provide interesting results (e.g., Robinson & Rousseau, 1994; Robinson, Kraatz, & Rousseau, 1994). In addition, job and organisational tenure are obvious control variables where the research is over longer periods of time (Chao, O'Leary-Kelly et al., 1994). Chatman (1991) recommends that external factors are measured, such as macro-economic conditions and internal mobility, which will ensure correct interpretations of data. As well as these control variables, research could usefully include more relevant organisation-level outcome measures to prove that organisational socialisation at the individual level has wider implications, for example financial performance data (Judge & Ferris, 1992). Moreover, "hard" evidence might encourage organisations to focus on this under-developed area, perhaps making organisational access easier for researchers.

Theoretical Contiguities

The overlap between selection and socialisation

Over two decades ago, Feldman (1976b) noted the research gap between selection and socialisation. His research showed that organisations tended to focus on selection for more costly employees (those with higher educational attainments or entering at highest levels of the organisational hierarchy) and use adaptation strategies relating to training and development for lower-skilled, lower-level employees. Thus, organisations failed to see the link between selection and socialisation.

In one of the few studies investigating both selection and socialisation, Chatman (1988, 1991) investigated their relative influences on newcomer graduate accountants' adjustment. Her research showed that, although the processes were "somewhat complementary" (p. 476), socialisation had additional effects over and above those of selection for person-organisation fit, but not vice versa. Chatman had some reservations about the variables she used to measure selection and socialisation and proposed the need for further research. More recently, Anderson and Ostroff (1997) have persuasively argued the need to address the research gap between selection and socialisation processes. The current research appears to be the only investigation of this in the interim period, with Chatman's work on P-O fit confirmed and extended, with fit achieved through socialisation again found to have stronger effects on attitudinal outcomes than fit at selection. This area clearly provides rich opportunities for comparative and longitudinal research, with surprisingly little exploration of the relationship between selection and socialisation.

The overlap between training and socialisation

The overlap between organisational socialisation and early induction training has also been noted as an under-researched area by a number of authors (Feldman, 1989; Saks & Ashforth, 1997a; Taormina, 1994). Most particularly, new employees may need training in order to learn the specific tasks of their job (Wanous, 1980), or the accepted ways of implementing these at the new organisation (Feldman, 1976). It is emphasised here that the two

processes of training and organisational socialisation are not equivalent, for example training is likely to be job-specific, temporally finite and have clear attainment criteria (e.g., work-related behaviours, Feldman, 1989). In contrast, socialisation is broader, also encompasses informal experiences, and has no identified endpoint, with this proposed to be anything from a couple of months (Ashforth & Saks, 1995; Wanous, 1976) to lifelong (Schein, 1978). However, newcomers' initial socialisation experiences often include training (Anderson, Cunningham-Snell, & Haigh, 1996; Louis et al, 1983; Posner & Powell, 1985), and therefore the overlap between these processes deserves closer attention (Feldman, 1989; Saks & Ashforth, 1997a).

The overlap between careers and socialisation

Organisational socialisation may also usefully be combined with the longer-term view of career theories. For example, the socialisation knowledge measure proposed here may be useful beyond the traditional conceptions of newcomers as being new to organisations, to apply to career development through role changes, and intra-organisational moves as well as extra-organisational moves (Chao, O'Leary-Kelly et al., 1994; Nicholson, 1984; Nicholson & West, 1988). This is based on the finding that, in the context of careers, the amount and types of knowledge that employees have affects job and career outcomes (Chao, O'Leary-Kelly et al.). Thus, a measure of the content of socialisation could be useful as a career development tool (Chao, O'Leary-Kelly et al.), helping organisations to verify the effects of their chosen socialisation strategies and monitor strategic staffing (Sonnenfeld, 1989).

Conclusion

The results of this thesis extend past research in a number of ways. Focusing first on the organisation's role in socialising newcomers, the tactics used by organisations have been shown to be less influential than previously thought, having few effects on newcomers' attitude adjustment. A new measure of learning was developed, measuring newcomers' acquisition of socialisation knowledge. This showed good psychometric properties, including predictive validity and utility. A cultural assimilation perspective also proved useful in understanding newcomers' adjustment. Specifically, the current results showed significant adjustments occurring over shorter time frames than previously investigated, investigating both psychological contract development and person-organisation fit. Last, from a temporal perspective, this research illustrated the utility of a structural equation modelling technique for investigating different types of change in multi-item measures. Further, comparative research across two organisations revealed differences in the socialisation process experienced by newcomers, over-turning past assumptions that patterns of organisational socialisation are similar across settings.

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Appendix

Organisational Socialisation Tactics (adapted from Jones, 1986)

Collective/ Individual

+ During my training, I have been frequently involved with other new recruits in common, job-related training activities.
+ Other new recruits have been important in helping me to understand my role requirements
+ The Army puts all new recruits through the same set of learning experiences
+ Most of my training has been carried out with other new recruits

Formal/ Informal

+ I have been through a set of training experiences which are designed to give new recruits a thorough knowledge of job-related skills
+ I will not perform any of my normal job responsibilities until I am thoroughly familiar with Army procedures and work methods
+ I will not be assigned a formal position until I know how to do the job effectively
+ I have gained the majority of my job knowledge through coursework

Sequential/ Randoml

+ There is a clear pattern in the way one part of our training leads to another
+ Each stage of the training process has, and will, expand and build upon the knowledge gained during the earlier stages of the process
+ The movement from job to job to build up experience is very clear in the Army
+ The Army puts new recruits through an ordered set of learning experiences

Fixed/ Variable

+ I can predict my future career development in the Army by observing other people's experiences
+ I know how long it will take me to go through the various stages of the training process in the Army
+ I have been clearly told the fixed timetable of events through which I will progress
+ I have a clear idea of the course timetable of Phase 1 Training
+ Most of my knowledge of what may happen to me in the future comes informally, through the grapevine, rather than through formal Army communications[R]

Serial/ Disjuntive

+ Experienced soldiers see training new recruits as one of their main job responsibilities in the Army
+ I am gaining a clear understanding of my role as a soldier in the Army from observing my seniors
+ I have received a lot of guidance from experienced soldiers in the Army as to how I should perform
+ I have very little contact with people who have previously been through Phase 1 Training[R]
+ In general, I have been left alone to discover what my role should be in the Army[R]

Investiture/ Divestiture (adapted from Jones, 1986)

+ I have been made to feel that my skills and abilities are very important in the Army
+ The majority of senior training staff have been supportive of me personally
+ I have had to change my attitudes and values to be accepted in the Army[R]
+ I feel that experienced soldiers have held me at a distance until I conform to their expectations[R]

Investiture/ Divestiture (adapted from Ashforth, Saks & Lee (1997)

+ The Army tries to change the values and beliefs of new recruits[R]
+ I have learned that certain behaviours and attitudes of mine are not considered acceptable in the Army[R]
+ The following statement describes the attitude of the Army towards new recruits: "We like you as you are; don't change"
+ In the Army, you must "prove yourself" before you are fully accepted[R]

strongly agree	1	2	3	4	5	6	7	strongly disagree

Socialisation Knowledge (Thomas and Anderson Socialisation Questionnaire -TASQ)

Social

+ I know how to get along with others in my team
+ I know the characters of others in my team
+ I enjoy spending time with others in my team
+ Others in my team usually tell me the team gossip/ news
+ Others in my team usually include me in social outings
+ I can easily be identified as "one of the team"
+ I know who to trust in my team
+ I've made some close friends in my team

Interpersonal Resources

+ I feel there is someone I can go to for advice related to training
+ I have someone I feel comfortable going to if I need help preparing for an assignment/ project
+ I have someone I feel comfortable going to if I need help with personal problems

Role

+ I understand what my personal responsibilities are
+ I know what my supervisor considers as good performance
+ I know the limits of my authority
+ I know what behaviour is rewarded
+ I know what it takes to do well

Organisation

+ I know what this organization values
+ I am familiar with the history of this organization
+ I know the internal structure of this organization
+ I have learned how things really work at this organization
+ I am familiar with the unwritten rules of how things are done at this organization

not at all	1	2	3	4	5	6	7	totally

Self-Efficacy

✦ My new role is well within the scope of my abilities
✦ I do not anticipate any problems in adjusting to work in the Army
✦ I feel I am overqualified for the role I am doing
✦ I have all the technical knowledge I need to deal with my new role, all I need now is practical experience
✦ I feel confident that my skills and abilities equal or exceed those of my future colleagues
✦ My past experience and accomplishments increase my confidence that I am able to perform successfully in the Army
✦ I could have handled a more challenging role than the one I am doing
✦ My new role exactly satisfies my expectations of myself

strongly disagree   1   2   3   4   5   6   7   strongly agree

Job Satisfaction

✦ How satisfied are you with your job/ role in general?

very dissatisfied   1   2   3   4   5   very satisfied

Intent to Quit

✦ If I have my own way, I will be working for ABC one year from now
✦ I frequently think of quitting ABC
✦ I am planning to search for a new job outside ABC during the next 12 months

strongly disagree   1   2   3   4   5   strongly agree

Organisational Commitment

✦ I find that my values and ABC's values are very similar
✦ I am proud to tell others that I am at ABC
✦ I am willing to put in a great deal of effort beyond that normally expected in order to help ABC be successful
✦ I talk about ABC to my friends as a great organisation to work for
✦ I would accept almost any type of job assignment in order to stay at ABC
✦ ABC really inspires the very best in me in the way of job performance
✦ I am extremely glad that I chose to work for ABC over other outside organisations I was considering at the time I joined
✦ I really care about the future of ABC
✦ For me this is the best of all possible organisations for which to work

1	2	3	4	5	6	7
strongly disagree	moderately disagree	slightly disagree	neither disagree nor agree	slightly agree	moderately agree	strongly agree

Careerism

+ I took this job as a stepping stone to a better job with another organisation
+ I expect to work for a variety of different organisations in my career
+ I do not expect to change organisations often during my career (R)
+ There are many career opportunities I expect to explore after I leave ABC
+ I am really looking for an organisation to spend my entire career with (R)

strongly disagree   1   2   3   4   5   strongly agree

Personal Change

Do you think that adjusting to your present role in ABC has changed you in any way, in terms of...

+ values (what is important to me in life)
+ personality (what sort of person I am)
+ attitudes (the things I like and dislike)
+ career plans (my plans about my future)

no change at all   1   2   3   4   5   a great deal of change

Mentoring

+ Do you have a Career Counsellor/ Mentor at ABC (i.e. a person who has been formally assigned to this position).?   Yes/ No

If no, please turn the page. If yes, please answer these next questions focusing on your relationship with your Career Counsellor/ Mentor.

+ Career Counsellor / Mentor has shared history of his/ her career with you
+ Career Counsellor / Mentor has encouraged you to prepare for advancement
+ Career Counsellor / Mentor has encouraged me to try new ways of behaving in my job
+ I try to imitate the work behaviour of my Career Counsellor / Mentor
+ I agree with my Career Counsellor / Mentor's attitudes and values regarding training
+ I respect and admire my Career Counsellor / Mentor
+ I will try to be like my Career Counsellor / Mentor when I reach a similar position in my career
+ My Career Counsellor / Mentor has demonstrated good listening skills in our conversations
+ My Career Counsellor / Mentor has discussed my questions or concerns regarding feelings of competence, commitment to advancement, relationships with peers and supervisors or work/ family conflicts
+ My Career Counsellor / Mentor has shared personal experiences as an alternative perspective to my problems
+ My Career Counsellor / Mentor has encouraged me to talk openly about anxiety and fears that detract from my work
+ My Career Counsellor / Mentor has conveyed empathy for the concerns and feelings I have discussed with him/ her
+ My Career Counsellor / Mentor has kept feelings and doubts I shared with him/ her in strict confidence
+ My Career Counsellor / Mentor has conveyed feelings of respect for me as an individual

strongly disagree   1   2   3   4   5   strongly agree

Psychological Contract

NB Each question started with "Please think about XX..." (as below) and then both questions with their associated scales related to XX

Please think about XX (e.g. Accommodation) in your current situation.

+ Do you expect ACCOMMODATION to be poor or good?
+ Do you expect SOCIAL/LEISURE ASPECTS to be poor or good?
+ Do you expect PAY to be poor or good?
+ Do you expect JOB SECURITY to be poor or good?
+ Do you expect JOB SATISFACTION to be poor or good?
+ Do you expect CAREER PROSPECTS to be poor or good?
+ Do you expect EFFECTS ON FAMILY to be poor or good?

very poor	1	2	3	4	5	6	7	very good

+ How important is ACCOMMODATION to you?
+ How important are SOCIAL/LEISURE ASPECTS to you?
+ How important is PAY to you?
+ How important is JOB SECURITY to you?
+ How important is JOB SATISFACTION to you?
+ How important are CAREER PROSPECTS to you?
+ How important are EFFECTS ON FAMILY to you?

not important	quite important	very important	does not apply
1	2	3	4

Cultural Fit
+ How well do you think you fit into the culture at ABC?

not at all	1	2	3	4	5	6	7	totally

Cultural Fit Assessed by Supervisor
+ How well does this person fit into the culture at ABC?

not at all	1	2	3	4	5	6	7	totally

QUALITATIVE RESEARCH

Qualitative Question to Army Recruits

Have you had any experiences during training that stand out in your memory? For example, things or people who were very different from what you expected, or something that has happened. Please describe this briefly in the space below, including comments on how you felt and what you learned from the experience.

ABC New Employees

Please comment on any adjustment problems you have experienced as a new employee at ABC.

Please comment on anything that particularly surprised you about your new job or about ABC.

If you have anything else which you would like to add about your experience as a recent entrant into ABC, please write this in the space below.

Q Sort Values

A willingness to experiment	Achievement orientation
Action orientation	Adaptability
An emphasis on quality	Autonomy
Being aggressive	Being analytical
Being calm	Being careful
Being competitive	Being demanding
Being distinctive - different from others	Being easy going
Being highly organised	Being innovative
Being people oriented	Being precise
Being quick to take advantage of opportunities	Being reflective
Being result oriented	Being rule oriented
Being socially responsible	Being supportive
Being team oriented	Confronting conflict directly
Decisiveness	Developing friends at work
Emphasising a single culture throughout the organisation	Enthusiasm for the job
Fairness	Fitting in
Flexibility	Having a clear guiding philosophy
Having a good reputation	Having high expectations for performance
High pay for good performance	Informality
Low level of conflict	Not being constrained by many rules
Offers praise for good performance	Opportunities for professional growth
Paying attention to detail	Predictability
Respect for the individual's right	Risk taking
Security of employment	Sharing information freely
Stability	Taking individual responsibility
Taking initiative	Tolerance
Working in collaboration with others	Working long hours

ABC Semi-Structured Interviews

Questions at Entry

I.   What are your perceptions of ABC as an organisation?

II.   Metaphor of the organisation,
          (e.g. Henry V was a lion in battle, My home is a bees' hive at Christmas)

III.   Do you think that you will fit well into the culture of ABC?

   A.   What makes you feel this way?

   B.   Do you think there may be any specific areas that could be problematic?

IV.   During your selection by ABC, were there any major unanticipated surprises?

V.   During the short period that you have been employed by ABC, have there been any major unanticipated surprises?

VI.   In your eyes, what is the relationship between ABC and its employees? How does ABC treat employees? How do employees generally view ABC?

VII.   Why did you choose to work for ABC?

VIII.   What advantages do you think ABCwill provide you with that your previous employer could not provide?

IX.   What strategies do you plan to use to help you adjust, find out information, etc.?

Questions at Month 4

I.   Metaphor of the organisation, revisit this. Is this true of your perceptions of ABC now?

   A.   If no metaphor, have they thought of one since

   B.   Can I use the metaphor anonymously

II.   What are your perceptions of ABC as an organisation?

III.   Do you think that you have fitted well into the culture of ABC?

   A.   What makes you feel this way?

   B.   Have there been any specific problem areas?

IV.   What strategies have you been able to use to help you adjust, find out information, etc.?

V.   Have there been any particular things ABC has done that have helped or hindered your entry into the organisation? (mentor, project, resources, bureaucracy

VI.   What further things could ABC have done that would have helped to smooth your entry into the organisation?

VII.   Have you used the specific skills that you were brought in for?