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# Role stressors and job engagement : towards understanding positive psychology

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ROLE STRESSORS AND JOB ENGAGEMENT:  
TOWARDS UNDERSTANDING POSITIVE PSYCHOLOGY

A Thesis

Presented to

The Faculty of the Department of Psychology

San Jose State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

by

Gisela Garcia

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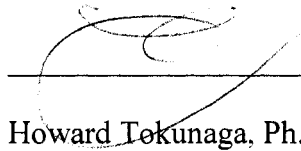
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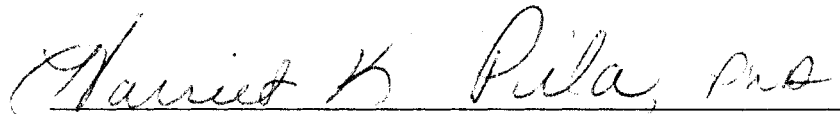
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## ABSTRACT

### ROLE STRESSORS AND JOB ENGAGEMENT: TOWARDS UNDERSTANDING POSITIVE PSYCHOLOGY

by Gisela Garcia

Role stress is ubiquitous in organizations and has been linked to detrimental outcomes for organizations and for individuals. Although theory and previous research studying similar constructs argue for the contention that role stress is linked to job engagement no study has explored this area. Moreover, unsettled is the question of whether job engagement and burnout are one construct. Therefore, the relationship of role stress (role ambiguity and role conflict) with job engagement as well as with burnout among 267 participants was examined. Results indicate that role stress is an important predictor of job engagement and of burnout. Role ambiguity is a more important predictor of job engagement than role conflict and both role stressors can equally predict burnout. Implications of these results and directions for future research are discussed.

## ACKNOWLEDGEMENTS

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## INTRODUCTION

Stress is a ubiquitous and pervasive problem in organizations today (Bhuiyan, Menguc, & Borsboom, 2005; Cooper, Dewe, & O'Driscoll, 2001; Dobрева-Martinova, Villeneuve, Strickland, & Matheson, 2002; Sulsky & Smith, 2005; Thompson, Kirk, & Brown, 2005). In fact, there is a growing concern to examine work stress as employee complaints continue to increase (Dobрева-Martinova et al., 2002; Sulsky & Smith, 2005). Also of concern to researchers is work stress' detrimental impact on the individual as well as the organization as a whole (Sulsky & Smith, 2005). Some of the most researched stressors in the workplace are role ambiguity and role conflict (Singh, 1998). In fact, both role stressors have been found to relate to a variety of work outcomes (Bhuiyan et al., 2005; Dobрева-Martinova et al., 2002; Elloy, Everett, & Flynn, 1995; Singh, 1998; Sulsky & Smith, 2005). However, role stress has never been researched in its relation to job engagement (Elloy et al., 1995). Due to the theoretical relationship between role stress and job engagement as well as to previous research providing evidence of role stress' predictability of related constructs, this study proposes that role conflict and role ambiguity will be related to employee engagement.

### *Role Stress*

Work stress has been found to have a detrimental impact in organizations affecting individual as well as organizational outcomes (Sulsky & Smith, 2005). In their review of work stress studies, Sulsky and Smith (2005) concluded that at the individual level, work stress is linked to various health issues such as smoking, substance abuse, gastrointestinal disease, and back pains. According to Sulsky and Smith, organizational

outcomes of occupational stress include withdrawal behaviors, poor work performance, and human error, outcomes that can have a negative impact on the organization's functioning.

So what contributes to the stress experienced by the employees of many organizations in many different industries? There are various factors that can be identified to induce stress at work depending on the level of analysis of interest. For example, at a macro level, specific jobs or occupations can be more stressful than others (i.e., police, firefighter, or health care work), as well as physical work environment elements (i.e., noise, temperature or pollution levels) and specific work characteristics (i.e., routinized work, and late or long work shifts; Sulsky & Smith, 2005). At a micro level, employees may experience work-related stress from problematic job roles (i.e., role conflict, and role ambiguity), or from organizational changes and transitions (i.e., downsizing, and job restructuring; Sulsky & Smith, 2005). Moreover, stressors that apply to employees at the individual level keep increasing as lifestyles change (Sulsky & Smith, 2005). For example, contemporary stressors that can be considered include work-family conflict (previous stay-at-home parents are now joining the workforce) or electronic performance monitoring (as technology continues to be incorporated into an increasing variety of job aspects).

Of the micro-level stressors, role stress has received much attention in the organizational stress literature over the last three decades (Sulsky & Smith, 2005), and is of primary interest to the present study. The concept of role stress stemmed out of classical organization theory (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Rizzo,

House, & Lirtzman, 1970). Kahn et al. (1964) developed the role dynamics theory based on the premise that people's lives can be understood by considering all the roles people play in different organizations and groups to which they belong. In their theory, Kahn et al. also contended that work is one of the most important roles in people's objective environments (their lives as they exist, not as they perceive them). Recognizing this, the role dynamics model of stress incorporates classical organizational theoretical frameworks (Kahn et al., 1964; Rizzo et al., 1970).

Consistent with the role dynamics model, role stress stems from violations of the classical organizational theory's principles of chain of command and unity of command and direction (Kahn et al., 1964; Rizzo et al., 1970). Chain of command states that organizations set up with a clear and single flow of authority from top to bottom of a management hierarchy should be more satisfying to members and should result in more effective economic performance and goal achievement than organizations without such an authority flow (Rizzo et al., 1970). The principle of unity of command states that employees should receive orders from one superior only for any given plan of action (Rizzo et al., 1970). It also states that when a group of activities all share the same objective, there should only be one assigned leader with one plan of execution (Rizzo et al., 1970). This consequently is helpful to the effectiveness of an organization in that it should prevent employees from receiving incompatible orders or incompatible expectations from more than one superior (Kahn et al., 1964; Rizzo et al., 1970).

Furthermore, this model provides a framework that specifies the paths through which role problems can be challenging and consequently perceived as stressors that can

lead to detrimental outcomes. That is, when the chain of command and unity of command principles are violated, and employees receive either incompatible orders or expectations from two or more people, or their expectations are not clear, they will experience stress. To understand this process, it is necessary to identify those people who make up an employees' role set. Employees' role sets consist of everyone who is directly associated with them, and who can influence their behavior on the job (Kahn et al., 1964). Furthermore, all people in the employees' role sets inevitably depend on the employees' performance to a certain extent (Kahn et al., 1964). As a result, they form beliefs as to what the employees' roles consist of (Kahn et al., 1964). These beliefs which are collectively held by the role set make up the employees' role expectations (Kahn et al., 1964).

Employees' performance is then evaluated by the role set in terms of how well the employees can uphold to the role expectations (Kahn et al., 1964). When members of the role set communicate their expectations to the employees, they can be identified in the model as role senders attempting to influence the employees' behavior (Kahn et al., 1964). When the role senders attempt to influence employees, they hope that employees will conform to their expectations, thus they are exerting role pressures (Kahn et al., 1964). The role pressures are perceived by employees as demands that can be very stressful if they are contradictory or unclear (Kahn et al., 1964). This role stress experience will evoke responses of tension, anger or indecisions (Kahn et al., 1964). Through those responses role stress can take a toll on the employees' well-being as well as on the organization's effectiveness resulting from the depletion of morale and human

assets (Kahn et al., 1964). This consequently results in decreased productivity and profitability (Bhuiyan et al., 2005; Brief & Aldag, 1976; Dobрева-Martinova et al., 2002; Rizzo et al., 1970).

Role stressors can thus be problematic to an organization's functioning and to an individual's well-being. Therefore, role stress is of primary interest in the present study. Indeed two role pressure inadequacies: role conflict and role ambiguity have been found to have a profound adverse impact on important organizational and employee outcomes (Sulsky & Smith, 2005). Role conflict occurs when there are inconsistencies in expectations associated with a particular role (Schuler, Aldag, & Brief, 1977). Role ambiguity occurs when it is unclear what the expectations associated with a role are, which are acceptable methods for fulfilling a role, and/or what may be consequences of acting in accordance to a role (Dobрева-Martinova et al., 2002).

*Role conflict.* According to role dynamics theory, all people with demands on an employee performing a particular role (the role senders) may have different expectations as to what the employee's role entails (Kahn et al., 1964). Consequently, individuals who make up an employee's role set (i.e., managers, subordinates, customers and family members) could at times exert pressures on the focal employee to perform behaviors that may counteract (Kahn et al., 1964). Kahn et al. identified this situation where the focal employee faces pressure to comply with conflicting expectations from role senders, as the role conflict stressor. When employees experience stress as a consequence of dealing with pressures to behave in inconsistent ways they will, according to theory, become



dissatisfied and will not be able to perform as effectively as if the role senders did not impose on them conflicting expectations (Kahn et al., 1964).

An example of a role conflict scenario would be when a retail employee is asked to always fold shirts with a folding board by the store manager. Then, during the night shift, as they are getting ready to close the store, the night manager asks the employee to finish folding all the clothes by a certain time. With the amount of shirts that need to be folded, it would be impossible for all those shirts to get folded using the folding board in the time that the night manager asks. Thus, the employee experiences conflicting demands from both managers—either not all the shirts will get folded, or the shirts will be folded without the use of the board.

*Role ambiguity.* Kahn et al. (1964) also noted in their theory of role dynamics that not all role set inadequacies are attributable to conflicting expectations from a focal employee's role senders. A different role-related concern is attributable to a lack of necessary information (i.e., rights, duties, and responsibilities associated with a position) for employees to be able to perform their jobs adequately (Kahn et al., 1964). Employees need to know the specific behaviors required to fulfill the responsibilities associated with their role and the ways in which these behaviors can be best executed (Kahn et al., 1964). Employees will also require knowing what actions will be rewarded or punished, in what ways, and how often (Kahn et al., 1964).

Thus, the lack of clear, consistent information about a given position is theorized to be stressful to employees because the ignorance of this information can impact their financial security, achievements and recognitions, all of which are universal needs for

well-being (Kahn et al., 1964). An example of a role ambiguity scenario would be when an employee does not receive clear goals and objectives for a particular project for which the employee is responsible.

### *Empirical Outcomes of Role Stress*

According to role dynamics theory, role conflict is detrimental to both organizations and individuals (Kahn et al., 1964). Supporting such theoretical linkages, a number of empirical studies have identified negative organizational and employee outcomes of role conflict (Bhuiyan et al., 2005; Dobрева-Martinova et al., 2002). Indeed, Dobрева-Martinova et al. studied various outcomes of role conflict using a sample of Canadian Force military members and found that receiving inconsistent demands from others is significantly related to lower health levels, lower job satisfaction levels, and lower affective commitment levels. Likewise, Bhuiyan et al. tested for role conflict outcomes in a sales setting and found a negative relationship with life satisfaction, job satisfaction, job performance and a positive relationship with turnover intention. In their review, Bhuiyan et al. concluded that job stressors overall are linearly and negatively related to functional outcomes (such as job satisfaction) as well as linearly and positively related to dysfunctional outcomes (such as turnover intention). Role conflict has also been linked to satisfaction with venture performance (Gong, Shenkar, Luo, & Nyaw, 2001). Also, Peiro, Gonzalez-Roma, Tordera, and Manas (2001) found a direct causal relationship between role conflict and the burnout subdimensions of exhaustion and depersonalization.

Similarly, role dynamics theory states that experiencing role ambiguity at work will also lead to detrimental outcomes for the organization as well as for the focal employee (Kahn et al., 1964). In support of theoretical linkages to work-related outcomes, a review of empirical studies on role ambiguity and their findings are presented in this section. In their study of the Canadian Forces, Dobreva-Martinova, et al., (2002) found role ambiguity to be negatively related to employee health. Also, role ambiguity has been linked to lower job satisfaction, life satisfaction, job performance levels and to higher turnover intentions in a sample of full-time salespeople (Bhuiyan et al., 2005). Moreover, several studies have found role ambiguity to be related to the emotional exhaustion subdimension of burnout (Kirk-Brown & Wallace, 2004; Thompson et al., 2005). Similarly, Peiro et al. (2001) found that role ambiguity causes both the exhaustion and the personal accomplishment subdimensions of burnout.

In conclusion, much research in the area of role stress has been conducted to empirically identify various consequences of its incidence in organizations. Although an array of dysfunctional outcomes has been studied and empirically linked to role stress, positive psychological constructs (Seligman, 2002) have not received much attention in their relation to role stress.

### *Job Engagement*

A movement has recently surged in the study of human behavior to focus on positive psychology which emphasizes optimum human functioning (Seligman, 2002). This movement began in 1998 when Martin E. P. Seligman was president of the American Psychological Association (APA; Duckworth, Steen, & Seligman, 2005).

When Seligman was appointed president of the APA, he conducted a review of the literature in the field of psychology searching for themes that were under-researched (Seligman, 2002). He came to the conclusion that the research conducted with the aim to remedy human deficiencies far outnumbered research aimed at building on human strengths (Seligman, 2002). Thus, during his presidency, Seligman introduced an initiative to balance out the emphasis on psychological pathology with an emphasis on optimal psychological states (Duckworth, Steen, & Seligman, 2005). Consequently, the purpose of positive psychology is to gain insight into how individuals can negotiate, resolve and grow in the face of life's stressors and challenges (Keyes & Haidt, 2003). One of the psychological constructs to arise from this movement has been job engagement.

Job engagement is a relatively new concept in the area of psychology (see Schaufeli, Salanova, et al., 2002) that emerged as the positive conceptualization of a work-related construct referred to as burnout. Burnout was defined as a physical and emotional syndrome of exhaustion and negative job attitudes, and engagement was simply thought of as the opposite pole on the same continuum comprised of three subdimensions exhaustion, cynicism and professional efficacy (Maslach & Leiter, 1997; Maslach, Schaufeli, & Leiter, 2001; Schaufeli, Martinez, Marques-Pinto, Salanova, & Bakker, 2002; Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002).

An emphasis on the study of job engagement as opposed to burnout was proposed by Maslach and Leiter (1997) as a way to build a positive environment for employees instead of merely preventing burnout. This is consistent with the goal of positive

psychology to shift from a focus on work-related weaknesses and malfunctioning towards the development of human strengths and optimal functioning (Schaufeli & Bakker, 2004).

However, although (as previously mentioned) engagement was initially considered the antithesis of burnout, it later became conceptualized to be related but distinct from burnout as research developed in this area (Maslach et al., 2001; Schaufeli & Bakker, 2004). In fact, Schaufeli, Salanova, et al. (2002) proposed a perspective where engagement was defined in its own right as a positive, pervasive and fulfilling state of mind about one's work activities characterized by vigor, dedication and absorption (Schaufeli & Bakker, 2004; Schaufeli, Martinez, et al., 2002). In terms of the subdimensions, vigor is defined as a willingness to put forth effort at work and to persevere in work activities even when difficulties arise (Schaufeli, Salanova, et al., 2002). Vigor thus, is manifested by high levels of mental resilience and high levels of energy at work (Schaufeli, Salanova, et al., 2002). Dedication is defined as an affective and cognitive identification and with work that is manifested when employees feel a high sense of significance, pride and enthusiasm about their job (Schaufeli, Salanova, et al., 2002). Lastly, absorption refers to a state of full concentration in work activities and is manifested as high attention levels at work (Schaufeli, Salanova, et al., 2002).

The vigor, dedication and absorption concepts were derived from a series of in-depth interviews and theoretical considerations that lent support for a conceptualization of engagement distinct from burnout (Schaufeli, Salanova, et al., 2002). It was concluded that vigor was related to the burnout concept of exhaustion because they both allude to a

general theme dealing with activation at work (or lack thereof; Schaufeli, Salanova, et al., 2002). Dedication was related to cynicism as they both referred to a concept of identification with work (Schaufeli, Salanova, et al., 2002). Absorption however, did not share similarities with the remaining burnout subdimension of professional efficacy (Schaufeli, Salanova, et al., 2002). Yet, because engagement was developed from burnout an ongoing debate exists among researchers on whether job engagement and burnout are in fact a singular construct or two moderately related constructs (Demerouti, Bakker, Nacreiner, & Schaufeli, 2001; Schaufeli & Bakker, 2004; Schaufeli, Salanova, et al., 2002). In fact, researchers have identified a dearth in literature aimed at identifying differences in nomological networks of antecedents and consequences of engagement and burnout which could provide evidence that these affective states are not in fact polar opposites (Schaufeli & Bakker, 2004).

However, because job engagement is a relatively new construct, the amount of research addressing its antecedents and consequences is limited. Of the few available studies on job engagement, most have focused on identifying its antecedents. At the individual level of analysis, researchers have found evidence that the ability to regulate one's emotional states antecedes (and thus leads to) increased engagement levels (Duran, Extremera, & Rey, 2004b). Moreover, it has been shown that sufficient leisure time to recover from work leads to higher levels of work engagement for the subsequent work day (Sonnentag, 2003). Additionally, at the organizational level, organizational resources have been found to be predictive of job engagement in hotel front desks and restaurants (Salanova, Agut, & Peiro, 2005). The nature of these relationships was such that the

organizational resource of training was linked to higher vigor, dedication and absorption levels (Salanova et al., 2005). Also, higher technology availability was perceived as an organizational resource for performance which was found to predict higher vigor, dedication and absorption levels (Salanova et al., 2005). Finally, the higher the autonomy in these jobs, the more employees experienced dedication with their jobs (Salanova et al., 2005). Although from the review of research studies there seems to be a recent interest in identifying job engagement antecedents, there is still a considerable dearth in the literature. Specifically, no study has examined the relationship between role stress and job engagement.

#### *The Relationship between Role Stress and Job Engagement*

Given the lack of knowledge in this area, it is the purpose of the present study to examine the relationship between role stress, specifically the role conflict and role ambiguity stressors, and the positive construct of job engagement. Social role theory provides a theoretical framework that suggests a link between employees' role tasks, functions and perceptions, and the individual functional outcome of job engagement (Kahn et al., 1964). In addition, a number of empirical research studies have identified associations between role stress and both individual and organizational outcomes (Barber, 1996; Brief & Aldag, 1976; Dobрева-Martinova et al., 2002; Gong, Shenkar, Luo, & Nyaw, 2001; Kirk-Brown & Wallace, 2004; Zohar, 1995). Among the individual outcomes examined previously, attention was given to certain outcome variables because of their similarities with job engagement. The observation of relationships between these individual-level outcome variables and role stress provide circumstantial support for the

belief that role stress antecedes job engagement. However, no study has yet empirically examined the relationship between role stressors and job engagement.

Although in particular, the relationship of role conflict and role ambiguity with job engagement has not been explored, one study found that these role stressors were related to a concept that is similar (yet not conceptually equivalent) to job engagement—job involvement (Elloy, Everett, & Flynn, 1995). According to Elloy et al. (1995), many different perspectives have been considered in attempts to define job involvement. In their particular study, Elloy et al. defined job involvement as the extent to which employees perceive their work as a central life interest, perceive their performance as central to their self-esteem and thus engage in active participation at work. The investigation found significant negative correlations between job involvement and both role stressors providing evidence that role conflict and ambiguity are in fact related conceptually to being engaged or immersed deeply in job activities (Elloy et al., 1995).

Although the construct of involvement is conceptually different from the construct of interest to the present study, job engagement, it is still sufficiently similar to engagement for the study findings by Elloy et al. (1995) to suggest that role stress would be related to engagement in a similar fashion. The contrast between the two concepts is that job involvement is more an attitude towards work where the job is regarded as a major part of a person's life that actually defines the individual and his or her identity (Kanungo, 1982). On the other hand, job engagement is more a persistent state of mind characterized by a sense that the job is important and interesting (Schaufeli, Salanova, et al., 2002). For this reason the job itself can elicit high levels of mental resilience,



concentration and energy in the employees (Schaufeli, Salanova, et al., 2002). For example, a heart surgeon may consider her job important and feel a sense of significance in what she does at work as well as feel highly concentrated and resilient in doing it, yet, she may not necessarily consider her work as the defining aspect of her identity (she may identify more with being a mother). Also, in her line of work, she would do well not to base her self-esteem on her performance at work since she is working with a population that is at high risk. Thereupon, job engagement and job involvement can occur independently of each other and are thus conceptually distinct. However, both are individual-level constructs, developed to measure attitudes towards one's job that reflect optimal psychological states of high involvement.

#### *The Current Study*

Of primary interest in the present study is the relation between role stress and the employee outcome of job engagement. According to the theoretical framework of role dynamics theory, higher levels of role ambiguity and role conflict are inherently thought to generate stress which can decrease functional outcomes such as employee engagement. That is, according to classical organizational theory, if the chain-of-command and unity-of-command principles hold, where employees receive orders from only one person, then both the employees and the organization will be more effective in their performance and will have a greater sense of goal achievement (Rizzo et al., 1970). However if unity-of-command is violated and employees consequently experience increased levels of role conflict, this will result in stress for the employees (Rizzo et al., 1970). Receiving conflicting demands is inherently stressful because when employees wish to carry out

their different obligations they feel the conflict as a strain (Goode, 1960). The stress resulting from conflicting expectations of employees is a theoretical antecedent to decreased employee satisfaction and performance (functional outcomes), as well as increased tension, turnover, and anxiety (dysfunctional outcomes; Kahn et al., 1964).

Moreover, classical organizational theory states that for organizations to function effectively, clear, consistent information for each specific job position should be available to employees (Rizzo et al., 1970). The theoretical link between role ambiguity and stress related outcomes can be traced to the fact that role ambiguity results from a lack of necessary information to perform a job (Rizzo et al., 1970). This lack of information is theoretically thought to lead to a sense of stress that should increase anxiety and reality distortion (both dysfunctional outcomes) and decrease performance and satisfaction (functional outcomes; Kahn et al., 1964).

Further support for the expected relation between role stress and job engagement comes from empirical evidence of related role stress outcomes. As previously mentioned, Sulsky and Smith (2005) reviewed a plethora of studies and found support for the contention that role stress is linked negatively to functional job outcomes. In addition, role stress researchers have conceptualized that perhaps the relations of role stress and work related outcomes may follow nonlinear relationships that may be interactive or quadratic (Nygaard & Dahlstrom, 2002; Singh, 1998). In response to this, Bhuian et al. (2005) conducted a comprehensive study of various association patterns that role stress may have on different job constructs. They found that against certain speculations, the effects of role stress can be complex and counter intuitively related to

functional outcomes. Moreover, according to Bhuian et al., the best conceptualization is one where role stressors are linearly and negatively related to functional work outcomes.

It is therefore proposed that role conflict and ambiguity and the functional work outcome of job engagement will be related in the following manner:

*Hypothesis 1a:* The role stress concepts of role ambiguity and role conflict will be negatively and significantly related to the vigor subdimension of job engagement.

*Hypothesis 1b:* Role ambiguity and role conflict will be negatively and significantly related to the dedication subdimension of job engagement.

*Hypothesis 1c:* Role ambiguity and role conflict will be negatively and significantly related to the absorption subdimension of job engagement.

*Hypothesis 2a:* Moreover, role ambiguity will be more strongly related to the vigor subdimension of job engagement than will role conflict.

*Hypothesis 2b:* Role ambiguity will be more strongly related to the dedication subdimension of job engagement than will role conflict.

*Hypothesis 2c:* Role ambiguity will be more strongly related to the absorption subdimension of job engagement than will role conflict.

Given the dearth in literature relating concepts of job engagement and role stress, this study is mostly exploratory in nature. Therefore, hypothesis set 2 is based on the single previous finding that role ambiguity has a stronger correlation with the comparable, yet distinct concept of job involvement (see Elloy et al., 1995).

Furthermore, the last hypothesis of the present study is concerned with the question posed by researchers, debating whether engagement and burnout are poles of a single construct, alluded to previously in this section (Duran, Extremera, & Rey, 2004a; Schaufeli & Bakker, 2004; Schaufeli, Martinez, et al., 2002; Schaufeli, Salanova, et al., 2002). As noted earlier, job engagement initially emerged as the positive antithesis to the construct of burnout (Maslach et al., 2001). More recently, researchers proposed that although the two constructs are negatively related, they are in fact independent and distinct (Schaufeli, Salanova, et al., 2002). According to researchers in this area, one way to determine whether or not they in fact are singular or distinct, is to compare their association patterns with other constructs (Duran et al., 2004a; Schaufeli & Bakker, 2004; Schaufeli, Salanova, et al., 2002).

Thus, as research on job engagement commenced to develop, researchers noted that two superordinate domains placed subdimensions of engagement and burnout at the polar ends of two continuums (Schaufeli & Bakker, 2004; Schaufeli, Salanova, et al., 2002). The first was coined activation and included the job engagement's vigor and burnout's exhaustion subdimensions (Schaufeli & Bakker, 2004; Schaufeli, Salanova, et al., 2002). The second was coined identification and included the job engagement's dedication and burnout's cynicism subdimensions (Schaufeli & Bakker, 2004; Schaufeli, Salanova, et al., 2002). In relation to the professional efficacy subdimension of burnout, it is because of its very nature (as a positive state that refers to the extent to which individuals feel they are able to perform successfully at their jobs) and because it is not considered a core dimension of burnout that it does not have a polar opposite

subdimension in the engagement construct (Demerouti et al., 2001). In fact, it has been proposed that professional efficacy should be considered an extension to the job engagement subdimensions as it factor loads more highly with vigor, dedication and absorption than with exhaustion and cynicism (Demerouti et al., 2001; Schaufeli & Bakker, 2004; Schaufeli, Salanova, et al., 2002).

Therefore, consistent with the present study's view that job engagement and burnout are distinct constructs and in response to the call for research in this area, the relationships between role stress and burnout will be contrasted against the relationships between role stress and job engagement (Schaufeli, Salanova, et al., 2002). In other words, to assess whether the two activation domains respective to engagement (vigor) and to burnout (exhaustion) are part of a singular construct, the relationships between the two role stressors and vigor are compared to the relationships between the two role stressors and exhaustion under the assumption that they are different. Similarly, the relationships of the role stressors with the two identification domains respective to engagement (dedication) and to burnout (cynicism) are also contrasted. This hypothesis is of interest in the present study as it confirms that engagement and burnout relate differently to different constructs and therefore, that they are qualitatively distinct.

*Hypothesis 3a:* It is expected that role ambiguity and role conflict will relate differently to the activation dimensions of engagement (vigor) and burnout (exhaustion).

*Hypothesis 3b:* It is also expected that role ambiguity and role conflict will relate differently to the identification dimensions of engagement (dedication) and burnout (cynicism).

As previously discussed, the two third dimensions of engagement (absorption) and burnout (professional efficacy) are in fact conceptually distinct and are therefore excluded from hypothesis set 3 because they are not comparable (Duran et al., 2004a; Schaufeli & Bakker, 2004; Schaufeli, Salanova, et al., 2002).

## Method

### *Participants*

Participants were 267 students recruited from San José State University. There were slightly more female (59%) than male participants. Moreover, the average age reported was 20.42 ( $SD = 3.48$ ), characterizing this sample as typical in age for most college students. The overwhelming majority of the survey respondents (99%) were characterized as part-time employees at their current jobs. The part-time status was assigned in the present study to anyone who worked an average of 39 hours a week or less. The occupation categories that were represented the most in this particular sample were in the retail, clerical work, and food services industries. Wide ranges of undergraduate classes were selected in hopes to obtain a diverse sample in terms of gender and age that is representative of the San José State University undergraduate population. Furthermore, in general, these statistics suggest the sample is demographically representative of a typical university student.

### *Measures*

Each participant completed a survey containing scales for the variables of interest in this study—role stress, job engagement and burnout. A few demographic questions were also included in the survey to obtain a general description of the sample. The scale of interest to this study as the antecedent variable measure assessed role stress levels and included subscales for role conflict and for role ambiguity. The job engagement scale, which was of interest to this study as an outcome variable comprised of the three subscales vigor, dedication, and absorption. The burnout scale was of interest to this

study also as an outcome variable and was comprised of the subscales exhaustion, cynicism, and professional efficacy. However, because only exhaustion and cynicism are comparable to subdimensions of engagement (Schaufeli, Salanova, et al., 2002), professional efficacy was not considered in any of the following analyses. All of the survey scales of interest are described in more detail in the following sections.

*Role stress.* To assess role stress levels, participants completed the Role Stress Scale developed by Rizzo et al. (1970). The Role Stress Scale is comprised of 12 items that employ a five-point Likert-type response rating scale that ranges from *never* to *always*. These 12 items measure two role stress subscales: role conflict and role ambiguity. For each subscale, scores are averaged to yield a final composite score that ranges from 1 to 5.

The role conflict subscale includes six items that measure the extent to which the behaviors expected of an individual are inconsistent. That is, they measure participants' perceptions of the degree to which they receive conflicting orders. Sample items include "I receive incompatible requests from two or more people," and "I receive an assignment without the manpower to complete it." Consistent with Nunnally's (1978) alpha coefficient convention, adequate alpha coefficients ( $\alpha > .80$ ) have been reported for this subscale using different samples (Gong et al., 2001; Peiro, Gonzalez-Roma, Tordera, & Manas, 2001). The role conflict subscale has previously been found to relate positively and significantly ( $r = .21$ ) to differences in expectations from supervisors and formal organizational code of ethics in relation to lying behavior (Sims, 2000). That is, as



expectations by supervisors to make ethical decisions conflict to a high degree with the organization's formal codes of ethics, role conflict increases.

The role ambiguity subscale includes six items that measure the extent to which respondents feel they possess the necessary information to perform adequately in their job. In other words, it measures participants' perceptions of whether they have all the information they need to determine what needs to be done, how it needs to be done, and how that will be rewarded. Sample items include "I know what my responsibilities are," and "I know exactly what is expected of me." Adequate alpha coefficients ( $\alpha > .79$ ) have been reported for this subscale using different samples (Gong et al., 2001; Peiro et al., 2001). The role ambiguity subscale has previously been found to relate negatively and significantly ( $r = -.37$ ) to perceived control (O'Driscoll & Beehr, 2000). That is, as employees perceive they have little control over their jobs, they experience higher levels of role ambiguity.

*Engagement.* To assess work engagement levels, participants completed the Utrecht Work Engagement Scale (UWES) developed by Schaufeli, Salanova et al., (2002). The UWES is comprised of 17 items that employ a seven-point Likert-type response rating scale that ranges from *never* to *always*. These 17 items measure three engagement subscales: vigor, dedication and absorption. For each subscale, scores are averaged to yield a final composite score that ranges from 0 to 6.

The vigor subscale includes six items that assess participants' levels of energy and mental resilience while at work. That is, even when facing adversity and challenges at work, individuals who are high on vigor prove to possess determination and to be able to

perform with high levels of energy. Sample items include “at my job I feel strong and vigorous,” and “I can continue working for very long periods of time.” Consistent with Nunnally’s (1978) alpha coefficient convention, adequate internal consistency coefficients ( $\alpha > .75$ ) have been reported for this subscale using different samples (Schaufeli & Bakker, 2004). The vigor subscale has previously been found to relate negatively and significantly ( $r = -.32$ ) to health problems (Schaufeli & Bakker, 2004). That is, as employee health problems increase, vigor decreases.

The dedication subscale includes five items that assess participants’ sense of significance, enthusiasm, inspiration, pride, and challenge obtained from their work. Sample items include “my job inspires me,” and “I am proud of the work I do.” Adequate alpha coefficients ( $\alpha > .88$ ) have been reported for this subscale using different samples (Schaufeli & Bakker, 2004). The dedication subscale has previously been found to relate positively and significantly ( $r = .29$ ) to feedback (Schaufeli & Bakker, 2004). That is, the more feedback employees receive, the more dedicated they will be.

The absorption subscale includes six items that assess participants’ levels of deep concentration in their work. In other words, individuals high on absorption feel connected to their work in a way that their work is the only focus of their attention. Sample items include “time flies when I am working,” and “I am immersed in my work.” Adequate alpha coefficients ( $\alpha > .73$ ) have been reported for this subscale using different samples (Schaufeli & Bakker, 2004). The absorption subscale has previously been found to relate positively and significantly ( $r = .24$ ) to technological resources (Salanova et al.,

2005). That is, as more technological resources are made available, the more absorbed or concentrated employees tend to be.

*Burnout.* To assess for job burnout levels, participants completed the Maslach Burnout Inventory (MBI) developed by (Schaufeli, Leiter, Maslach, & Jackson, 1996). The MBI is comprised of 16 items that employ a seven-point Likert-type response rating scale that ranges from *never* to *always*. These 16 items measure three burnout subscales: exhaustion, cynicism, and professional efficacy. The present study only employed the subscales of exhaustion and cynicism, as professional efficacy was not of interest. For each subscale, scores are averaged to yield a final composite score that ranges from 0 to 6.

The exhaustion subscale includes five items that assess participants' levels of fatigue. A sample item would be "I feel used up at the end of a work day." Consistent with alpha coefficient conventions (Nunnally, 1978), adequate internal consistency coefficients ( $\alpha > .82$ ) have been reported for this subscale using different samples (Schaufeli & Bakker, 2004). The exhaustion subscale has previously been found to relate positively and significantly ( $r = .39$ ) to work overload (Bakker, Demerouti, & Euwema, 2005). That is, the higher the workload that employees experience, the more exhausted they will feel.

The cynicism subscale includes five items that assess participants' levels of indifference towards work. A sample item would be "I doubt the significance of my work." Adequate alpha coefficients ( $\alpha > .72$ ) have been reported for this subscale using different samples (Schaufeli & Bakker, 2004). The cynicism subscale has previously

been found to relate negatively and significantly ( $r = -.38$ ) to autonomy (Bakker, et al., 2005). That is, the less autonomy that employees experience, the more cynical they will feel about their jobs.

*Demographics.* To obtain an adequate description of the present sample, personal and professional information was collected. The demographic variables included were gender, age, work status (in relation to whether participants worked full- or part-time), job title, and job tenure.

*Procedure*

Surveys were administered through a convenience sampling technique. Specifically, letters were mailed to San José State University professors requesting permission to distribute surveys to their undergraduate students during class. Once permission was granted, surveys were distributed during their class periods to all students who chose to participate. Participants were informed that their questionnaires would be anonymous as well as confidential, and consent forms were signed by every survey respondent. Participants then placed their completed surveys inside of an envelope at the front of the classroom to ensure anonymity.

## Results

### *Descriptive Statistics*

The internal consistency of the role stress, job engagement, and burnout subscales were assessed using Cronbach's alpha reliability coefficient analysis. The alpha coefficients that were obtained were found to be adequate (Nunnally, 1978). According to the analysis, it was concluded that the different subscales of the role stress domain were found to be reliable. That is, the six items that make up role conflict ( $\alpha = .71$ ), and the six items that make up role ambiguity ( $\alpha = .72$ ) were internally consistent. Moreover, according to the analysis, it was concluded that the different subscales of the job engagement domain were found to be reliable. That is, the six items that make up vigor ( $\alpha = .74$ ), the five items that make up dedication ( $\alpha = .83$ ) and the six items that make up absorption ( $\alpha = .74$ ) were internally consistent. Finally, the burnout subscales were also found reliable. The five items that make up the exhaustion ( $\alpha = .80$ ), and the five items that make up cynicism ( $\alpha = .77$ ) were internally consistent.

Subscale aggregates were thus computed by averaging the respective items yielding case values that ranged from 1 to 5 on the role stress measures and 0 to 6 on the engagement and burnout measures. Table 1 lists the descriptive statistics for the target study subscales (role ambiguity and conflict, vigor, dedication, absorption, exhaustion, and cynicism). It is worth noting that the means for both of the role conflict ( $M = 2.52$ ) and ambiguity ( $M = 2.09$ ) subscales were slightly lower than the midpoint of the response scale (3). As for the engagement subscales, only the means for vigor ( $M = 3.72$ ) and dedication ( $M = 3.63$ ) seemed slightly higher than the midpoint (3). For the

burnout subscales, only cynicism's mean ( $M = 2.48$ ) was slightly lower than the midpoint (3). These findings suggest that the present sample tended to be slightly less stressed due to role dynamics at work and slightly more immersed in their jobs than the general population. This allows for the possibility that the sample may not be fully representative of the general population, and thus should be treated with care in interpreting the results of the current study.

Table 1

*Descriptive Statistics for the Target Study Measures (N = 267)*

Measures	<i>M</i>	<i>SD</i>	<i>Skewness</i>	<i>Kurtosis</i>
Role stress				
Role conflict	2.52	.69	.00	-.37
Role ambiguity	2.09	.55	.33	.05
Engagement				
Vigor	3.72	1.07	-.23	-.18
Dedication	3.63	1.37	-.27	-.43
Absorption	3.15	1.20	-.09	-.60
Burnout				
Exhaustion	3.11	1.33	-.02	-.73
Cynicism	2.48	1.36	.11	-.45

In addition, all of the subscales were normally distributed as none of the skewness or kurtosis statistics exceeded the critical z-score value of +/- 3.0 (statistics ranging from -.27 to .33 for skewness, and from -.73 to .05 for kurtosis). This suggests that the assumption of normality of variables, on which subsequent analyses are based upon, was in fact met. It is crucial that this assumption is not violated in hopes to obtain the most reliable estimation of population parameters possible.

### *Intercorrelations*

Visual inspection of the scatterplots for the relations among role conflict, and role ambiguity with vigor, dedication, absorption, exhaustion, and cynicism indicated that all relations were linear. Pearson product-moment correlations were examined to verify and statistically examine these linear relations. The zero-order correlations are presented in Table 2.

First, it is interesting to note that the role conflict and ambiguity antecedents did yield significant negative zero-order correlations with the engagement outcome subdimension of vigor,  $r(265) = -.16, p < .01$  and  $r(265) = -.43, p < .01$  respectively. Also, role conflict and ambiguity both correlated significantly and negatively with the engagement outcome subdimension of dedication,  $r(265) = -.15, p < .05$  and  $r(265) = -.42, p < .01$  respectively. Although role ambiguity significantly and negatively correlated with the engagement outcome subdimension of absorption,  $r(265) = -.26, p < .01$ , role conflict did not yield a significant zero-order correlation,  $r(265) = .01, p > .05$ . This is problematic in that, it was hypothesized that both role stressors would be related to the absorption job engagement construct (suggestions for this counter-hypothesis finding are

presented in the discussion section below). However, because maintaining consistency with theory is of primary concern, it was decided to include role conflict in the subsequent analyses predicting absorption.

Table 2

*Intercorrelations and Alpha Coefficients of Study Variables*

Subscales	1	2	3	4	5	6	7
1. Role conflict	<i>.71</i>						
2. Role ambiguity	.38**	<i>.72</i>					
3. Vigor	-.16**	-.43**	<i>.74</i>				
4. Dedication	-.15*	-.42**	.68**	<i>.83</i>			
5. Absorption	.01	-.26**	.64**	.69**	<i>.74</i>		
6. Exhaustion	.38**	.37**	-.27**	-.04	-.20**	<i>.80</i>	
7. Cynicism	.45**	.43**	-.42**	-.23**	-.54**	.59**	<i>.77</i>

Note. Listwise N = 267.  $\alpha$  coefficients for subscales appear italicized along the diagonal.

\* $p < .05$ . \*\* $p < .01$ .

Furthermore, role conflict and ambiguity both correlated significantly and positively with the outcome burnout subdimension of exhaustion,  $r(265) = .38, p < .01$  and  $r(265) = .37, p < .01$  respectively. Similarly, the role conflict and ambiguity antecedents correlated significantly and positively with the outcome subdimension of cynicism  $r(265) = .45, p < .01$  and  $r(265) = .43, p < .01$  respectively. Overall, these findings suggest a correct specification of important outcome variables since at a zero-order level they significantly relate to the target antecedent variables.



In addition, the intercorrelation between the two predictor variables role conflict and ambiguity was positive and statistically significant  $r(265) = .38, p < .01$ . Although this suggests a certain level of redundancy among these predictors, the size of this correlation does not exceed or even approximate the multicollinearity convention of  $r = .70$  that would indicate a shared variance estimate of 49% (Cohen, 1992). Yet, this correlation's effect size is considered high and thus concern about the redundancy should not be discounted in subsequent analyses.

The intercorrelations between the three criteria variables of engagement were also calculated. The intercorrelation between vigor and dedication was positive and statistically significant  $r(265) = .68, p < .01$ . The intercorrelation between vigor and absorption was positive and statistically significant  $r(265) = .64, p < .01$ . Finally, the intercorrelation between absorption and dedication was positive and statistically significant  $r(265) = .69, p < .01$ . Although the magnitudes of these correlations do not exceed the multicollinearity convention of  $r = .70$ , there is certainly a high level of redundancy among criteria. Therefore, subsequent analysis results should be interpreted with care as separate analyses regressing any of these criteria may suggest the same conclusion simply as a consequence of the high redundancy among these criteria.

Similarly, the intercorrelation between the two criteria variables of burnout exhaustion and cynicism was positive and statistically significant  $r(265) = .59, p < .01$ . The size of this correlation does not suggest a high level of redundancy among these two criteria. Therefore, there is no concern regarding subsequent analyses with these criteria suggesting the same conclusion.

*Inferential Statistics*

The set of hypotheses 1 in the present study state that the role stressors of role ambiguity and role conflict together can explain a significant amount of variance, and therefore predict the three subdimensions of engagement. To test these hypotheses, a series of three multiple regression analyses with role ambiguity and role conflict entered as predictors were conducted with vigor, dedication and absorption as the criterion variables. To determine whether the hypotheses were supported, the coefficients  $R$  and adjusted  $R^2$  (presented in Table 3) were evaluated.

The set of hypotheses 2 in the present study state that of the two role stressors, role ambiguity would have a stronger relationship with the three subdimensions of engagement than role conflict. To determine whether the hypotheses were supported, the coefficients  $r$  and  $\beta$  (also presented in Table 3) obtained from the same three multiple regression analyses were evaluated.

Finally, the set of hypotheses 3 indicates that the relationships between role stress and job engagement are different from those between role stress and burnout. To determine whether these hypotheses were supported, the coefficients  $r$  and  $\beta$  obtained from two of the multiple regression analyses presented in Table 3 were compared against the coefficients  $r$  and  $\beta$  obtained from two multiple regression analyses presented in Table 4. Table 4 presents the results from an analysis regressing the burnout subdimensions of exhaustion and cynicism as criterion variables from the predictor variables role ambiguity and role conflict entered as a block.

Table 3

*Standard Multiple Regressions  
with Engagement Subdimensions as Criteria*

Measure	<i>r</i>	$\beta$	<i>R</i>	$R_{adj}^2$
<b>Criterion vigor</b>				
Role ambiguity	-.43 **	-.43 **		
Role conflict	-.16 **	<.01		
Model			.43 **	.18
<b>Criterion dedication</b>				
Role ambiguity	-.42 **	-.43 **		
Role conflict	-.15 **	.01		
Model			.43 **	.17
<b>Criterion absorption</b>				
Role ambiguity	-.26 **	-.31 **		
Role conflict	.01	.13 *		
Model			.29 **	.08

Note. N = 267.

\**p* < .05. \*\**p* < .01.

Table 4

*Standard Multiple Regressions  
with Burnout Subdimensions as Criteria*

Measure	<i>r</i>	$\beta$	<i>R</i>	$R_{adj}^2$
Criterion exhaustion				
Role ambiguity	.37 **	.26 **		
Role conflict	.38 **	.28 **		
Model			.45 **	.20
Criterion cynicism				
Role ambiguity	.43 **	.30 **		
Role conflict	.45 **	.33 **		
Model			.53 **	.27

Note. N = 267.

\* $p < .05$ . \*\* $p < .01$ .

*Regressing Engagement*

*Regressing vigor.* A multiple regression analysis was conducted to test hypothesis 1a that the role stress subdimensions of role conflict and role ambiguity together were associated with vigor. Results of this analysis are reported on Table 3. Role conflict and ambiguity together accounted for a significant amount of variance in vigor,  $R = .43$ ,  $R^2 = .19$  and  $R_{adj}^2 = .18$ ,  $F(2, 264) = 30.24$ ,  $p < .01$ . About 18% of the

variance in vigor can be explained by role stress levels. Therefore, hypothesis 1a was in fact supported.

Moreover, to test hypothesis 2a that role ambiguity would be more strongly related to vigor than role conflict, the coefficients  $r$  and  $\beta$  presented in Table 3 were examined. Specifically, the Pearson product-moment coefficient relating role ambiguity to vigor independently, was negative and significant,  $r(265) = -.43, p < .01$ . Moreover, the standardized partial regression coefficient beta relating role ambiguity uniquely to vigor was negative and significant,  $\beta = -.43, p < .01$ . Individuals who had higher role ambiguity stress levels had lower vigor levels regardless of whether the influence of role conflict was taken into account. In regards to role conflict, the Pearson product-moment coefficient relating it to vigor independently, was negative and significant,  $r(265) = -.16, p < .01$ . However, the partial regression coefficient beta relating role conflict uniquely to vigor was not statistically significant,  $\beta < .01, p > .05$ . Employees' vigor levels did not vary in a linear fashion as a function of role conflict stress levels when the influence of role ambiguity levels is taken into account. When role ambiguity and role conflict are compared in their relationships with vigor, it is clear that role ambiguity is the only contributing factor to the overall linear relationship between role stress and vigor. This seems to support hypothesis 2a that role ambiguity is more important of a predictor of vigor than role conflict.

However, this finding is counter-intuitive in the sense that both role ambiguity and role conflict were thought to relate significantly uniquely to vigor. To evaluate whether that residual variance was in fact nonsystematic as opposed to nonlinear, further

analyses were conducted. Specifically, the standardized residuals from the model including vigor as the criterion variable and role ambiguity entered as predictor were plotted as the dependent variable against role conflict as the independent variable. The scatterplot was then visually examined, as residuals would magnify any deviations from linearity indicating whether a curvilinear relationship or an interaction term would have been a better specification of form in the model. Moreover, a regression line was fit onto the scatterplot. This yielded the regression equation  $\hat{Y} = 0$ . Upon the visual and the coefficient inspections it was concluded that role conflict is unrelated to vigor when role ambiguity is taken into account.

In fact, the most logical explanation for the unexpected finding that the independent contribution of role conflict to variability in vigor is the high intercorrelation between role conflict and role ambiguity ( $r = .38, p < .01$ , See Table 2). Thus, because the predictors share a large proportion of overlapping variance among themselves as well as with the criterion variable, role conflict's zero-order correlation with vigor has been cancelled out, while role ambiguity independently still had enough common variance with vigor to remain a statistically significant predictor.

In conclusion, the analysis revealed that although as a set role conflict and role ambiguity can explain a significant amount of variance in vigor, the only independently important role stress predictor of vigor is role ambiguity. In sum, this supports hypothesis 2a that role ambiguity is more important of a predictor of vigor than role conflict.

*Regressing dedication.* A multiple regression analysis was conducted to test hypothesis 1b that the role stress subdimensions of role conflict and role ambiguity together were associated with dedication. Results of this analysis are reported on Table 3. Role conflict and ambiguity together accounted for a significant amount of variance in dedication,  $R = .43$ ,  $R^2 = .18$  and  $R_{adj}^2 = .17$ ,  $F(2, 264) = 29.08$ ,  $p < .01$ . About 17% of the variance in dedication can be explained by role stress levels. Therefore, hypothesis 1b was in fact supported.

Moreover, to test hypothesis 2b that role ambiguity would be more strongly related to dedication than role conflict, the coefficients  $r$  and  $\beta$  presented in Table 3 were examined. Specifically, the Pearson product-moment coefficient relating role ambiguity to dedication independently, was negative and significant,  $r(265) = -.42$ ,  $p < .01$ . Moreover, the standardized partial regression coefficient beta relating role ambiguity uniquely to dedication was negative and significant,  $\beta = -.43$ ,  $p < .01$ . Individuals who had higher role ambiguity stress levels had lower dedication levels regardless of whether the influence of role conflict was taken into account. In regards to role conflict, the Pearson product-moment coefficient relating it to dedication independently, was negative and significant,  $r(265) = -.15$ ,  $p < .01$ . However, the partial regression coefficient beta relating role conflict uniquely to dedication was not statistically significant,  $\beta = .01$ ,  $p > .05$ . Employees' dedication levels did not vary in a linear fashion as a function of role conflict stress levels when the influence of role ambiguity levels is taken into account. Similarly as with vigor, when role ambiguity and role conflict are compared in their relationships with dedication, it is clear that role ambiguity is the only contributing factor

to the overall linear relationship between role stress and dedication. This seems to support hypothesis 2b that role ambiguity is more important of a predictor of dedication than role conflict.

However, as with vigor, both role ambiguity and role conflict were thought to relate significantly uniquely to dedication. Therefore, the standardized residuals from a model with ambiguity as predictor and dedication as criterion were plotted as the dependent variable against role conflict as the independent variable. The scatterplot was then visually examined and a regression line was fit onto the scatterplot. This yielded the regression equation  $\hat{Y} = 0$ . Upon the visual and the coefficient inspections it was concluded that role conflict is unrelated to dedication when role ambiguity is taken into account.

In fact, the explanation for this finding as for that with vigor is the high intercorrelation between role conflict and role ambiguity ( $r = .38, p < .01$ , See Table 2). Again, role conflict's zero-order correlation with dedication has been cancelled out, while role ambiguity independently still had enough common variance with vigor to remain a statistically significant predictor.

In conclusion, the analysis revealed that although as a set role conflict and role ambiguity can explain a significant amount of variance in dedication, the only independently important role stress predictor of dedication is role ambiguity just as it was with vigor. In sum, this supports hypothesis 2b that role ambiguity is more important of a predictor of dedication than role conflict.



*Regressing absorption.* A multiple regression analysis was conducted to test hypothesis 1c that the role stress subdimensions of role conflict and role ambiguity together were associated with absorption. Results of this analysis are reported on Table 3. Role conflict and ambiguity together accounted for a significant amount of variance in absorption,  $R = .29$ ,  $R^2 = .08$  and  $R_{adj}^2 = .08$ ,  $F(2, 264) = 12.13$ ,  $p < .01$ . About 8% of the variance in absorption can be explained by role stress levels. It is important to note that the two role stressors are not as effective at predicting absorption as they are at predicting vigor and dedication. Nevertheless, hypothesis 1c was in fact supported.

Moreover, to test hypothesis 2c that role ambiguity would be more strongly related to absorption than role conflict, the coefficients  $r$  and  $\beta$  presented in Table 3 were examined. Specifically, the Pearson product-moment coefficient relating role ambiguity to absorption independently, was negative and significant,  $r(265) = -.26$ ,  $p < .01$ . Moreover, the standardized partial regression coefficient beta relating role ambiguity uniquely to absorption was negative and significant,  $\beta = -.31$ ,  $p < .01$ . Individuals who had higher role ambiguity stress levels had lower absorption levels regardless of whether the influence of role conflict was taken into account. In regards to role conflict, the Pearson product-moment coefficient relating it to absorption independently however, was not significant,  $r(265) = .01$ ,  $p > .05$ . On the other hand, the partial regression coefficient beta relating role conflict uniquely to absorption was positive and statistically significant,  $\beta = .13$ ,  $p < .05$ . Employees' absorption levels did not vary in a linear fashion as a function of role conflict stress levels independently, but when the influence of role

ambiguity levels is taken into account, the unique association between role conflict and absorption is significant.

The finding that the zero-order relationship (which does not partial out the shared variance between role conflict, role ambiguity and absorption) between role conflict and absorption was not significant whereas the unique contribution of role conflict to variability in absorption is unexpected. In fact, the most logical explanation for this again, is the high intercorrelation between role conflict and role ambiguity ( $r = .38, p < .01$ , See Table 2). In this case, because the predictors share a large proportion of overlapping variance among themselves, and role conflict does not share systematic variability with the criterion variable absorption, role conflict ends up acting as a suppressor variable. This is a statistical artifact that suggests a variable is uniquely contributing to a relationship with a criterion only because it is partialling out much of the model's total variance, inflating its own relationship with the criterion. Even so, role ambiguity individually still had enough common variance with absorption to remain a statistically significant and large unique predictor.

In conclusion, the analysis revealed that although as a set role conflict and role ambiguity can explain a significant amount of variance in absorption, role ambiguity is a more important predictor of absorption than role conflict. This is based on the fact that both the independent and the unique coefficients for role ambiguity were significant whereas only the unique coefficient for role conflict was found significant. Therefore hypothesis 2c, stating that role ambiguity is more important of a predictor of absorption than role conflict, is supported.

### *Regressing Burnout*

*Activation analyses.* An additional multiple regression analysis was conducted to test hypothesis 3a that the role stress subdimensions of role conflict and role ambiguity are differentially related to the job engagement dimension of vigor and the burnout dimension of exhaustion. Results of this analysis which included role conflict and role ambiguity as predictors, and exhaustion as the criterion are reported on Table 4. Moreover, the results of the multiple regression analysis conducted with the role stressors as predictors and vigor as the criterion are also examined and are presented in Table 3. Role conflict and ambiguity together accounted for a significant amount of variance in exhaustion,  $R = .45$ ,  $R^2 = .20$  and  $R_{adj}^2 = .20$ ,  $F(2, 264) = 33.49$ ,  $p < .01$ . When compared to the overall relationship between the role stressors and vigor,  $R = .43$ ,  $R^2 = .19$  and  $R_{adj}^2 = .18$ ,  $F(2, 264) = 30.24$ ,  $p < .01$ , the findings suggest similar interpretations. That is, that about 1/5 of the variance in both vigor and exhaustion can be explained by the two role stressors.

On the other hand, more specifically (and of primary interest to hypothesis 3) the Pearson product-moment coefficient relating role ambiguity to exhaustion independently, was positive and significant,  $r(265) = .37$ ,  $p < .01$ . Also, the standardized partial regression coefficients beta uniquely relating role ambiguity to exhaustion was positive and significant,  $\beta = .26$ ,  $p < .01$ . Individuals who had higher role ambiguity stress levels also had higher exhaustion levels regardless of whether the influence of role conflict is taken into account. In addition, the Pearson product-moment coefficient relating role conflict to exhaustion independently, was positive and significant,  $r(265) = .38$ ,  $p < .01$ .

Also, the partial regression coefficient beta uniquely relating role conflict to exhaustion was also positive and statistically significant,  $\beta = .28, p < .01$ . Employees whose role conflict stress levels were high also tended to have high exhaustion levels regardless of whether the influence of role ambiguity is taken into account.

The findings from the multiple regression analysis with criterion vigor presented in Table 3, suggest that when role ambiguity and role conflict are compared in their relationships with vigor, role ambiguity is the only contributing factor to the overall linear relationship between role stress and vigor. This is qualitatively different from the results of the regression with criterion exhaustion presented in Table 4, and discussed above, suggesting that both role ambiguity and role conflict are important in predicting exhaustion. In sum, even though the variance explained in vigor by the role stressors is similar to the variance explained in exhaustion, role ambiguity is the only contributing factor for vigor, whereas both role conflict and role ambiguity are contributing virtually equally in explaining exhaustion, lending support for hypothesis 3a.

*Identification analyses.* Hypothesis 3b states that the role stress subdimensions of role conflict and role ambiguity are differentially related to the job engagement dimension of dedication and the burnout dimension of cynicism. Results of the analysis including role conflict and role ambiguity as predictors, and cynicism as the criterion are reported on Table 4. Moreover, the results of the multiple regression analysis conducted with the role stressors as predictors and dedication as the criterion are also examined and are presented in Table 3. Role conflict and ambiguity together accounted for a significant amount of variance in cynicism,  $R = .53, R^2 = .28$  and  $R_{adj}^2 = .27, F(2, 264) = 50.58, p <$

.01. When this is compared to the overall relationship between the two role stressors and dedication however,  $R = .43$ ,  $R^2 = .18$  and  $R_{adj}^2 = .17$ ,  $F(2, 264) = 29.08$ ,  $p < .01$ , the findings do not suggest similar interpretations even at the overall level of analysis. That is, whereas in dedication only about 17 % of the variance is explained, when it comes to cynicism, the two role stressors do a better job at predicting its variability, explaining about 27% of the variance.

Furthermore, on a more specific level (and of primary interest to hypothesis 3), the Pearson product-moment coefficient relating role ambiguity to cynicism independently, was positive and significant,  $r(265) = .43$ ,  $p < .01$ . Moreover, the standardized partial regression coefficient beta uniquely relating role ambiguity to cynicism was positive and significant,  $\beta = .30$ ,  $p < .01$ . Individuals who had higher role ambiguity stress levels also had higher cynicism levels regardless of whether the influence of role conflict is taken into account. Similarly, the Pearson product-moment coefficient relating role conflict to cynicism independently, was positive and significant,  $r(265) = .45$ ,  $p < .01$ . Also, the partial regression coefficient beta uniquely relating role conflict to cynicism was also positive and statistically significant,  $\beta = .33$ ,  $p < .01$ . Employees whose role conflict stress levels were high also tended to have high cynicism levels regardless of whether the influence of role ambiguity is taken into account.

On the other hand, the findings from the multiple regression analysis with criterion dedication presented in Table 3 suggest that when role ambiguity and role conflict are compared in their relationships with dedication, role ambiguity is the only contributing factor to the overall linear relationship between role stress and dedication.

This is qualitatively different from the results of the regression with criterion cynicism, presented in Table 4, and discussed above, suggesting that both role ambiguity and role conflict are important in predicting cynicism. In sum, whereas in explaining dedication only role ambiguity makes a unique contribution to the overall relationship observed, both role conflict and role ambiguity make nearly equal contributions to the overall relationship with cynicism, lending support for hypothesis 3b.

In conclusion, consistent with previous studies (i.e., Barber, 1996) the present analyses revealed that the role stressors of role ambiguity and role conflict are important predictors of job burnout regardless of whether or not shared variance among them is taken into account. This is in contrast, different from the findings presented above suggesting that when considered uniquely, only role ambiguity seems to be an important predictor of the job engagement core dimensions (vigor and dedication; Schaufeli, Salanova, et al., 2002). In turn, this provides evidence for the contention that job engagement and burnout are distinct constructs lending support for the hypothesis set 3.

## Discussion

The present study sought to determine whether the role stressors, role conflict and role ambiguity, could predict the three subdimensions of job engagement, vigor, dedication and absorption. If together these stressors could predict each one of the engagement subdimensions, the question then narrowed in on whether role ambiguity would prove to be a more important predictor of job engagement than role conflict. Moreover, a third aim of the present study was to determine whether the relations of role stress with the job engagement subdimensions are qualitatively different from those with the burnout subdimensions. A summary of the findings of this research for each of the job engagement domains and a discussion of theoretical and methodological implications are presented in the following sections.

### *Role Stress and Vigor*

Hypothesis 1a, stating that role conflict and role ambiguity as a set would be significantly related to vigor was supported, providing evidence that the role stress construct in general is an important antecedent to the job engagement subdimension of vigor. It is of interest to note, however that while as a set the role stressors can significantly predict vigor, only role ambiguity could uniquely explain variability in vigor when the interrelationship of the two role stress predictors was taken into account.

This leads to hypothesis 2a, stating that role ambiguity would be more strongly related to vigor than role conflict. This hypothesis was also supported since, when the shared variance between the two predictors was partialled out, only role ambiguity shared systematic variance with vigor. However, it is important to note that although role

conflict did show a significant independent relation with vigor, its unique contribution to variance in vigor was not significant. This is surprising because even though role conflict was expected to be uniquely related to vigor to a lesser degree than role ambiguity, it was nonetheless expected to have a significant unique contribution.

#### *Role Stress and Dedication*

Hypothesis 1b, stating that role conflict and role ambiguity as a set would be significantly related to dedication was supported. This again, provided evidence that role stress in general is an important antecedent to the job engagement subdimension of dedication. As with vigor, it is again of interest to note that while as a set the role stressors significantly predict dedication, only role ambiguity was uniquely related.

Thus, hypothesis 2b, stating that role ambiguity would be more strongly related to dedication than role conflict, was also supported. When the shared variance between the predictors role conflict and role ambiguity was partialled out, only role ambiguity shared systematic variance with dedication. It is worth noting that, this is surprising in the same manner as with vigor because role conflict did show a significant independent relationship with dedication. Therefore, role conflict was also expected to be uniquely related (significantly, yet to a lesser degree than role ambiguity) to dedication. Even so, as noted above, the findings do in fact lend support for hypothesis 2b.

#### *Role Stress and Absorption*

Hypothesis 1c, stating that the role stressors as a set would be significantly related to absorption, was supported. This again, is important as it provides evidence that the role stress construct in general is an important antecedent to the job engagement



subdimension of absorption. However, while as a set the role stressors can significantly predict absorption, the variance accounted for was not as large as with vigor or dedication. Although this is notable, it is also important to take into account that absorption is not considered a core dimension of engagement (Schaufeli, Salanova et al., 2002).

In terms of hypothesis 2c, which states that role ambiguity is more strongly related to absorption than role conflict, the conclusion is this hypothesis was also supported. However, a different pattern of results than those for vigor and dedication lead to this conclusion. When considered independently, only role ambiguity shared systematic variance with absorption. An independent relationship should necessarily preclude a unique association between two variables when other predictors are taken into account. However, role conflict was found to be significantly uniquely related to absorption. This unlikely finding can be explained as a statistical artifact due to the small independent relationship between role conflict and absorption and to the large relationship between role stressors. In cases such as this one, partialling out the shared variance among predictors inflates whatever unique variance exists between predictors and criterion since the overall variance considered has consequently been reduced. Therefore hypothesis 2c was only partially supported in light of the (albeit artificial) significance of role conflict's unique contribution coefficient.

#### *Role Stress and Activation*

Hypothesis 3a, stating that role conflict and role ambiguity would relate differently to the activation (Schaufeli & Bakker, 2004; Schaufeli, Salanova, et al., 2002)

dimensions of engagement (vigor) and burnout (exhaustion), was supported. First it is important to note that, when the overall magnitude of relationship of the two role stressors with vigor is compared to that with exhaustion, these indexes seem to suggest at first glance that role stress can equally well predict vigor as much as exhaustion. With that being noted, in their specific relation to exhaustion, both role conflict and role ambiguity were shown to be important individual and unique predictors of this subdimension of burnout. Contrastingly, vigor was independently anteceded by both role stressors, and yet was only uniquely anteceded by role ambiguity. In other words, role conflict directly predicts exhaustion but not vigor when the effects of role ambiguity are taken into account. Consequently this provides evidence that job engagement and burnout do not in fact relate to other variables in equally strong but inverse relationships, suggesting that they are distinct constructs.

#### *Role Stress and Identification*

Hypothesis 3b, stating that role conflict and role ambiguity would relate differently to the identification (Schaufeli & Bakker, 2004; Schaufeli, Salanova, et al., 2002) dimensions of engagement (dedication) and burnout (cynicism), was supported. Specifically, in relation to cynicism, both role conflict and role ambiguity were shown to be important individual and unique predictors of this subdimension of burnout. Contrastingly, although dedication was independently anteceded by both role stressors, it was only uniquely anteceded by role ambiguity. In other words, role conflict directly predicts cynicism but not dedication when the effects of role ambiguity are taken into account. This provides further evidence that job engagement and burnout do not in fact

relate to other variables in equally strong but inverse relationships, suggesting that they are distinct constructs.

### *Implications of the Present Study*

This study contributes to research by providing insight into the relations between the superordinate constructs of role stress and job engagement in four ways. First, this study supports the contention that role stress as a construct is an important antecedent component to the job engagement subdimensions' nomological network. Second, the findings of the present study collectively, and unanimously, support the usefulness of including role ambiguity as an antecedent when predicting job engagement. Third, this study does not support using role conflict in directly predicting job engagement. However, the fact that at least one form of role stress can predict absorption provides evidence that the role stress construct can antecede job engagement. This allows for the possibility that other role stress subdimensions not included in the present study, because of a necessity to limit its scope, can be tested in future studies as antecedents in order to understand the dynamics between the superordinate constructs of role stress and job engagement. Fourth, the present study suggests that role conflict antecedes burnout but not job engagement. This provides evidence useful in the ongoing debate as to whether the constructs are uni- or bi-dimensional in that it suggests they are distinct from each other.

Past research shows that role stress is a critical predictor of burnout and involvement (Elloy et al., 1995; Lee & Ashforth, 1996). Consistently, when seeking to predict job engagement (a construct closely related to burnout and involvement), role

stress is evidently also an antecedent that can project employees' engagement levels. Furthermore, this also provides further support for Kahn, et al.'s role dynamics theory (1964) which proposes that there are direct paths between role stressors and functional outcomes such as job involvement and, as shown by the present study, job engagement. That is, stress levels that result from the violation of the classical organizational theoretical principles of command (Kahn et al., 1964) lead to diminished states of engagement or immersion by employees in their work.

However on a more micro level, of the two role stressors tested in the present study, only role ambiguity was shown to be important when predicting engagement. Therefore, logically, it follows only to discuss specific implications of the results of this study in relation to stress due to role ambiguity at work as opposed to that stress attributable to general role stress. However, implications of the lack of support for role conflict as a predictor of job engagement are also discussed.

According to social role theory, when role ambiguity exists—that is, when employees are unclear as to what their jobs specifically entail, or as to what the best way to carry out their job is, or as to how they will be rewarded or punished for their actions—then employees will develop negative attitudes toward their jobs (Kahn et al., 1964). Therefore in theory, as a result of role ambiguity, employees experience lower levels of functional attitudes toward work. The present study supports this in that as role ambiguity increases, the functional attitudes of job engagement (where employees feel deeply immersed, concentrated, and invigorated by their jobs) tend to decrease. This is also largely consistent with previous research, where role ambiguity is shown to be a

crucial predictor of other attitudes toward work that are similar to job engagement such as job involvement (Elloy et al., 1995) and job burnout (Peiro et al., 2001). However, it is important to point out that no causal inferences can be drawn from the present findings, as the research design does not allow for this.

Moreover, the practical implications of this finding are also interesting. This is because organizations are adopting a view of ambiguity, or the ability to cope with it, as a skill or competency that is desirable in employees (Kayes, Kayes, & Yamazaki, 2005). For example, according to Kayes et al. (2005), managers dealing with cross-cultural issues should possess the core competency of dealing with ambiguity. This suggests a view by organizations on role ambiguity as an inherent work characteristic for certain job settings that employees need to be able to handle.

On the other hand, the present findings as well as numerous other studies suggest that role ambiguity when present can have a detrimental impact on various individual and organizational outcomes such as job engagement and employee productivity (see Bhuian et al., 2005). Therefore a view on ambiguity as an inevitable job characteristic that employees should be alerted about when applying for certain positions, may be preventing organizations from addressing ambiguity as a problem that can be impacting the organization's climate and efficiency.

Consider for example a hypothetical situation of an organization that resorted to a virtual work environment because of a need to connect employees with valuable expertise because they are in different countries. In this situation, the environment can promote a high level of role ambiguity as the employees working on a project may never actually

have physical contact with each other and thus certain information about their roles and responsibilities may be difficult to get across. Moreover, there may be linguistic and/or cultural barriers that can also contribute to higher role ambiguity levels. The organization's hiring managers or project managers could simply have considered ambiguity as a characteristic of the job to caution the employees about when they were brought on board instead of addressing it any further.

This example illustrates how by taking on a view of role ambiguity simply as a work condition and not as an antecedent to other outcomes can be problematic to the organization. Even if employees are warned about a need to cope with some ambiguity, this does not mean they are necessarily able to do so. As this study suggests, if role ambiguity is present it can reduce positive attitudes, and consistent with previous studies, it can decrease the overall productivity of those employees (see Bhuiyan et al., 2005). Therefore, it would be important for the organization to consider ways in which the ambiguity can be reduced instead of viewing it as a fixed element of the work environment for those employees. Additionally, other measures can be taken. Perhaps the employees can be provided with training on how to deal with role ambiguity in hopes to reduce the detrimental effects on engagement or productivity.

Furthermore, as previously mentioned, of the two role stressors tested, only role ambiguity predicted engagement individually. Thus, the present study's hypothesis that role conflict is not as important of a predictor of engagement as role ambiguity was confirmed since role conflict did not in fact yield a unique relationship with job engagement. That is, when employees receive inconsistent expectations from others,

some will experience lower levels of energy, lower levels of enthusiasm, and lower levels of concentration, while others will instead feel more invigorated, more dedicated and feel immersed to a higher degree in their jobs. This is counter-intuitive also in relation to the social role theory as it also specifies a decrease in functional work attitudes as a function of role conflict. In addition, past research has also shown that role conflict is predictive and detrimental to job engagement related constructs (job involvement and burnout; Elloy et al., 1995; Peiro et al., 2001).

In explaining this finding, the prospect that role conflict is in fact not related to job engagement in any fashion is a possibility. However, the alternative that role conflict is instead indirectly related to job engagement is more plausible as an explanation. Both theory and previous research support a relation between job conflict and engagement and thus it is justified to speculate that the relationship is instead indirect. That is, that the relationship is perhaps moderated by a third variable. For example, it may be possible that age is a third variable that is affecting the relationship between role conflict and job engagement. The sample included in the present study was one restricted in age range because it was recruited from a university setting. Because the participants were so young it is likely that they have not been working long and thus are not yet tired and worn-out by their jobs yet. That is, age could be acting as a proxy for job experience and/or job task novelty. For this reason, it is possible that dealing with conflicting requests is seen by some of them (those who are still excited to gain experience and/or enthusiastic due to the novelty of the tasks) as a challenge as opposed to as a burden and may in fact want to put forth more effort and energy into complying with all requests.

Thus, if a more age representative sample of the population of workers had been obtained, it is likely that the relationship between role conflict and a lack of engagement would be observed to be more pronounced as experience increased and the novelty of the job tasks fades out. However, future research is needed in order to rule out either possible explanation.

On the other hand, even though it seems likely that there is a moderation between role conflict and job engagement, if this contention is not justified by further research, this is an interesting finding in its own right. If role conflict is simply unrelated to job engagement, it will be interesting to shed light into the dynamic between role stressors. In other words, it would raise the question—what is it about the nexus of role stress and job engagement that allows for role ambiguity to predict job engagement and nulls out the predictive ability of role conflict. Perhaps a qualitative study would be useful in providing an explanation.

In regards to implications of this for organizations, it is important to point out the relevance of the present findings for organizational design. Recent organizational design research developments propose merging two or more classical multidivisional layer structures into one (Chi & Nystrom, 1998; Harris & Raviv, 2002). For example, a structural design with divisions established on the basis of geographical dimensions, and one established on the basis of functional dimensions would be combined where lower level managers report both to a manager responsible for their local geographical division as well as to a manager responsible for their global functional division. Undoubtedly, this organizational structure, referred to as a matrix organizational design (Chi &



Nystrom, 1998; Harris & Raviv, 2002), will promote the development of role conflict problems as employees are expected to report to more than one manager for any given project. Moreover, with increasing organizational structure levels, it is likely that employees will become uncertain about the roles they need to fulfill and who will be rewarding or punishing them and how. Thus, role ambiguity may also be likely to develop in matrix organizations.

Therefore, it is important for organizations adopting a matrix design to approach such structures with caution. That is, it is important for such organizations to assess for role ambiguity and role conflict stress as these are related to increases in burnout. Also, although the present study did not find support for a direct relationship between role conflict and a decrease in job engagement levels until further research examines the possibilities of an indirect relationship it is also advised for matrixed organizations to consider role stressors as determinants of job engagement among their employees. For this reason, it is recommended that matrixed organizations assess for burnout and job engagement levels among employees and take measures to alleviate any negative attitudes.

In any event, regardless of whether parametrically the relationship is indirect or simply nonexistent, another interesting implication can be derived from these findings. The evidence provided by the present study further supports the contention that job engagement and burnout are not in fact polar opposites of the same construct. That is because the present study lends further evidence that job engagement and burnout are not related to the same antecedents in inverse but equally strong relationships.

Thereupon, as a further contribution to research on the construct of job engagement, the present study provides further evidence to the debate on the singularity of engagement and burnout, suggesting that they are distinct constructs. This is important in that comparing the relations between job engagement and role stress to those between burnout and role stress had never been done. This, then has implications both for identifying differences in nomological networks and understanding the underlying mechanisms of stressful events' as they relate to positive differently from negative outcomes. Equally important and related to this last point, this study was also valuable in that it is the first of its kind. That is, it made an improvement relative to existing literature by linking role stress and the emerging job engagement positive construct.

Certainly, another asset of this study was that all of the constructs were reliably measured. Internal reliability refers to the proportion of variance attributable to the true score of the latent variable it is designed to measure (Spector, 1992). Therefore, it is necessary to achieve acceptable reliability indexes of the target study variables, in order to make inferences as to their relationships (or lack thereof).

#### *Limitations and Future Research*

The present study is certainly not without limitations, many having to do with the exploratory nature of this study. Explanations and implications as to the nature of the limitations and propositions for future research are discussed next.

One limitation is the sample was made up of university students. This is a limitation in that the findings may not generalize to the universal population. However, as with any other study, samples are limited to make the study manageable, and so as to

reduce different confounding variables. In this case, it was deemed essential to include a sample that was not restricted to one, or a few companies. That is because as this is an exploratory study, it is of more importance that the results can be generalized to a variety of different industries with a variety of different cultures and/or climates, as *this* could confound the results.

A second limitation deals with the fact that demographic variables were not controlled for in the analyses that were conducted. It is important to control for individual differences among participants to prevent this from confounding the results of the analyses. However, the decision to exclude the demographic variables collected in the present study from analyses was grounded on the fact that, as this was an exploratory study, there were no previously-identified important demographic variables to control for in the outcome variables. As the first study of its kind, it was deemed important to correctly specify the models to be tested according to theory and past research in order to derive the most applicable and parsimonious conclusions possible. Thus, if an outcome variable has not previously been identified by the literature to vary as a function of a demographic variable, then it is best to keep the model parsimonious.

A third limitation is that this study was cross-sectional in nature. This is a limitation in that no causal inferences can be derived from the findings. Again, as an exploratory study it is necessary to first establish whether a relationship exists before efforts are expended on establishing temporal precedence between variables. Moreover, with the understanding derived from an exploratory study such as the present one, a subsequent longitudinal study can be better designed.

A fourth limitation is that, as is typical in survey research, there is a concern about common-method variance. This is due to single-source, self-report nature of the data that could potentially explain some significant relationships. However, the wide range of correlations among variables—including one correlation coefficient with a value of zero—argues against a bias due to a single data-collection methodology. Thus, it is unlikely that the relationships found among variables in the study were simply an artifact explained by common method biases.

In brief, future studies could benefit from including more generalizable samples. Participants could be recruited from specific organizations so as to include more full-time employees as well as a wider range of ages. Also, future studies could be designed in a longitudinal manner so that conclusions can be drawn as to whether the proposed antecedent role stress actually results in decreased job engagement levels.

Finally, future studies should address the lack of support for a direct relationship between role conflict and job engagement perhaps by including additional variables that can be tested as mediators to the relationship. This will further the understanding of the underlying mechanisms in the nexus of the superordinate role stress and job engagement constructs. Another way future studies could address this concern would be to involve such qualitative methods as in-depth interviews to explore the role stress-engagement dynamics. Moreover, additional versions of role stress dimensions such as role overload (excessive qualitative and/or quantitative demands; Peiro et al., 2001) should be considered.

### *Conclusion*

In sum, this study attempted to integrate the literature on role stress with emerging research on job engagement. Job engagement developed as a concept that was thought to be the opposite pole of the negative construct of burnout. The present study adopted the more recent view on job engagement as a different construct altogether from burnout that is simply negatively and moderately related to burnout.

Overall, these results underscored the need to consider the negative effects that role stressors have on positive psychological outcomes such as job engagement. More specifically, both stressors were independently related to every one of the subdimensions of job engagement (vigor, dedication and absorption). Also, the role stressors together were found to be significantly predictive of job engagement. In terms of the unique contributions, role ambiguity was found to be a more important predictor of all of the subdimensions of job engagement.

Moreover, the present findings revealed that the relations that job engagement and burnout have with role stress are in fact different in nature thus providing further support that engagement and burnout are distinct constructs. That is, of the two role stressors included in the present study, role conflict was only uniquely predictive of the subdimensions of burnout that make up the superordinate domains of activation and identification. In other words, the activation and identification domains of burnout and job engagement do not share the same antecedents and therefore can occur independently of each other. This indicates that disengaged employees are not necessarily burnt-out ones. This is also indicative of the fact that whereas some constructs may be responsible

for burnt-out employees, some others may be responsible for dedicated and vigorous ones. Organizations and organizational researchers should thus assess for both engagement and burnout and consider different measures to improve any job conditions that are not optimal.

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## Appendix A:

## Human Subjects - Institutional Review Board Approval Letter



**San José State**  
UNIVERSITY

**Office of the Provost**  
**Associate Vice President**  
**Graduate Studies & Research**

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To: Gisela Garcia  
375 South 9<sup>th</sup> St. #3929  
San Jose, CA 95112

From: Pamela Stacks, Ph.D. *Pamela C Stacks*  
Associate Vice President  
Graduate Studies and Research

Date: April 3, 2006

The Human Subjects-Institutional Review Board has approved your request to use human subjects in the study entitled:

"The Intersection of Role Stress and Job Engagement"

This approval is contingent upon the subjects participating in your research project being appropriately protected from risk. This includes the protection of the anonymity of the subjects' identity when they participate in your research project, and with regard to all data that may be collected from the subjects. The approval includes continued monitoring of your research by the Board to assure that the subjects are being adequately and properly protected from such risks. If at any time a subject becomes injured or complains of injury, you must notify Dr. Pamela Stacks, Ph.D. immediately. Injury includes but is not limited to bodily harm, psychological trauma, and release of potentially damaging personal information. This approval for the human subject's portion of your project is in effect for one year, and data collection beyond April 3, 2007 requires an extension request.

Please also be advised that all subjects need to be fully informed and aware that their participation in your research project is voluntary, and that he or she may withdraw from the project at any time. Further, a subject's participation, refusal to participate, or withdrawal will not affect any services that the subject is receiving or will receive at the institution in which the research is being conducted.

If you have any questions, please contact me at (408) 924-2480.

cc. Dr. Howard Tokunaga - 0120

The California State University:  
Charleston's Office  
Bakersfield, Channel Islands, Chico,  
Dominger, Fresno, East Bay, Fresno,  
Fullerton, Humboldt, Long Beach,  
Los Angeles, Maritime Academy,  
Monterey Bay, Northridge, Pomona,  
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