



**The Role-Based Identity Scale:
Towards a Parsimonious Measure of
Work-Related Identity**

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WORKING PAPER

ABSTRACT

The Role-Based Identity Scale: Towards a Parsimonious Measure of Work-Related Identity

The study of identity has, to date, been primarily in the realm of social psychology, and as a result, little work has been done on work-related identity. We propose that this is, in part, due to the lack of useful measures of identity in the workplace. In order to help expand the study of identity to the employment arena, we introduce a new measure of identity that taps into five work-related roles. These same five roles have been studied in prior research on performance measurement that utilized identity theory (Welbourne, Johnson, & Erez, 1998). We provide data on the distinctiveness of the five roles and the predictive validity of the various roles. Our results show support for initial validation of the scale through studies conducted with seven different companies.

The study of identity (the degree to which a person identifies with a certain role or is committed to a given role) has a long tradition in the social psychology literature (for a review of identity theory see Hogg, Terry and White, 1995). This literature examines the formation of identity and how identity affects both attitudes and behavior. Researchers have studied a wide range of identities ranging from those associated with marital status (wife, husband, widow, etc.), to hobbies (Burke & Cast, 1997; Thoits, 1992) and to the ways in which people make a living (Hoelter, 1983). Although the study of identity has been quite broad, the focus of current research has been limited when it comes to application within the workplace. We propose that this may be due to the lack of adequate measures of identity at work. In an effort to help move identity research further into the management arena, our paper merges ideas from prior research on identity, performance measurement, and organizational commitment to propose a parsimonious and useful measure of identity at work. We limited our study to five work-related roles that were used in prior research on performance measurement (Welbourne, Johnson, & Erez, 1998). Although these five roles are not the extent of all work-related roles, we think that the five roles used in prior research provide us with a good start toward extending the research on identity theory within the organization.

The primary focus of social psychology researchers studying identity has been on non-work related identities (i.e. relative, friend, church-goer, parent, athlete), and the methodology for measuring and evaluating the roles is quite extensive. The result is a method that may not have high face validity in the employment arena and which is often too cumbersome for application. For example, Thoits (1992) conducted personal interviews where first, the subjects were asked “Who am I” type questions. A list of

roles was generated based upon the answers. Finally, subjects were asked to rank order the roles which resulted. The process is quite extensive, and it results in the generation and study of multiple roles that may not be easily generalized to all employees or to multiple organizations. Although this method is appropriate for many studies, we think that in order to study identity more systematically within organizations, a survey-based measure of identity would be helpful.

To some extent, this type of work has already begun. Although not purely focused on identity, organizational researchers have studied organizational commitment, which has been defined as one form of identity (identification with the organization) (e.g. Morrow, 1993; Mowday, Steers, & Porter, 1979). This research, taken together with recent research on performance measurement (Welbourne, et al., 1998), provides guidance for our study of work-related identity. We propose taking an approach that blends aspects from both organizational researchers who study organizational commitment and social psychologists who investigate identity. We think the concept of multiple identities is critical for further development of identity theory within organizations; however, we limit the number of identities by focusing on five that have been proven useful in prior research. Those identities are job, career, entrepreneur, team, and organization member.

IDENTITY THEORY

Stryker (1977) first gave the label of identity theory to the study of the identities of individuals and changes in those identities from both cognitive and behavioral standpoints (Weigert, 1990). The central tenet of this theory is that a given individual has or exhibits a number of identities. These identities form when people engage in

role-related behavior, which grows out of interactions with others (McNulty ,1994; Stryker& Statham, 1985). Engaging in behavior associated with a particular identity is related to both whether the social role associated with that identity has value to the individual (Sparks & Shephard, 1992) and the relative salience of a particular identity (importance as compared to other identities). The relative salience of identities and the differential commitment of individuals to the various identities (Burke, 1991) combine to direct behavior in a given instance (or set of circumstances).

The measurement of identity has grown from the desire of social psychologists to understand the meaning of 'self.' This is a fairly broad goal, and as a result, the research needed to be quite open-ended in nature and extensive, allowing the subject to tell the researcher how he/she defines self. In this research stream, work-related identities are but one of many identities that make up one's own self concept.

Our goal in beginning this study was not to understand self but to apply identity theory concepts to the study of behavior within organizations by isolating those aspects of identity that direct behavior at work. Identity theory provides a useful way of thinking about choices that workers make and how their identity at work may influence their work behavior.

ORGANIZATION COMMITMENT

The attitudinal commitment aspect of organizational commitment is one example of how this type of thinking has already been extensively applied by organization researchers. The organizational commitment research streams have come to examine the various aspects of commitment to an organization. These include psychological attachments to an organization: *affective commitment* (O'Reilly & Chatman, 1986) and

from Becker's reward-cost ideas (including side bets): *calculative commitment* (Hrebiniak & Alutto, 1972). Therefore, although these researchers have not utilized Identity theory directly, the concept of "the relative strength of an individual's identification with and involvement in a particular organization" (Mowday et al., 1982: 27) in explaining affective commitment is very similar to concepts developed by identity theorists. Thus, our interpretation is that organizational researchers have, in fact, chosen one identity (that of organizational member) and developed research around this identity in the study of commitment to the organization. (See Morrow, 1993, for an overview of this approach). The most common method of measurement has been with the 15 item instrument developed and validated by Mowday, Steers and Porter (1979).

BLENDING IDENTITY THEORY AND ORGANIZATION COMMITMENT

Organization researchers chose to approach the topic of identity by focusing on one identity, while identity theory researchers studied 'self,' which includes multiple identities. Our research lies somewhere in the middle of these two approaches. We think that the study of identity in organizations can benefit from researching multiple identities, but we also want to limit those identities (since otherwise the number of identities would be quite extensive). In order to guide our work, we focused our study on prior research in the area of performance measurement that utilized identity theory.

Welbourne and colleagues (1998) suggested that five roles are particularly relevant within organizational settings. Basing their logic on the fact that identity salience is a key to understanding behavior at work, and that organizations deliberately attempt to affect salience through rewards systems, they validated a measure that taps into five work-related roles.

ROLE-BASED IDENTITY

The five roles proposed by Welbourne et al. (1998) are: job holder, career, team member, innovator, and organization member. They found that these roles represent five distinct roles within the organization and that measurement of each one added predictive validity in a number of settings (understanding performance appraisal, pay satisfaction, and gainsharing satisfaction). Given that performance is an outcome of identification with a role, we think that study of identity within these five roles can be useful for studies within organization settings. A brief review of each identity is provided next.

Organizational and Job Identity

Organization identity as defined in the organizational commitment literature focuses on a strong belief in and acceptance of the values and goals of the organization (Mathieu and Zajac, 1990). High levels of organizational commitment can signal the existence of a psychological engagement or bond between the values and goals of the organization and the employee and may contribute to an increased employee willingness to put forth efforts on behalf of that or a similar organization. The organizational identity measure we develop assesses the extent of this attachment to the organization. Although increased employee efforts would, without a doubt be universally praised, the source - a psychological bond - may not be recognized as positive by many employers. Employee behavior resulting from feelings of pride and personal identification may be the goal of more stable, slow-growth organizations, but may be of little value to fast-growth, high technology firms (cf. Delbecq & Weiss, 1988).

These firms may be more interested in employees for whom the individual job is of primary importance. Thus, the job identity construct would be of more interest.

Employee job identity exists when people are involved with their jobs to the extent that they consider work an important or possibly a central aspect of their lives. Jobs and employee involvement with the individual job have been important research topics extending from before Frederick Taylor's Scientific Management in the 1890's to the present, (cf. Austin & Villanova, 1992; Gatewood & Feild, 1994). Personal identification with work was part of the original definition of job involvement utilized by Lodahl & Kejner (1965). However, this concept and subsequent job involvement and job commitment scales have suffered from problems with overlapping traits such as with work involvement and work ethics (Morrow, 1993). The conceptualization developed here avoids these problems by focusing on identity generated by the importance of the specific job to an individual employee.

Career Identity

We suggest that another important identity to consider is that of career identity. Careers have generally been viewed as a series of jobs; either within one occupation or occurring within or across organizations. Career identity is not a new concept; its importance in the work environment is generally discussed in most introductory human resource management texts (e.g., Noe, Hollenbeck, Gerhart & Wright, 1994). It is defined as one's commitment and identification with his/her career including more than simply the job within an organization but extending to a "pattern of work-related experiences that span the course of a person's life" (Noe et al., 1994; 505).

As companies search for ways to “energize” (Latham, 1988: 223), manage and motivate an increasing independent and autonomous workforce, the career identity construct becomes increasingly important. As part of the new employment contract, many organizations view encouraging autonomy and letting employees plan their own careers as an integral part of the employment relationship (Noer, 1993). Some organizations are developing employee ‘specialists’ who are empowered to do the job with very little supervision (Latham, 1988). Still other researchers have commented on the fact that with higher levels of education, combined with increased specialization of work, many workers are starting to view their vocational choice as a profession (Morrow, 1993: 33) leading to a lifelong career. As organizations continue to recognize the need for more highly trained workers the efficacy of measuring career identity and evaluating its role within the work environment is evident.

Entrepreneur Identity

The need to measure and understand entrepreneurial identity increases as more American corporations adopt a goal of becoming more entrepreneurial in their approach to the overall business strategy of the organization. Particularly in high-growth firms, rewards for employee risk-taking along with other entrepreneurial activities such as suggestions and innovations have been built into compensation systems (Gomez-Mejia & Balkin, 1992). This trend is also evident among manufacturing companies where there is a growing assumption that shop floor employees with a strategic orientation will enhance manufacturing productivity and competitiveness (Parker, Wall & Jackson, 1997). In this climate, a focus or commitment to entrepreneurial activities is an important role identity.

Team Identity

The development of teams and team-based work in many organizations is clearly a continuing trend (Hage, 1988). Team-based work creates a situation where it may be extremely difficult to separate credit among a group of employees, particularly where team work and sets of complementary skills are necessary for successful completion of tasks. More and more organizations recognize this fact and therefore, team based incentives are growing in popularity among American corporations (Gomez-Mejia et al., 1992). The goal of many organizational compensation systems is to heighten awareness among their employees of their work teams and to increase commitment to team related goals. The success of this effort highlights the need for recognition of the role behavior generated by this identity.

Identity theory research supports the possibility that the number of role identities present in any given individual would be limited only by the number of structural relationships present in that person's life (Stryker, et al. 1985). However, we believe that the limited number presented here cover the important identities within today's corporate climate. These identities are relevant to relationships present within many work environments. Therefore, we introduce the Role-Based Identity Scale (RBIS) to measure these five important work-relevant identities.

DEVELOPMENT OF HYPOTHESES

These five identities are expected to be differentially important within various organizational contexts. Different organizations will have established internal characteristics which support some roles as more important than others. For example, one would expect that within a team-based, fast-growth organization, the employees

would exhibit high levels of identity with the job, entrepreneurial and team roles.

Consequently, lower levels of the other two roles would be expected.

However, we also suggest that the roles are unique and distinct from each other.

Hypothesis 1: The five identities measured by the RBIS (career, entrepreneurial, job, organization, and team), while related to each other, are unique.

Further, we believe that expected theoretical relationships with established measures will further support adoption and usage of the RBIS.

Hypothesis 2: The five identities will differentially predict outcome variables such that the pattern of results will demonstrate convergence with existing measures through the predictive validity of the measures.

In the next section we examine and discuss the psychometric properties of the scales including validity and reliability data collected in our research.

METHODS

Samples

The data were collected from employees and managers at seven companies from various industries. Because this study was conducted as part of a large scale compensation study, each company received a different survey including many different items, although the Role Based Identity Scale (RBIS) items were included at each site. The development of the Role Based Performance Scale (Welbourne, et al., 1998) was also developed as a part of this same study.

Among the seven firms studied, we obtained data from several high-technology software firms¹: companies A, C and D. Companies A and C were profitable, fast-growth organizations and Company D was not profitable at the time of data collection. Companies B, E, F and G are all successful, stable manufacturing plants with the exception of Company G which was in the process of downsizing prior to data collection. One of the plants is unionized and is a subsidiary of a Fortune 500 company (Company G).

A stratified random sample of self evaluations were collected at each site to form a total sample of 1041 employees. Work assignments of the respondents included administrative personnel, sales staff, technical support and management employees. Demographic data for the sample populations were provided from personnel files at the firms. In addition, the firms provided a variety of archival information including demographic information, current salary, length of service, performance data, and team assignment.

Item Development

The items included in the RBIS were originally developed for use in a multi-company study of group-based compensation systems (Welbourne, et al., 1998). The first stage of the development process consisted of meetings with human resource managers and representatives from 10 firms. These managers provided information to the first author regarding the various roles required of employees within their firms. This information served as the basis for the development of a 35 item survey for the pilot

¹ The companies are identified throughout the document by letter designation to protect anonymity.

test. Next the human resource managers and other managers at the firms were asked to read and critique the individual survey items. They were asked to evaluate each item in terms of its readability, applicability to their organizations, ease of understanding and whether or not the items reflected roles which were considered essential within their organizations. The survey was then conducted at one manufacturing location from a stratified random sample of 90 employees.

Results of this initial survey were subjected to an exploratory factor analysis which resulted in a five-factor solution. The final version of the scale consisted of twenty items; four for each of the five identities. This final version of the scale was utilized at all of the subsequent administrations of the survey. The scale in its entirety is included in the Appendix. Likert type responses to the scale items ranged from 1-5: (1=strongly disagree, 2=disagree, 3=neither, 4=agree, 5=strongly agree).

RESULTS

Psychometric Properties

In order to evaluate the construct validity of the RBIS, several major indicators were utilized. We investigated the reliability of the scales, the distributional properties, and the discriminate and convergent validity. Table 1 presents means, standard deviations, correlations, and sample sizes for all seven of the data sets. The means range from a low of 12.02 (team) at one company site to a high of 17.18 (entrepreneur) at another.

Table 1
Means, Standard Deviations, Correlations and Sample Sizes

	Means	S.D.	<u>Correlations</u>	1	2	3	4	5
5								
Company A (N=97)								
1. Career	14.37	2.50	(.61)					
2. Entrepreneur	15.85	2.34	.21*	(.65)				
3. Job	13.09	2.72	.30**	.31**	(.73)			
4. Organization	14.81	3.41	.07	.29**	.50**	(.89)		
5. Team	12.93	3.13	.21*	.24*	.54**	.50**	(.86)	
Company B (N=111)								
1. Career	13.62	3.14	(.79)					
2. Entrepreneur	15.88	2.65	.46**	(.81)				
3. Job	13.69	2.53	.40**	.15	(.60)			
4. Organization	15.11	3.51	.24*	.06	.26**	(.92)		
5. Team	13.15	3.10	.07	.01	.40**	.14	(.85)	
Company C (N=141)								
1. Career	13.96	3.38	(.82)					
2. Entrepreneur	15.99	2.25	.43**	(.74)				
3. Job	13.38	2.98	.17*	.27**	(.70)			
4. Organization	15.50	3.15	.09	.33**	.68**	(.86)		
5. Team	12.89	3.25	.11	.17	.39**	.35**	(.82)	
Company D (N=154)								
Career	16.01	2.42	(.68)					
Entrepreneur	17.18	1.84	.32**	(.60)				
Job	14.10	4.56	.32**	-.03	(.71)			
Organization	14.24	3.59	.27**	.04	.60**	(.87)		
Team	13.23	3.02	.46**	.17*	.50**	.47**	(.80)	
Company E (N=246)								
Career	15.60	2.89	(.78)					
Entrepreneur	16.09	2.27	.56**	(.73)				
Job	14.76	2.77	.52*	.40**	(.68)			
Organization	16.83	2.96	.51**	.30**	.57**	(.88)		
Team	13.97	3.21	.41**	.26**	.49**	.45**	(.86)	
Company F (N=203)								
Career	14.63	2.95	(.74)					
Entrepreneur	16.29	2.21	.52**	(.77)				
Job	13.21	2.56	.45**	.31**	(.60)			
Organization	15.98	3.11	.25**	.20**	.32**	(.89)		
Team	13.29	3.12	.31**	.23**	.43**	.51**	(.83)	

Company G (N=88)

Career	12.78	3.69	(.84)				
Entrepreneur	15.15	3.56	.64**	(.87)			
Job	13.30	3.62	.41**	.27*	(.77)		
Organization	13.53	4.52	.53**	.48**	.42**	(.91)	
Team	12.02	3.38	.54**	.47**	.58**	.51**	(.81)

Note: Reliabilities in parentheses; S.D.=standard deviation; N=sample size; *p<.05 (2-tailed tests); **p<.01 (2-tailed tests); ***p<.001 (2-tailed tests)\

Reliability Estimates

Coefficient alphas were utilized to analyze the reliability of the RBIS. Table 1 provides the reliabilities for each scale at each data collection site. The coefficient alpha values range from a low of .60 (job identity) to a high of .91 (organization identity). The average alpha value for each of the separate identity scales follow: career identity = .75; entrepreneur identity = .74; job identity = .68; organization identity = .89; and team identity = .83. For the entire scale (all 20 items) alpha values ranged from .82 to .90 among the seven samples. Acceptable levels were reached for all scales demonstrating good homogeneity levels among the scale items.

Discriminate validity

Discriminate validity was evaluated utilizing confirmatory factor analysis. Four models associated with different hypothesized relationships were developed and analyzed. In the most restrictive model (the null model), the twenty measured items were constrained to load as twenty distinct constructs. The second model explored was a one factor model. In this model all 20 items were constrained to load as one factor. The third model was the hypothesized model which included the five factors developed and tested in this study: job identity, career identity, organizational identity, team identity, and entrepreneurial identity. Each of the four items associated with its

respective factor were loaded on that factor. If the 5 constructs are distinct (as hypothesized), this five factor model should produce the best fit.

In an attempt to explore all possible models suggested by the theory, an additional model was developed and tested. This fourth model, a three factor model, explored the possibility that, in fact, the career and job identities are not really separate and distinct constructs. This last model also examines the possibility that the team and organization identities are not truly separate constructs as well. This model, then, includes three factors: an individual factor, where the career identity items and the job identity items were loaded on one factor (for a total of eight items); the group factor, where the team identity items and the organization identity items were loaded on a second factor (also eight items); and the entrepreneurial identity factor, where the item loadings remained unchanged from the five factor model (the original four items). All four models were analyzed and Table 2 reports the results

Table 2
Fit Statistics of Confirmatory Factor Analyses

Model	df	Chi-Sq	GFI	AGFI	CFI	
IFI						
Company A (N=97)						
1. Null Factor	190	1119.55	.37	.31	---	---
2. One Factor	170	680.67	.55	.45	.46	.51
3. Three Factor	167	548.64	.61	.51	.60	.59
4. Five Factor	159	386.69	.73	.65	.76	.75
Company B (N=111)						
1. Null Factor	190	1344.45	.39	.32	---	---
2. One Factor	170	1010.22	.48	.36	.28	.27
3. Three Factor	167	582.07	.64	.55	.65	.64
4. Five Factor	159	374.77	.77	.69	.82	.81

Company C (N=141)							
1. Null Factor	189	1484.13	.40	.33	---	---	
2. One Factor	169	1010.81	.54	.43	.42	.43	
3. Three Factor	166	781.11	.63	.53	.57	.58	
4. Five Factor	159	464.87	.75	.67	.79	.79	
Company D (N=155)							
1. Null Factor	190	1424.75	.49	.35	---	---	
2. One Factor	170	776.41	.62	.53	.52	.51	
3. Three Factor	167	652.94	.68	.60	.61	.61	
4. Five Factor	159	436.39	.77	.70	.76	.75	
Company E (N=246)							
1. Null Factor	189	2312.30	.34	.27	---	---	
2. One Factor	169	1063.04	.64	.56	.60	.61	
3. Three Factor	166	841.58	.71	.63	.70	.70	
4. Five Factor	159	481.74	.83	.78	.86	.86	
Company F (N=203)							
1. Null Factor	190	2263.58	.36	.29	---	---	
2. One Factor	170	1412.32	.51	.39	.40	.41	
3. Three Factor	167	945.54	.69	.61	.62	.63	
4. Five Factor	159	631.57	.77	.70	.77	.78	
Company G (N=88)							
1. Null Factor	189	1267.48	.26	.18	.04	.04	
2. One Factor	169	673.23	.55	.44	.55	.56	
3. Three Factor	166	557.78	.60	.49	.65	.66	
4. Five Factor	159	380.85	.71	.61	.80	.81	

Note: GFI=goodness of fit index; AGFI=adjusted goodness of fit index; CFI=comparative fit index (Bentler, 1990); IFI=incremental fit index (Bollen, 1988)

The hypothesized 5 factor model demonstrated significantly better fit to the data than any of the other models. The fit indices utilized: GFI, AGFI, CFI and IFI all indicate a much better fit for the five factor model than any of the other models. Additionally, because these are a series of nested models, the difference in chi-square estimates approximate a chi-square variable that tests whether there is a significant improvement in fit for the less restrictive models (Bollen, 1989) (null, one factor, and three factor). For all companies and for the combined sample, the five factor model exhibited a significant

improvement over any of the other models ($p < .001$). Hence the conclusion that the five factor model fits the data quite well. These results support the distinction of 5 separate constructs in support of hypothesis 2.

Convergent Validity

Convergent validity was evaluated through the development of a partial nomological network demonstrating theory-based relationships to other constructs.

Career Identity. Several researchers have suggested that the demographic variables tenure and age are negatively related to career identity. For example, Gutteridge, Leibowitz & Shore (1993) in describing limited corporate growth and lowered promotional opportunities suggest this relationship. This relationship was supported by our data. Negative relationships to a significant level were found between tenure and career identity ($p < .01$) and between age and career identity ($p < .01$) in the samples. Table 3 presents the regression results for two of the samples including these and other demographic variables. (Results from only two samples are reported because of space considerations. Additional results may be obtained by contacting the first author.)

Table 3
Convergent Validity

Career Identity predicted by Demographic Variables

	Beta	t	Beta	t
Sample:	F		D	
Age	.031	.375	-.234	-2.837**
Education	.031	.403	.090	1.102
Status: Exempt/Non	.142	1.601	-.026	-.306

Hours Worked	.180	2.004*	.155	1.784
Gender	-.120	-1.611	.067	.815
Tenure	-.305	-3.725***	-.230	-2.792**
Salary	-.096	-.884		

$$TR^2 = .16 \quad F = 4.59^{***} \quad R^2 = .12 \quad F = 3.18^{**}$$

Note: * $p < .05$ (2-tailed tests); ** $p < .01$ (2-tailed tests); *** $p < .001$ (2-tailed tests)

With the remaining four identity scales: entrepreneurial, organizational, team and job, established scales were utilized to evaluate the convergent validity. In each instance, we expected that the relevant identity of the RBIS would predict the established scale, while the other (unrelated) identities would not. Table 4 reports the results. As discussed below, this proved to be the case in three of the four scales.

Table 4
Convergent Validity

Organizational Identity predicting Organizational Commitment (Mowday, Steers & Porter, 1979)

	Beta	T	Beta	t
Sample: G				
Career	-.016	-.173		
Entrepreneur	-.137	-1.589		
Job	.159	1.957		
Organization	.786	9.698***		
Team	.067	.743		

$$R^2 = .70 \quad F = 34.39^{***}$$

Entrepreneur Identity predicting Entrepreneurship (Ettlie & O'Keefe, 19XX)

Sample: G			D	
Career	.169	1.603	.052	.607
Entrepreneur	.708	6.866***	.399	5.164***
Job	-.116	-1.402	-.071	-.733
Organization	-.084	-.984	-.131	-1.407
Team	.096	1.017	.179	1.940

$$R^2 = .68 \quad F = 29.21^{***} \quad R^2 = .23 \quad F = 8.84^{***}$$

Team Identity Predicting Group Cohesiveness (Seashore, 1954?)

Sample: F			E		
Career	.155	1.84	.102	1.215	
Entrepreneur	.002	.029	-.108	-1.456	
Job	-.127	-1.595	-.077	-.916	
Organization	-.028	-.495	.004	.056	
Team	.419	5.083***	.425	5.863***	

R²= .18

F= 8.02**

R²= .18

F=9.73***

Job Identity Predicting Job Satisfaction [[1 item: My overall job in general.]]

Sample: F			C		
Career	-.040	-.498	-.127	-1.462	
Entrepreneur	-.122	-1.606	-.078	-.853	
Job	.157	2.061*	.220	1.941*	
Organization	.336	4.494***	.285	2.531*	
Team	.137	1.756	.083	.994	

R²= .22

F=11.08***

R²=.24

F=8.27***

Note: *p<.05 (2-tailed tests); **p<.01 (2-tailed tests); ***p<.001 (2-tailed tests)

Entrepreneurial Identity. We ran a regression equation utilizing a measure of entrepreneurship developed by Ettlie & O'Keefe (1982) as the dependent variable and the five identities as the independent variables. As expected, the entrepreneurship identity was a significant predictor (p<.001) and the other four identities were not significant predictors.

Organizational Identity. The measure of Organizational Commitment by Mowday, Porter & Steers (1982) was the dependent variable in the regression equation utilizing the five identities as the independent variables. As we expected, only the organizational identity scale was a significant predictor (p<.001).

Team Identity. A scale measuring group cohesiveness originally developed by Seashore (1954) was adapted for use in these studies. The adaptation included rewriting the gender specific items to eliminate the specificity and revising the question

format to fit with our questionnaire format. Only the team identity scale, out of the five, was a significant predictor ($p < .001$) of group cohesiveness.

Job Identity. The regression equation with job satisfaction as the dependent variable and the five identities as independent variables resulted in both the job identity and the organizational identity showing significant predictability.

DISCUSSION

This pattern of results for all five of the identities studied demonstrates the expected theoretical relationship with established measures and concepts in support of hypothesis 2. Our scale fills a current void and improves research possibilities by cataloging these identities as relevant for work organizations. With several of the identities; entrepreneurship and team, recently developed scales were not readily available or are not widely utilized for various reasons. With organizational identity, our scale focuses on the psychological attachment aspects of commitment (along with Mowday, et al., 1979) and accomplishes this with a more succinct subscale. Secondly, the development of this comprehensive, cohesive instrument creates possibilities for further usage within the research arena.

Research and Practical Implications

The development and validation of this scale provides a comprehensive user-friendly instrument which will allow researchers to develop and test the further application of these theories within a firm's various employee groups. The short, concise nature of the scale along with our preliminary findings of validity and reliability argue well for its ease of utilization within organizations.

Research in other arenas (e. g. social psychology: Callero, 1985; Nuttbrock & Freudiger, 1991) has explicated the usefulness of identity theory for predicting behavior in non-work environments. The preliminary results reported in this study lead us to believe that, with the utilization of this scale, identity theory may also be useful in predicting employee behaviors. Further research could explore whether this relationship holds in other work organizations and also with other types of employee behaviors.

This scale may be a useful addition to the management diagnostic arsenal as a means of examining employee management discontinuities. For example, an evaluation of congruence between management philosophy in the area of business strategy and employee perceptions could be extremely interesting. Where there are troubled departments or divisions, a finding of a serious discrepancy between employee and management identities would be particularly illuminating. Further, the potential also exists for the utilization of the RBIS to develop a profile of the successful employee and thereby act as an aid to eliminating difficulties.

Limitations

There are no perfect studies. One problem with the research reported herein is the lack of a complete nomological network. Although substantial progress has been made in demonstrating a pattern of expected relationships with existing theoretical constructs, the goal has not been completely accomplished. At most, scales which are purported to measure the same underlying criterion have been shown to be significantly predicted by our measures of entrepreneurial, organizational and team identities. Also, with career identity the expected relationships with selected demographic variables

have also been demonstrated. Unfortunately, the job identity scale results are not as clear cut. However, because these are new areas of study, we have been unable to find any measures which purport to measure the underlying criterion represented by the job identity scale. The use of the single item question regarding job satisfaction did not produce the clean results of the other instruments. It is possible that job satisfaction is not related very closely with job identity and should not be expected to correlate more closely. Another possibility is that as jobs become more complex, it becomes increasingly more difficult to identify and test for underlying constructs. Thus, our call for more research in this area.

Another limitation is our focus on only five identities. As already mentioned, previous research has been unable to quantify the number of role identities likely to be present and salient for any given individual. Our decision to limit this study to only five may mean that identities which are of primary importance within the work context may have been overlooked. This is also an area for further examination and testing.

CONCLUSION

Our goal was to apply identity theory concepts to the study of behavior within organizations and to begin the process of validating a new scale for use within organizations for identities relevant and useful within a work environment. We think that this study is a useful start in this direction. Researchers studying identity theory within the social psychology field have already shown that identities are a valuable tool for predicting behaviors. The ability to extend this predictive ability into a work context will be invaluable for many organizations attempting to identify motivating forces in constantly changing work environments. It appears that identity theory provides a useful

way of thinking about choices that workers make, and we hope that our work can be used to for examine how the relative importance of different identities may influence work behavior.

The results of this study provide promising evidence for the effective utilization of identity within a work context. This unique conceptualization unites two research streams, identity theory and organization commitment, in the development of a parsimonious, yet comprehensive, measure of identity that should have interesting application in many work settings. Because most employees perform their work in a fairly narrow environment of social interactions, the concepts explored here are exciting. The social interactions at work occur in a variety of contexts ranging from among team members in small groups to the more traditional supervisor-subordinate interactions. As many organizations seek to “maximize organizational flexibility while at the same time maintain or increase employee performance” (Tsui, 1997: 1090), among increasing autonomous employees (Parker, Wall & Jackson, 1997), it will become even more important to find new ways to anticipate (and control) employee behavior.

We refine identity theory concepts from a seemingly unlimited number of possible identities and we also draw upon the enormous amount of research already conducted on the organization commitment conceptualization of organization identity to develop, test and validate a 20 item scale of five identities whose further explication has very practical and useful implications for further exploration within organizations. The RBIS holds promise as a move in this direction.

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Appendix

The Role-Based Identity Scale^{a,b}

Please rate how important the following are to you using the scale provided.

CAREER IDENTITY

1. Reading journals or books associated with my profession
2. Having time to really think about my career
3. Doing things that will help me in my career
4. Being involved in programs that allow me to talk to others in my field

ENTREPRENEURIAL IDENTITY

5. Trying out new ideas and approaches to problems
6. Being able to change the way things are done
7. Working on complex problems
8. Being able to change things so they're better

TEAM IDENTITY

9. Doing things that involve working with the people I work with now
10. Spending time with the people in my work group
11. Staying in a position that lets me be with my work group members
12. Staying with the group that I am currently working with

JOB IDENTITY

13. Being able to talk about my job with friends
14. Telling my family and friends about my job
15. Staying in the job that I have now
16. Being employed in my current job

ORGANIZATIONAL IDENTITY

17. Being part of the company^c
18. Working for the company
19. Being proud of the company
20. Being loyal to the company

^a Use of the RBIS requires permission from the first author

^b The response format was a 1-5 Likert-type scale, with 1 = "not important at all," 2 = "not very important," 3 = "somewhat important," 4 = "important," 5 = "very important."

^c "The company" was replaced with the name of the firm being studied.

Table 2

Fit Statistics of Confirmatory Factor Analyses

Model	df	Chi-Sq	GFI	AGFI	CFI	
IFI						
Company A (N=97)						
1. Null Factor	190	1119.55	.37	.31	---	---
2. One Factor	170	680.67	.55	.45	.46	.51
3. Three Factor	167	548.64	.61	.51	.60	.59
4. Five Factor	159	386.69	.73	.65	.76	.75
Company B (N=111)						
1. Null Factor	190	1344.45	.39	.32	---	---
2. One Factor	170	1010.22	.48	.36	.28	.27
3. Three Factor	167	582.07	.64	.55	.65	.64
4. Five Factor	159	374.77	.77	.69	.82	.81
Company C (N=141)						
1. Null Factor	189	1484.13	.40	.33	---	---
2. One Factor	169	1010.81	.54	.43	.42	.43
3. Three Factor	166	781.11	.63	.53	.57	.58
4. Five Factor	159	464.87	.75	.67	.79	.79
Company D (N=155)						
1. Null Factor	190	1424.75	.49	.35	---	---
2. One Factor	170	776.41	.62	.53	.52	.51
3. Three Factor	167	652.94	.68	.60	.61	.61
4. Five Factor	159	436.39	.77	.70	.76	.75
Company E (N=246)						
1. Null Factor	189	2312.30	.34	.27	---	---
2. One Factor	169	1063.04	.64	.56	.60	.61
3. Three Factor	166	841.58	.71	.63	.70	.70
4. Five Factor	159	481.74	.83	.78	.86	.86
Company F (N=203)						
1. Null Factor	190	2263.58	.36	.29	---	---
2. One Factor	170	1412.32	.51	.39	.40	.41
3. Three Factor	167	945.54	.69	.61	.62	.63
4. Five Factor	159	631.57	.77	.70	.77	.78
Company G (N=88)						
1. Null Factor	189	1267.48	.26	.18	.04	.04
2. One Factor	169	673.23	.55	.44	.55	.56
3. Three Factor	166	557.78	.60	.49	.65	.66

4. Five Factor	159	380.85	.71	.61	.80	.81
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Note: GFI=goodness of fit index; AGFI=adjusted goodness of fit index; CFI=comparative fit index (Bentler, 1990); IFI=incremental fit index (Bollen, 1988)

Table 1
Means, Standard Deviations, Correlations and Sample Sizes

Means	S.D.	<u>Correlations</u>	1	2	3	4	5
5							
Company A (N=97)							
1. Career	14.37	2.50	(.61)				
2. Entrepreneur	15.85	2.34	.21*	(.65)			
3. Job	13.09	2.72	.30**	.31**	(.73)		
4. Organization	14.81	3.41	.07	.29**	.50**	(.89)	
5. Team	12.93	3.13	.21*	.24*	.54**	.50**	(.86)
Company B (N=111)							
1. Career	13.62	3.14	(.79)				
2. Entrepreneur	15.88	2.65	.46**	(.81)			
3. Job	13.69	2.53	.40**	.15	(.60)		
4. Organization	15.11	3.51	.24*	.06	.26**	(.92)	
5. Team	13.15	3.10	.07	.01	.40**	.14	(.85)
Company C (N=141)							
1. Career	13.96	3.38	(.82)				
2. Entrepreneur	15.99	2.25	.43**	(.74)			
3. Job	13.38	2.98	.17*	.27**	(.70)		
4. Organization	15.50	3.15	.09	.33**	.68**	(.86)	
5. Team	12.89	3.25	.11	.17	.39**	.35**	(.82)
Company D (N=154)							
Career	16.01	2.42	(.68)				
Entrepreneur	17.18	1.84	.32**	(.60)			
Job	14.10	4.56	.32**	-.03	(.71)		
Organization	14.24	3.59	.27**	.04	.60**	(.87)	
Team	13.23	3.02	.46**	.17*	.50**	.47**	(.80)
Company E (N=246)							
Career	15.60	2.89	(.78)				
Entrepreneur	16.09	2.27	.56**	(.73)			
Job	14.76	2.77	.52*	.40**	(.68)		
Organization	16.83	2.96	.51**	.30**	.57**	(.88)	
Team	13.97	3.21	.41**	.26**	.49**	.45**	(.86)
Company F (N=203)							
Career	14.63	2.95	(.74)				
Entrepreneur	16.29	2.21	.52**	(.77)			
Job	13.21	2.56	.45**	.31**	(.60)		
Organization	15.98	3.11	.25**	.20**	.32**	(.89)	
Team	13.29	3.12	.31**	.23**	.43**	.51**	(.83)

Company G (N=88)

Career	12.78	3.69	(.84)				
Entrepreneur	15.15	3.56	.64**	(.87)			
Job	13.30	3.62	.41**	.27*	(.77)		
Organization	13.53	4.52	.53**	.48**	.42**	(.91)	
Team	12.02	3.38	.54**	.47**	.58**	.51**	(.81)

Note: Reliabilities in parentheses; S.D.=standard deviation; N=sample size; * $p < .05$ (2-tailed tests); ** $p < .01$ (2-tailed tests); *** $p < .001$ (2-tailed tests)

Table 4
Convergent Validity

Organizational Identity predicting Organizational Commitment (Mowday, Steers & Porter, 1979)

	Beta	T	Beta	t
Sample: G				
Career	-.016	-.173		
Entrepreneur	-.137	-1.589		
Job	.159	1.957		
Organization	.786	9.698***		
Team	.067	.743		

$R^2 = .70$ $F = 34.39^{***}$

Entrepreneur Identity predicting Entrepreneurship (Ettlie & O'Keefe, 19XX)

Sample: G	D			
Career	.169	1.603	.052	.607
Entrepreneur	.708	6.866***	.399	5.164***
Job	-.116	-1.402	-.071	-.733
Organization	-.084	-.984	-.131	-1.407
Team	.096	1.017	.179	1.940

$R^2 = .68$ $F = 29.21^{***}$ $R^2 = .23$ $F = 8.84^{***}$

Team Identity Predicting Group Cohesiveness (Seashore, 1954?)

Sample: F	E			
Career	.155	1.84	.102	1.215
Entrepreneur	.002	.029	-.108	-1.456
Job	-.127	-1.595	-.077	-.916
Organization	-.028	-.495	.004	.056
Team	.419	5.083***	.425	5.863***

$R^2 = .18$ $F = 8.02^{**}$ $R^2 = .18$ $F = 9.73^{***}$

Job Identity Predicting Job Satisfaction [[1 item: My overall job in general.]]

Sample: F	C			
Career	-.040	-.498	-.127	-1.462
Entrepreneur	-.122	-1.606	-.078	-.853
Job	.157	2.061*	.220	1.941*
Organization	.336	4.494***	.285	2.531*
Team	.137	1.756	.083	.994

$R^2 = .22$ $F = 11.08^{***}$ $R^2 = .24$ $F = 8.27^{***}$

Note: * $p < .05$ (2-tailed tests); ** $p < .01$ (2-tailed tests); *** $p < .001$ (2-tailed tests)

Table 3
Convergent Validity

Career Identity predicted by Demographic Variables

	Beta	t	Beta	t
Sample:	F		D	
Age	.031	.375	-.234	-2.837**
Education	.031	.403	.090	1.102
Status: Exempt/Non	.142	1.601	-.026	-.306
Hours Worked	.180	2.004*	.155	1.784
Gender	-.120	-1.611	.067	.815
Tenure	-.305	-3.725***	-.230	-2.792**
Salary	-.096	-.884		
	TR ² = .16 F= 4.59***		R ² = .12 F= 3.18**	

Note: *p<.05 (2-tailed tests); **p<.01 (2-tailed tests); ***p<.001 (2-tailed tests)