

ResearchSpace@Auckland

Version

This is the Accepted Manuscript version. This version is defined in the NISO recommended practice RP-8-2008 <http://www.niso.org/publications/rp/>

Suggested Reference

Cooper-Thomas, H. D., & Anderson, N. (2005). Organizational Socialization: A Field Study into Socialization Success and Rate. *International Journal of Selection and Assessment*, 13(2), 116-128. doi: 10.1111/j.0965-075X.2005.00306.x

Copyright

Items in ResearchSpace are protected by copyright, with all rights reserved, unless otherwise indicated. Previously published items are made available in accordance with the copyright policy of the publisher.

<http://www.sherpa.ac.uk/romeo/issn/0965-075X/>

<https://researchspace.auckland.ac.nz/docs/uoa-docs/rights.htm>

Running head: ORGANIZATIONAL SOCIALIZATION: A FIELD STUDY

Organizational Socialization: A Field Study into Socialization Success and Rate

RESEARCH ARTICLE

Key words: Organizational Socialization, Newcomer Adjustment, Information Acquisition,
Socialization Stages, Organizational Socialization Tactics

Organizational Socialization: A Field Study into Socialization Success and Rate

Summary

The last decade has witnessed a resurgence of organizational socialization research. However, a critical question has been neglected: Is there a common underlying pattern to organizational socialization? We investigated newcomer learning, job satisfaction and intent to quit as common indicators of socialization, in research with 222 newcomers at two organizations during the crucial post-entry period. The results support a learning-dependent model of newcomer adjustment, with learning in specific domains related to improved attitudinal outcomes. Some aspects of organizational socialization were not uniform across the two organizations, suggesting a need for further development of socialization models and greater accounting for this in organizational socialization research.

Introduction

Organizational socialization refers to the period of newcomer adjustment and learning to meet organizational standards and norms that follows selection and assessment. In contrast to considerable research into pre-entry selection methods and predictor efficacy, there has been almost no research into similarities and differences in patterns of socialization change across different newcomer populations (Bauer, Morrison & Callister, 1998; Chan & Schmitt, 2000; Wanberg & Kammeyer-Mueller, 2000). Although there have been longitudinal studies of organizational socialization in recent years (e.g. Chan & Schmitt, 2000; Chao, O’Leary-Kelly, Wolf, Klein, & Gardner, 1994; Ostroff & Kozlowski, 1992; Thomas & Anderson, 1998; Wanberg & Kammeyer-Mueller, 2000), variables are typically only measured once, limiting our understanding of how newcomers adjust over time. This study combines content and process approaches to provide an initial view of what happens during organizational socialization in terms of changes within and between key variables during the critical post-entry period; whether this process is common across organizations and newcomers; and provides initial information on actual rates of adjustment.

A Content and Process Approach

In their review of organizational socialization, Saks and Ashforth (1997a) note that there is no theory of organizational socialization as such, with a variety of approaches taken. Chao, O’Leary-Kelly, Wolf, Klein, and Gardner (1994) usefully divide research approaches into content or process, yet there is little research that combines these to understand how content changes during the organizational socialization process. A partial exception to this is Saks and Ashforth’s multi-level

process model of organizational socialization, which details all of the inputs (e.g., organizational socialization tactics, social support) and outcomes (e.g., social integration, job satisfaction) of organizational socialization. Between these come information, uncertainty reduction and, in turn, learning. No further detail on these is given, depicting the lack of process knowledge for this central aspect of organizational socialization.

Viewing learning as the central component of organizational socialization fits with both Uncertainty Reduction and Sense-Making Theories (Falcione & Wilson, 1988; Morrison, 1993b; Louis, 1980). Specifically, as newcomers learn about their role, colleagues, and organization, they reduce their uncertainty, show improvements in performance and job satisfaction, and are more likely to stay. Similarly, sense-making approaches propose that as newcomers come to accurately interpret organizational events, they develop an accurate cognitive map of the organizational context (Anderson & Thomas, 1996; Louis, 1980; Weick, 1995).

In line with these theories, there is sound empirical evidence that newcomer learning is associated with better outcomes (Chao, O'Leary-Kelly et al., 1994; Bauer et al., 1998), and therefore it makes sense to put learning at the heart of any organizational socialization model. However, there are problems in relying on learning alone as an indicator, given our knowledge of organizational socialization to date. First, it is unclear what level of learning indicates organizational socialization success. For example, Chao, O'Leary-Kelly et al. (1994) state that defining the content and dimensionality of the socialization domain will provide criteria to judge its success. This suggests that perhaps there is a specific learning threshold that has to be reached, akin to performance

standards, or else a lack of change may indicate completed adjustment (Feldman, 1976). Data are needed to clarify this.

A second issue is that focusing solely on learning rejects findings showing that different outcomes are achieved over time (Feldman, 1976; Van Maanen, 1975). Thus it ignores issues of individual attitudes, assimilation and performance which are, arguably, key outcomes of successful organizational socialization.

Third, focusing only on gains within knowledge domains ignores potentially important relationships between them. In particular, social learning appears to be the primary domain. Research consistently shows the important role of peers and supervisors in newcomer learning (Louis, Posner, & Powell, 1983; Nelson & Quick, 1991; Morrison, 2002b), both knowingly or unconsciously providing or withholding essential information (Feldman, 1976; Major & Kozlowski 1997; Morrison, 1993). In line with this, organizational socialization tactics have consistently shown social aspects (i.e., serial and investiture) to have greatest effects on newcomers. Moreover, in the one study where learning domains were investigated relative to each other at five and nine months post-entry, social learning was found to be the most rapidly acquired domain (Ostroff & Kozlowski, 1992). Learning about the organization only becomes important later on (Morrison, 1995), possibly because this information is not critical to newcomers' more immediate social and performance goals, even though it appears important for longer term success (Chao, O'Leary-Kelly et al., 1994). Therefore, we hypothesize that, in the immediate post-entry period:

Hypothesis 1: Newcomers will report a) learning in all domains, b) greater social knowledge relative to other learning domains, c) less organizational knowledge relative to other learning domains.

As outlined above, and in keeping with Saks and Ashforth's (1997a) process model of organizational socialization, we propose that learning alone is not a sufficient indicator of organizational socialization success. Rather, success is indicated when learning is associated with improvements in other relevant outcomes. Attitudinal outcomes are commonly used, and we focus here on job satisfaction and intent to quit (Adkins, 1995; Bauer & Green, 1998; Wanberg & Kammeyer-Mueller, 2000).

As with learning, there has been little research on actual attitude change among newcomers. On the whole, researchers propose that increased learning is associated with improved outcomes, including role clarity, social relations, job satisfaction, performance, and lower intent to quit (Anderson & Thomas, 1996; Morrison, 2002; Saks & Ashforth, 1997a). Yet empirical evidence on this is mixed. In particular, there is little evidence that attitudes change during organizational socialization, bringing into question whether learning, or indeed any other socialization variables, have any positive influence in spite of evidence for positive associations.

Research on job satisfaction reveals that, in the main, newcomers report relatively high levels of job satisfaction across single-point measurements and stable job satisfaction across intervals ranging from four months to two years, although differences are rarely investigated (Adkins, 1995; Ashforth & Saks, 1996; Chatman, 1991; Jones, 1986; Ostroff & Kozlowski, 1992; Robinson & Rousseau, 1994; Saks, 1995). An exception to this is Van Maanen's (1975) research with police newcomers, which reveals

a more complex picture underlying this apparent stability: Although job satisfaction looked stable over the first nine months post-entry, in fact newcomers' job needs increased over this period, yet these were met by increases in what the organization supplied.

For intent to quit, newcomers report low levels early post-entry, and with some evidence for increases over intervals of four months through to two years (Ashforth & Saks, 1996; Ostroff & Kozlowski, 1992; Robinson & Rousseau, 1994; Wanberg & Kammeyer-Mueller, 2000), but few tests of significance. Further evidence comes from the unmet and unrealistic expectations literature, and from psychological contract research, showing that newcomers' expectations and promises are generally not met, and that this is related to higher intent to quit and turnover (Dunnette, Arvey, & Banas, 1973; Louis, 1980; Premack & Wanous, 1985; Robinson & Rousseau, 1994; Thomas & Anderson, 1998; Wanous, 1976, 1977). This perspective suggests that poorer attitudes are likely over time.

Since the early post-entry period is crucial in determining longer-term outcomes (Ashforth & Saks, 1996), it is important to establish whether newcomers do significantly change their attitudes. Overall, in spite of the optimism of organizational socialization models, most of the empirical evidence suggests poorer outcomes over time, and hence we hypothesize as follows:

Hypothesis 2: Newcomers will report a) decreases in job satisfaction and (b) increases in intent to quit in the immediate post-entry period.

While these hypotheses pose important questions as to the potential patterns of newcomer adjustment within domains of variables, they do not investigate relationships

between these. As touched on above, models of organizational socialization propose a general link from greater learning to more positive attitudes (Anderson & Thomas, 1996; Morrison, 2002; Saks & Ashforth, 1997a), but questions remain about which learning domains are important in this relationship, and how these relationships change over time.

Theoretical approaches to job satisfaction and intent to quit are informative. There are three main perspectives on job satisfaction, which propose either that it is influenced primarily by individual characteristics (Judge, 1993; Staw & Ross, 1985), job characteristics and information processing (Hackman & Oldham, 1976; Wall & Martin, 1987), or social learning (Salancik & Pfeffer, 1977; Pollock, Whitbred, & Contractor, 2000). There is evidence that individual differences are important to newcomer adjustment (Saks, 1994, 1995; Wanberg & Kammeyer-Mueller, 2000) but, given our focus on investigating generalizability, we control for these leaving role and job learning, and social learning as possible influences on job satisfaction.

Empirical research from an organizational socialization perspective has confirmed that learning precedes and positively predicts attitudes (Chao, Kozlowski, et al, 1994; Chao, O'Leary-Kelly et al., 1994; Ostroff & Kozlowski; Saks & Ashforth, 1997a). Ostroff and Kozlowski (1992) found that graduate newcomers' learning predicted small changes in both job satisfaction and intent to quit between approximately five and nine months post-entry. No specific learning domains were identified, although task knowledge predicted three other adjustment outcomes. Chao, Kozlowski et al. (1994) also investigated graduating student newcomers, and found that learning at entry predicted job satisfaction and intent to quit at six months; significant correlations were evident between social and organizational learning domains and these attitudes, although

they did not specifically investigate role knowledge. Chao, O'Leary-Kelly et al. (1994) investigated a sample of engineers and managers who remained in the same job over a four year period. Knowledge was measured at one time point and job satisfaction, among other career outcomes, was measured 4 years later. Organizational knowledge predicted job satisfaction in this non-newcomer population. Hom and Kinicki's (2001) review of turnover research showed that higher role knowledge and lower inter-role conflict are associated with lower intent to quit. Research has also shown newcomers with wider social contacts (Chao, 1997; Chatman, 1991; Louis, Posner, & Powell, 1983), and lower role ambiguity and conflict (Adkins, 1995) report higher job satisfaction.

There is no research that provides an overview of the relationship between specific learning domains and positive attitudes in the critical first few months when most change occurs. We hypothesize as follows:

Hypothesis 3: (a) At entry, learning and job satisfaction will be unrelated; (b) in the immediate post-entry period, social and role learning will be positively associated with job satisfaction.

Hypothesis 4: (a) At entry, learning and intent to quit will be unrelated; (b) in the immediate post-entry period, role learning will be negatively associated with intent to quit.

Note that for Hypotheses 3 and 4, the proposed lack of relationships at entry (3a and 4a) provides a quasi-control for common method bias.

Identifying time intervals to measure organizational socialization

The dearth of research on the rate of organizational socialization changes may be, in part, due to the lack of agreement over appropriate measurement intervals (Bauer et al.,

1998; Saks & Ashforth, 1997a) or, related to this, norms for rates of change (Reichers, 1987). However, the abundance of longitudinal studies provides consistent evidence of the importance of the first months following entry and their long-term effects. Research has shown that newcomers adjust rapidly over even short four-week intervals in the early post-entry period (Chan & Schmitt, 2000; Chen & Klimoski, 2003; Major, Kozlowski, Chao, & Gardner, 1995; Thomas & Anderson, 1998); that early post-entry measures (e.g., attitudes) have stronger or unique effects relative to measures taken later on (Ashforth & Saks, 1996; Bauer & Green, 1994; Liden, Wayne, & Stilwell, 1993); and that early measures of socialization are relatively stable and are important in determining later outcomes (Ostroff & Kozlowski, 1992; Morrison, 1993a, 1993b). Therefore, we investigate patterns of newcomer adjustment over the first months post-entry.

Comparing Organizational Socialization Across Organizations

Previous research has assumed that there are similarities in the organizational socialization process across different types of newcomers, roles and organizations, and this requires explicit testing (Bauer et al., 1998). Research has been of a single organization or professional body, or of graduating students entering various workplaces (for reviews see Bauer et al., 1988; Fisher, 1986; Saks & Ashforth, 1997a).

Organizational differences have not been specifically investigated, suggesting an assumption that the organization's input into the process, measured by organizational socialization tactics, is more important than differences between organizations. To investigate this further, we selected two settings which typify those used in the early (i.e., prior to Fisher's 1986 review) and more recent periods of organizational socialization research respectively. Early organizational socialization research focused on single

organizations or occupations with a large number of new entrants (e.g., the armed forces, police, nursing) (Fisher, 1985; Van Maanen, 1973, 1975), and the similar sample that we investigate in the current research is the British Army. In contrast, recent research has focused on graduating students going into management and professional roles (e.g., accountancy, engineering) (Ashforth & Saks, 1996; Chao, O’Leary-Kelly et al., 1994; Morrison, 1995), and the second similar sample we investigate is a professional services firm, XYZ. Both of these organizations have strong cultures and use institutionalized tactics (Jones, 1986; Van Maanen & Schein, 1979). That is to say, newcomers went through socialization as a group, mostly segregated from insiders (collective & formal tactics); there was a specific process with various stages to be passed according to a timetable (sequential and fixed tactics); and insiders were available as role models and were positive towards newcomers. We also controlled for individual differences of age, work experience, gender, and self-efficacy at entry (Adkins, 1995; Saks, 1994, 1995; Wanberg & Kammeyer-Mueller, 2000).

Method

Host Organizations

Two organizations provided data for this study, the British Army and a professional services firm, XYZ.

The British Army. The sample of British Army recruits comprised those entering as Privates and undergoing initial training (Phase 1) at the two largest of the five Army Training Regiments (ATRs) in the U.K.. The pattern of formal training at specific sites reflects a strong, organizationally-directed process aimed at expediting socialization (Marsh & Smith, 1991; Jones, 1983; Thomas 1999; Van Maanen & Schein, 1979). The

study design was longitudinal, with measurement spanning the first eight weeks of the ten-week training course. Data were collected using questionnaires at three equal tenure measurements: week 1, end of month 1 and end of month 2. Questionnaire administration was integrated into the training timetable and was conducted by training staff according to explicit instructions. Visits were made to several administration sessions to ensure that correct procedures were being followed.

Following listwise deletion, complete responses were obtained for 166 recruits across the three measurements, with response rates decreasing across the three measurements from 725 respondents at time 1, 579 respondents at time 2, and 317 respondents at time 3. Compared to the initial sample of respondents, the response rate is 42%, with this reduced to 22% for the 166 matched respondents. Since recruits cannot quit training during the first eight weeks, non-response was not due to sample attrition. Further, only ten questionnaires were returned incomplete, suggesting that the majority of recruits were willing to respond to questionnaires when these were presented to them. The two main reasons for declining rates of response were: First, the research was terminated prematurely at one ATR due to an administrative error; second, towards the end of training, training staff were under increasing pressure to ensure that their recruits had reached acceptable standards, and therefore some staff replaced questionnaire administration sessions with extra training. A comparison of the demographic data for recruits who responded at time 1 only with those who responded at all three times shows that the profile of responding recruits changed little over time. For both samples, approximately three quarters were male which is closely representative of the recruit population (563 males (78%) and 162 females (22%) for time 1; 126 male (76%) and 40

female (24%) for times 1 - 3). The average age was 19 (time 1: $M = 19.19$, $SD = 2.48$; times 1 - 3: $M = 19.39$, $SD = 2.41$), with most having left full-time education at 17 (time 1: $M = 16.62$, $SD = 1.28$; times 1 - 3: $M = 16.73$, $SD = 1.32$). The majority of recruits were single (78% for time 1 versus 72 % for times 1 - 3), with relatively few married or divorced. 38% of the sample had previous work experience, and one third had previously been a member of the Territorial Army (reserve Armed Forces), Army Cadet Force (junior corps) or a similar organization (35% for time 1 versus 36% for times 1 - 3). Also, about one third of recruits had close family members (father, mother, brother, or sister) in the Armed Forces (36% for time 1 versus 38% for times 1 - 3). There were no significant demographic differences between the recruits at the two training sites.

XYZ Organization. XYZ is a highly successful multinational professional services firm originating in the U.S.A. that is concerned with improving client organizations' business processes. We investigated the socialization of new employees entering the London offices of XYZ. In the initial post-entry period, newcomers collectively attend training covering XYZ's history and business (e.g., business strategies, structure, culture), as well as specific skills training (e.g., computer software training). During the first few months, newcomers are assigned to a specific project team, comprising individuals from all levels of seniority. The exact timing of this varies according to the newcomers' skills and business needs.

The research was conducted longitudinally across the first four months following entry into XYZ, with questionnaire measures taken at week one, and the end of months two and four. We chose these periods as "temporally equivalent" to the British Army measurement intervals, on the basis that British Army socialization would be

approximately twice as quick. Specifically, newcomers at both organizations spend five days per week at work, but Army newcomers spend all their waking hours in their new workplace (approximately sixteen hours per day) whereas XYZ newcomers spend only the normal working hours in their new organization (approximately eight hours per day). In both cases, the exact amount of exposure varies according to training timetables, social events, travel to work sites with colleagues, and so on. At XYZ, the first author liaised with Human Resources staff who sent out questionnaires and reminders at the appropriate times.

Of the 198 newcomers to XYZ during this period, 21 did not respond at any measurement. Of the remainder, 139 responded at time 1 (79%), 132 responded at time 2 (75%), and 104 responded at time 3 (59%). However, complete data were only available for 56 newcomers (32%). The only demographic data available for the complete sample of 198 newcomers was for gender. More men than women joined XYZ during this period (132 men (66%) and 66 women (33%)), with similar numbers of men and women responding at time 1 (87 men (64%), 48 women (36%)) and slightly more men than women responding at all three measurements (30 men (54%), 26 women (46%)). For the remaining demographic variables of age, work experience, and hierarchical level, these are only available for those responding to questionnaires. The average age was approximately 27 years, which was similar across samples (time 1: \underline{M} = 27.51, \underline{SD} = 5.72; times 1 – 3: \underline{M} = 26.27, \underline{SD} = 5.73). For those who responded to a question on their previous work experience (\underline{n} s of 76 and 28 for time 1 and times 1 – 3 respectively), the average number of years of experience was similar (time 1: \underline{M} = 8.13, \underline{SD} = 5.82; times 1 – 3: \underline{M} = 6.93, \underline{SD} = 5.80). With regard to the level in the organizational hierarchy at

which newcomers entered, the majority of time 1 respondents entered at the first and second of five levels (74%) with those responding at times 1 – 3 also predominantly entering at these first two levels (83%). Hence, overall, respondents to all three surveys were similar to both the total newcomer population and to the time 1 respondents. Further, all newcomers to XYZ are university-educated, having a minimum of a Bachelors degree.

Measurement Intervals

Following best practice in longitudinal research, our first measurement was early post-entry as a control; subsequent measurements were in monthly units to help comparison with previous research (Bauer et al., 1998) and to simplify survey administration and hence reduce timing issues and associated error variance. In common with previous research, we used three measurements of equal intervals to “control” for tenure effects (Bauer & Green, 1996).

Measures

Work Experience. A single question, “Have you had a full-time, paid job before?”, was answered with a yes/ no response.

Self-efficacy. Jones’ (1986) measure of self-efficacy was used with minor adaptations to reflect its use after organizational entry and with a non-professional sample. The items were measured on a seven-point scale, from “strongly disagree” to “strongly agree”. The Cronbach alpha for this scale was .76.

Socialization Information. Four socialization information acquisition scales have been developed to date (Chao, O’Leary-Kelly et al., 1994; Ostroff & Kozlowski, 1992; Taormina, 2004; Thomas, 1999; Thomas & Anderson, 1998). The two older scales have

been criticized both by their authors and reviewers. The reasons for these criticisms include overlap between domains, domains measuring multiple concepts, and insufficient measurement of role issues (Bauer et al., 1998; Chao, O'Leary-Kelly et al., 1994; Ostroff & Kozlowski, 1992; Saks & Ashforth, 1997a). Furthermore, both of these measures were designed for use with graduate samples and initial interviews with Army staff indicated potential difficulties with some of the vocabulary used. Hence we used a socialization information measure developed by Thomas and Anderson (1998, 1999) comprising twenty-one items which load onto four dimensions of: Role (5 items), social (8 items), interpersonal resources (3 items), and organization (5 items). Role information refers to newcomers' knowledge and mastery of skills, and understanding of performance requirements (e.g., "I understand what my personal responsibilities are"). Social items measure newcomers' integration and camaraderie with their colleagues (e.g., "I can easily be identified as 'one of the team'"). Interpersonal resources items measure newcomers' establishment of a network of contacts for help with various problems that they might experience (e.g., "I have someone I feel comfortable going to if I need help preparing for an assignment or project"). Last, organization items ask about knowledge or familiarity with the wider structural and cultural aspects of the organization (e.g., "I am familiar with the unwritten rules of how things are done at this organization"). Responses were given on a seven-point Likert scale, from 1 "not at all" to 7 "totally". Information acquisition was measured at all three times at both organizations, with Cronbach alphas ranging from .72 to .95 across Army and XYZ newcomers.

Job Satisfaction. Research over the last 15 years has shown that global ratings of job satisfaction are more inclusive than facet measures, and are reliable when they

measure a construct which respondents will understand (Scarpello & Campbell, 1983; Schneider, 1985; Wanous, Reichers, & Hudy; 1997). For example, Wanous et al. estimate that the minimum reliability for a one-item measure of an unambiguous construct such as job satisfaction is .70 (see also Sackett & Larson, 1990). Hence a single item asked “How satisfied are you with your job/role in general?”, scored on a 1 to 5 scale from “very dissatisfied” to “very satisfied”. This was measured at all three times.

Intent 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. As with previous research, a 1 to 5 scale was used from “strongly disagree” to “strongly agree”. Of the three items, the intent to stay item had low inter-correlations with the two intent to quit items, and hence only the two intent to quit items were retained. This measure was included in all three questionnaires at both organizations, with Cronbach alphas ranging from .74 to .92.

Results

Tables 1 and 2 show descriptive statistics and correlations for all variables at the Army and XYZ respectively. Army newcomers report high and increasing information acquisition and job satisfaction over time, and low yet increasing intent to quit. The four information acquisition domains were positively inter-correlated as would be expected for different dimensions of the same construct¹; job satisfaction was negatively correlated with intentions of leaving. Correlations between information acquisition and attitudes became slightly stronger over time, these being positive with job satisfaction and negative

with intent to quit, indicating that higher levels of information acquisition were associated with more positive attitudes.

Insert Table 1 about here

XYZ newcomers report high and increasing information acquisition across the first few months, relatively high but decreasing levels of job satisfaction, and low but increasing intentions of leaving (see Table 2). All variables show significant positive correlations between time points with the exception of job satisfaction which does not correlate significantly between T1 and T3. Again, all information acquisition variables were strongly positively inter-correlated as expected. As with Army newcomers, XYZ newcomers tended to show stronger relationships between information and attitudinal variables across time, with learning associated with more positive attitudes.

Insert Table 2 about here

To investigate Hypotheses 1a to 1c, a 4 x 3 x 2 within- and between-respondents MANOVA was performed on learning by time by organization. Using Wilk's lambda for within-respondents variables, the results were significant for the main effects of learning, $F(3, 218) = 33.65, p < .01$, time, $F(2, 219) = 39.39, p < .01$, and organization, $F(1, 220) = 85.16, p < .01$. There were also significant two-way interaction effects for learning by time $F(5, 215) = 5.15, p < .01$ and three-way interaction effects for learning by time by organization $F(6, 215) = 3.03, p < .01$. Since there were significant differences between organizations, we analyzed the newcomer results separately using *t*-tests within each learning domain from time 1 to time 2, and time 2 to time 3. Given that this research is

novel in investigating patterns of change so proximally, we felt this was most useful for future research to report significant levels up to $p \leq .10$ (Tabachnick & Fidell, 1996). Newcomers reported role, social and organizational learning across all time intervals, but did not show significant interpersonal resources learning (see Table 3). Since previous research has not looked at intervals shorter than four months (Ostroff & Kozlowski, 1992), we conducted further analysis of interpersonal resources to see whether a change was evident over this longer period. This was significant for Army but not XYZ newcomers.

Insert Table 3 about here

Looking at the patterns of learning in more detail, given the significant effect for organization in the initial MANOVA, again we investigated each organization separately. Eighteen t -tests (six comparisons within learning domains by three measurements) were conducted for each organization, with a conservative α of .005 used to test for significance (see Table 3)ⁱⁱ. The results show different patterns of learning across the two groups of newcomers at the Army and XYZ, but relative stability within each of these. Army newcomers reported greatest levels of role learning at all times, and then of social learning, with interpersonal resources learning greater than organizational learning at T1 and T2. In contrast, XYZ newcomers reported no differences at T1, and with only social learning greater than the other learning domains at T2 and T3. Overall, these results provide strong support for Hypothesis 1a, and weak support for Hypotheses 1b (XYZ only) and 1c (Army only),

In Hypotheses 2a and 2b, we proposed that newcomers would report decreases in job satisfaction and increases in intent to quit during the post-entry period. Looking at the means across T1 to T3 for job satisfaction, Army newcomers report increases whereas XYZ newcomers report decreases. We conducted a 3 x 2 within- and between-respondents MANOVA to confirm whether we should investigate the two groups of newcomers separately. Using Wilk's lambda for within-respondents effects, the results showed significant effects for organization, $F(1, 220) = 6.93, p < .01$, and an organization by time interaction, $F(2, 219) = 8.49, p < .01$, but no effect for time, $F(2, 219) = 0.49, p > .05$. To provide a more detailed view of the changes, in line with analyses for Hypotheses 1a to 1c, we followed up with paired t -tests for each organization. These showed that both Army and XYZ newcomers reported changes in job satisfaction from T1 to T2 only (Army T1 – T2 $t(165) = -2.14, p < .05$; T2 – T3 $t(165) = -1.03, p > .05$; XYZ T1 – T2 $t(56) = 2.09, p < .05$; T2 – T3 $t(165) = 1.43, p > .05$; XYZ).

Similarly, for Hypothesis 2b, we conducted a 3 x 2 within- and between-respondents MANOVA to confirm whether we should investigate the two groups of newcomers separately. Using Wilk's lambda for within-respondents effects, the results showed significant effects only for time, $F(2, 219) = 6.32, p < .01$, but not for organization, $F(1, 220) = 3.47, p > .05$, nor for the organization by time interaction, $F(2, 219) = 2.19, p > .05$. To provide consistency in our analyses and give a detailed view of the changes occurring, we followed up with paired t -tests for each organization. These showed that Army newcomers reported a significant increase in intent to quit across T1 to T2 only (Army T1 – T2 $t(165) = -2.21, p < .05$; T2 – T3 $t(165) = 0.55, p > .05$) whereas

XYZ newcomers reported increased intent to quit across both T1 to T2, and T2 to T3 (T1 – T2 $t(56) = -2.76, p < .01$; T2 – T3 $t(165) = -2.64, p < .05$). Overall, there is weak support for Hypothesis 2a (XYZ only) and partial support for Hypothesis 2b.

Insert Table 4 about here

For Hypotheses 3 and 4, we tested the relationships between learning with job satisfaction and intent to quit using hierarchical stepwise regression analyses, with control variables of organization, sex, age, work experience and self-efficacy entered at step 1, and the learning domains for that measurement entered at step 2 (Table 4). For job satisfaction, the control variables alone significantly predicted job satisfaction at all three time-points, confirming the importance of controlling for these variables. At T1, only self-efficacy positively predicted job satisfaction, with learning unrelated, as expected (Hypothesis 3a). At T2 and T3, organization and self-efficacy were significant at step 1 (i.e. higher self-efficacy and being a newcomer to the Army), but not at step 2 where social and interpersonal resources learning predicted job satisfaction, accounting for an additional 8% and 20% of the variance at T2 and T3 respectively.

For intent to quit, only age was significant as a control variable, being a negative predictor for two of the six models, such that younger newcomers were less likely to intend to quit. As hypothesized, learning was not significantly associated with intent to quit at entry. At T2, the four learning domains lead to a small increase in R^2 (4%), but with no individual domain reaching significance. At T3, role learning was a significant negative predictor of intent to quit, accounting for 10% additional variance. Overall, Hypothesis 3a and 4a were supported, Hypothesis 3b was partially supported (social and

also interpersonal resources learning) and Hypothesis 4b was partially supported (role learning predicting intent to quit at T3 only).

Discussion

The pattern of changes within variables, and relationships between them, shows the central role of learning to organizational socialization (Falcione & Wilson, 1988; Louis, 1980). Learning was not related to attitudes at entry but positive relationships were found during the early post-entry period. This is consistent with newcomers reducing their uncertainty and beginning to make sense of their new role and organization, and this having a positive impact on job satisfaction and intent to stay. Different information domains were associated with these attitudes, suggesting that specific types of uncertainty, or put alternatively specific areas of learning, have positive effects. The specificity of the learning domain – attitude relationships, with no organizational differences found, suggest that Sense-Making Theory provides a superior explanation of the results. For Uncertainty Reduction Theory to explain these effects, one would expect more generalized relationships between learning and attitudes.

Moreover, our research begins to fill in the “black box” of learning that is proposed, in a generalized way, to be central to other more distal positive adjustment outcomes (Saks & Ashforth, 1997). Specific learning domains are important in predicting different outcomes. Our results also suggest that learning alone is not sufficient as an indicator of organizational socialization. For example, learning in a restricted range of domains may not be enough to positively influence attitudinal and other outcomes. Nonetheless, these findings confirm the critical role of newcomers’ colleagues in the socialization learning process, with social and interpersonal resources

learning predicting job satisfaction (Louis, Posner & Powell, 1983; Anderson & Thomas, 1996).

A novel aspect of our research was investigating organizational socialization across two organizations. An intriguing pattern of similarities and differences were found. Our findings suggests that past research investigating broad samples and taking no account of context, apart from perhaps organizational socialization tactics, is likely to have overlooked important differences. Moreover, these results confirm that learning alone is not a sufficient indicator of the organizational socialization process. Other outcome variables are also important to provide a detailed picture, especially since, across a newcomer population, learning can co-occur with worsening attitudes.

This research aimed also to provide information on rates of change, being the first study to do so (Reichers, 1987). This research shows the rapidity of changes during the critical early period, with both Army and XYZ newcomers reporting early adjustments in learning and attitudes. The MANOVA results showed an organization by time interaction only for job satisfaction, suggesting that the actual rates of change were broadly equivalent across the two newcomer samples for learning and intent to quit, and it seems likely that this will generalize to other organizational socialization contexts. Further, our results confirm that short intervals, early post-entry are necessary to capture the rapid speed of newcomer adjustment (Chen & Klimoski, 2003; Major & Kozlowski, 1997).

Limitations and Strengths of the Present Research

The current research can be criticized for using self-report data which is subjective, and risks inflating results via common method variance (i.e., type II error).

However, the use of self-reports is generally accepted when the research is concerned with determining employees' reactions and attitudes (Bauer & Green, 1994). Past research has argued for the usefulness of subjective measures for assessing change 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; Cooper-Thomas, Van Vianen, & Anderson, 2004). In addition, we propose that our research design reduced the risk of common method variance affecting results, by: Asking respondents to give a large number of ratings (Ostroff & Kozlowski, 1992); employing a longitudinal design; and using different rating scales (Major & Kozlowski, 1997). The fact that relationships between variables across time varied (e.g., Table 4, learning with attitudes), and were non-significant at entry, suggests that common method effects did not influence our results.

A second limitation of the research design is that we measured newcomers' socialization experiences only over the first several months. Socialization is ongoing through each individual's career (Van Maanen, 1977), and therefore further changes are likely to have occurred beyond this measurement. Although previous research and models of organizational socialization suggest that most change occurs early on (Ashforth & Saks, 1995; Chen & Klimoski, 2003; Wanous, 1976), it would have been useful to confirm this by investigating our newcomers over a longer period to reveal where patterns of adjustment stabilize (Saks & Ashforth, 1997a).

An additional limitation of the research was the assumption of equivalent time periods, with one Army month taken as two XYZ months. Nonetheless, the results

support this research design in that a number of similarities were found across newcomers to the two organizations in spite of the different time periods, and there were few organization by time interactions.

Last, as is common in studies of organization socialization, our response rate decreased over time, with final matched data available for 22% of the initial Army newcomers and for 32% of XYZ newcomers. However, these are comparable with rates in other longitudinal socialization research (Chao, Kozlowski, et al., 1994; Chao, O'Leary-Kelly et al., 1994; Wanberg & Kammeyer-Mueller, 2000).

Offsetting these limitations were a number of strengths in the research design. First, the use of short measurement intervals and multiple measurements revealed the rapidity of change in both a military and a commercial setting, with some adjustment apparently complete after the first measurement period. Second, investigating both learning and attitude changes across multiple measurements provided a unique and detailed view of the organizational socialization process. Third, conducting the research with two different newcomer samples provided initial evidence of differences in organizational socialization across settings.

Practical Implications

As careers become increasingly multi-organizational (Howard, 1996), so organizations need to facilitate the rapid and effective socialization of new employees into their work roles. This research shows that both information acquisition (Bauer et al., 1998; Chan & Scmitt, 2000; Saks & Ashforth, 1997a) and traditional attitude measures are relevant for monitoring this process. The means and investigations of change over

time reported above provide a starting point for norms to be developed, such that organizations and newcomers can check their progress.

Future Research

Research is needed to investigate how similar the process and rate of organizational socialization is in other settings to assess whether the current findings replicate. It is important that researchers continue to use longitudinal designs (Bauer et al., 1998), in spite of the difficulties this poses for researchers (Becker, 2002). From the current research, we cannot discern how far through the socialization process newcomers were at these two organizations by the end of the research measurement period. Thomas and Anderson (1998) have suggested measuring organizational insiders to gain normative data, and evaluating newcomers relative to these benchmarks. This might provide a practical solution to this issue, although with the drawback of being organization-specific.

An additional issue for organizations is that people are working in different ways, including teleworking, part-time and temporary jobs (Cascio, 1998), and are changing organizations more often (Bennis & O'Toole, 2000). Research is needed to help organizations find ways to socialize newcomers who are entering more frequently and having a variety of working relationships with the organization.

Conclusion

This research contributes to the organizational socialization literature by providing an in-depth investigation of learning and attitudes, and the relationships within and between these for newcomers at two organizations using comparable organizational socialization tactics. Broadly similar patterns of change were found for learning, but not attitudes, suggesting that distal outcomes remain relevant in assessing organizational

socialization. Similar learning domains predicted attitudes at the two organizations and across time, suggesting that Sense-Making Theory provides a better base for future organizational socialization research than Uncertainty Reduction Theory. Further research is needed to confirm and expand on these findings.

References

- Adkins C. L. (1995). Previous work experience and organizational socialization: A longitudinal examination. Academy of Management Journal, 38 (3), 839 - 862.
- Anderson N., Cunningham-Snell N. A., & Haigh J. (1996). Induction training as socialization: Current practice and attitudes to evaluation in British organizations. International Journal of Selection and Assessment, 4(4), 169 - 183.
- Anderson, N. & Thomas, H. D. C. (1996). Work group socialization. In M. A. West (Ed.). Handbook of Work Groups (pp. 423 - 450). Chichester: Wiley.
- Ashford, S. J., & Black, J. S. (1996). Proactivity during organizational entry: The role of desire for control. Journal of Applied Psychology, 81(2), 199-214.
- Ashforth B. E. & Saks A. M. (1995). Work-role transitions: A longitudinal examination of the Nicholson model. Journal of Occupational and Organizational Psychology, 68, 157 - 175.
- Ashforth B. E. & Saks A. M. (1996). Socialization tactics: Longitudinal effects on newcomer adjustment. Academy of Management Journal, 39(1), 149-178.
- Ashforth B. E., Saks A. M., & Lee R. T. (1997). On The Dimensionality of Jones' (1986). Measures of organizational Socialization Tactics. International Journal of Selection and Assessment, 5(4), 200 – 214.
- Bauer T. N. & Green S. G. (1994). Effects of newcomer involvement on work-related activities: A longitudinal study of socialization. Journal of Applied Psychology, 79(2), 211-223.
- Bauer, T. N. & Green, S. G. (1996). Development of leader-member exchange: A longitudinal test. Academy of Management Journal, 39(6), 1538 - 1587.

- Bauer T. N. & Green S. G. (1998). Testing the combined effects of newcomer information seeking and manager behavior on socialization. Journal of Applied Psychology, 83 (1), 72 - 83.
- Bauer T. N., Morrison E. W. & Callister R. R. (1998). Organizational socialization: A review and directions for future research. In G. R. Ferris & K. M. Rowland (Eds.), Research in Personnel and Human Resource Management, 16. Greenwich, CT: JAI Press.
- Becker, T. (2002). A mostly informal analysis of our marketplace of ideas. The Industrial-Organizational Psychology, 40(2), 77-84.
- Bennis, W. G. & O'Toole, J. (2000). Don't hire the wrong CEO. Harvard Business Review, 3, 171-176.
- Black J. S. (1992). Socializing American expatriate managers overseas. Tactics, tenure, and role innovation. Group and Organization Management, 17(2), 171 - 192.
- Bolino, M. C. & Turnley, W. H. (2003). Going the extra mile: Cultivating and managing employee citizenship behavior. Academy of Management Executive, 17 (3), 60-71.
- Brief, A. P; Aldag, R. J., Van Sell, M., Melone, N. (1979). Anticipatory socialization and role stress among registered nurses. Journal of Health & Social Behavior, 20(2) 161-166.
- Cascio W. F. (1998). The virtual workplace: A reality now. The Industrial-Organizational Psychologist, 35 (4), 32 - 37.
- Chan, D. & Schmitt, N. (2000). Interindividual differences in intraindividual changes in proactivity during organizational entry: A latent growth modeling approach to

- understanding newcomer adaptation. Journal of Applied Psychology, 85(2), 190-210.
- Chao G. T., Kozlowski S. W. J., Major D. A., & Gardner P. (1994). The effects of organizational tactics and contextual factors on newcomer socialization and learning outcomes. In S. W. J. Kozlowski (Chair), Transitions during organizational socialization: Newcomer expectations, information-seeking, and learning outcomes. Symposium conducted at the 9th Annual Conference of the Society for Industrial and Organizational Psychology, Nashville, TN.
- Chao G. T., O'Leary-Kelly A. M., Wolf S., Klein H. J., & Gardner P. (1994). Organizational socialization: Its content and consequences. Journal of Applied Psychology, 79, 730 - 743.
- Chao G. T., Walz P.M., & Gardner P. D. (1992). Formal and informal mentorships: A comparison on mentoring functions and contrast with nonmentored counterparts. Personnel Psychology, 45(3), 619 - 636.
- Chatman, J. A. (1991). Matching people and organizations: Selection and socialization in public accounting firms. Administrative Science Quarterly, 36 (3), 459 - 484.
- Chen, G., & Klimoksi, R. J. (2003). The impact of expectations on newcomer performance in teams as mediated by work characteristics, social exchanges, and empowerment. Academy of Management Journal, 46(5), 591-607.
- Colarelli, S. M. (1984). Methods of communication and mediating processes in realistic job previews. Journal of Applied Psychology, 69 (4), 633 - 642.

- Cooper-Thomas, H. D. & Anderson, N. (2002). Newcomer adjustment: The relationship between organizational socialization tactics, information acquisition, and attitudes. Journal of Occupational and Organizational Psychology, 75, 423-437.
- Cooper-Thomas, H. D., Van Vianen, A., & Anderson, N. (2004). Changes in Person-Organization fit: The impact of socialization tactics on perceived and actual Person-Organization Fit. European Journal of Work and Organizational Psychology, 13(1), 52-78.
- Datel, W. E. & Lifrak, S. T. (1969). Expectations, affect change, and military performance in the army recruit. Psychological Reports, 24, 855 - 879.
- Dunnette, M. D., Arvey, R. D., & Banas, P. A. (1973). Why do they leave? Personnel, 58, 25-30.
- Falcione, R. L., & Wilson, C. E. (1988). Socialization processes in organizations. In G. M. G. A. Barnett (Ed.), *Handbook of Organizational Communication* (pp. 151-169). Norwood, NJ: Ablex.
- Feldman D. C. (1976) A contingency theory of socialization. Administrative Science Quarterly, 21, 433-452.
- Fisher, C. D. (1985). Social support and adjustment to work: A longitudinal study. Journal of Management, 11 (3), 39 - 53.
- Fisher C. D. (1986). Organizational socialization: An integrative review. In K. Roland, & G. Ferris, (Eds.) Research in Personnel and Human Resources Management, 4, 101-145, Greenwich, CT: JAI.
- Graen, G., Orris, J. B., & Johnson, T. (1973). Role assimilation processes in a complex organization. Journal of Vocational Behavior, 3, 395-420.

- Griffin, A. E. C., Colella, A., & Goparaju, S. (2000). Newcomer and organizational socialization tactics: An interactionist perspective. Human Resource Management Review, 10(4), 453 – 474.
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. Organizational Behavior and Human Performance, 17, 250-279.
- Herriot, P. (2001). The Employment Relationship: A Psychological Perspective. Hove, UK: Routledge.
- Holton, E. F. & Russell, C. J. (1997). The relationship of anticipation to newcomer socialization processes and outcomes: A pilot study. Journal of Occupational and Organizational Psychology, 70 (2), 163 - 172.
- Hom, P. W. & Kinicki, A. J. (2001). Toward a greater understanding of how dissatisfaction drives employee turnover. Academy of Management Journal, 44(5), 975 – 987.
- Howard, A. (1996). A framework for work change. In A. Howard (Ed.) The Changing Nature of Work (pp. 3-44). San Francisco: Jossey-Bass.
- Ibarra, H. (2003). Working Identity: Unconventional Strategies for Reinventing Your Career. Harvard, MA: Harvard Business School Press.
- Jablin, F. M. (2001). Organizational entry, assimilation, and disengagement/exit. In F. M. Jablin & L. L. Putnam (Eds.), The New Handbook of Organizational Communication: Advances in Theory, Research and Methods (pp. 732-818). Thousand Oaks, CA: Sage.

- Jones, G. R. (1983). Psychological orientation and the process of organizational socialization: An interactionist perspective. Academy of Management Review, 8 (3), 464 - 474.
- Jones G. R. (1986). Socialization tactics, self-efficacy, and newcomers' adjustments to organizations, Academy of Management Journal, 29(2), 262-279.
- Judge, T. A. (1993). Does affective disposition moderate the relationship between job satisfaction and voluntary turnover? Journal of Applied Psychology, 78(3), 395-401.
- Kristof A. L. (1996). Person-organization fit: An integrative review of item conceptualizations, measurement, and implications. Personnel Psychology, 49, 1 - 49.
- Lee T. W., Ashford S. J., Walsh F. P., & Mowday R. T. (1992). Commitment propensity, organizational commitment, and voluntary turnover: A longitudinal study of organizational entry processes. Journal of Management, 18 (1), 15 - 32.
- Liden R. C., Wayne S. J., & Stilwell D. (1993). A longitudinal study of the early development of leader-member exchanges. Journal of Applied Psychology, 78 (4), 662 - 674.
- Louis M. R. (1980). Surprise and sense making: What newcomers experience in entering unfamiliar organizational settings. Administrative Science Quarterly, 25, 226 - 251.
- Louis M. R. (1990). Acculturation in the workplace: Newcomers as lay ethnographers. In B. Schneider (Ed.), Organizational Climate and Culture (pp. 85 - 129). San Francisco, MA: Jossey-Bass.

- Louis M. R., Posner B. Z., & Powell G. N. (1983) The availability and helpfulness of socialization practices. Personnel Psychology, 36, 857 - 866.
- Major D. A. (1994). Why newcomers can't socialize themselves: The limitations of newcomer proactivity. Paper presented at the 54th Annual Academy of Management Meeting, Dallas, Texas.
- Major, D. A. & Kozlowski, S. W. J. (1997). Newcomer information seeking: Individual and contextual influences. International Journal of Selection and Assessment, 5 (1), 16 - 28.
- Major D. A., Kozlowski S. W. J., Chao G. T., & Gardner P. D. (1995). A longitudinal investigation of newcomer expectations, early socialization outcomes, and the moderating effects of role development factors. Journal of Applied Psychology, 80 (3), 418 - 431.
- Marsh T., & Smith, M (1991). Causes of Recruit Turnover. Report to the Defence Research Agency, UK (Unpublished).
- Mignery J. T., Rubin R. B., & Gorden W. I. (1995). Organizational entry: An investigation of newcomer communication behavior and uncertainty. Communication Research, 22 (1), 54 - 85.
- Moreland, R. & Levine, J.M. (1993) Group socialization: The role of commitment. In M.A. Hogg & D. Abrams (Eds.) Group Motivation Social Psychological Perspectives Haverster Wheatsheaf: London.
- Morrison E. W. (1993a). Learning the ropes: Information acquisition during socialization. Journal of Applied Psychology, 78 (2), 173-183.

- Morrison, E. W. (1993b). Newcomer Information-Seeking - Exploring Types, Modes, Sources, and Outcomes. Academy of Management Journal, 36(3), 557-589.
- Morrison, E. W. (1995). Information usefulness and acquisition during organizational encounter. Management Communication Quarterly, 9, 131-155.
- Morrison, E. W. (2002). Information seeking within organizations. Human Communication Research, 28(2), 229-242.
- Nelson D. L., Quick J. C., & Eakin M. E. (1988). A longitudinal study of newcomer role adjustment in US organizations. Work and Stress, 2 (3), 239 - 253.
- Nicholson N. & West M. (1988). Managerial Job Change: Men and Women in Transition. Cambridge, UK: Cambridge University Press.
- Nicholson N. & West M. (1989). Transitions, work histories and careers. In M. B. Arthur, D. T. Hall, & B. S. Lawrence (Eds.) Handbook of Career Theory. Cambridge, UK: Cambridge University Press.
- Ostroff C. & Kozlowski S. (1992). Organizational socialization as a learning process: The role of information acquisition. Personnel Psychology, 45 (4), 849 - 874.
- Ostroff, C. & Kozlowski, S. (1993). The role of mentoring in the information gathering processes of newcomers during early organizational socialization. Journal of Vocational Behavior, 42, 170 - 183.
- Pinder, C. C. & Schroeder, K. G. (1987). Time to proficiency following job transfers. Academy of Management Journal, 30 (2), 336 - 353.
- Pollock, T. G., Whitbred, R. C., & Contractor, N. (2000). Social information processing and job characteristics: A simultaneous test of two theories with implications for job satisfaction. Human communication Research, 26(2), 292-330.

- Porter L. W., Lawler, E. E., III, & Hackman, J. R. (1975). Behavior in Organizations. New York: McGraw-Hill.
- Premack S. L. & Wanous J. P. (1985). A meta-analysis of realistic job preview experiments. Journal of Applied Social Psychology, 70, 706-719.
- Reichers A. (1987). An interactionist perspective on newcomer socialization rates. Academy of Management Review, 12 (2), 276-287.
- Robinson, S. L. & Rousseau, D. M. (1994). Violating the psychological contract: Not the exception but the norm. Journal of Organizational Behavior, 15, 245-259.
- Saks A. M. (1994). Moderating effects of self-efficacy for the relationship between training method and anxiety and stress reactions of newcomers. Journal of Organizational Behavior, 15, 639 - 654.
- Saks A. M. (1995). Longitudinal field investigations of the moderating and mediating effects of self-efficacy on the relationship between training and newcomer adjustment. Journal of Applied Psychology, 80 (2), 211 - 225.
- Saks A. M. & Ashforth B. E. (1996). Proactive socialization and behavioral self-management. Journal of Vocational Behavior, 48, 301 - 323.
- Saks A. M. & Ashforth B. E. (1997a). Organizational socialization: Making sense of the past and present as a prologue for the future. Journal of Vocational Behavior, 51, 234 - 379.
- Saks A. M. & Ashforth B. E. (1997b). Socialization tactics and newcomer information acquisition. International Journal of Selection and Assessment, 5 (1), 48 - 61.
- Salancik, G. R. & Pfeffer, J. (1977). An examination of need-satisfaction models of job satisfaction and job attitudes. Administrative Science Quarterly, 22, 427-456.

- Scarpello V. & Campbell J. P. (1983). Job satisfaction: Are all the parts there? Personnel Psychology, 36, 577 - 600.
- Schaubroeck J. & Green S. G. (1989). Confirmatory factor analysis procedures for assessing change during organizational entry. Journal of Applied Psychology, 74 (6), 892 - 900.
- Schein, E. H. (1968). Organizational socialization and the profession of management. Industrial Management Review, 9, 1 - 16.
- Schneider, B. (1985). Organizational behavior. Annual Review of Psychology, 36, 573-611.
- Shuval, J. T. & Adler, I. (1977). Processes of continuity and change during socialization for medicine in Israel. Journal of Health and Social Behavior, 19, 112-124.
- Smith E. M. & Kozlowski S. W. J. (1994). Socialization and adaptation: Individual and contextual influences on social learning strategies. Paper presented at the 9th Annual Conference of the Society for Industrial and Organizational Psychology, Nashville, TN
- Staw, B. M. & Ross, J. (1985). Stability in the midst of change: A dispositional approach to job attitudes. Journal of Applied Psychology, 70, 469-480.
- Sutton R. I. & Louis M. R. (1987). How selecting and socializing newcomers influences insiders. Human Resource Management, 26 (3), 347 - 361.
- Tabachnick, B. G. & Fidell, L. S. (1996). Using Multivariate Statistics (3rd. Ed.). New York: Harper Collins.
- Tannenbaum S. I., Mathieu J. E., Salas E., Cannon-Bowers J. A. (1991). Meeting trainees' expectations: The influence of training fulfilment on the development of

- commitment, self-efficacy, and motivation. Journal of Applied Psychology, 76 (6), 759 - 769.
- Taormina, R. J. (2004). Convergent validation of two measures of organizational socialization. International Journal of Human Resource Management, 15(1), 76-94.
- Thomas, H. D. C. (1999). Organizational Socialization: Longitudinal Investigations into Newcomer Sense-Making and Adjustment. Unpublished PhD thesis, Goldsmiths College, University of London, UK.
- Thomas, H. D. C. & Anderson N. (1998). Changes in Newcomers' Psychological Contracts during Organizational Socialization: A Study of Recruits Entering the British Army. Journal of Organizational Behavior, 19, 745 – 767.
- Thomas, H. D. C. & Anderson N. (1999). Employee Adjustment Survey. Chiswick, UK: ASE/ NFER-Nelson.
- Van Maanen, J. (1975). Police socialization: A longitudinal examination of job attitudes in an urban police department. Administrative Science Quarterly, 20, 207 - 228.
- Van Maanen, J. (1976). Breaking in: Socialization to work. In R. Dubin (Ed.) Handbook of Work, Organization and Society (pp. 67 - 130). Chicago, IL: Rand McNally.
- Van Maanen, J. (1977). Experiencing organization: Notes on the meaning of careers and socialization. In J. Van Maanen (Ed.), Organizational Careers: Some New Perspectives (pp. 15 - 45). New York: Wiley.
- Van Maanen J. (1978). People processing: Strategies of organizational socialization. Organizational Dynamics, Summer, 19 - 36.

- Van Maanen J. & Schein E. H. (1979). Toward a theory of organizational socialization. In B. M. Staw (Ed.), Research in Organizational Behavior (Vol. 1, pp. 209-264). Greenwich, CT: JAI Press.
- Vandenberg R. J. & Self R. M. (1993). Assessing newcomers' changing commitments to the organization during the first 6 months of work. Journal of Applied Psychology, 78 (4), 557 - 568.
- Wanberg, C. R. & Kammeyer-Mueller (2000). Predictors and outcomes of proactivity in the socialization process. Journal of Applied Psychology, 83 (3), 373-385.
- Wanous J. P. (1976). Organizational entry: From naïve expectations to realistic beliefs. Journal of Applied Psychology, 61, 22-29.
- Wanous J. P. (1977). Organization entry: Newcomers moving from outside to inside. Psychological Bulletin, 84, 601-618.
- Wanous J. P. & Colella A. (1989). Organizational entry research: Current status and future directions. Research in Personnel and Human Resources Management, 7, 59 - 120.
- Wanous J. P. (1976). Organizational entry: From naive expectations to realistic beliefs. Journal of Applied Psychology, 61 (1), 22 - 29.
- Wanous J. P. (1992). Organizational Entry. Recruitment, Selection, Orientation, and Socialization of Newcomers (2nd Ed.). Reading, MA: Addison-Wesley.
- Wanous J. P. & Colella A. (1989). Organizational entry research: Current status and further directions. In K. Rowland & G. Ferris (Eds.), Research in Personnel and Human Resource Management. Greenwich, CT: JAI Press.

- Wanous J. P., Poland T. D., Premack S. L., & Davis K. S. (1992). The effects of met expectations on newcomer attitudes and behaviors: A review and meta-analysis. Journal of Applied Psychology, 77 (3), 288 - 297.
- Wanous J. P., Reichers A. E., & Hudy M. (1997). Overall job satisfaction: How good are single item measures? Journal of Applied Psychology, 82 (2), 247 - 252.
- Weick, K. E. (1995). What theory is *not*, theorizing *is*. Administrative Science Quarterly, 40(3), 385-390.
- Zahrly J. & Tosi H. (1989). The differential effect of organizational induction process on early work role adjustment. Journal of Organizational Behavior, 10, 59 - 74.

Table 1. Means, standard deviations, correlations, and reliabilities for Army newcomers.

	<u>M</u>	<u>sd</u>	Sex	Age	WE	SE	1St	2St	3St	1Q	2Q	3Q	1S	1R	1IR	1O	2S	2R	2IR	2O	3S	3R	3IR	3O	
Sex	1.24	.43																							
Age	19.4	2.4	.12																						
WE	.38	.49	-.10	.09																					
SE	4.38	.86	-.28 [‡]	-.08	.11	.74																			
1St	3.92	0.83	-.03	.03	.10	.35 [‡]																			
2St	4.09	0.91	-.06	.02	-.02	.27 [‡]	.27 [‡]																		
3St	4.17	0.90	.02	-.09	.00	.23 [‡]	.31 [‡]	.41 [‡]																	
1Q	1.61	0.93	-.03	-.22 [‡]	.06	-.09	-.29 [‡]	-.12	-.21 [‡]	.74															
2Q	1.80	1.06	-.11	-.09	.09	.06	-.12	-.31 [‡]	-.20 [‡]	.33 [‡]	.75														
3Q	1.76	1.15	-.06	-.02	.01	-.02	-.19*	-.21 [‡]	-.33 [‡]	.32 [‡]	.49 [‡]	.89													
1S	5.81	0.84	.02	-.10	-.12	.22 [‡]	.11	.31 [‡]	.38 [‡]	.03	-.14	-.24 [‡]	.88												
1R	6.10	0.76	-.05	.03	.03	.12	.10	.24 [‡]	.12	.07	.04	-.01	.51 [‡]	.82											
1IR	6.20	0.84	.09	-.05	.00	.12	.09	.24 [‡]	.22 [‡]	-.06	-.03	-.02	.40 [‡]	.51 [‡]	.86										
1O	6.13	0.79	-.13	-.02	.20*	.13	.18*	.26 [‡]	.12	-.02	.06	-.13	.42 [‡]	.61 [‡]	.38 [‡]	.75									
2S	6.24	0.73	.01	-.04	-.09	.34 [‡]	.17*	.32 [‡]	.24 [‡]	-.02	-.12	-.09	.59 [‡]	.43 [‡]	.30 [‡]	.34 [‡]	.93								
2R	6.36	0.71	-.09	-.01	.01	.25 [‡]	.15	.33 [‡]	.22 [‡]	-.06	-.19*	-.01	.34 [‡]	.55 [‡]	.34 [‡]	.36 [‡]	.65 [‡]	.87							
2IR	5.54	1.27	-.05	-.00	-.02	.13	.08	.36 [‡]	.30 [‡]	-.12	-.09	-.09	.30 [‡]	.36 [‡]	.53 [‡]	.30 [‡]	.41 [‡]	.56 [‡]	.82						
2O	5.70	1.14	-.15	.01	.14	.26 [‡]	.16*	.37 [‡]	.16*	-.06	-.05	-.01	.34 [‡]	.42 [‡]	.18*	.53 [‡]	.50 [‡]	.63 [‡]	.45 [‡]	.83					
3S	5.84	1.19	-.03	-.13	-.07	.41 [‡]	.29 [‡]	.24 [‡]	.46 [‡]	-.15	-.11	-.24 [‡]	.56 [‡]	.31 [‡]	.26 [‡]	.26 [‡]	.68 [‡]	.49 [‡]	.34 [‡]	.35 [‡]	.95				
3R	5.03	0.93	-.01	-.02	-.06	.37 [‡]	.30 [‡]	.30 [‡]	.37 [‡]	-.22 [‡]	-.21 [‡]	-.33 [‡]	.43 [‡]	.39 [‡]	.30 [‡]	.25 [‡]	.58 [‡]	.64 [‡]	.41 [‡]	.41 [‡]	.73 [‡]	.89			
3IR	5.60	0.89	.05	.00	-.03	.20*	.23 [‡]	.25 [‡]	.38 [‡]	-.19*	-.19*	-.09	.34 [‡]	.23 [‡]	.42 [‡]	.17*	.34 [‡]	.34 [‡]	.51 [‡]	.21 [‡]	.48 [‡]	.41 [‡]	.89		
3O	5.74	0.84	.00	.03	.11	.34 [‡]	.30 [‡]	.36 [‡]	.34 [‡]	-.15	-.14	-.10	.38 [‡]	.36 [‡]	.24 [‡]	.40 [‡]	.52 [‡]	.58 [‡]	.54 [‡]	.66 [‡]	.55 [‡]	.65 [‡]	.47 [‡]	.84	

Note. [‡] correlation is significant at the 0.01 level (2-tailed); * correlation is significant at the 0.05 level (2-tailed). WE = work experience; SE = self-efficacy; St = job satisfaction; Q = intent to quit; S = social information; R = role information; IR = interpersonal resources information; O = organization information. Sex is coded 1 = male, 2 = female; WE is coded 0 = no work experience, 1 = work experience.

Table 2. Means, standard deviations, and correlations for XYZ newcomers.

	<u>M</u>	<u>sd</u>	Sex	Age	WE	SE	1St	2St	3St	1Q	2Q	3Q	3C	1S	1R	1IR	1O	2S	2R	2IR	2O	3S	3R	3IR	3O	
Sex	1.46	.50																								
Age	26.3	5.7	-.02																							
WE	.50	.50	.14	.60 [‡]																						
SE	4.39	.78	-.02	.26	.41 [‡]	.71																				
1St	4.00	0.87	.04	-.08	.12	.42 [‡]																				
2St	3.77	0.85	.04	.03	.11	.25	.54 [‡]																			
3St	3.59	1.01	.10	.00	.09	.07	.27	.50 [‡]																		
1Q	1.27	0.50	-.15	-.06	-.17	-.09	-.49 [‡]	-.27*	-.31*	.74																
2Q	1.49	0.65	.00	-.12	-.17	-.12	-.37 [‡]	-.61 [‡]	-.46 [‡]	.52 [‡]	.71															
3Q	1.74	1.03	-.13	-.04	-.06	.01	-.23	-.47 [‡]	-.77 [‡]	.46 [‡]	.72 [‡]	.92														
1S	4.61	1.26	.07	-.61 [‡]	-.52 [‡]	-.05	.14	.19	.09	.07	-.04	-.05	.25	.91												
1R	5.25	1.00	.11	-.38 [‡]	-.13	.30*	.34 [‡]	.22	.07	.07	-.07	-.00	.22	.68 [‡]	.91											
1IR	5.50	1.00	.10	-.19	.17	.27*	.32*	.36*	.04	-.06	-.15	-.02	.23	.46 [‡]	.66 [‡]	.72										
1O	4.39	1.40	.02	-.35 [‡]	-.16	.16	.22	.06	.19	-.05	-.13	-.14	.47 [‡]	.47 [‡]	.57 [‡]	.40 [‡]	.85									
2S	4.88	1.14	.18	-.46 [‡]	-.18	.22	.27*	.44 [‡]	.40 [‡]	-.07	-.34*	-.32*	.50 [‡]	.60 [‡]	.60 [‡]	.42 [‡]	.56 [‡]	.90								
2R	5.22	1.23	.21	-.28*	.02	.31*	.17	.33*	.12	.13	-.12	-.08	.29*	.29*	.58 [‡]	.43 [‡]	.35 [‡]	.62 [‡]	.87							
2IR	4.63	1.28	.31*	.17	.22	.27*	.28*	.39 [‡]	.24	-.16	-.24	-.14	.37 [‡]	.33*	.41 [‡]	.59 [‡]	.36 [‡]	.58 [‡]	.43 [‡]	.82						
2O	4.82	1.44	.13	-.27 [‡]	-.02	.07	.25	.17	.10	-.10	-.28*	-.19	.44 [‡]	.23	.42 [‡]	.31*	.62 [‡]	.49 [‡]	.60 [‡]	.36 [‡]	.87					
3S	4.89	1.40	.22	-.36 [‡]	-.10	.38 [‡]	.26	.41 [‡]	.44 [‡]	-.14	-.29*	-.29*	.54 [‡]	.40 [‡]	.43 [‡]	.28*	.42 [‡]	.83 [‡]	.53 [‡]	.56 [‡]	.45 [‡]	.91				
3R	4.32	1.16	.23	-.15	.20	.43 [‡]	.32*	.40 [‡]	.36 [‡]	-.17	-.19	-.24	.39 [‡]	.20	.46 [‡]	.32*	.23	.55 [‡]	.65 [‡]	.51 [‡]	.44 [‡]	.63 [‡]	.94			
3IR	4.88	1.09	.38 [‡]	-.12	.12	.30*	.34*	.53 [‡]	.52 [‡]	-.31*	-.40 [‡]	-.42 [‡]	.54 [‡]	.29*	.29*	.39 [‡]	.29*	.62 [‡]	.34 [‡]	.79 [‡]	.31*	.74 [‡]	.54 [‡]	.83		
3O	5.12	1.03	.04	-.24	.00	.20	.34*	.33*	.26*	-.25	-.33*	-.30*	.57 [‡]	.24	.33*	.30*	.47 [‡]	.53 [‡]	.48 [‡]	.42 [‡]	.67 [‡]	.53 [‡]	.57 [‡]	.54 [‡]	.86	

Note. † correlation is significant at the 0.01 level (2-tailed); * correlation is significant at the 0.05 level (2-tailed). WE = work experience; SE = self-efficacy; St = job satisfaction; Q = intent to quit; S = social information; R = role information; IR = interpersonal resources information; O = organization information. Sex is coded 1 = male, 2 = female; WE is coded 0 = no work experience, 1 = work experience.

Table 3. Paired t-tests investigating differences across time and across learning domains for Army and XYZ newcomers.

		Learning Domains								T-tests	
		Social		Role		Interpersonal Resources		Organizational			
		Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Army	T1	5.81	.84	6.13	.79	5.54	1.27	5.03	.93	R > S > IR > O	
	T2	6.10	.76	6.24	.73	5.70	1.14	5.60	.89	R > S > IR > O	
	T3	6.20	.84	6.36	.71	5.84	1.19	5.74	.84	R > S > IR, O	
	T-test	T1 – T2	5.04 [‡]		1.98*		1.72 [⊗]		8.31 [‡]		
		T2 – T3	1.99*		2.35*		1.62		2.55*		
		T1 – T3					2.92 [‡]				
XYZ	T1	4.61	1.26	4.39	1.40	4.63	1.28	4.32	1.16	S, R, IR O	
	T2	5.25	1.00	4.88	1.14	4.82	1.44	4.88	1.09	S > R, IR, O	
	T3	5.50	1.00	5.22	1.23	4.89	1.40	5.12	1.03	S > R, IR, O	
	T-test	T1 – T2	4.60 [‡]		3.08 [‡]		1.10		4.22 [‡]		
		T2 – T3	3.23 [‡]		2.59*		0.63		2.09*		
		T1 – T3					1.31				

Footnotes. Army N = 166; XYZ N = 56; [•] equal variances not assumed; [⊗] p = .09; # = .06; * p ≤ .05; [‡] p ≤ .01.

Table 4. Regressions investigating whether information acquisition predicts changes in job satisfaction and intent to quit.

Predictors	Job Satisfaction						Intent to Quit					
	T1 β		T2 β		T3 β		T1 β		T2 β		T3 β	
	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2
Control Variables												
Org.	-.10	-.15	.23 [‡]	.17	.23 [‡]	.09	.06	.00	.07	.17	-.02	.13
Sex	.10	.10	.09	.04	.09	-.02	-.08	-.08	-.09	-.05	-.09	-.02
Age	-.09	-.05	-.07	.02	-.07	.07	-.18*	-.18	-.12	-.19*	-.02	-.11
Work Experience	.05	.01	.00	.02	.00	.03	.09	.11	.07	.07	.01	-.01
Self-efficacy	.39 [‡]	.37 [‡]	.21 [‡]	.11	.21 [‡]	-.02	-.11	-.12	.01	.09	-.03	.14
Knowledge												
Social		-.05		.26 [‡]		.33 [‡]		.05		-.13		-.18
Role		.09		-.08		.07		.19		-.15		-.30 [‡]
Interp. Res.		.02		.21 [‡]		.23 [‡]		-.11		-.02		-.03
Organization		.12		-.05		.01		-.12		.01		.08
Multiple <u>R</u>	.40 [‡]	.42 [‡]	.33 [‡]	.44 [‡]	.33 [‡]	.56 [‡]	.26 [‡]	.30*	.20	.29*	.09	.32 [‡]
<u>R</u> ²	.16 [‡]	.18 [‡]	.11 [‡]	.19 [‡]	.11 [‡]	.31 [‡]	.07 [‡]	.09*	.04	.09*	.01	.11 [‡]
Adj. <u>R</u> ²	.14 [‡]	.14 [‡]	.09 [‡]	.16 [‡]	.09 [‡]	.28 [‡]	.05 [‡]	.05*	.02	.05*	.01	.07 [‡]
<u>R</u> ² Change		.02		.08 [‡]		.20 [‡]		.02		.04*		.10 [‡]
<u>F</u>	7.76 [‡]	4.96 [‡]	5.25 [‡]	5.52 [‡]	5.25 [‡]	10.36 [‡]	3.15 [‡]	2.24 [‡]	1.83	2.12*	0.32	2.81 [‡]

Note. Army N = 166; XYZ N = 56; [⊗] $p = .06$; * $p \leq .05$; [‡] $p \leq .01$.

Footnotes

ⁱ Factor analyses of the information acquisition scale were conducted on the Time 1 data from Army newcomers, with a four factor solution emerging based on eigenvalues greater than 1. These analyses are available from the first author.

ⁱⁱ The full set of t-tests are available from the first author.