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Measurement of newcomer socialization: Construct validation of a multidimensional scale

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Abstract

A construct validation approach was taken to develop a primary measure of newcomer socialization that addresses shortcomings with a prior scale (Chao, Kelly, Wolf, Klein, & Gardner, 1994). Three separate groups of subject matter experts reviewed items to ensure the content validity of the Newcomer Socialization Questionnaire (NSQ). Studies 1 and 2 examined the NSQ's psychometric properties using employed students and organizational newcomers as participants, respectively. Results illustrate scale reliability, factor structure, convergent and discriminant validity, and correlations with criterion variables. The NSQ measures three dimensions or domains of newcomer socialization: the organization, the group and the job/task. In addition, both factual knowledge and knowledge of expected role behaviors are assessed within each domain. Thus, the NSQ provides a useful measurement tool for researchers and practitioners interested in examining direct outcomes of being socialized.

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1. Introduction

Organizational socialization is the process by which employees acquire knowledge about and adjust to new jobs, roles, work groups, and the culture of the organization in order to participate successfully as an organizational member (Fisher, 1986; Louis, 1980; Van Maanen & Schein, 1979). The socialization of newcomers or new hires in particular is considered the most crucial. It is at this initial point of entry into the organization where learning and adjustment issues are most prevalent and problematic for newcomers (Jones, 1983; Klein & Weaver, 2000; Van Maanen & Schein, 1979). Effective socialization can have lasting and positive effects such as enhancing person–job fit, person–organization fit, job satisfaction, organizational commitment, intentions to stay, and performance of employees (e.g., Cable & Judge, 1996; Morrison, 1993; O’Reilly, Chatman, & Caldwell, 1991; Saks & Ashforth, 1996).

Although we have learned much from previous research, these past studies have predominantly measured secondary outcomes of socialization (e.g., job satisfaction, commitment) instead of the direct outcomes of socialization (e.g., learning, inclusion, and assimilation). We could advance our understanding greatly both theoretically and practically by focusing on more appropriate criteria and identifying specific learning, behaviors, and attitudes that result as newcomers are socialized. The examination of the relationships among the direct outcomes of being “socialized” and the different kinds of socialization tactics, individual difference variables, and organizational factors can help us not only understand the socialization process better but also aid practically in improving socialization strategies. Because these distal or secondary outcomes can be affected by other variables besides socialization, they have provided an incomplete measure of socialization (Klein & Weaver, 2000).

The lack of a standardized, valid scale to measure the content or primary outcomes of socialization has been advanced as a reason for minimal use of more appropriate criteria (Chao et al., 1994; Jones, 1986; Klein & Weaver, 2000). In response, Chao et al. developed a content measure of organizational socialization, but a number of shortcomings have been noted with their scale (Bauer, Morrison, & Callister, 1998; Klein & Weaver, 2000). The present article reports the development of a socialization scale that addresses these concerns. We present two psychometric studies to assess the construct validity of our new measure of newcomer socialization.

1.1. Concerns in measurements of socialization

Based on a review of Schein’s (1971), Feldman’s (1981), and Fisher’s (1986) notions of organizational socialization, Chao et al. (1994) developed a six-dimension measure of organizational socialization. The six dimensions are: (1) performance proficiency, (2) people, (3) politics, (4) language, (5) organizational goals and values, and (6) history. Unfortunately, a number of potential problems with Chao et al.’s (1994) scale have been noted (Bauer et al., 1998; Klein & Weaver, 2000). In the present study, we focused on three specific concerns: (1) the inconsistent inclusion of different levels of analysis (i.e., job, work group, and organization) within specific dimensions, (2) the

assessment of predominantly knowledge, with little to no coverage of role, and (3) the lack of differentiation between task socialization and job performance.

1.1.1. Socialization domains or levels

The socialization literature has identified four content domains or levels (i.e., job/task, work group, organization, and roles) that contain the important features pertinent to the socialization process (e.g., Fisher, 1986). An examination of Chao et al.'s measure reveals that items within a single dimension include references to different domains. For example, the following two items are included in their history dimension: "I am familiar with the history of my *organization*," and "I know very little about the history of my *work group/department*." Depending on the research question, this could be problematic. Notably, Klein and Weaver (2000) eliminated six items from Chao et al.'s 34-item scale because their examination focused on an organizational-level socialization orientation program, but "three of the dimensions (history, politics, and language) contain items which assess job or unit-level information as well as organizational-level knowledge" (p. 55).

Moreover, it may make theoretical sense to focus on the levels of job/task, work group, and organization (Klein & Weaver, 2000; Saks & Ashforth, 1997). During socialization, employees must not only learn the history, politics, language, goals, and values of the entire organization, but also of their particular work group, and of their job to be successful. In fact, research may find it is more important for successfully socialized employees to learn about the history, politics, language, goals, and values of their particular job and/or work group than of the organization as a whole. While many organizations would hope there is a large degree of overlap across the domains on the specific topics, in actuality there may not be. In a comprehensive measure of socialization, it is important to ask employees their knowledge of each of these topics (i.e., history, goals and values, politics, language) separately by (1) the organization, (2) their work group, and (3) their job. Therefore, items in our measure assess content factors within each of the three levels of task, work group, and organization.

1.1.2. Assessment of knowledge and role

Socialization entails that employees not only gather factual knowledge about the organization, work group, and task, but they must also adjust and understand how to behave in each of these domains. Our measure is designed to measure role within each of the three dimensions of socialization based upon the socialization theories of Schein (1968) and Feldman (1981).

Early on, Schein (1971) described the evolution of an individual's career as an interplay between the organization and the individual. His discussion of organization structure and its impact on an individual's response to an organizationally defined role induced researchers to use the concepts of "organization" and "role" as two dimensions of socialization. The dimension of organization was often described as acquiring specific information about the organization and gaining information about its norms/values (Morrison, 1993). Role, regularly labeled organizational role, was defined as the basic responsibilities granted to the newcomer and required that the newcomer learn about organizational members' expectations.

In contrast to Schein, Feldman (1981) emphasized the importance of learning about one's work group and described this group socialization as acquiring knowledge about the group and coming to agreement with other group members about job duties and priorities. In addition, Feldman highlighted the need for individuals to be socialized to their job or task. Similar to previous dimension definitions, he described task socialization as acquiring information about the job and learning the tasks for which one had been hired.

An integration of Schein's (1971) and Feldman's (1981) views of socialization provides the theoretical underpinnings for our measure of socialization. The components of socialization, as conceptualized in the present study, are organization socialization, group socialization, and task socialization; and each component consists of acquiring knowledge about the dimension and acquiring knowledge about appropriate role behaviors associated with the dimension. For example, our measure of organizational socialization includes the following two items: "I understand this organization's objectives and goals," and "I understand how to act to fit in with what the organization values and believes." Although Schein discussed socialization vis-à-vis one's role, it is not included as a separate factor in this study. Instead, role is encompassed within each of the three dimensions. In this way, a more parsimonious and comprehensive measure of content socialization results.

1.1.3. Task socialization vs. Job performance

Feldman (1981) advanced the idea that individuals need to also be socialized to their job or task. His description of task socialization included both the knowledge and role aspects of socialization. Task socialization entails acquiring information about the job and understanding the tasks for which one had been hired. In line with Feldman, we advocate that having the knowledge and understanding of the tasks is what assesses the socialization process. This knowledge and understanding set the stage for an outcome of socialization, successful job performance. Therefore, in our measure of newcomer socialization, we paid special attention not to confound these two different constructs of task socialization and job performance.

In their content measure of socialization, Chao et al. (1994) include both constructs in assessing their dimension of performance proficiency. For example, Chao et al.'s items ask about task socialization, "I understand what all the duties of my job entail," and about successful job performance, "I have learned how to successfully perform my job in an efficient manner." All the task socialization items in our scale focus solely on the knowledge and understanding of the task. Example items include: "I understand how to perform the tasks that make up my job," "I know the responsibilities, tasks, and projects for which I was hired," and "I know how to acquire resources needed to perform my job."

1.2. Measure of newcomer socialization

The noted concerns with past measures of socialization need to be corrected: (a) to be useful to researchers and practitioners in interpreting data, (b) to unify the field for comparing findings across studies, and (c) to further theory. Thus, we believe

there is a need for a comprehensive, standardized measure of contextual socialization to deal with the problems of past measures and research. The present research focuses upon three socialization levels or domains—the organization, the group, and the job/task. Organization socialization occurs as newcomers learn the values, goals, rules, politics, customs, leadership style, and language of the organization (Fisher, 1986; Morrison, 1993; Ostroff & Kozlowski, 1992; Schein, 1968, 1971). Group socialization occurs as newcomers learn particulars about their work group and the behaviors associated with the group's rules, goals, and values (Feldman, 1981; Fisher, 1986; Ostroff & Kozlowski, 1992). Task socialization entails acquiring task knowledge, learning how to perform relevant task behaviors and learning how to interact with others in the course of performing specific tasks (Adkins, 1995; Chao et al., 1994; Feldman, 1981; Fisher, 1986; Morrison, 1993; Ostroff & Kozlowski, 1992). To assess these three domains, we developed a questionnaire based on the past socialization literature, used three subject matter expert (SME) groups to ensure content coverage and conducted two studies to examine the psychometric properties of the new measure.

2. Preliminary scale development

Based on the theoretical framework outlined above and a literature review of previous studies examining newcomer socialization, a preliminary questionnaire was developed to measure the components of contextual socialization. To ensure the content validity of the Newcomer Socialization Questionnaire (NSQ), three different groups of Subject Matter Experts (SMEs) reviewed the items.

The first and second groups of SMEs consisted of five individuals each who were new hires (employed less than 12 months). To ensure diversity, each SME was employed by a different company. The initial step in the content validation was undertaken to ensure the comprehensive coverage of the content. The first group of SMEs discussed the types of information that were or would have been helpful in their own socialization without examining the items. The discussion was tape-recorded and notes were taken. The information from these SMEs was used to add new items to the preliminary questionnaire and include relevant aspects of newcomer socialization that may have been missed in prior studies. One week later, these SMEs reconvened to examine the items and to provide feedback concerning the scale content. The focus here was to ensure coverage of the newcomer socialization construct and to ensure that the item content was written in a way similarly interpreted by the SMEs. Therefore, based on this review of the items, the NSQ was modified by adding items that the SMEs agreed were important to the completeness of the newcomer socialization concept. A few items were also reworded based on comments by the SMEs regarding unclear meanings, use of jargon, or awkward wording.

The next step in the content validation consisted of ensuring that the items were reliably viewed as belonging within their respective dimensions. A second group of five SMEs received a random list of the resulting 55 items from the previous step and the dimensions. This group independently sorted the items into the three

domains specified by the present research as defined above (i.e., organization, group, and task). These definitions of the dimensions were provided to the SMEs. Of the 55 items, 41 (75%) were correctly categorized into the respective dimension by at least three of the five SMEs. The group discussed the remaining items, resulting in item rewording. Specifically, if SMEs could not agree to which domain an item fit, the item was reworded until agreement ensued. In three cases, rewording did not lead to agreement and these three items were discarded.

Finally, a third group of SMEs was used to review the modified measure. Three current managers responsible for socializing new hires reviewed the NSQ items for content and relevance. Their feedback resulted in further wording modifications. Rewording of items were made to: (a) put terms in more simple language understandable to a larger group of employees, (b) reduce jargon, and/or (c) make sure items only covered single concepts. Three items were deleted because managers saw them as redundant.

Finally, the NSQ was tested for the degree to which participants clearly understood the instructions and question content. Participants were 31 undergraduates (employed either full or part time outside the university for an average of 2.5 years). The respondents completed the socialization scales and answered questions concerning clarity and comprehension. Participants' comments resulted in a slight modification to the instructions. At the completion of this content validity phase, the NSQ consisted of 16 items for organization, 16 items for group, and 11 items for task.

3. Study 1

Study 1 was designed to provide an initial assessment of the psychometric properties of the newcomer socialization scales. After the factor structure and reliability of the dimension scores are investigated, convergent and discriminant validity are examined. It was expected that similar dimensions in the newcomer socialization scales and Chao et al.'s (1994) socialization scale would be more strongly correlated than the correlations among dissimilar dimensions (Spector, 1992). The strength of the correlations have to be tempered by the fact that the NSQ scales and Chao et al.'s scales differ in a number of ways which include: (1) the NSQ was designed to measure knowledge of expected role behaviors, whereas Chao et al. did not indicate that such items were developed for their scales, (2) the Chao et al.'s organization scale inquired about profession or trade knowledge, the NSQ organization scale did not; and (3) the Chao et al.'s people scale inquired about group integration, the NSQ group scale did not as group integration was thought to be an outcome of socialization. Therefore, these differences were expected to dilute the relationships between the comparable dimensions of the two measures.

We also gathered evidence to examine whether the NSQ measure related to the outcome of job stress. Past organizational socialization research has found that engaging in socialization tactics are related negatively to job stress (Ashforth & Saks, 1996; Baker & Feldman, 1990). Based on this evidence, the three socialization scale scores were expected to be negatively related to job stress. However, it was also

expected that each dimension would show a somewhat different relationship to stress. These differences would provide additional support for discriminant validity (Spector, 1992). We also examined the relationship between the length of time on the job and socialization. Because socialization is defined as a learning process, we expected that longer tenured individuals would report significantly higher levels of socialization than those with less tenure.

3.1. Method

3.1.1. Participants

Participants were 492 (68% female) working graduate and undergraduate students at an urban midwestern university. The average age of the participants was 26 years. On average, participants worked 33 h/week and had been at their present employer for 2.9 years ($SD = 3.4$ years) and performing their current job an average of 2.2 years ($SD = 2.7$ years). Participation in the study was voluntary and they received extra course credit.

3.1.2. Procedure

Participants received a survey that contained the NSQ, Chao et al.'s (1994) socialization scale, job stress items, and demographic items. They were given one week to complete the survey. Two weeks later, the NSQ was re-administered to a random sample of approximately half ($n = 248$) of the participants. Complete data were received from 240 of these retest respondents. All responses were anonymous; numerical codes allowed matching of surveys.

3.1.3. Measures

A 7-point response format (strongly disagree to strongly agree) was used for all scales.

3.1.4. Newcomer socialization questionnaire

The NSQ consisted of 43 items measuring three dimensions. *Organizational Socialization*. A 16-item scale inquired about newcomers' organization knowledge and organization role-behavior knowledge (e.g., I understand this organization's objectives and goals). *Group Socialization*. The 16-item group scale measured newcomers' group knowledge and group role-behavior knowledge (e.g., I understand the expertise (e.g., skill, knowledge, etc.) each member brings to my particular work group). *Task Socialization*. The 11-item task scale inquired about newcomers' job knowledge and job role-behavior knowledge (e.g., I understand how to perform the tasks that make up my job).

3.1.5. Chao et al.'s socialization scale

The Chao et al. (1994) scale consisted of 34 items and measured six dimensions of socialization. The present research collapsed four dimensions—organizational goals and values, language, politics, and history—into a single organization dimension as these dimensions have regularly been defined as elements of organization

socialization (Fisher, 1986; Klein & Weaver, 2000; Morrison, 1993; Ostroff & Kozlowski, 1992; Schein, 1971) and it allowed for common dimension comparison with the NSQ. The other two scales were people (i.e., group socialization) and performance proficiency (i.e., task socialization).

3.1.6. *Job stress*

Stress symptoms were measured by House and Rizzo's (1972) 7-item job-induced tension scale. The job-induced tensions scale measured participants' perceptions of pressures and frustrations stemming from their work. Example items include: "My job tends to directly affect my health," "I have felt fidgety or nervous as a result of my job," and "I work under a great deal of tension." The coefficient α of the job-induced tension scale in this sample was .85.

3.1.7. *Demographics*

Participants were asked to indicate their gender, age, employment status, how long they had worked at their present employer and in their present job. Participants also provided information about what types of socialization tactics they may have experienced by indicating (yes, no) if: (1) they participated in an orientation program after hire, (2) they received printed orientation materials (e.g., procedural/policy manual, rules, etc.), (3) they received job training, and (4) they had a mentor in the company.

3.2. *Results*

3.2.1. *Factor analysis*

An exploratory factor analysis using a maximum likelihood method was conducted to examine the underlying structure of the NSQ. Although we had hypothesized a three factor measure, we used exploratory factor analysis in Study 1 in order to examine whether a more parsimonious or even different structure might result, especially in light of potential interrelatedness among the dimensions. Oblique rotation using the Promax method was specified because the factors were believed to be related and the inter-factor correlations supported this assumption ($r = .46$ to $.60$). The resulting scree test and eigenvalues suggested three factors, accounting for 81% of the common variance. In interpreting the rotated factor pattern in Table 1, both empirical and theoretical criteria were used. An item was said to correspond to the given factor if the pattern coefficient was .40 or greater for its respective factor (Tabachnick & Fidell, 1989). In addition, a content review based on socialization theory deemed retaining three organization items and two group items that did not meet the pattern coefficient criteria set above. These five items were later reworded and further examined in study 2.

In interpreting the factor structure matrix, the majority of items had structure coefficients of .60 or greater for a single factor (Gorsuch, 1997). Results using principal components and common factor analysis were also examined; substantive interpretations were identical across methods. In sum, 12 of the expected 16 items were retained for the first factor, 12 of the expected 16 comprised the second factor, and all

Table 1
Study 1: Rotated pattern matrix

	Items	Factor 1	Factor 2	Factor 3
<i>Organization scale</i>				
✓	1. Types of products/services produced/provided	36*	3	26
	2. Specific names of the products/services	44*	0	24
	3. History of this organization	61*	-19	4
	4. Structure	74*	0	2
	5. Operations	69*	8	1
	6. Objectives and goals.	41*	32	0
	7. How departments or subsidiaries contribute	64*	19	-4
☆	8. How my job contributes to the organization	33	38*	9
☆	9. How to act to fit with values and believes	15	35*	21
✓	10. Support organization	27	20	24
☆	11. Policies and/or rules	20	33	16
	12. Internal politics	44*	19	14
	13. Management style	55*	15	9
	14. Language	46*	4	24
✓	15. Compensation practices	34*	15	15
✓	16. Services (e.g., benefits)	34*	15	10
<i>Group scale</i>				
✓	1. History	43*	23	-8
	2. Group contributes to organization's goals	17	71*	-11
	3. Group's objectives	7	83*	-17
	4. Group and other groups	19	66*	-12
✓	5. Names of members	11	26	22
	6. Expertise each member	14	46*	9
	7. Member's output contributes products/services	10	63*	3
	8. Supervisor expects	-1	71*	8
	9. Management style	10	59*	3
☆	10. Group role	-10	55*	38*
☆	11. Perform tasks to the group's standards	-14	54*	42*
	12. Policies, rules, and procedures	-10	58*	31
	13. Behave consistent with values and ideals	-15	53*	38*
✓	14. Language	20	26	31
	15. Politics	19	40*	20
✓	16. Group functions	23	17	17
<i>Task scale</i>				
	1. Responsibilities, tasks, and projects	2	11	67*
	2. Perform tasks	2	-6	87*
	3. Priority	2	12	67*
	4. Tools	10	-10	70*
	5. Resources	13	-2	62*
	6. Support	-5	31	41*
	7. Customers	21	-11	50*
	8. Meet customer's needs	13	3	59*
	9. Inform supervisor	-2	21	52*
	10. Job performance	-9	34*	48*
	11. Necessary forms/paperwork	11	-5	48*

Note. Decimal points are omitted. * Statistically significant pattern coefficient; ☆ Item reworded; ✓ Item discarded.

11 expected items loaded on the third factor. All subsequent analyses are in relation to this modified NSQ.

3.2.2. Descriptive statistics and test–retest reliabilities

The means, standard deviations, reliabilities, and correlations for the scale scores are reported in Table 2. Coefficient α s for the three socialization scales were quite high ($\alpha = .88$ to $.92$). Similarly, the α s for the other scales used were acceptable. Test–retest reliabilities for the three socialization dimensions were good, ranging from $.71$ to $.79$. Although conceptually distinct, it was also expected that the three newcomer socialization measures would be intercorrelated. This was found to be the case.

3.2.3. Convergent and discriminant validity

Evidence for convergent and discriminant validity can also be found in Table 2. As can be seen, in relation to the Chao et al. (1994) scales, all correlations were strong to moderate. Recall that we expected similar dimensions between the two scales to have stronger correlations than dissimilar dimensions. This was found for the NSQ’s organization socialization dimension. Specifically, the NSQ’s organization scale correlated relatively highly with the respective Chao et al. scale ($r = .70$), and less with other Chao et al. scales. The NSQ task scale showed a strong correlation with its counterpart, the Chao et al. performance proficiency scale ($r = .62$), but also correlated strongly with Chao et al. organization scale ($r = .65$). The group scale correlated strongly with Chao et al. organization scale ($r = .63$) and moderately with both the Chao et al. group ($r = .45$) and task scales ($r = .46$).

3.2.4. Socialization and stress

The correlations between the three socialization dimensions and the criterion variable, stress, were also examined. As is evident in Table 2, stress was found to be neg-

Table 2
Study 1: Descriptive statistics and correlations

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. NSQ-O	5.82	.80	<i>.88</i>									
2. NSQ-G	6.15	.75	.69	<i>.92</i>								
3. NSQ-T	6.32	.68	.64	.70	<i>.89</i>							
4. Chao-O	5.46	.86	.70	.63	.65	<i>.92</i>						
5. Chao-G	5.60	1.03	.39	.45	.45	.61	<i>.80</i>					
6. Chao-T	6.12	.93	.46	.46	.62	.67	.49	<i>.84</i>				
7. Stress	3.27	1.40	-.05	-.10	-.10	-.07	-.15	-.14	<i>.85</i>			
8. NSO-rt	5.85	.78	.80	.68	.64	.77	.54	.60	-.03	<i>.91</i>		
9. NSG-rt	6.15	.74	.64	.72	.67	.65	.57	.57	-.06	.79	<i>.93</i>	
10. NST-rt	6.31	.64	.57	.58	.78	.65	.50	.65	-.10	.71	.79	<i>.90</i>

Note. For the NSQ, Chao et al. and Other scales, $n = 492$ for each correlation, thus for each $|r| > .09$, $p < .05$, and for each $|r| > .12$, $p < .01$. For all correlations involving the retest of the NSQ scales, $n = 240$. In these cases (the bottom three rows) each $|r| > .13$, $p < .05$ and each $|r| > .17$, $p < .01$. Coefficient α internal consistency reliability values are on the diagonal in italics.

atively, but minimally related to the NSQ dimensions. Further examination of a subset of the sample, however, revealed some interesting findings. For traditional students (i.e., less than 23 years of age) who were newcomers to their organization ($n = 91$), the correlations between socialization and stress remained non-significant. Often the jobs traditional students hold are not careers, but short term means of making money. These jobs may be simplistic, easily learned, easily changed, and not entailing much stress if socialization does not occur. On the other hand, for non-traditional students (i.e., 23 years or old) who were newcomers ($n = 47$), the organization socialization–stress relationship was strong and in the expected direction ($r = -.52$). A moderate negative correlation between stress and task socialization ($r = -.32$) was also found. No significant relationship was found for group socialization, but it was in the expected negative direction ($r = -.21$).

3.2.5. Socialization and tenure

Results between tenure and socialization were as expected. Longer tenured employees reported a significantly higher degree of socialization across all three dimensions, organization socialization ($t = 4.29, p < .01$), group socialization ($t = 3.54, p < .01$), and task socialization ($t = 3.96, p < .01$) than less tenured employees. The mean effect sizes for these differences were all above .56, indicating that tenure impacted socialization levels.

3.2.6. Socialization tactics

We also examined how different information sources affected newcomer socialization. Two types of sources, mentors and job training, were found to significantly impact socialization. Having a mentor within the organization resulted in significantly higher levels of socialization across all three dimensions than not having a mentor. While mentors had their largest effect on organization socialization ($t = 3.65, p < .01$), they also affected group ($t = 2.92, p < .01$), and task socialization ($t = 2.39, p < .05$). Job training, as would be expected, only affected task socialization. Receiving job training resulted in a significantly higher level of task socialization than not receiving job training ($t = 2.13, p < .05$). Job training, however, did not have a significant effect on organization or group socialization. The mean effect sizes for all the significant differences were between .20 and .30, despite the dichotomous nature of the information source data.

The analyses indicate that the NSQ measures three dimensions of socialization as designed and has good test–retest reliabilities. Much evidence was found for the scale's convergent and discriminant validity. As noted, some modifications of the NSQ occurred based on the findings to strengthen the scale.

4. Study 2

Study 2 was conducted to replicate study 1's supportive findings and gather additional evidence of construct validity using a different sample, new hires. Specifically, the internal consistency and factor structure of the measure were investigated. In

addition, relationships between the proposed socialization dimensions and the criterion measures of job satisfaction, organizational commitment, and supervisor-rated performance were examined. Previous research has found positive relationships between socialization and each of these criterion variables, although results concerning socialization and job performance are mixed (Adkins, 1995; Allen & Meyer, 1990; Baker & Feldman, 1990; Bauer & Green, 1998; Chao et al., 1994; Settoon & Adkins, 1997).

4.1. Method

4.1.1. Participants

Study 2 newcomer participants were 320 (64% female) new hires of three organizations. The average age of the full-time employees was 32 years ($SD = 9.4$ years). The new hires reported that, on average, they had been employed 2.4 months ($SD = .36$ months). The majority (79%) held entry-level positions. Of the 320 participants, 201 were from a financial institution, 79 from a brewery, and 40 from a computer support company. Participation was voluntary. Data were also obtained from 188 of the newcomers' supervisors and 230 peers.

4.1.2. Procedure

Approximately 1–3 months after beginning employment, new hires completed the NSQ, job satisfaction, and organizational commitment scales, and provided demographic information. The new hires were also asked to provide both their supervisor and a peer with specified packets containing surveys. Supervisors and peers provided socialization effort information, while only supervisors made performance ratings. Participants, supervisors, and peers mailed their packets to the researcher separately in self-addressed stamped envelopes. As in Study 1, questionnaires were numerically coded to allow matching and to ensure participant anonymity.

4.1.3. Measures

A 7-point response format (strongly disagree to strongly agree) was used for all scales, except where noted.

4.1.4. Newcomer socialization questionnaire

The organization, group, and task socialization scales contained 12, 12, and 11 items, respectively, based on modifications made from findings in study 1. The scale items can be found in Appendix A. Users of the questionnaire are asked to provide the second author with their NSQ raw data so further scale development and refinement can be made.

4.1.5. Job satisfaction

Overall job satisfaction was measured using the five items from the Job Diagnostic Survey (Hackman & Oldham, 1975), a frequently used measure that has shown good psychometric properties (Cook, Hepworth, Wall, & Warr, 1981). The measure assesses the “degree to which the employee is satisfied and happy with the job”

(p. 162). Example items include: “Generally speaking, I am very satisfied with this job” and “I frequently think of quitting this job” (reverse scored). A mean response is used to indicate overall job satisfaction; two items are reverse scored. The coefficient α for this sample was .83.

4.1.6. Organizational commitment

Organizational commitment was measured using Cook and Wall’s (1980) nine-item scale. Cook and Wall (1980) provide research evidence indicating the scale is psychometrically stable and sound. Their scale was designed to assess one’s feelings of attachment to organizational goals and values and one’s loyalty or sense of belongingness with the organization. Example items include: “I am quite proud to be able to tell people who it is I work for,” and “I feel myself to be part of the organization.” Three of the nine items are reverse scored. An overall average across the nine items is used to indicate organizational commitment. The coefficient α for this sample was .83.

4.1.7. Performance

All supervisors were asked to assess the newcomer’s job performance on three dimensions using a single global rating for each: organization, group, and task. The measures were developed specifically for this study. With regard to the organization domain, supervisors were instructed to rate the newcomer’s performance as a member of the organization. Specifically, the item asked: “How well does he or she perform organizational duties and responsibilities? How well does he or she perform his/her role as a member of the organization?” For work group, supervisors were asked: “How well does he or she perform group duties and responsibilities? How well does he or she perform his/her role as a member of the group?” Finally, supervisors were asked to rate the newcomer’s performance on tasks for which he or she was specifically hired. To assess the task domain, supervisors were asked: “How well does he or she perform job tasks and responsibilities? How well does he or she perform his/her job role?”

4.1.8. Socialization effort

Both supervisors and peers assessed socialization effort. Formal and informal socialization efforts were each assessed by three items using 7-point rating scales. These items captured whether events occurred to socialize the newcomer to the organization, group, and task. Two additional sets of three items each asked respondents to estimate the number of hours spent socializing the newcomer. The first scale inquired how much time the respondent spent socializing the newcomer (self-time) while the second scale inquired how much time the respondent felt others spent socializing the newcomer (other-time).

4.2. Results

4.2.1. Confirmatory factor analysis

The factor structure derived in Study 1 was validated in Study 2 using Confirmatory Factor Analytic (CFA) techniques and the EQS v5.5 program (Bentler, 1995).

Because of concerns for the sample size to estimated parameter ratio, three separate one-factor models were assessed, resulting in approximately a 10:1 ratio for each of the models. Residuals between highly similar adjacent items only were allowed to covary (Kline, 1998). This resulted in five (of 54 possible) correlated residuals in the organizational socialization scale, six of 54 in the group socialization scale, and six of 44 in the task socialization scale. Model fit was assessed using two fit indices, normed fit index (NFI) and comparative fit index (CFI). Values on each index greater than .90 indicated good fit. Standardized root mean square residual (SRMR) values of .05 or less also indicated good fit.

Table 3 provides a summary of the model fit results. Each of the CFA models fit the data well. The NFI's and CFI's were equal to or greater than .90 for each of the models. SRMR's were acceptable. All factor loadings and free error covariances were statistically significant.

4.2.2. Descriptive statistics

The means, standard deviations, reliabilities, and correlations for all scale scores are reported in Table 4. The coefficient α s for the NSQ scales were strong.

4.2.3. Socialization and outcome variables

Correlations between socialization and the outcome variables were based on data from two organizations because these measures were not included in the packets for the brewery new hires due to organizational constraints.

4.2.4. Job satisfaction

As expected, all three socialization dimensions were positively related to job satisfaction. Moreover, the task socialization construct showed a strong relationship to

Table 3
Study 2: CFA model fit indices

	Model fit					Improvement over prior model		
	χ^2	<i>df</i>	NFI	CFI	SRMR	χ^2	<i>df</i>	<i>p</i>
<i>Organization socialization</i>								
Null	2473.29	66						
Single factor	473.94	54	.81	.83	.08	1999.35	12	<.01
Correlated error	259.18	49	.90	.91	.06	214.76	5	<.01
<i>Group socialization</i>								
Null	3301.36	66						
Single factor	477.7	54	.86	.87	.06	2823.66	12	<.01
Correlated error	204.08	48	.94	.95	.04	273.62	6	<.01
<i>Task socialization</i>								
Null	2788.94	55						
Single factor	370.82	44	.87	.88	.05	2418.12	11	<.01
Correlated error	125.25	38	.96	.97	.03	245.57	6	<.01

Table 4
Study 2: Descriptive statistics and correlations

	<i>M</i>	<i>SD</i>	<i>N</i>	1	2	3	4	5	6	7	8
1. Organization	5.52	.96	319	.92							
2. Group	6.02	.92	315	.76**	.95						
3. Task	5.95	1.02	315	.72**	.86**	.94					
4. Job satisfaction	21.70	2.34	216	.38**	.49**	.54**	.83				
5. Organization commitment	39.22	4.70	212	.38**	.46**	.46**	.37**	.83			
6. Organization performance	5.13	1.10	141	.03	-.01	-.08	-.13	.03	—		
7. Group performance	5.31	1.09	141	.03	.00	-.08	-.14	.02	.89**	—	
8. Task performance	5.40	1.22	142	.02	.01	-.07	-.11	.01	.80**	.83**	—

Note. Coefficient α internal consistency reliability values are in italics and on the diagonal.

** $p < .01$.

job satisfaction ($r = .54$), followed by group socialization ($r = .49$), and organization socialization ($r = .38$).

4.2.5. Organizational commitment

Again, all three socialization dimensions showed positive relationships with organizational commitment. The group and task socialization constructs related very similarly to the commitment variable (both, $r = .46$), and organization socialization also correlated with commitment ($r = .38$).

4.2.6. Performance

Performance, as rated by the newcomer's supervisor, was not statistically significantly correlated with the socialization constructs.

4.2.7. Socialization effort

Correlations between employee socialization measures and supervisor and peer socialization effort are presented in Table 5. Supervisors' and peers' reported socialization efforts showed very different relationships with the three socialization constructs. Supervisors' ratings of both formal and informal efforts were non-significant. Conversely, the correlation between peers' ratings of formal and informal efforts and the socialization constructs were mostly positive.

The time patterns, on the other hand, reflect a similarity in the amount of time spent on each construct. Both supervisors and peers reported that the largest amount of time was spent teaching the newcomer about the task, and the least amount on the organization. Interestingly, peers spent about twice the time as supervisors teaching the newcomer. Few of the supervisors' or peers' time patterns, however, showed statistically significant correlations to the three socialization constructs.

Table 5

Study 2: Supervisors' and peers' perceptions of efforts to socialize and correlations with newcomer socialization levels

	<i>M</i>	<i>SD</i>	<i>N</i>	NSQ-O	NSQ-G	NSQ-T
<i>Supervisors' ratings</i>						
Formal events	4.61	1.34	188	-.03	.02	.00
Informal events	5.52	.95	188	.04	.07	.00
Self-time	7.18	13.21	139	-.01	-.01	.01
Other-time	15.82	25.44	133	.11	.12	.16
<i>Peers' ratings</i>						
Formal events	4.54	1.32	229	.20**	.22**	.22**
Informal events	5.22	1.07	230	.22**	.19**	.13
Self-time	13.14	25.42	159	.07	.10	.04
Other-time	13.80	22.96	141	.01	.12	.03

Note. Values for formal and informal events are ratings on 7-point scales. Self-time and other-time values indicate average reported estimates of hours spent providing socialization information.

** $p < .01$.

5. Discussion

Although there is a multitude of research demonstrating the benefits of socialization, a newcomer socialization measure was lacking. The objective of this research, therefore, was to develop such a measure. Several steps were taken: (1) three dimensions in which each encompassed the respective knowledge and role behaviors were identified and defined from the theoretical work of Schein (1971) and Feldman (1981); (2) a content validity approach was used to develop the Newcomer Socialization Questionnaire (NSQ); and (3) two psychometric studies were performed to gather information about the construct validity of the instrument.

Generally, the evidence supported the construct validity of the NSQ. Both coefficient α s and test-retest reliabilities suggested that the NSQ scale scores have a high degree of internal consistency and temporal stability. Factor analyses showed that the components, organization, group, and task, were operable dimensions of the newcomer socialization construct. In support of convergent validity, the relationship between the NSQ scale scores and Chao et al.'s (1994) socialization scores were generally as expected, with noted exceptions. In addition, the majority of the correlations between the socialization dimensions and other variables differed (i.e., job satisfaction, organizational commitment, socialization effort), providing additional evidence that the scales measure independent constructs.

In terms of the correlation of the NSQ scores with the criterion measures, the socialization dimensions displayed the expected positive correlations with job satisfaction and organizational commitment, consistent with prior findings. Associations with performance, however, were not as expected. In contrast to recent findings of statistically significant correlations between socialization and newcomer performance by Bauer and Green (1998), the present study found no such relationship. One key difference between the two studies is the length of time of newcomer

employment. Whereas the Bauer and Green study had supervisors rate newcomers after nine months, the present research requested ratings within the first three months of employment. Possibly supervisors did not have ample opportunity to observe newcomer performance in the shorter time frame. It is also possible that supervisors were especially lenient in their ratings, recognizing that newcomers were still learning their roles and responsibilities. Clearly, additional research is needed to understand how and when socialization relates to performance. A longitudinal study that measures various facets of both socialization and performance would be helpful. The NSQ provides a useful measurement tool to address these research questions.

Future research is needed to replicate and expand the findings of this research. The relationship between the scales and other variables known to be related to socialization need to be explored. Replications of the factor structure using larger samples of employed newcomers would be helpful. In addition, a laboratory study would allow further investigation of validity. In a laboratory study, researchers could manipulate factors that should affect participants' levels of socialization on the individual dimensions (Schmitt & Klimoski, 1991) and then assess the participants' levels of socialization on each dimension.

With continued validation and replication of our findings, the NSQ offers researchers a tool to assess the contextual changes in newcomers' socialization. Moreover, because the measure is supported by initial evidence of construct validity, users of the scale can be confident that their results are meaningful.

Appendix A. Newcomer socialization questionnaire

A.1. Organization socialization

1. I know the specific names of the products/services produced/provided by this organization.
2. I know the history of this organization (e.g., when and who founded the company, original products/services, how the organization survived tough times).
3. I know the structure of the organization (e.g., how the departments fit together).
4. I understand the operations of this organization (e.g., who does what, how sites, subsidiaries and/or branches contribute).
5. I understand this organization's objectives and goals.
6. I understand how various departments, subsidiaries, and/or sites contribute to this organization's goals.
7. I understand how my job contributes to the larger organization.
8. I understand how to act to fit in with what the organization values and believes.
9. I know this organization's overall policies and/or rules (e.g., compensation, dress code, smoking, travel expense limitations).
10. I understand the internal politics within this organization (e.g., chain of command, who is influential, what needs to be done to advance or maintain good standing).

11. I understand the general management style (e.g., top-down, participative) used in this organization.
12. I understand what is meant when members use language (e.g., acronyms, abbreviations, nicknames) particular to this organization.

A.2. Group socialization

1. I understand how my particular work group contributes to the organization's goals.
2. I know my work group's objectives.
3. I understand the relationship between my group and other groups.
4. I understand the expertise (e.g., skill, knowledge) each member brings to my particular work group.
5. I understand how each member's output contributes to the group's end product/service.
6. I understand what the group's supervisor expects from the work group.
7. I understand the group supervisor's management style (e.g., hands-on, participative).
8. I know my work group role.
9. When working as a group, I know how to perform tasks according to the group's standards.
10. I know the policies, rules, and procedures of my work group (e.g., attendance, participation).
11. I understand how to behave in a manner consistent with my work group's values and ideals.
12. I understand the politics of the group (e.g., who is influential, what needs to be done to advance or maintain good standing).

A.3. Task socialization

1. I know the responsibilities, tasks and projects for which I was hired.
2. I understand how to perform the tasks that make up my job.
3. I understand which job tasks and responsibilities have priority.
4. I understand how to operate the tools I use in my job (e.g., voice mail, software, programs, machinery, broom, thermometer).
5. I know how to acquire resources needed to perform my job (e.g., equipment, supplies, facilities).
6. I know who to ask for support when my job requires it.
7. I know who my customers (internal and external) are.
8. I know how to meet my customer's needs.
9. I know when to inform my supervisor about my work (e.g., daily, weekly, close to deadlines, when a request is made).
10. I know what constitutes acceptable job performance (i.e., what does my supervisor and/or customers expect from me).

11. In the course of performing my job, I understand how to complete necessary forms/paperwork (e.g., time sheets, expense reports, order forms, computer access forms).

Note. Please note the scale is copyrighted. Items are presented in the order listed above. A 7-point Likert-type response format (1 = strongly disagree to 7 = strongly agree) is used.

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