# NEW HIRE SOCIALIZATION: THE DYNAMIC RELATIONSHIPS AMONG INDIVIDUAL DIFFERENCES, COGNITION, AFFECT, AND BEHAVIOR

by

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(Under the Direction of Charles E. Lance)

#### **ABSTRACT**

This longitudinal field study investigated the dynamics of the new hire socialization process over the first four months of employment. Individual differences (i.e., extraversion, external feedback propensity, internal feedback propensity, internal feedback ability, and learning and performance goal orientation) were expected to influence information seeking frequency. Information seeking frequency was expected to influence role cognition (i.e., perceived acceptance by the group, self-efficacy, role conflict, and role ambiguity). Role cognition was expected to influence affect (i.e., organizational commitment, job satisfaction, stress, and turnover intentions). Affect was expected to influence performance behavior (i.e., job performance, tardiness, absenteeism, and turnover). In addition, two feedback loops were proposed: both role cognition and affect were expected to influence information seeking behavior. The a priori model would not converge, however an alternative model demonstrated moderate support for hypotheses and yielded several additional relationships.

INDEX WORDS:

Socialization, Individual differences, Extraversion, External feedback propensity, Internal feedback propensity, Internal feedback ability, Learning goal orientation, Performance goal orientation, Information seeking, Group Acceptance, Self-efficacy, Role conflict, Role ambiguity, Organizational commitment, Job satisfaction, Stress, Turnover intentions, Tardiness, Absenteeism, Performance

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# DEDICATION

This dissertation is dedicated to my wife, Nicole. Her hard work has been my inspiration. Without her endless patience this dissertation would not have been possible. Without her encouragement and support I could not have seen this through. Thanks Nicki.

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### CHAPTER 1

#### INTRODUCTION

As individuals enter organizations, they are faced with the task of adjusting to a new environment. A tremendous amount and wide variety of knowledge acquisition will occur during this time, ranging anywhere from where the restrooms and break rooms are located to the nature of the organization's culture. Socialization is thought to help facilitate a successful transition into a new organization. Feldman (1976) describes socialization as "the ways by which employees are transformed from total company outsiders to participating and effective corporate members" (p. 64). Socialization could be thought of as an adjustment of attitudes or beliefs, consisting of cognitive, affective, and behavioral adjustment. For example, Louis (1980) describes socialization as "the process by which an individual comes to appreciate the values, abilities, expected behaviors, and social knowledge essential for assuming an organizational role, and for participating as an organizational member" (pp. 229-230). According to Louis (1980), newcomers experience change, contrast, and surprise when entering new environments such as a new organization. Surprise encompasses one's affective reactions to any perceived difference including contrasts with and changes from previous experiences. Newcomers then make sense of surprises through information and interpretations from others.

Perhaps the reasons for the interest in successful socialization are the outcomes it is thought to produce, which include higher organizational commitment, job satisfaction,

and performance, and lower absenteeism and turnover. A more thorough understanding of the socialization process could lead to higher employee morale as well as shorten the time it takes for newcomers to attain full job proficiency. According to Reichers (1987), "[f]or individuals, a rapid socialization period means a quicker reduction of the anxiety associated with lack of situational identity (Wanous, 1980). For the organization, this reduction in anxiety also is desirable because it means that individuals can begin to focus sooner on job performance" (p. 278).

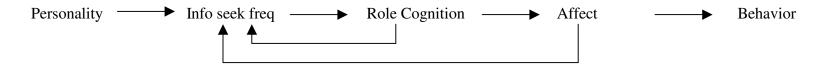
Research in the area of socialization has taken several foci. Some have focused on the role of the organization including its tactics, techniques, characteristics, and people (e.g., Ashforth & Saks, 1996; Laker & Steffy, 1995; Van Maanen & Schein, 1979). Others have focused on the individual including the content and processes of learning and information seeking and newcomer proactivity in the socialization process (e.g., Ashford & Black, 1996; Morrison, 1993b; Ostroff & Kozlowski, 1992, 1993). Some researchers have also focused on the interaction between the newcomer and the environment (Feldman, 1976; Jones, 1983; Reichers, 1987). This study will examine socialization as a dynamic process occurring over time under a cognitive, affect, behavior framework. Specifically, this study will examine the cyclical interrelationships between socialization behavior (i.e., information seeking frequency), role cognition (i.e., perceived acceptance by the group, self-efficacy, role conflict, and role ambiguity/clarity), affective reactions (i.e., organizational commitment, job satisfaction, stress, and turnover intentions), and performance behavior (i.e., job performance, tardiness, absenteeism, and turnover) over time as well as the influence of more stable individual differences (i.e., extroversion, propensity for internal feedback, internal ability to create feedback, propensity for

external feedback, performance goal orientation, and learning goal orientation) as a driving force in these dynamic relationships (see Figure 1).

As shown in Figure 1, this research focuses on the relationships among individual differences, behavior, cognition, and affect. It is expected that extraversion, external feedback propensity, internal feedback propensity, and internal feedback ability will influence the frequency with which individuals use certain strategies to seek information and that learning and performance goal orientation will influence the overall frequency with which individuals seek information. Overall information seeking is expected to influence a second-order role cognition factor. (First-order factors serving as indicators of second-order factors are shown in Figure 1 below the corresponding second-order factors.) It is expected that role cognition will influence both a second-order affect factor and overall information seeking frequency. It is expected that affect will influence performance, tardiness, absenteeism, and turnover as well as overall information seeking frequency.

This research makes several contributions to the socialization literature. First, it examines the influence of individual differences in the socialization process. Feldman (1976) recognized early on that individual differences were important in the socialization process. In particular, he suggested that traits such as self-esteem, self-worth, and the needs and desires of the entrants are important in socialization. Jones (1983) also suggested that individual differences in history, self-efficacy, and growth need strength might be important in the socialization process. Ashford and Cummings (1983) proposed that feedback seeking and a number of related variables (e.g. motivation, monitoring, information processing and interpretation, and self-esteem) might also be important in

# High-level relationships:



# First-order factors contained in high-level relationships:

Direct inquiry Reflective appraisal Comparative appraisal Trial and error Written documents

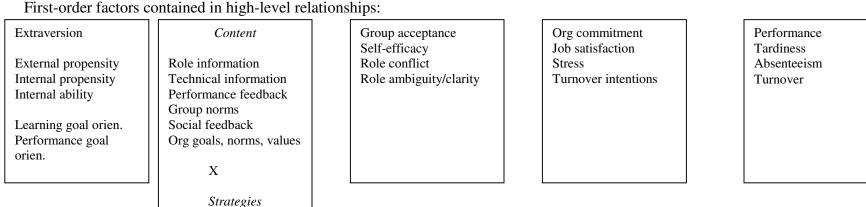


Figure 1. Conceptual model.

socialization. Reichers (1987) also emphasized the importance of individual differences in his interactionist perspective. Specifically, he, as well as Ashford and Black (1996), called for more research on individual differences that may result in differences in proaction. Individual differences could potentially be important in socialization research. Differences which people bring with them to the first day on the job could result in different socialization experiences. Understanding these differences would explain why some are socialized more easily than others and identify ways to improve the process. Although several researchers have called for more individual difference research in this area (Ashford & Cummings, 1983; Levy, Albright, Cawley, & Williams, 1995; Morrison, 1993b; Ostroff & Kozlowski, 1992, 1993; Reichers, 1987; Saks & Ashforth, 1997), few have answered this call until recently (e.g., Chan & Schmitt, 2000; Wanberg & Kammeyer-Mueller, 2000).

The second contribution this study makes to the socialization literature is the use of a part-time blue-collar sample. Socialization researchers have used a variety of different samples, most of which included graduate students, recent graduates (e.g., tracking alumni; Baker, 1995 notes that this might be a limited sample with unique characteristics such as higher expectations than those in workforce for a while) or managers and other professionals. Research related to either part-time or blue-collar workers is lacking. This study will extend the generalizability of socialization theory to blue-collar employees (who make up a vast amount of the total workforce) and part-time employees (which will determine if the socialization process is similar for newcomers who work fewer hours and might knowingly be employed for a short time).

The longitudinal mediated design used in this study also contributes to the socialization literature. The sequential nature of socialization requires longitudinal designs (Jones, 1983). Although researchers have recognized the importance of and have used longitudinal designs, longitudinal research that assesses changes in proactive socialization behaviors, cognition, and affect over time among the same employees is needed (e.g., Wanberg & Kammeyer-Mueller, 2000). The effects of socialization appear to occur very rapidly, so it is also important to account for initial or very early perceptions to avoid overestimating the relationship between processes and outcomes (Bauer & Green, 1994; Saks & Ashforth, 1997). Finally, although researchers have used longitudinal designs, few have tested for mediated relationships. Researchers often look at proximal or distal outcomes, but rarely investigate both or test for mediation or feedback loops. There is a need for more process research testing for mediation (Saks & Ashforth, 1997). The use of a longitudinal design will allow for more stringent tests of causal mediation and will further the understanding of the ongoing socialization process.

Another important contribution of this study is the examination of complex, dynamic, cyclical recursive relationships over time. Socialization research has exclusively tested one-way relationships, however it is likely that the relationships are more dynamic and complex than this. Jones (1983) discussed some of the complexities of socialization: "Commitment, satisfaction, or role orientation, for example, are not the direct results of socialization practices. They arise from the complex interplay of factors at many levels of analysis" (p. 473). Only a few models have been proposed which include feedback loops (e.g., Miller & Jablin, 1991; Saks & Ashforth, 1997) and some researchers have speculated that there may be reciprocal relationships (Bauer & Green,

1994, 1998; Chan & Schmitt, 2000; Wanberg & Kammeyer-Mueller, 2000), however no one has hypothesized and empirically tested reciprocal or cyclical relationships in the newcomer socialization process (however, Chan & Schmitt, 2000, have conducted an exploratory test of a reciprocal relationship). This is an important addition to socialization theory. Positive attitudes and beliefs are typically modeled as outcomes marking the finality of socialization. This study reconceptualized the process and attempts to show that they are also powerful effectors in the socialization process and, because socialization is a dynamic process, they can be as much a determinate of successful socialization as they can be outcomes. Attitudes and beliefs mark the beginning of socialization as much as they mark the end. For example, role clarity is typically considered an outcome of socialization, however newcomers have unclear roles when entering the organization, marking the beginning of socialization and influencing affect, information seeking, and performance.

The final contribution of this study is the use of the cognition, affect, behavior framework which will allow a more complete or holistic understanding of the individual in the socialization process. This is discussed more fully in the following section.

## Cognitive-Affect-Behavior Framework

The idea of complex relationships between cognition, affect, and behavior is not new to psychology. Several theorists have attempted to account for the complexity of human behavior by proposing dynamic models of the interaction between cognition, affect, and behavior (or other similar components such as attitudes, environment, and/or person[ality]). Some suggest that attitudes and behavior (or behavioral intentions) are reciprocally related – attitude affects behavior and behavior affects attitude (Doran,

Stone, Brief, & George, 1991; Fazio, 1986). In fact, Fazio (1986) suggests that attitudes are composed of cognitive (beliefs about the attitude object), affective (feelings about the evaluation of the attitude object), and behavioral (intent to act upon the attitude objects) components. Similarly, some believe the self-concept consists of cognitive (self-schema), affective (self-esteem), and behavioral (self-perception) components (Brewer & Crano, 1994, pp. 209-218). The cognitive dissonance theory postulates that a person will change his or her attitudes or behaviors when cognitive inconsistency between attitudes and behavior occurs (Brewer & Crano, 1994, p. 83). Similar complex interrelationships are included in theories of self-regulated or motivated behavior such as control theory (Carver, 1979) and goal-setting theory (Locke & Latham, 1990). Additionally, Dweck and Leggett (1988) delineated two types of personality (helpless vs. mastery oriented) in terms of differing patterns of cognition, affect, and behavior.

The evolution to cognitive-affect-behavior theories is described by Bandura and Jourden (1991) in the context of social cognitive theory. Historically, many theories of human functioning have been modeled after "one-sided determinism" or "unidirectional causation" (p. 941). This was followed by a more recent trend of modeling how "persons and situations affect each other but their influence on behavior flows unidirectionally" (p. 941). Social cognitive theory is described as a model of "triadic reciprocal causation. In this model of reciprocal determinism, behavior, cognitive, and other personal factors and environmental events all operate as interacting determinants that influence each other bidirectionally" (p. 941). Wood and Bandura (1989) further describe the reciprocal influences as not occurring simultaneously. "It takes time for a causal factor to exert its

influence and to activate reciprocal influences. Because of the bidirectionality of influence, people are both products and producers of their environment" (p. 362).

Socialization theory has evolved in a similar manner, focusing initially on unidirectional causation through stages of socialization and related outcomes (e.g., Feldman, 1976, 1981; Van Maanen, 1975) and the effects of the organization (e.g., socialization tactics) on the individual (e.g., Ashforth & Saks, 1996; Baker, 1995; Laker & Steffy, 1995).

Socialization theory then evolved to the unidirectional effect of the person and situation on behavior, attitudes, and career decisions, focusing on person-organization fit or person-organization interactions (e.g., Bretz & Judge, 1994; Cable & Judge, 1996; Jones, 1983, 1986; Judge & Cable, 1997; Reichers, 1987; Turban & Keon, 1993). In addition, much like cognitive dissonance theory, Louis (1980) suggests that attitude and behavioral change in the form of sense-making may result from a change, contrast, or surprise. Feldman and Brett (1983, pp. 258-259) further elaborate on newcomer reactions to uncertainty.

A key variable in understanding how newcomers adapt to new jobs and job changes is uncertainty. . . [W]hen individuals are faced with uncertain situations. . .a series of changes in perceptions, feelings, and behaviors ensues. People are likely to appraise cognitively the extent to which the new situation poses a threat to old valued outcomes or presents an opportunity to achieve valued outcomes. They also tend to experience aversive feelings of loss, anxiety, and lack of control. In order to respond to uncertainty and change, individuals are likely to try to establish new behavior patterns that take

advantage of the opportunities and avoid the threats of new situation and/or emotionally distort or block out the threatening stimuli.

Finally, researchers have begun using social cognitive theory to better understand the socialization process (see Saks & Ashforth, 1997, for a discussion of this research), however researchers have yet to test the triadic reciprocal causation that Bandura and Jourden (1991) refer to.

The above socialization theories describe the relationships as reciprocal, but are described as dynamic ongoing interactions occurring over time (e.g., feedback loops) which are more similar to cyclical recursive relationships. The differences between reciprocal and cyclical recursive relationships are neither theoretically nor analytically trivial. Reciprocal (or nonrecursive) relationships are when the "variables mutually affect one another. . . A causal order is not especially relevant . . . [since the effects] are essentially instantaneous, or at least so rapid that reliable causal intervals cannot be determined for either effect" (James, Mulaik, & Brett, 1982, pp. 37-40). In contrast, a cyclical recursive model depicts relationships occurring over time in which a causal interval can be established (e.g., a feedback loop occurring over time).

Reciprocal models require the use of instrumental variables and are analyzed using techniques such as the two-stage least squares technique (James & Singh, 1978). In contrast, cyclical recursive models require longitudinal techniques, as well as the assumption that causal intervals are known, and that the times of measurement of the variables corresponds closely to the causal intervals. However, it is difficult to specify intervals in socialization since it is a dynamic process and all variables (with the exception of personality) will likely be volatile and already changing during the *getting in* 

stage previous to entry. For example, according to Feldman (1976), information seeking is important even before entry as individuals are searching for a job for which they are best suited and realistic information (e.g., a realistic job preview) helps lessen shock or surprise before entry to reduce turnover. However, since there is a definite beginning of the encounter stage (the first day on the job), and the interrelationships will be driven by a stable construct (personality), measuring each variable at each time period with equally spaced time periods will aid the gleaning of a more accurate picture of cyclical recursive causation over time.

Theorists have attempted to describe the socialization process with complex interrelationships (e.g., Miller & Jablin, 1991; Saks & Ashforth, 1997) however these complexities have not been fully addressed empirically. This study will attempt to determine the causal relationships in the socialization process by identifying the interrelationships among higher-order constructs of personality, cognition, affect, and behavior over time. This is important because it will advance the body of empirical research that is lagging behind theory. It will also allow a more complete understanding of the whole person, moving beyond one-sided determinism and person-situation interactions. The theoretical framework is shown in Figure 1. The next chapter will define the higher-order constructs and describe the hypotheses and theoretical rationale. The model shows that personality will influence behavior (information seeking frequency) which will influence cognition (role related perceptions and beliefs) which will influence affect (attitudes and stress) which will in turn influence behavior (performance related behavior). In addition, feedback loops indicate that cognition and affect will influence information seeking behavior.

### CHAPTER 2

#### ANTECEDENTS AND OUTCOMES OF INFORMATION SEEKING

Information seeking is an important part of the socialization process. Even before organizational entry, individuals are seeking or receiving information through job searches and realistic job previews (Feldman, 1976). Adjusting to a new work environment upon entry requires gaining a variety of knowledge about the tasks that need to be performed, the group one is performing within, as well as information about the organization. One of Feldman's (1976) recommended policies for the getting in stage is to provide information related to job duties, the work group, and promotional opportunities.

Although many organizations provide newcomers with knowledge via orientation and training, it is doubtful that this will result in newcomers acquiring and maintaining all necessary knowledge (Miller & Jablin, 1991; Morrison, 1993b; Wanberg & Kammeyer-Mueller, 2000). The information newcomers receive may be deficient since (a) oldtimers may forget what is was like to enter the organization, (b) oldtimers may hesitate to provide information until the newcomer earns their trust and demonstrates commitment, (c) oldtimer willingness to provide information fades due to the passing of a honeymoon or grace period, (d) managers may send unclear messages, and (e) newcomer lack of experience makes it difficult to interpret messages (Miller & Jablin, 1991, p. 93).

Newcomers will need more information than what is received passively from the organization to obtain full job proficiency, to adjust to the new environment, and to cope

with the uncertainties that will arise. Newcomers will have to obtain this information through their own proaction. Proaction is defined as "any behavior that involves actively seeking out interaction opportunities. . .such as asking questions, stopping by other people's offices or work areas to talk, initiating social opportunities such as lunch engagements, asking for feedback, and participating in discretionary social activities" (Reichers, 1987, p. 281).

Formal orientation programs, on-the-job training, early performance evaluation, and/or formal mentoring necessitate interaction between newcomers and insiders (Reichers, 1987) which can facilitate proactive behaviors and information exchange. Without the opportunity to interact, newcomers cannot make use of proactive socialization behavior (Wanberg & Kammeyer-Mueller, 2000). Louis (1980) states that "it would be beneficial for newcomers to enter organizations with an understanding of...how they might proactively seek information from insiders at work to supplement their own inadequate internal interpretive schemes" (pp. 452-453). Two key proactive behaviors include sensemaking (e.g., information and feedback seeking) and relationship building (Wanberg & Kammeyer-Mueller, 2000).

Information seeking is an important part of the socialization process. Although information seeking is not a sufficient condition for obtaining required knowledge (just because a newcomer seeks information does not mean he or she will receive correct or useful information or retain it) it could be thought of as a necessary condition (it is not possible to obtain all of the required knowledge without seeking some information) making it an important behavior at organizational entry. Researchers have identified several important content areas for which newcomers seek information as well as

information seeking strategies or tactics and the sources from which newcomers seek information.

Information Seeking Content Domains

Several theorists have proposed content domains for which individuals attempt to acquire information during socialization. Feldman (1981) states that individuals acquire a set of appropriate role behaviors, develop work skills and abilities, and adjust to work group norms and values. Information in these areas is critical for newcomer success. Ashford and Cummings (1983) describe three domains determined by individual and organizational goals for which individuals seek information: "information about how their behaviors are perceived and evaluated by relevant others [i.e., interpersonal feedback,]...the appropriate behaviors to achieve a goal (referent information), and how well an individual is enacting those behaviors (appraisal information)" (p. 372). Miller and Jablin (1991, pp. 98-99) state that information content has 3 parsimonious categories.

what is required to function successfully [and includes] job instructions, job rationale, organizational procedures, organizational goals, nuances or rules, informal networks, amount of responsibility, job goals, reason for doing a task, job procedures, how to get a promotion or raise, new ideas or ways to do things, what work needs to be done, how to get job training, interpretations of activities and events, and meaning of organizational symbols. . .[Appraisal information] tells the worker if he or she is functioning successfully [and includes] performance feedback, potential for advancement, appropriateness of social behaviors, adequacy of basic skills and abilities, quality of work

efficiency in accomplishing tasks, and adequacy of performance under pressure. . .[Finally, relational information is the] nature of his or her relationship with another [and includes the] extent of fitting into social environment, social/affective support, others' personality characteristics, others' likes/dislikes, managing job pressures and role conflicts, personal goals, overcoming anxieties, confirmation of a new self-image, and feelings about particular co-workers/supervisors.

Several domains have also been used in empirical research. For example, Ostroff and Kozlowski (1992, 1993) described four content domains: task, role, group, and organizational domains. Morrison (1993a, 1993b) investigated five types of information which newcomers seek: technical information, referent information, normative information, performance feedback, and social feedback. Chao, O'Leary-Kelly, Wolf, Klein, and Gardner (1994) identified six content areas: history, language, politics, people, organizational values, and performance proficiency. The validation of their measure and comparisons across three types of job movements (those who remained on the same job, those who changed jobs within the same organization, and those who changed organizations) provides compelling evidence for the existence of these six domains.

Based on the above theories and research related to the content of socialization, there appears to be six relatively unique, parsimonious, and critical content domains in the socialization process which could be classified or primarily associated with three levels within an organization: the individual, the group, and the organization. Related to the individual are role information, technical information, and performance feedback. Group norms and social feedback could be primarily related to work groups, peers, or

coworkers. The organizational level might consist of the organizational goals, norms, and values.

At the individual level, newcomers seek information related to what they are supposed to do (i.e. role information), how they are supposed to do it (i.e., technical information), and how well they do it (i.e., performance feedback). Role (a.k.a. referent) information refers to the expectations and demands of a person's role (Morrison, 1993b). This focuses on the "boundaries of authority and responsibility and appropriate behaviors for the position. Important features include knowing when to act alone or seek approval, understanding expectations beyond task performance and understanding what behavior and demeanor are appropriate for the position" (Ostroff & Kozlowski, 1993, pp. 172-173). Technical information (a.k.a. task domain and performance proficiency) refers to task mastery and information regarding how to perform job requirements (Morrison, 1993). It "reflects such features as task duties, assignments, priorities, how to use equipment, how to handle routine problems and so forth" (Ostroff & Kozlowski, 1992, p. 852). Performance feedback is "information about how others are perceiving and evaluating their job performance" (Morrison, 1993b, p. 559).

Group norms (which is one aspect of Morrison's, 1993b, normative domain) is information about behaviors and attitudes related to the work group. It "is concerned with coworker interaction, group norms and values, and the work group's normative structure" (Ostroff & Kozlowski, 1992, p. 852). Social feedback is "information about the acceptability of [one's] nontask behavior" (Morrison, 1993b, p. 559).

Finally, organizational goals, norms, and values (the other aspect of Morrison's, 1993b, normative domain) are information about behaviors and attitudes related to the

organization's culture. They describe what the organization hopes to accomplish and how it hopes to do so.

Information Seeking Strategies

In addition to socialization content domains, research has also focused on how information is obtained. Understanding how individuals seek information in certain content domains is critical for fully understanding the effectiveness of the socialization process and could help identify areas for potential improvements. Ashford and Cummings (1983) described two means through which individuals actively obtain information. One way in which individuals obtain information is through monitoring, which "entails observing the situation and the behaviors of other actors for cues useful as feedback" (pp. 382-383). Once the information is attended to, it requires an interpretation by the observer. There is more than one way to observe the situation and behaviors of others in order to obtain feedback. One type of monitoring is reflective appraisal (Ashford & Cummings, 1983). This occurs when an individual monitors others' reactions to their own behavior, providing cues as to how others are evaluating given behaviors. The second type of monitoring is comparative appraisal, which is inferring an evaluation by comparing one's own behavior with others' behavior (Ashford & Cummings, 1983). This is similar to modeling (cf. Bandura, 1986) and may entail monitoring or watching others' behaviors and then using this feedback to model or imitate that behavior. Modeling can take place relatively independent of one's interaction with others – verbal interaction with others is not needed to monitor their behavior.

Another method of obtaining information is via direct inquiry (Ashford & Cummings, 1983). Direct inquiry involves "directly asking actors in the environment for their perception and/or evaluation of the behavior in question" (p. 385). Thus, the distinction between monitoring and inquiry is the directness of the individual rather than the source from which the information is obtained.

Ostroff and Kozlowski (1992) also investigated strategies for obtaining information. They found that individuals acquire information through observation (or watching) and trial and error (or experimentation). Although they considered these sources of information, they could be considered strategies; observation is a strategy, the individual whom one observes is the source. Miller and Jablin (1991) also describe several information seeking tactics including overt questions (e.g., direct inquiry), indirect questions, third parties, testing limits, disguising conversations, observing (i.e., observing with a specific intent or purpose in mind), and surveillance (i.e., observing aimlessly).

Written documents are an important source for obtaining information (Miller & Jablin, 1991; Morrison, 1993b; Ostroff & Kozlowski, 1992, 1993). Although typically considered a source, consulting written documents could also be considered a strategy. In fact, it is likely to be a strategy used by individuals who would prefer to use impersonal strategies rather than interpersonal. This study focuses on the five strategies that are primarily discussed in the socialization literature that have been demonstrated to be important: reflective appraisal, comparative appraisal, direct inquiry, trial and error, and consulting written documents.

Morrison (1993b) argued that people generally prefer relying on the monitoring strategy because the psychological costs associated with this strategy are less than with the direct inquiry strategy (cf. Ashford & Cummings, 1983). Direct inquiry may have significant costs since it is a public event and can damage one's image and reveal behavioral deficiencies. Similarly, Miller and Jablin (1991) state that the directness of the tactics used may depend on one's self-presentation concerns and comfort level. Ostroff and Kozlowski (1993) also argue that newcomers will use more covert tactics (e.g., observation and trial and error) to avoid negative consequences (e.g., social rejections), to avoid appearing unknowledgeable, and because they may not want to bother others. Morrison's (1993b) results supported this idea: monitoring was used more often than direct inquiry for referent (i.e., role) information, performance feedback, social feedback, and normative information (i.e., group norms and organizational goals, norms, and values). Additionally, Ostroff and Kozlowski (1992) found that role, group, and organizational information were obtained most often through watching (however role information was not statistically significant), which is simply the first step in monitoring. Comparative appraisal is the monitoring strategy expected to be used most frequently for role information, group norms, and organizational goals, norms, and values.

It is expected that reflective appraisal will be the strategy used most frequently for performance feedback and social feedback. This strategy will be used most often because these content areas require interaction with others. A person cannot receive social feedback from a source other than another person. It does not require direct inquiry, but others are typically needed to obtain information related to these content areas.

Morrison (1993b) also argued that direct inquiry would be used more often than monitoring for obtaining technical information because technical information is extremely important and is hard to obtain through monitoring. Results supported this hypothesis as well, so it is expected that direct inquiry will be the strategy used most frequently for technical information.

The following hypotheses describe the expected relationships regarding how frequently reflective appraisal, comparative appraisal, and direct inquiry will be utilized to seek information in six content domains. Trial and error and consulting written documents are not contained in any hypotheses; however, since they are likely to be important strategies used to obtain information (Ostroff & Kozlowski, 1992), they are included in this study. They might not be the most frequently used strategies, but they are of theoretical importance.

Hypothesis 1: Employees will seek role information, group norms, and organizational goals, norms, and values most often through comparative appraisal.

Hypothesis 2: Employees will seek performance feedback and social feedback most often through reflective appraisal.

Hypothesis 3: Employees will seek technical information most often through direct inquiry.

## **Information Seeking Antecedents**

Several theorists and researchers have alluded to the importance of individual differences in the socialization process (e.g., Ashford & Cummings, 1983; Levy et al., 1995; Morrison, 1993b; Ostroff & Kozlowski, 1992, 1993; Reichers, 1987; Saks & Ashforth, 1997), however until recently there has been little research addressing the role

of individual differences. Individual differences may be especially critical in their influence on proactive behavior such as information seeking. Individual differences affecting the level of newcomer proaction should be critical and may help better understand socialization rates (Reichers, 1987).

Reichers (1987) stated that field dependence, tolerance for ambiguity, and need for affiliation are important individual differences because they provide for the motivation and the ability to seek out interactions with others. Ashford and Black (1996) argued that individual predispositions should also affect the frequency with which individuals seek information and they found that desire for control was related to information seeking. Chan and Schmitt (2000) found that proactive personality was related to task mastery, role clarity, and social integration upon entry and was also associated with the rate of increase in role clarity. They hypothesized a relationship between proactive personality and information seeking, however it was not supported. Wanberg and Kammeyer-Mueller (2000) found that extraversion and openness to experience were related to higher levels of proactive socialization behavior.

Morrison (1993b) states that researchers should study personality variables that might lead newcomers to prefer using certain tactics and sources to others. This research investigates how the frequency of using certain information seeking strategies is affected by several individual differences: extraversion, internal feedback propensity, internal feedback ability, external feedback propensity, performance goal orientation, and learning goal orientation.

#### Extraversion/Introversion

One's personality may influence several aspects of one's life, including the process of entering a new organization. One trait that may be especially influential during socialization is extraversion. One means by which an individual obtains information is via direct inquiry (Ashford & Cummings, 1983). An individual difference variable which would influence a person's willingness to make direct inquiries - or even their willingness to place themselves in any type of direct interaction with others - may influence this method of obtaining information. Extraverts are described as being "sociable... assertive, active, and talkative...[and] liking other people and preferring large groups and gatherings" (Costa & McCrae, 1989, p.15). Introverts are described as being reserved, independent, even-paced, and preferring to be alone. Since direct inquiry requires interaction between two people, if an individual is less likely to interact with others it seems plausible that they would also be less likely to use this strategy to obtain information. Thus, it seems that extraverts would be more likely to use the direct inquiry strategy of proactive feedback seeking than would introverts.

This might be especially true during the socialization process. Establishing relationships is probably the most important at this stage since the person may have few contacts at entry. Feldman (1976) recommended designing orientation programs that allow for the opportunity for the entrants to meet the rest of the employees. He also recommended choosing people to provide the orientation program based on their social skills. Jones (1983) argued that when a newcomer enters the organization he or she is overwhelmed by the new experience and is "afraid to test the parameters of the organizational context in order to locate his or her position in the organization" (p. 470).

He then suggested that the newcomers might avoid interpersonal contact to reduce this stress. This type of behavior would likely be more profound for introverts, and less so for extraverts. Reichers (1987) argued that the speed of socialization is a function of the frequency of interaction with others. Although none of these theorists specifically discussed extraversion/introversion, it seems that it would play an important role in the newcomer socialization process.

Research also provides some direct and more indirect evidence of a relationship between extraversion and socialization. For example, Wanberg and Kammeyer-Mueller (2000) found that extraversion was related to higher levels of proactive socialization behavior. Bateman and Crant (1993) found that proactivity, defined as a personality trait, was positively correlated with extraversion. Some research also suggests that the presence of mentors can lead to more effective socialization (Ostroff & Kozlowski, 1993; Saks & Ashforth, 1997) and work success (Judge & Bretz, 1994). This could partially be a result of the organization providing someone to interact with, rather than placing the burden of interaction on the newcomer – which may be an even larger burden for one who is introverted. Watson and Hubbard (1996) examined the relationship between the Big Five and coping behaviors. They found that extraversion was positively correlated with seeking social support. Extraversion is also related to training proficiency (Hough & Schneider, 1996), which some have argued has many similarities with socialization (Saks & Ashforth, 1997). Finally, there is some evidence that extraversion is related to job performance (Goodstein & Lanyon, 1999), however others have suggested that this relationship is job specific (Barrick & Mount, 1991; Hough & Schneider, 1996).

Being talkative, active, and assertive appear to be important in establishing relationships and defining one's role in the organization. In contrast, being reserved and avoiding interaction could be detrimental at this stage. With the stress associated with being in a new situation, and the added stress of having to interact with others, it seems that an introverted person would be less likely to directly seek information from others and more likely to use impersonal strategies (i.e., reflective appraisal, comparative appraisal, and written documents) than one who is extroverted.

Hypothesis 4: Extraverted individuals will use the direct inquiry strategy more frequently and the reflective appraisal, comparative appraisal, and written documents strategies less frequently than will those who are introverted.

## Feedback Preferences and Ability

Another individual difference variable that would have an important influence on information seeking is self-monitoring, especially since it is proposed that individuals will use monitoring strategies for seeking information. It seems that the ability to monitor one's behavior and environment would influence information seeking behavior. However, the literature related to the self-monitoring construct stemming from Snyder (1974) is more related to regulating expressive behavior and self-presentation. The self-monitoring measure appears to assess factors such as group skills, chameleon-like skills, and ingratiation (Ahmed, Garg, & Braimoh, 1986), or acting ability, extraversion, and other directedness (Lennox & Wolfe, 1984). These factors are further removed from factor of interest in this study: the ability and/or desire to monitor one's own behavior. The constructs developed by Herold, Parsons and Rensvold (1996) related to feedback

preferences and ability are more closely aligned with the construct of interest in this study.

Herold et al. (1996; see also Parsons, Herold, & Turlington, 1981) proposed that individuals differ in terms of their feedback preferences and that the measurement of these differences would be valuable for understanding the relationship between feedback, motivation, learning, and performance. They found, through the development of a measure, that individuals could be reliably differentiated on three constructs. The first factor, internal propensity, reflects the preference for and valuing of internal feedback and the minimal perceived value of others' feedback. The second factor, internal ability, reflects one's ability to self-assess performance regardless of internal or external feedback preferences. Finally, external propensity "reflects a preference for, trust in, and seeking of information about one's performance from external sources" (p. 8). Since those high in internal propensity and internal ability prefer and can create their own internal feedback they would likely seek information from outside sources less frequently and may be more likely to use trial and error. In contrast, those with a preference for external feedback would likely seek feedback from external sources more frequently and use strategies requiring external sources such as direct inquiry, reflective appraisal, and comparative appraisal. Previous research has supported the relationships between feedback propensity and sources (Fedor, Rensvold, & Adams, 1992; Harold et al., 1996).

Hypothesis 5a: Internal propensity and internal ability will be negatively related to direct inquiry, reflective appraisal, and comparative appraisal and positively related to trial and error.

Hypothesis 5b: External propensity will be positively related to direct inquiry, reflective appraisal, and comparative appraisal and negatively related to trial and error.

## Goal Orientation

A newcomer's goal orientation may also affect his or her feedback seeking behavior. Dweck and Leggett (1988) state that people tend to hold one of two goal orientations: performance goal orientation or learning goal orientation. People who are performance goal oriented desire to obtain positive appraisals of their performance and ability and try to avoid negative appraisals which will display their inadequacy. They focus on the evaluation of their performance, and would rather perform an easy task and succeed than fail at a difficult task. This type of person strives to prove his or her ability. Individuals with a performance goal orientation tend to believe an entity theory about their ability. They believe that their ability is fixed and, subsequently, that their effort is unlikely to be helpful for developing their abilities and task mastery. Since they are less likely to believe that they can develop their abilities, feedback is of less value to them. In addition, since feedback seeking could result in negative feedback, they may perceive it as costly to their ego and self-presentation (VandeWalle & Cummings, 1997) and it may result in face loss costs (Ashford & Cummings, 1983). Because of the high cost and low value of feedback, performance goal oriented individuals tend to have maladaptive response patterns and withdraw from the task, so it is likely that they would also decide to seek information less frequently. VandeWalle and Cummings (1997) found that performance goal orientation was positively related to the perceived cost of feedback

seeking and negatively related to the perceived value of feedback seeking and feedback seeking frequency.

Individuals who are learning goal oriented strive to improve their ability. This type of person desires to increase his or her competence and tries to acquire new knowledge and skills for improving or mastering task performance. They are less concerned with performance evaluations, and do not mind failure as long as they can learn from it and improve future performance. Individuals with a learning goal orientation tend to believe an incremental theory about their ability and believe that effort does lead to success. Since they are more likely to believe that they can develop their abilities and improve performance, feedback has a greater value for them. Rather than perceiving feedback as negative, they perceive it as more diagnostic. Learning goal oriented individuals tend to have adaptive response patterns and are more likely to increase effort in the face of challenge and persist at their tasks until they achieve mastery. It is likely that individuals with a learning goal orientation would seek information more frequently. VandeWalle and Cummings (1997) found that learning goal orientation was negatively related to the perceived cost of feedback seeking and positively related to the perceived value of feedback seeking and feedback seeking frequency.

Initially, performance and learning goal orientations were thought of as being negatively correlated and were considered to be opposite points on a continuum. Button, Mathieu, and Zajac (1996) have shown that the two goal orientations are not opposite points on a continuum, but are two separate and uncorrelated dimensions. A person can be high or low in either or both performance goal orientation and learning goal

orientation. VandeWalle and Cummings (1997) found that individual differences in goal orientation have an effect on one's feedback seeking in an experimental setting. This relationship has not yet been tested in the socialization context, however it is expected to be the same.

Hypothesis 6a: There will be a negative relationship between performance goal orientation and feedback seeking frequency.

Hypothesis 6b: There will be a positive relationship between learning goal orientation and feedback seeking frequency.

## **Information Seeking Outcomes**

Researchers have evaluated the effectiveness of socialization with respect to several variables including proximal and distal outcomes. Proximal outcomes often include role related outcomes such as role conflict, role ambiguity, or acceptance by the (work)group (e.g., Ashforth & Saks, 1996; Baker, 1995; Bauer & Green, 1994, 1998; Chan & Schmitt, 2000; Feldman, 1976; Jones, 1986; Mignerey, Rubin, & Gorden, 1995; Morrison, 1993a). More distal outcomes typically include affect or attitudinal outcomes such as job satisfaction, organizational commitment, or stress (e.g., Ashford & Black, 1996; Ashforth & Saks, 1996; Ashforth, Saks, & Lee, 1998; Bauer & Green, 1994, 1998; Feldman, 1976; Jones, 1986; Laker & Steffy, 1995; Louis, Posner, & Powell, 1983; Morrison, 1993b; Ostroff & Kozlowski, 1992; Saks & Ashforth, 1996; Van Maanen, 1975; Wanberg & Kammeyer-Mueller, 2000) as well as behavioral outcomes, most often performance or turnover (e.g., Ashforth & Saks, 1996; Bauer & Green, 1998; Feldman, 1976; Morrison, 1993b; Tsui, Ashford, St. Clair & Xin, 1995; Wanberg & Kammeyer-Mueller, 2000). However, researchers typically focus on proximal or distal outcomes or

(when considering both proximal and distal) treat them both as criterion outcomes rather than testing mediated relationships over time (exceptions that have tested mediation include Baker, 1995, and Bauer & Green, 1994). This research proposes mediated relationships between cognition, affect, and behavior over time in the form of second-order latent factors. A discussion of the supporting literature and hypotheses follows. *Proximal Cognitive Outcomes* 

When newcomers enter organizations they are faced with uncertainty. The primary reason for information seeking behavior is to obtain knowledge in order to reduce uncertainty (Ashford & Cummings, 1983; Feldman & Brett, 1983; Jones, 1986; Mignerey et al., 1995; Miller & Jablin, 1991; Morrison, 1993a, 1993b; Saks & Ashforth, 1997). Saks and Ashforth (1997) proposed a model in which uncertainty reduction and learning mediate the relationship between information acquisition and proximal outcomes such as role clarity and social integration. Knowledge must be acquired in several areas which will result most directly in a variety of proximal outcomes. The most critical cognitive outcomes of information seeking behavior are newcomer beliefs about acceptance (by the workgroup), their competence (i.e., self-efficacy), and their role (i.e., role conflict and role ambiguity/clarity).

When newcomers enter an organization they establish relationships with their coworkers in order to gain acceptance (Feldman, 1976). Newcomers become more socially integrated over time (Chan & Schmitt, 2000), however it is critical that this occurs rapidly since they are first concerned about fitting in; how they are performing is secondary (Morrison, 1993b). Communication and interaction among newcomers and oldtimers facilitate feelings of acceptance. Newcomers who are more active and

involved and seek more information have stronger feelings of acceptance and social integration (Bauer & Green, 1994, 1998; Morrison, 1993b).

Self-efficacy has been defined as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391). Upon entry, newcomers learn new tasks, skills, and procedures to achieve feelings of competence (Feldman, 1976). Feedback forms a necessary, but not sufficient, condition for achieving competence (Ashford & Cummings (1983), so feedback is expected to be important for feelings of competence, or self-efficacy, as well. Cues provided from task performance and from others provide information that allows one to make judgments about self-efficacy.

Feedback seeking has been shown to be related to task-mastery (Morrison, 1993b) as well as self-efficacy (Bauer & Green, 1994, 1998). In addition, feelings of efficacy are influenced by vicarious experience (Bandura, 1977), so reflective and comparative appraisal would likely impact newcomer self-efficacy as well.

Role conflict is the "compatibility-incompatibility in the requirements of the role...[including] conflict between the focal person's internal standards or values and the defined role behavior. . . between the time, resources, or capabilities of the focal person and defined role behavior. . . between several roles for the same person which require different or incompatible behaviors, or . . . conflicting expectations and organizational demands in the form of incompatible policies, conflicting requests from others, and incompatible standards of evaluation" (Rizzo, House, & Lirtzman, 1970, p. 155). Role ambiguity is the "predictability of the outcome or responses to one's behavior, and the existence or clarity of behavioral requirements, often in terms of inputs from the

environment, which would serve to guide behavior and provide knowledge that the behavior is appropriate" (Rizzo et al., 1970, pp. 155-156).

When newcomers enter an organization, they attempt to clarify their roles and priorities to achieve a role definition (Feldman, 1976).

Newcomers may experience role ambiguity and/or conflict as a result of (1) lack of clarity and unanimity in others' expectations concerning newcomers' roles, (2) mixed feedback about their job performance, (3) not being able to negotiate informal agreements regarding others' influence in defining their roles, and (4) others breaking or neglecting to fulfill contracts or negotiated functions (Miller & Jablin, 1991, p. 101).

Role conflict and ambiguity result from uncertainty and poor communication (Mignerey et al., 1995), and newcomers depend on information for developing role clarity and reducing role conflict (Miller & Jablin, 1991). Information and feedback can provide greater clarity about how things work in the organization and what others expect of the newcomer (Ashford & Black, 1996). Feedback helps clarify the relative importance of various goals, priorities, and the corresponding behaviors valued by the organization or work group (Ashford & Cummings, 1983). Increased levels of communication should result in lower levels of role ambiguity (Mignerey et al., 1995). Newcomers who are more actively involved and seek information more frequently have less role conflict and ambiguity (Bauer & Green, 1994, 1998; Morrison, 1993b).

The influence of information seeking behavior on role cognition will be assessed at the second-order factor level. Following the methods of Vandenberg, Richardson, and Eastman (1999), this study will create higher-order variables in an effort to identify the

general effects among cognition, affect, and behavior. Information seeking behavior will be operationalized as a single index of overall information seeking frequency. Although the antecedents of information seeking were hypothesized to have differential effects on first-order strategies factors, the influences of information seeking on outcomes are based on overall information seeking frequency as a second-order factor with first-order strategy factors as indicators.

Role cognition will be operationalized as a higher-order variable among the first-order variables perceived acceptance, self-efficacy, role conflict, and role ambiguity. These variables are often lumped together in theoretical models (e.g., Miller & Jablin, 1991; Saks & Ashforth, 1997) and in research as a group of first-order variables (e.g., accommodation; Bauer & Green, 1994, 1998) or as a latent variable (e.g., role stress; Lance, 1991). Beliefs about what you are supposed to do (i.e., role conflict and ambiguity), how well you can do it (i.e., self-efficacy), and how well you fit in with the work group are critical in early socialization and are likely interrelated. Information seeking behavior is expected to influence role cognition as a whole.

Hypothesis 7: Information seeking behavior (defined by a second-order overall information seeking frequency factor) will positively influence the higher-order construct of role cognition (representing perceived acceptance, self-efficacy, role conflict, and role ambiguity) such that more information seeking behavior will result in a more positive role cognition (i.e., feelings of being accepted by the work group, high self-efficacy, and low role conflict and ambiguity).

# *Role Cognition* $\rightarrow$ *Information Seeking*

No socialization research has hypothesized cyclical recursive relationships, however some researchers have suggested that they may exist (Bauer & Green, 1994, 1998; Chan & Schmitt, 2000; Wanberg & Kammeyer-Mueller, 2000). It is likely that behavior and cognition influence each other bidirectionally. As already hypothesized, information seeking behavior affects role cognition. It is also believed that role cognition will affect information seeking behavior. For example, since (a) newcomers initially experience uncertainty they may (b) seek information which may (c) reduce uncertainty which may (d) lead to less information seeking. Ironically (and confusingly), many use the statement "information reduces uncertainty" as an argument for the influence of information seeking on uncertainty even though uncertainty would be required before seeking information which suggests that uncertainty influences information seeking.

Feldman (1976) found that newcomers had a difficult time finding essential information until they were trusted and accepted by their coworkers. This suggests that in order for unaccepted newcomers to obtain the essential information, they may need to seek information more frequently.

Individuals with high efficacy may feel they have the required capabilities of performing their tasks. They may perceive feedback as less valuable than those with low efficacy and may be less likely to seek information. Morrison (1993a) provides indirect support for this relationship. Task mastery (which would be similar to feelings of competence, or self-efficacy) at time 1 was negatively related to information seeking at time 3 (see Morrison, 1993a, Table 1).

Table 1

Means, Standard Deviations, and Coefficient Alphas for First-Order Composites

Factor	Mean	Standard deviation	Coef.	Factor	Mean	Standard deviation	Coef.
T1 Group Acceptance	5.94	.87	.90	T2 Group Acceptance	6.01	.98	.92
T1 Self- Efficacy	5.57	1.00	.68	T2 Self- Efficacy	5.60	1.07	.76
T1 Role Conflict	3.93	1.45	.78	T2 Role Conflict	3.88	1.52	.79
T1 Role Ambiguity	6.24	.84	.88	T2 Role Ambiguity	6.19	1.02	.89
T1 Org Commitment	5.56	1.28	.80	T2 Org Commitment	5.34	1.50	.89
T1 Job Satisfaction	5.32	1.27	.86	T2 Job Satisfaction	5.13	1.44	.92
T1 Turnover Intentions	3.39	1.67	.80	T2 Turnover Intentions	3.68	1.71	.80
T1 Stress	2.41	.82	.65	T2 Stress	2.35	.84	.65
Learning Goal Orient.	6.10	.96	.81	Performance	3.47	.90	.93
Performance Goal Orient.	5.94	.94	.70	Tardiness	.97	1.64	N/A
Extraversion	3.82	1.47	.79	Absenteeism	1.04	1.57	N/A
Internal Ability	5.93	.89	.70	Turnover	.01	.11	N/A
External Propensity	5.67	1.13	.68				
Internal Propensity	5.50	1.03	.57				

When individuals experience greater role ambiguity and conflict they are uncertain about the appropriate behaviors. They may perceive feedback as more valuable since it can clarify the ambiguity and they may more actively seek information (Ashford & Cummings, 1983; Mignerey et al., 1995). Morrison (1993a) provides indirect support for this relationship as well. Role clarity at time 1 was negatively related to information seeking at time 3 (see Morrison, 1993a, Table 1).

Hypothesis 8: Role cognition, as defined by a higher-order construct, will negatively influence information seeking behavior such that more positive beliefs about one's role will result in less frequent overall information seeking.

# Distal Affective Outcomes

In addition to role cognition, information seeking behavior also influences affective reactions or psychological adjustment (Louis et al., 1983; Ostroff & Kozlowski, 1992; Morrison, 1993b). Research clearly shows that proactive behavior is related to affective outcomes including organizational commitment, job satisfaction, stress, and turnover intentions. Perceived helpfulness of socialization aids/programs, interactions with peers (Louis et al., 1983), information seeking frequency from supervisors and peers, and knowledge (Ostroff & Kozlowski, 1992) are related to organizational commitment. Similarly, availability of socialization opportunities, perceived helpfulness of socialization aids/programs, interactions with peers (Louis et al., 1983), information seeking frequency (Morrison, 1993b; Ostroff & Kozlowski, 1992; Wanberg & Kammeyer-Mueller, 2000), and knowledge (Ostroff & Kozlowski, 1992) are related to job satisfaction. Information seeking (Ostroff & Kozlowski, 1992) and behavioral self-management (Saks & Ashforth, 1996) are related to newcomer stress. Finally, perceived

helpfulness of socialization aids, interaction with peers (Louis et al., 1983), information seeking (Morrison, 1993b; Ostroff & Kozlowski, 1992), and relationship building (Wanberg & Kammeyer-Mueller, 2000) are related to turnover intentions.

The effect of information seeking on affect is expected to be mediated by role cognition. This is consistent with theoretical propositions within (e.g., Saks & Ashforth, 1997; Wanberg & Kammeyer-Mueller, 2000) as well as outside of (e.g., Lance, 1991) the context of newcomer socialization. The influence of information seeking behavior on role cognition has already been discussed. A discussion of the influence of role cognition on affect follows.

Acceptance (Bauer & Green, 1994, 1998; Feldman, 1976), self-efficacy (Bauer & Green, 1994; Laker & Steffy, 1995), role conflict (Bauer & Green, 1994; Miller & Jablin, 1991), and role ambiguity (Bauer & Green, 1994, 1998; Miller & Jablin, 1991) are related to organizational commitment. Acceptance (Bauer & Green, 1998; Feldman, 1976), role conflict (Feldman, 1976, 1981; Miller & Jablin, 1991), and role ambiguity (Bauer & Green, 1998; Feldman, 1976, 1981; Miller & Jablin, 1991) are also related to job satisfaction. Role conflict and ambiguity may also influence turnover (Feldman, 1976; Miller & Jablin, 1991). A more positive role cognition (i.e., clear roles with little conflict, high self-efficacy, and feelings of workgroup acceptance) would likely lead to higher morale or more favorable attitudes and affect (i.e., higher organizational commitment and job satisfaction and lower turnover intentions and stress).

Several researchers have examined the relationships among these affective variables; in fact, these are arguably the most researched variables in the industrial organizational psychology and organizational behavior literature. Job satisfaction is

often represented as an antecedent of organizational commitment, both of which may lead to withdrawal cognitions and ultimately to turnover or other withdrawal behavior (e.g., Hom, Griffeth, Palich, & Bracker, 1999), however the relationships among these variables is certainly debatable. For example, Lance (1991) found a reciprocal relationship between job satisfaction and organizational commitment, both of which led to turnover cognitions (i.e., desirability of quitting and intentions to search) and behavior (i.e., actual job search). Vandenberg and Lance (1992) tested four competing models of job satisfaction and organizational commitment (both unidirectional relationships, a reciprocal relationship, and no relationship) and found that the best-fitting model included the unidirectional path from organizational commitment to job satisfaction. Recognizing the difficulty of specifying the causal order among these variables, Mathieu and Zajac (1990) categorized these variables as correlates of organizational commitment. "Affective responses [including stress and job satisfaction] represent a category of variables that, like commitment, describe individuals' psychological reactions to the work environment. Because it is difficult to specify the causal precedence of different affective responses, these variables are simply considered as *correlates* of commitment" (Mathieu & Zajac, 1990, p. 175). Their meta-analysis found that organizational commitment was related to stress and job satisfaction as well as consequences including withdrawal cognitions (e.g., intentions to search and intentions to leave) and behaviors (performance, attendance, lateness, and turnover).

This study does not focus on the directional relationships among affective variables; the focus is on the more general cyclical recursive relationships among the second-order constructs of behavior, cognition, and affect. Like role cognition, a higher-

order variable will also be created for affect, defined by organizational commitment, job satisfaction, stress, and turnover intentions. These variables are critical affective outcomes of socialization and are often discussed together as morale or psychological adjustment in theories and research. There is a lot of overlap among these affect variables so they will be combined to define a single higher-order construct as has been done previously (e.g., Ashforth et al., 1998; Vandenberg et al., 1999). Hence, rather than identifying the causal order among affective variables the construct of interest here is what these affective reactions have in common.

Hypothesis 9: Role cognition, as defined by a higher-order construct, will positively influence the higher-order construct of affective reactions (representing organizational commitment, job satisfaction, stress, and turnover intentions) such that more positive beliefs about one's role will result in a more positive affect (i.e., higher organizational commitment and job satisfaction and lower stress and turnover intentions).

Affective Reactions  $\rightarrow$  Information Seeking Frequency

No studies or theories exist that would suggest that affective reactions impact newcomer information seeking, however the existence of a relationship seems highly plausible. If an individual enters an organization and quickly becomes dissatisfied with the job, uncommitted to the organization, overly stressed, and plans on leaving, it is unlikely that he or she would desire or value feedback and he or she would be less likely to seek information. It is more likely that this type of person would withdraw from work psychologically and behaviorally and be less involved and seek less information, creating a downward spiral. "Off to a bad start, on the other hand, he soon encounters failures that

make him hesitant to try...And he falls increasingly behind his fellows in acquiring the knowledge and skills that are needed for success on those occasions when he does try" (M. B. Smith, as cited in Feldman, 1976, p. 67). Common sense suggests that a disgruntled employee with intentions to leave has little to gain by expending effort to seek information.

Hypothesis 10: Affective reactions, as defined by a higher-order construct, will positively influence information seeking behavior such that more positive affect will result in more frequent overall information seeking.

### Ultimate Behavioral Outcomes

The ultimate outcomes of effective socialization are behaviors that directly affect the bottom line of an organization. These include attaining full job proficiency as quickly as possible, having low absenteeism and tardiness, and remaining with the company at least long enough for the organization to recoup their investment cost in the new hire. There is a need for more emphasis on behavioral measures (Saks & Ashforth, 1997). Researchers have studied the effects of socialization on behaviors, however the focus has primarily been on performance (e.g., Ashford & Black, 1996; Ashforth & Saks, 1996; Bauer & Green, 1998; Feldman, 1976; Morrison, 1993b; Tsui et al., 1995; Van Maanen, 1975) and turnover (e.g., Feldman, 1976; Wanberg & Kammeyer-Mueller, 2000). More focus is needed on other forms of behavioral adjustment or withdrawal including tardiness and absenteeism.

Feedback seeking has been shown to be related to effective performance (Morrison, 1993b; Tsui et al., 1995) and turnover (Wanberg & Kammeyer-Mueller, 2000). Acceptance at work, role conflict, and role ambiguity are related to performance

(Bauer & Green, 1998; Feldman, 1976; Miller & Jablin, 1991) and role conflict is also related to turnover (Bauer & Green, 1998; Feldman, 1976; Miller & Jablin, 1991). The effects of information seeking and role cognition on performance behaviors are expected to be mediated through the relationships already discussed (i.e., information seeking influences role cognition which influences affective reactions which influence performance behaviors).

The relationship between attitudes and performance is commonly studied (cf. Locke, 1976; Mathieu & Zajac, 1990; Mowday, Porter, & Steers, 1982), but not in the context of newcomer socialization. Feldman (1976) states that an important outcome of socialization is satisfaction since the lack of it can lead to absenteeism, turnover, and lower performance. Others have found relationships between affect and performance as well (Bauer & Green, 1998; Saks & Ashforth, 1996; Van Maanen, 1975).

Research outside of the socialization context clearly shows a relationship between affect or attitudes and behavioral adjustment or withdrawal. Job satisfaction, organizational commitment, and turnover intentions influence actual turnover (Allen & Griffeth, 1999; Bannister & Griffeth, 1986; Griffeth, Gaertner, & Sager, 1999; Griffeth, Hom, & Gaertner, 2000; Lance, 1991; Mathieu & Zajac, 1990; Mowday et al., 1982). Attitudes also influence other withdrawal behaviors including tardiness and absenteeism (Griffeth et al., 1999; Mathieu & Zajac, 1990; Mowday et al., 1982), however these relationships have been neglected in the context of newcomer socialization.

Effective performance behavior is often narrowly operationalized as how effectively an individual performs the tasks described in his or her job description. However, from the organization's perspective, performance as an outcome of

socialization should include behaviors beyond one's ability to perform these tasks proficiently and as soon after entry as possible. It should also include tardiness, absenteeism, and ultimately turnover since these can all be costly to the organization.

Models of turnover neglect the interrelationships among turnover and other withdrawal behaviors including tardiness and absenteeism (Griffeth et al., 1999).

Behavioral withdraw could be considered a continuum ranging from mild (tardiness) to moderate (absenteeism) to extreme (turnover) withdrawal behavior (Griffeth et al., 2000). The relationship between performance and turnover is complex and inconsistent, however it is most commonly found to be negative. Performance, tardiness, absenteeism, and turnover have two things in common: they are all types of behavioral adjustment or withdrawal and they are all directly related to the organization's bottom line, suggesting that they might be represented by a common underlying second-order factor.

Although the four performance variables may be theoretically related since they are variations of adjustment or withdrawal behavior and they are all directly related to the organization's bottom line, it is possible that they may not fit together well as one factor for a number of reasons. In addition, it is unclear if the measures are reflective (where the construct causes the measures; the measures reflect the construct) or formative (where the measures cause the construct; the measures form the construct; see Edwards & Bagozzi, 2000). A withdrawal performance factor would suggest the measures are reflective, whereas a bottom line performance factor would suggest the measures are formative. There may be different types of relationships between performance and turnover rather than a single form of a relationship (Allen & Griffeth, 1999). In addition, rather than engaging in all withdrawal behaviors, individuals may engage in a single type

of behavior. For example, when satisfaction and commitment are low, an individual may withdraw via turnover or via other forms of withdrawal behavior depending on his or her level of involvement (Griffeth et al., 1999). Finally, these behaviors may actually be unavoidable and unwelcomed by the individual rather than behavioral manifestation of withdrawal (e.g., quitting a job because a spouse needs to relocate, being absent to take care of a child due to an unexpected school closing, or being tardy due to an accident or heavy traffic). Since performance, tardiness, absenteeism, and turnover might not reflect a single second-order construct, each of them will remain separate first-order constructs.

Hypothesis 11: Affective reactions, as defined by a higher-order construct, will positively influence performance behavior such that more positive affect will result in higher job performance and lower tardiness, absenteeism and turnover.

### CHAPTER 3

#### **METHOD**

## **Participants**

Participants were 255 newly hired part-time employees at an international transportation corporation. The participants' primary job duties were unloading packages from a truck, sorting packages, and/or reloading packages onto another truck. Employees were recruited from 2 different distribution centers. The procedures and performance behaviors at the two centers were similar and they were located within the same metropolitan area, so differences between the locations were not expected. A list was obtained that included 564 employees hired during the 16 weeks before data collection. From this list, 255 employees participated in the study, however this should not be considered a response rate, per se, since not everyone on the list could be contacted (some were terminated, on vacation, on leave, worked a-typical shifts, etc.).

A sequential design was used which utilized multiple cohorts (determined based on tenure, or hire date) measured at two time periods. Tenure at time 1 ranged from 1 day to 16 weeks of employment with average tenure = 7.1 weeks. Demographic information related to individual participants was not available.

### **Procedure**

The hypothesized cyclical recursive relationships required a longitudinal data collection procedure. Participants completed 2 surveys. Survey 2 was completed 5 weeks after Survey 1. Survey 1 (shown in Appendix A) assessed individual differences,

information seeking, cognition, and affect (specific variables are detailed below). Survey 2 (shown in Appendix B) assessed information seeking, cognition, affect, and performance behaviors. Of the 255 participants who completed Survey 1, 207 completed Survey 2. Individual differences were measured only at time 1 (T1) since they are assumed to be stable constructs. Performance (shown in Appendix C) was measured only at time 2 (T2) for pragmatic reasons (it was simply too early to assess performance at T1 for newly hired employees with only a few weeks of tenure) and methodological reasons (performance did not serve as an antecedent, but only as an outcome, making it unnecessary to measure it at T1). For participants with less than 2 weeks of tenure at T1 (N = 37), information seeking behavior was not assessed on Survey 1. Participants completed orientation their first week on the job, hence employees with less than 2 weeks tenure were either in the first few days of orientation or their first few days on the job. Assessing information seeking at this time would not be representative of typical newcomer information seeking.

#### Measures

Due to pragmatic reasons and stipulations by the employing organization, each of the variables had to be assessed as briefly as possible. Hence, many of the measures are shortened versions of the original scales. Survey 1 items are shown in Appendix A and survey 2 items are shown in Appendix B. Composite means, standard deviations, and coefficient alphas are shown in Table 1. Correlations among first-order factors are shown in the phi matrix in Appendix D (see pp. 150-164).

Antecedent individual differences. All individual difference variables were assessed using a 7-point agreement likert scale (1 = strongly disagree, 7 = strongly

agree). Extraversion was assessed using 4 items from the Big-Five Factor Markers (International Personality Item Pool, 2001; reported coefficient alphas for the full measure were .87 and .91 for a 10-item and 20-item measure, respectively). Internal propensity, internal ability, and external propensity were assessed using 9 items (3 items for each construct) from the scale developed by Herold et al. (1996; reported coefficient alphas for the full measures were .70, .81, and .83 for internal propensity, internal ability, and external propensity, respectively). Performance and learning goal orientation were assessed using 7 items (4 performance goal orientation items and 3 learning goal orientation items) from the scale developed by Button et al., (1996; reported coefficient alphas for the full measures ranged from .68-.81 and from .79-.85 for performance goal orientation and learning goal orientation, respectively).

Information seeking frequency. A 30-item scale was developed to measure information seeking content domains and the strategies used for seeking information. The items were measured on a 7-point frequency scale ranging from *never* (1) to *a few times a day* (7). The items were designed to assess the frequency with which participants use strategies to obtain information in the content domains of interest. Each of the 6 content domains (i.e., role information, technical information, performance feedback, group norms, social feedback, and organizational goals, norms, and values) were measured with 5 items (direct inquiry, reflective appraisal, comparative appraisal, trial and error, and consulting written documents). This scaling method created a quasi multitrait-multimethod (MTMM) matrix where each item reflects both a content factor and a strategy factor (see Figure 2a).

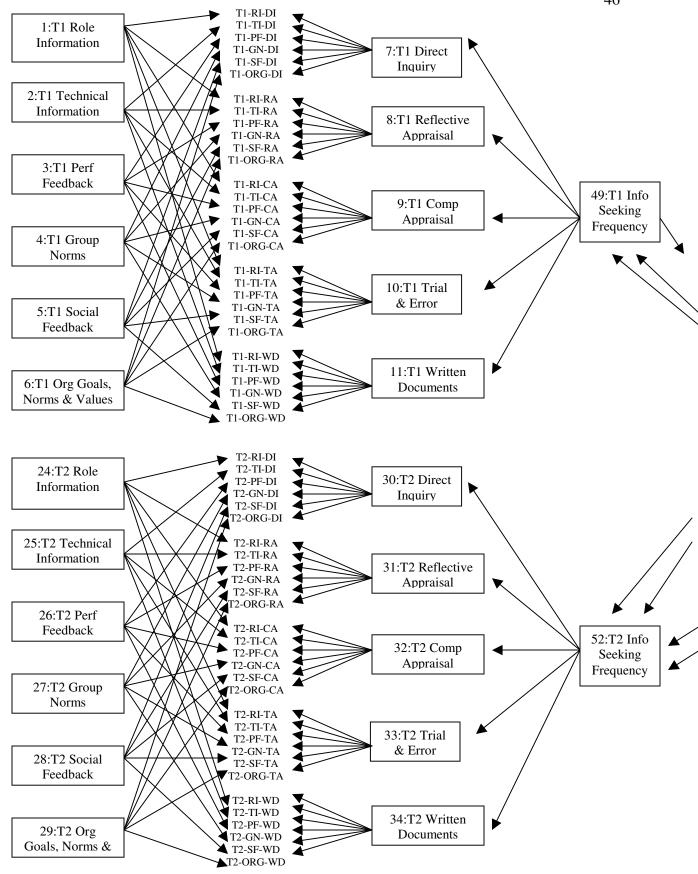


Figure 2a. Hypothesized model; quasi-MTMM information seeking.

The six items (one for each content domain) assessing each strategy were treated as manifest indicators of a latent strategy construct; hence there was a latent construct for each of the 5 strategies (see Figure 2a). Similarly, the five items (one for each strategy) assessing each content domain were treated as manifest indicators of a latent content domain construct; hence there was a latent construct for each of the 6 content domains (see Figure 2a). In addition to the content and strategy factors, the 5 latent strategy factors were used as first-order factor indicators for a second-order overall information seeking frequency factor (see Figures 2a and 2b).

Role cognition. All role cognition constructs were assessed using a 7 point agreement likert scale (1 = strongly disagree, 7 = strongly agree). Perceived group acceptance was assessed with 3 items from previous research (Bauer & Green, 1998; Morrison, 1993b; Wanberg & Kammeyer-Mueller, 2000). Self-efficacy was assessed using 4 items from the measure developed by Jones (1986; reported coefficient alpha for the full measure was .71). Role conflict and ambiguity were assessed with 7 items (4 role conflict items and 3 role ambiguity items) adapted from the measure developed by Rizzo et al. (1970; reported coefficient alphas for the full measures were .82 for role conflict and ranged from .78-.81 for role ambiguity). Items for each variable were treated as manifest indicators of first-order latent factors. In addition, the first-order factors were treated as indicators for a second-order role cognition factor (see Figure 2c).

Affective reactions. All affective reaction constructs were assessed using a 7 point agreement likert scale ( $1 = strongly\ disagree$ ,  $7 = strongly\ agree$ ) except for stress which used a 5 point frequency scale (1 = never,  $5 = very\ often$ ). Organizational commitment was assessed with 3 items from the Organizational Commitment

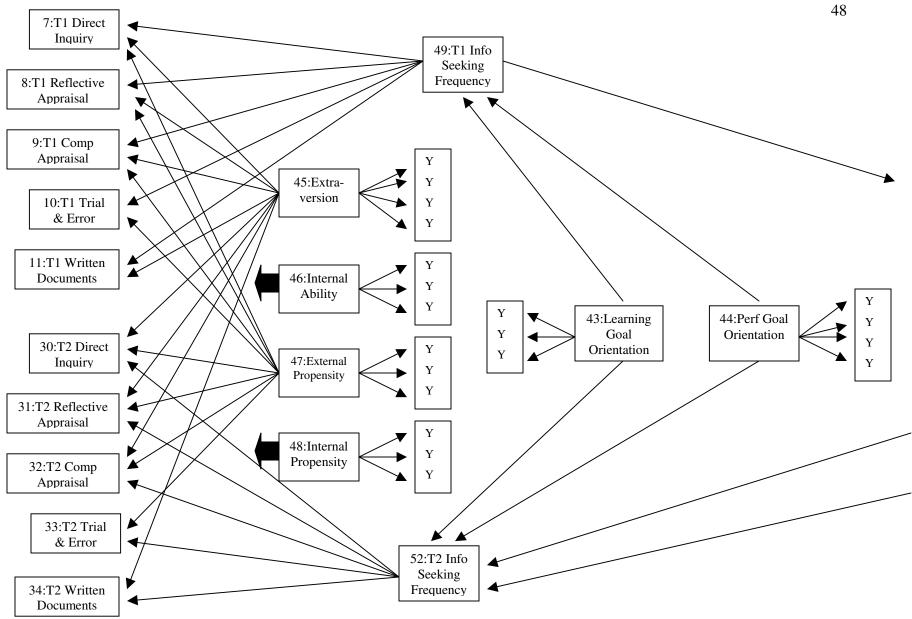


Figure 2b. Hypothesized model; personality and information seeking.

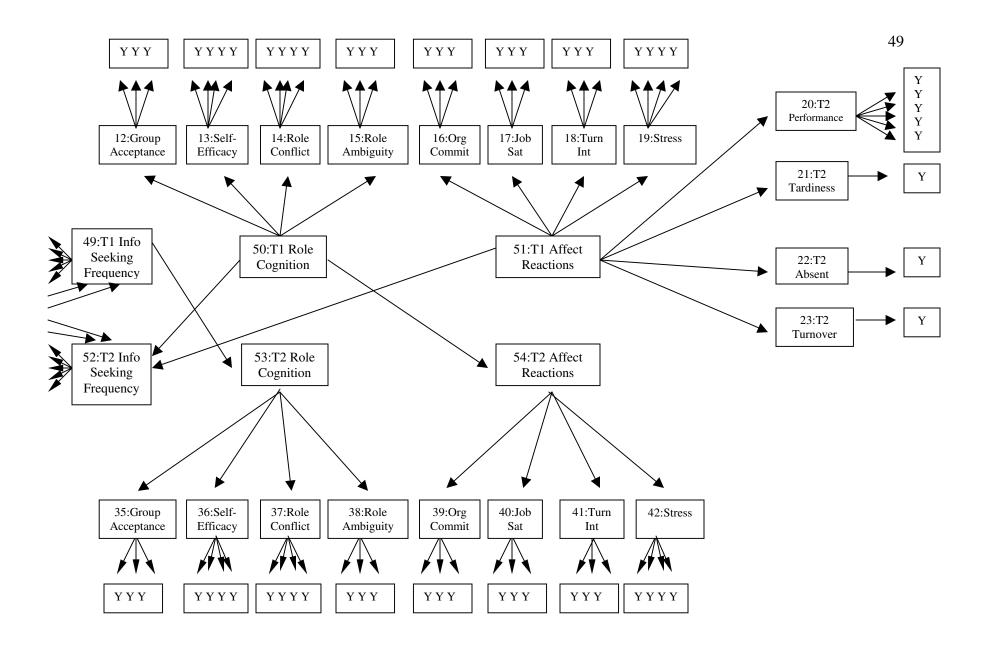


Figure 2c. Hypothesized model; information seeking, role cognition, affective reactions, and performance behaviors.

Questionnaire (OCQ; Porter, Steers, Mowday, & Boulian, 1974; reported coefficient alpha for the full measure was .82). Job satisfaction was assessed with 3 items from previous research (Saks & Ashforth, 1996; Lance, 1991). Stress was measured using 4 items from the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983; reported coefficient alphas for the full measure ranged from .84-.86). Turnover intentions were assessed using 3 items from previous research (Colarelli, 1984; Jones, 1986). Items for each variable were treated as manifest indicators of first-order latent factors. In addition, the first-order factors were treated as indicators for a second-order affective reaction factor (see Figure 2c).

Performance behavior. Unlike the previous measures, performance behavior was not assessed using self-report. Supervisors rated newcomer performance using a 5 item measure (see Appendix C). The performance measure was designed to assess key aspects of employee performance and was developed based on feedback from subject matter experts (i.e., a training manager, training supervisor, part-time line supervisor, and full-time line supervisor). Lateness, absenteeism, and turnover were assessed objectively by obtaining existing company records from the supervisor and/or the human resources department. Items for each variable were treated as manifest indicators of first-order latent factors (see Figure 2c).

## Analysis Procedures

Hypotheses 1-3 assessed the relationships between content domains and the frequency with which strategies were used for seeking information in these domains. These hypotheses were tested at both T1 and T2 using 1-way analysis of variance

(ANOVA). The remaining hypotheses were tested using structural equation modeling. Analyses were conducted using LISREL 8.50 (Jöreskog & Sörbom, 2001).

*Measurement equivalence*. The hypothesized model contained several variables measured both at T1 and T2. An important prerequisite to assessing relationships among the same variables measured at two or more points in time (as well as relationships among the same variables measured in two of more groups for the purpose of cross-group comparisons) is the verification of the assumption of measurement equivalence (Vandenberg & Lance, 2000). Specifically, as outlined by Vandenberg and Lance (2000), it is important to test seven assumptions (following the seven steps shown below) related to measurement equivalence/invariance. Establishing equivalence in all seven steps is critical in research investigating change in variables or factors across time (e.g., latent growth modeling) and for cross-group comparisons (e.g., demonstrating crosscultural equivalence in the measurement of individualism/collectivism before assessing cross-cultural mean differences). This study measures identical variables across time, however it does not assess change in a variable across time. Hence, in this study, establishing equivalence at the measurement level via the first three steps is critical, and these steps are discussed in more detail.

1. Configural invariance: This tests the null hypothesis that the pattern of fixed and free factor loadings is the same across time. A nonsignificant chi-square statistic and acceptable goodness-of-fit indices indicate that the null hypothesis cannot be rejected. Rejecting the null hypothesis would indicate that the same items are measuring different constructs across time; proceeding to the following steps would be meaningless; interpreting hypothesized relationships among these inequivalent

constructs across time would also be meaningless. Support for the null hypothesis provides preliminary evidence that the constructs have the same meaning, or factor structure, across time; proceeding to step 2 provides stronger support for an equivalent factor structure across time.

- 2. Metric invariance: This tests the null hypothesis that factor loadings at T1 are equal to the respective factor loadings at T2 by constraining the loadings to be equal. A nonsignificant difference chi-square (comparing successive nested models) provides evidence supporting equivalence at this, and subsequent steps; i.e., a non-significant difference chi-square comparing the models specified in step 1 and 2 would support metric invariance. Metric invariance provides stronger support for the equivalence of the factor structure across time.
- 3. Scalar invariance: This tests the null hypothesis that an item's intercept of the regression on the latent variable at T1 is equal to the respective intercept at T2 by constraining the intercepts to be equal. Scalar invariance was not tested in this study since item intercepts were not included (i.e., all item intercepts were equal to zero, hence invariant) in the model.
- 4. Full uniqueness invariance: This tests the null hypothesis that the unique variance of an item at T1 is equal to the respective item unique variance at T2 by constraining unique variances to be equal.
- 5. Factor variance invariance: This tests the null hypothesis that factor variances at T1 are equal to the respective factor variances at T2 by constraining factor variances to be equal.

- 6. Factor covariance invariance: This tests the null hypothesis that factor covariances at T1 are equal to the respective factor covariances at T2 by constraining factor variances to be equal.
- 7. Factor mean invariance: This tests the null hypothesis that factor means at T1 are equal to the respective factor means at T2 by constraining the factor means to be equal.

All of the above assumptions, or steps, can be tested simultaneously in a single omnibus test of the equality of the covariance matrices across time. A nonsignificant chi-square statistic and acceptable goodness-of-fit indices indicate that the null hypothesis of equal covariances across time cannot be rejected, establishing measurement equivalence. In contrast, evidence supporting the rejection of the null hypothesis suggests that the assumption of measurement equivalence has been violated. An omnibus test that does not support the assumption of measurement equivalence does not indicate the cause or source of inequivalence; proceeding through the above seven steps will identify the source of inequivalence.

Quasi-MTMM convergent and discriminant validity. Convergent and discriminant validity of the quasi-MTMM information seeking factor structure also had to be established before proceeding to the analysis of the proposed model. Following the procedures described by Widaman (1985, 1992), convergent and discriminant validity were assessed by comparing the fit of nested models using difference chi-square tests. Evidence of convergent validity for the strategy factors was assessed through comparing a model containing 6 content factors and 0 strategy factors to a model containing 6 content factors and 5 strategy factors. Evidence of discriminant validity for the strategy factors was assessed by comparing a model with 6 content factors and 1 strategy factor to

a model containing 6 content factors and 5 strategy factors. Evidence of convergent validity for the content factors was assessed through a comparison of a model containing 5 strategy factors and 0 content factors to a model containing 5 strategy factors and 6 content factors. Evidence of discriminant validity for the content factors was assessed by comparing a model with 5 strategy factors and 1 content factor to a model containing 5 strategy factors and 6 content factors.

A priori model. Several criteria had to be met to establish support for the proposed model. As already discussed, it was necessary to demonstrate measurement equivalence as well as convergent and discriminant validity of the information seeking measure. Support for the hypothesized measurement model (the measurement model specifies the relationships between observed variables and latent factors) also had to be demonstrated via significant (i.e., parameter estimates having a t-value greater than 1.64 for directional hypotheses with statistical significance at p < .05) a priori first-order factor loadings (i.e., lambdas linking first-order latent factors and manifest items) and significant a priori second-order factor loadings (i.e., betas linking second-order latent factors and first-order latent factors). Support for the hypothesized structural model (the structural model specifies the relationships among latent exogenous factors, among latent endogenous factors, and among latent exogenous and endogenous factors) had to be demonstrated via significant a priori beta coefficients representing the hypothesized theoretical relationships.

Hypotheses 4-6 assess the relationship between antecedent variables and information seeking frequency. All relationships were tested with information seeking at both T1 and T2. The paths shown in Figure 2b from the individual difference

antecedents to the information seeking strategies and overall information seeking frequency depict the relationships of hypotheses 4-6. Specifically, the paths shown in Figure 2b from extraversion to direct inquiry (BE 7,45 and BE 30,45), reflective appraisal (BE 8,45 and BE 31,45), comparative appraisal (BE 9,45 and BE 32,45), and written documents (BE 11,45 and BE 34,45) reflect hypothesis 4. The paths (large single arrows are shown in Figure 2b for internal ability and internal propensity for simplicity; internal ability, external propensity, and internal ability are hypothesized to have effects on the same information seeking strategy factors [i.e., direct inquiry, reflective appraisal, comparative appraisal, and trial and error]) leading from internal propensity to direct inquiry (BE 7,48 and BE 30,48), reflective appraisal (BE 8,48 and BE 31,48), comparative appraisal (BE 9,48 and BE 32,48), and trial and error (BE 10,48 and BE 33,48) and from internal ability to direct inquiry (BE 7,46 and BE 30,46), reflective appraisal (BE 8,46 and BE 31,46), comparative appraisal (BE 9,46 and BE 32,46), and trial and error (BE 10,46 and BE 33,46) reflect hypothesis 5a. The paths from external propensity to direct inquiry (BE 7,47 and BE 30,47), reflective appraisal (BE 8,47 and BE 31,47), comparative appraisal (BE 9,47 and BE 32,47), and trial and error (BE 10,47 and BE 33,47) reflect hypothesis 5b. The paths from performance goal orientation to total information seeking frequency (BE 49,44 and BE 52,44) and from learning goal orientation to total information seeking frequency (BE 49,43 and BE 52,43) reflect hypotheses 6a and 6b respectively.

Hypotheses 7-11 assess cyclical recursive relationships among cognition, affect, and behavior. Figure 2c depicts the hypothesized relationships among first-order and second-order factors. The path from T1 information seeking to T2 role cognition (BE

53,49) represents hypothesis 7. The path from T1 role cognition to T2 information seeking (BE 52,50) represents hypothesis 8. The path from T1 role cognition to T2 affective reactions (BE 54,50) represents hypothesis 9. The path from T1 affective reactions to T2 information seeking (BE 52,51) represents hypothesis 10. The paths from T1 affective reactions to performance (BE 20,51), tardiness (BE 21,51), absenteeism (BE 22,51), and turnover (BE 23,51) represent hypothesis 11.

Finally, support for overall model fit must be demonstrated via a nonsignificant chi-square and adequate goodness-of-fit indices. The chi-square statistic is an index of the extent to which a theoretical population covariance matrix corresponds to the observed sample covariance matrix (Marsh, Balla, & McDonald, 1988). Chi-square is a badness-of-fit measure where a small non-significant chi-square indicates good fit and a large significant chi-square indicates poor fit (Jöreskog, 1993). Chi-square is sensitive to small differences between the observed and reproduced covariance matrices and is influenced by sample size, therefore goodness-of-fit indices should be used in combination with the chi-square (Hu & Bentler, 1998).

Four goodness-of-fit indices were used in this study to assess overall model fit:

Tucker-Lewis index (TLI; a.k.a. non-normed fit index [NNFI]), root mean square error of approximation (RMSEA), standardized root mean square residual (SRMR), and the comparative fit index (CFI). The TLI was chosen because (a) it is relatively independent of sample size (Hu & Bentler, 1998; Marsh et al., 1988), (b) it is sensitive to model misspecification, especially with complex models, and (c) it is insensitive to variations in distributions (Hu & Bentler, 1998). RMSEA and CFI were chosen because they are sensitive to model misspecification, especially with complex models, and are relatively

insensitive to sample size and distribution (Hu & Bentler, 1998). SRMR was chosen because it is sensitive to model misspecification, especially with simple models, and is relatively insensitive to sample size and distribution (Hu & Bentler, 1998). The following cutoffs are recommended as criteria indicative of good model fit:  $TLI \ge .95$ ,  $RMSEA \le .06$ ,  $CFI \ge .95$ , and  $SRMSR \le .08$  (Hu & Bentler, 1998).

### Results

Hypotheses 1-3 were assessed at both T1 and T2 using 1-way ANOVA. Cell means, standard deviations, and significant differences from the hypothesized highest cell means are shown in Table 2. Hypothesis 1 stated that participants would seek role information, group norms, and organizational goals, norms, and values most often through comparative appraisal. Contrary to hypothesis 1, comparative appraisal was not the most frequently used information seeking strategy for any of the content domains. Overall, hypothesis 1 received weak support.

Reflective appraisal, rather than comparative appraisal, was the most frequently used strategy for role information at T1 and T2. Comparative appraisal was used significantly more than written documents (T1 F = 26.52, df = 211, p < .001; T2 F = 25.21, df = 201, p < .001), providing partial support for hypothesis 1, however it was used significantly less than reflective appraisal (T1 F = 11.96, df = 211, p < .01; T2 F = 6.37, df = 201, p < .05).

Reflective appraisal, rather than comparative appraisal, was the most frequently used strategy for group norms at both T1 and T2. Comparative appraisal was used significantly more than trial and error (T1 F = 10.77, df = 209, p < .01; T2 F = 5.17, df = 198, p < .05) and written documents (T1 F = 30.98, df = 209, p < .001; T2 F = 12.62, df = 10.62, df = 1

Table 2

Hypotheses 1-3: Differences in Information Seeking Strategies by Content Domains (at T1 and T2)

	Information Seeking Strategies								
Content domain	Direct inquiry	Reflective appraisal	Comparative appraisal	Trial & error	Written documents				
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)				
Role info T1	3.67 (1.95)	$4.08(2.11)^{c}$	3.57 (2.18) <sup>a</sup>	3.57 (2.03)	2.78 (1.93) <sup>b</sup>				
Role info T2	3.36 (1.76)	3.76 (2.00) <sup>c</sup>	3.47 (2.06) <sup>a</sup>	3.21 (1.88)	$2.65(1.83)^{b}$				
Group norms T1	3.65 (2.08)	3.70 (2.08) <sup>c</sup>	3.47 (2.15) <sup>a</sup>	3.14 (1.97) <sup>b</sup>	2.77 (2.03) <sup>b</sup>				
Group norms T2	3.19 (1.89)	3.29 (2.01)	3.16 (2.02) <sup>a</sup>	2.90 (1.86) <sup>b</sup>	2.72 (1.97) <sup>b</sup>				
Org goals, norms & values T1	3.54 (1.90)	3.36 (1.94)	3.39 (2.02) <sup>a</sup>	2.90 (1.94) <sup>b</sup>	2.86 (2.06) <sup>b</sup>				
Org goals, norms & values T2	3.45 (1.99)	3.30 (2.05)	3.24 (2.00) <sup>a</sup>	2.67 (1.92) <sup>b</sup>	2.82 (1.89) <sup>b</sup>				
Performance feedback T1	3.51 (2.05)	3.62 (2.03) <sup>a</sup>	3.26 (2.10) <sup>b</sup>	3.01 (1.89) <sup>b</sup>	2.98 (2.08) <sup>b</sup>				
Performance feedback T2	3.25 (2.02) <sup>b</sup>	3.54 (2.08) <sup>a</sup>	3.22 (2.07) <sup>b</sup>	2.92 (1.99) <sup>b</sup>	2.71 (2.01) <sup>b</sup>				
Social feedback T1	2.71 (2.01) <sup>b</sup>	3.08 (2.11) <sup>a</sup>	2.97 (2.10)	2.66 (2.00) <sup>b</sup>	2.28 (1.82) <sup>b</sup>				
Social feedback T2	2.61 (1.97) <sup>b</sup>	3.06 (2.07) <sup>a</sup>	2.81 (2.01) <sup>b</sup>	2.59 (1.92) <sup>b</sup>	2.08 (1.77) <sup>b</sup>				
Technical info T1	3.91 (2.00) <sup>a</sup>	3.74 (2.02)	3.63 (2.10) <sup>b</sup>	3.53 (1.94) <sup>b</sup>	2.80 (1.88) <sup>b</sup>				
Technical info T2	3.46 (1.77) <sup>a</sup>	3.54 (1.96)	3.42 (1.97)	3.08 (1.83) <sup>b</sup>	2.64 (1.92) <sup>b</sup>				
Total T1 info seeking	3.54 (1.58)	3.66 (1.69)	3.41 (1.79)	3.19 (1.62)	2.74 (1.61)				
Total T2 info seeking	3.23 (1.44)	3.42 (1.62)	3.23 (1.61)	2.90 (1.49)	2.62 (1.55)				

*Note.* <sup>a</sup>Cell hypothesized to be significantly greater than others in row. <sup>b</sup>Significantly less than "a" as hypothesized (p < .05). <sup>c</sup>Significantly greater than "a" contrary to hypotheses (p < .05).

198, p < .001), providing partial support for hypothesis 1, however at T1, it was used significantly less than reflective appraisal (T1 F = 7.25, df = 209, p < .01).

Direct inquiry, rather than comparative appraisal, was the most frequently used strategy for organizational goals, norms, and values at T1 and T2. Comparative appraisal was used significantly more than trial and error (T1 F = 18.75, df = 205, p < .001; T2 F = 23.78, df = 200, p < .001) and written documents (T1 F = 12.51, df = 205, p < .001; T2 F = 7.87, df = 200, p < .01), providing partial support for hypothesis 1.

Hypothesis 2 stated that participants would seek performance feedback and social feedback most often through reflective appraisal. Hypothesis 2 received strong support at T1 and full support at T2. Reflective appraisal was the most frequently used strategy for performance feedback at both T1 and T2. Reflective appraisal was used more than direct inquiry (significant at T2 only; F = 6.01, df = 198, p < .05), comparative appraisal (T1 F = 14.21, df = 206, p < .001; T2 F = 9.95, df = 198, p < .01), trial and error (T1 F = 24.62, df = 206, p < .001; T2 F = 21.74, df = 198, p < .001) and written documents (T1 F = 17.81, df = 206, p < .001; T2 F = 32.06, df = 198, p < .001).

Reflective appraisal was the most frequently used strategy for social feedback at both T1 and T2. Reflective appraisal was used more than direct inquiry (T1 F = 11.38, df = 208, p < .001; T2 F = 18.45, df = 198, p < .001), comparative appraisal (significant at T2 only; F = 6.48, df = 198, p < .05), trial and error (T1 F = 18.05, df = 208, p < .001; T2 F = 14.86, df = 198, p < .001) and written documents (T1 F = 38.62, df = 208, p < .001; T2 F = 59.45, df = 198, p < .001).

Hypothesis 3 stated that participants would seek technical information most often through direct inquiry. Hypothesis 3 received strong support at T1 and moderate support

at T2. Direct inquiry was the most frequently used strategy at T1 and reflective appraisal was the most frequently used strategy at T2. Direct inquiry was used more than comparative appraisal (significant at T1 only; F = 6.61, df = 208, p < .05), trial and error (T1 F = 8.45, df = 208, p < .01; T2 F = 6.63, df = 202, p < .05) and written documents (T1 F = 62.40, df = 208, p < .001; T2 F = 34.79, df = 202, p < .001).

Although hypotheses 1-3 received varying levels of support, the relationships may be a result of overall information seeking strategy tendencies rather than a result of specific content domains. The differences (means and standard deviations are shown in Table 2) in overall information seeking (collapsed across all content domains) at T1 from most frequent to least frequent are as follows: reflective appraisal vs. direct inquiry F =3.85, df = 215, non-significant; direct inquiry vs. comparative appraisal F = 2.63, df = 2.63215, non-significant; comparative appraisal vs. trial and error F = 8.39, df = 215, p < .01; trial and error vs. written documents F = 19.03, df = 215, p < .001. The mean differences in overall information seeking at T2 from most frequent to least frequent are as follows: reflective appraisal vs. comparative appraisal F = 9.15, df = 203, p < .01; comparative appraisal vs. direct inquiry F = 0.01, df = 203, non-significant; direct inquiry vs. trial and error F = 10.74, df = 203, p < .01; trial and error vs. written documents F = 7.41, df =203, p < .01. This may indicate that, regardless of the content domain, there is an overall tendency to use the reflective appraisal strategy most frequently followed by the similar use of direct inquiry and comparative appraisal (essentially tied for second and third most frequent). Trial and error was used fourth most frequently and written documents was used least frequently. An exception to the above tendencies is the reliance on the direct

inquiry strategy (used most frequently at T1 and T2) for the organizational goals, norms and values content domain.

Preliminary Structural Equation Modeling Analyses

The remaining hypotheses were tested using structural equation modeling and the variance/covariance matrix. 255 participants competed survey 1 (T1), however, complete data (at both T1 and T2) were available from 170 participants due to methodological reasons (as stated earlier, some participants [N = 37] did not complete the information seeking measure at T1), attrition (N = 48), and sporadic missing data. The pairwise deletion method was chosen because the listwise deletion method would have greatly reduced the sample size. LISREL does not allow for the flexibility of specifying different sample sizes for different covariances/correlations. The variance/covariance matrix used in subsequent analyses was obtained by inputting raw data into PRELIS using pairwise deletion (appropriately assigning a value for missing data at the raw data level; i.e., assigning the arbitrary value of -999999 to represent missing data) and exporting and saving this item-level variance/covariance matrix. The item-level variance/covariance matrix was then used as the input data matrix in LISREL with the sample size (i.e., number of observations [NO]) set at 255. Setting NO=255 may have resulted in an over-inflated chi-square in all subsequent analyses since there is a parallel relationship between sample size and the chi square value, however this more stringent option was chosen over the less stringent option of arbitrarily setting NO to a lower value.

The assumptions regarding measurement equivalence were validated before testing theoretical hypotheses. Measurement equivalence was assessed separately for 3

groups of variables: information seeking, role cognition, and affective reactions. Results from the omnibus tests of the equality of the covariance matrices across time are shown in Table 3. In all three models (i.e., information seeking, role cognition, and affective reactions) the Chi-square was significant and NNFI was slightly below recommended guidelines, however RMSEA, CFI, and SRMR were all indicative of good model fit. Hence, measurement equivalence was supported, indicating that measurement properties were equivalent across time and that it was not necessary to proceed through the seven diagnostic steps described above.

Convergent and discriminant validity of the quasi-MTMM information seeking factor structure were also assessed before proceeding to test the theoretical model. Results are shown in Table 4. Results supported information seeking strategy discriminant validity (comparing the 6 content-5 strategy model to the 6 content-1 strategy model, the difference chi-square was significant at T1 and T2) and convergent validity (comparing the 6 content-5 strategy model to the 6 content-0 strategy model, the difference chi-square was significant at T1 and T2). Results also supported information seeking content domain discriminant validity (comparing the 6 content-5 strategy model to the 1 content-5 strategy model, the difference chi-square was significant at T1 and T2) and convergent validity (comparing the 6 content-5 strategy model to the 0 content-5 strategy model, the difference chi-square was significant at T1 and T2). Goodness-of-fit indices also supported convergent and discriminant validity. Outside of one exception, goodness-of-fit indices showed that the 6 content-5 strategy model was the best fitting model (the exception is the SRMR index at T1, showing that the 6 content-5 strategy model is the worst fit).

Table 3

Fit Indices for Omnibus Tests of the Equality of the Covariance Matrices

Variable clusters	Chi- square	df	RMSEA	NNFI	CFI	SRMR
Information seeking	1177.74*	496	0.06	0.85	0.96	0.06
Role cognition	250.68*	119	0.06	0.90	0.97	0.06
Affective reactions	186.97*	104	0.05	0.94	0.98	0.05

*Note.* RMSEA = root mean square error of approximation; NNFI = non-normed fit index; CFI = comparative fit index; SRMR = standardized root mean square residual. \*p < .01

Table 4

Convergent and Discriminant Validity of Quasi-MTMM Information Seeking Factor

Structure

T1 Models	Chi- square	df	RMSEA	NNFI	CFI	SRMR
<ul><li>6 Content,</li><li>5 Strategy</li></ul>	1050.49*	350	0.087	0.88	0.91	0.094
6 Content, 1 Strategy	1708.77*	360	0.13	0.78	0.82	0.054
6 Content, 0 Strategy	2404.14*	390	0.17	0.70	0.73	0.082
1 Content, 5 Strategy	1783.26*	365	0.13	0.77	0.81	0.052
<ul><li>0 Content,</li><li>5 Strategy</li></ul>	2599.91*	395	0.18	0.67	0.70	0.079
T2 Models	Chi- square	df	RMSEA	NNFI	CFI	SRMR
<ul><li>6 Content,</li><li>5 Strategy</li></ul>	872.35*	350	0.071	0.90	0.92	0.050
6 Content, 1 Strategy	1803.20*	360	0.14	0.74	0.78	0.062
6 Content, 0 Strategy	2531.96*	390	0.17	0.64	0.68	0.099
1 Content, 5 Strategy	2186.96*	365	0.15	0.68	0.73	0.068
<ul><li>0 Content,</li><li>5 Strategy</li></ul>	2796.69*	395	0.17	0.60	0.64	0.085

*Note.* RMSEA = root mean square error of approximation; NNFI = non-normed fit

index; CFI = comparative fit index; SRMR = standardized root mean square residual.

<sup>\*</sup> p < .01

Table 4 (continued)

Convergent and Discriminant Validity of Quasi-MTMM Information Seeking Factor

Structure

T1 Model Comparisons	Chi-square change	df change	
6 content, 5 strategy vs. 6 content, 1 strategy	658.28*	10	
<ul><li>6 content, 5strategy vs.</li><li>6 content, 0 strategy</li></ul>	1353.65*	40	
6 content, 5 strategy vs. 1 content, 5 strategy	732.77*	15	
6 content, 5 strategy vs. 0 content, 5 strategy	1549.42*	45	

T2 Model Comparisons	Chi-square change	df change	
6 content, 5 strategy vs. 6 content, 1 strategy	930.85*	10	
6 content, 5strategy vs. 6 content, 0 strategy	1659.61*	40	
6 content, 5 strategy vs. 1 content, 5 strategy	1314.61*	15	
6 content, 5 strategy vs. 0 content, 5 strategy	1924.34*	45	

<sup>\*</sup> *p* < .01

Although the 6 content-5 strategy model did not meet goodness-of-fit criteria (with the exception of the acceptable SRMR at T2), it did, in most cases (exceptions are RMSEA and NNFI at T1) meet earlier established or recommended criteria (i.e., RMSEA < .08, NNFI > .90, CFI > .90, and SRMR < .10) which have more recently been recommended as lower bound criteria of fit that *might* not be unreasonable (Vandenberg & Lance, 2000). In addition, although there might be other better fitting models, given the taxonomy of theoretically plausible models defined here, the 6 content-5 strategy model was the best fitting model as shown above (cf. Lance, Teachout, & Donnelly, 1992). Finally, this study's full measurement model (i.e., the model containing all items and factors included in the study) did have an acceptable fit, as discussed below. Hence, the 6 content-5 strategy quasi-MTMM measurement technique used in this study was deemed acceptable with evidence supporting overall model fit and discriminant and convergent validity.

### Theoretical Model

The entire hypothesized theoretical model shown in Figures 2a, 2b, and 2c was analyzed simultaneously using the item-level variance/covariance matrix. The solution would not converge and the following warning was received: "Serious problems were encountered during minimization. Unable to continue iterations. Check your model and data". Even though the model was correctly specified, the analysis could not be completed.

It is unlikely that the lack of convergence with the a priori model was due to the number of participants, the ratio of participants to the number of items, or low power.

MacCallum and colleagues (MacCallum, Widaman, Preacher, & Hong, 2001;

MacCallum, Widaman, Zhang & Hong, 1999) discuss the issue of sample size in the context of factor analysis, which is a special case of structural equation modeling. They showed that previous recommendations of a minimum N or minimum N:p ratio (i.e., a minimum sample size or a minimum sample size:number of manifest indicators ratio) are based on the misconception that "the minimum level of N (or the minimum N:p ratio) to achieve adequate stability and recovery of population factors is invariant across studies" (MacCallum et al., 1999, p. 86). They demonstrated that the factors present in the population are best recovered in a sample when the factors are strongly determined (i.e., a high p:r ratio where p = the number of manifest variables and r = the number of latent factors), when communalities were moderate to high, and sample sizes were large. The most important determinant appears to be communalities; when communalities are high, sample size and overdetermination have little impact on model fit or parameter estimation. Unless both the communalities are low and there are only a few indicators for each factor, a minimum sample size of 100-200 is usually adequate.

It is unclear how these findings transfer to the more general case of structural equation modeling, however MacCallum and Austin (2000) expect them to be similar. Extending the findings of MacCallum and colleagues (MacCallum et al., 2001; MacCallum et al., 1999) to this study, with a *p:r* ratio of 2.9 (i.e., 142 manifest variables:48 latent variables; there were 3-5 manifest indicators per latent factor<sup>2</sup>) and moderate to high communalities (although factor loadings were not available for the a priori model, the models discussed subsequently have moderate to high communalities), a sample size of 255 would have been adequate.

MacCallum and colleagues (MacCallum, Browne, & Sugawara, 1996;

MacCallum & Hong, 1997) also show that power analyses can be conducted in structural equation modeling, however this requires non-traditional tests of fit. Rather than relying on the commonly used chi-square and goodness-of-fit indices to describe fit, MacCallum et al. (1996) propose an inferential approach to hypothesis testing that tests the hypothesized difference between the fit of any meaningful null and alternative models. Even though the issue of power would be moot in this study since this hypothesis testing procedure was not used, this technique will be described to demonstrate that the sample size used in this study was not inadequate.

Testing this type of inferential hypothesis requires constructing confidence intervals around a fit index that has known distributional properties (i.e., RMSEA). Given the hypothesized RMSEA values for the null and alternative models and a given alpha level, power depends only on df (which is based on the number of manifest variables and latent factors, i.e., the number of variances and covariances) and N. Power is positively influenced by N and df because they are both inversely related to the width of the confidence intervals. Additionally, N and df are independent of one another; therefore, one can compensate for the other and it is not necessary to have a large sample size to reach a desired power. Given the extremely large degrees of freedom in the a priori model tested in this study (df = 9495), the confidence intervals are essentially 0.0, power is essentially 1.0, and the minimum sample size required to reach this level of power would be less than N = 20. Therefore, neither sample size nor power were a factor in the non-convergence of the a priori model.

A simpler model was sought because it was believed that the complexity of this model (with 658 estimated parameters and 9495 degrees of freedom) was preventing the solution from converging. Hence, an alternative two-step analysis procedure was followed. The first step in the alternative two-step analysis procedure was assessing the fit of the first-order measurement model using the item-level variance/covariance matrix (see Appendix D for model syntax and output). In this model, all item residual variances were estimated with the exception of tardiness, absenteeism, and turnover, which were assumed to be measured without error and, therefore, fixed to 1.0. Item residual covariances among like items measured across time were also estimated. All first-order factors were treated as exogenous factors, therefore factor variances were fixed to 1.0. Covariances among information seeking content and strategy factors measured at the same time period were fixed to zero; all other first-order factor covariances were estimated.

The total sample size (N = 255) was less than the number of parameters being estimated, which may have resulted in unreliable parameter estimates. In addition, the ridge option<sup>3</sup> was used (adding a ridge constant = 0.10) because the variance/covariance matrix was not positive definite (A ridge constant of 0.10 was added in all subsequent analyses as well.). All factor loadings were significant (having t-values greater than 1.64) and in the correctly specified direction. Fit indices also indicated a good model fit (chisquare = 9233.62, df = 8687; RMSEA = 0.0; NNFI = 0.97; CFI = 0.97; SRMR = 0.052). The phi matrix (i.e., the matrix containing correlations among all first-order factors) was exported, saved, and used as the input data matrix for subsequent analyses.

Step 2 of the alternative analysis procedure assessed the second-order measurement model and theoretical structural model using the correlation matrix exported from the first-order measurement model. The 12 information seeking content factors (6 factors from T1 and 6 factors from T2) were not included since they were not hypothesized to have causal relationships with any other factors. Each first-order factor was treated as being perfectly measured (without error) by a single item, therefore factor loadings were fixed to 1.0 and residual variances were fixed to zero. Correlations between like factors across time and correlations among exogenous factors were estimated; the remaining factor inter-correlations were fixed to zero. Exogenous factor variances were fixed to 1.0 and endogenous factor variances were estimated. Even so, the solution would not converge.

Since the step 2 model would not converge, it was further broken down into a more parsimonious second-order measurement model. Testing the structural model is futile if the measurement model is a poor fit (Jöreskog, 1993), therefore the fit of the second-order measurement model was tested in an attempt to assure first-order factors were appropriately loading on second-order factors. In this model, first-order personality factors, second-order factors, and first-order performance factors were treated as exogenous factors. First-order factors serving as indicators for second-order factors were the only endogenous factors. Goodness-of-fit indices were mixed (chi-square = 1552.16, df = 481, RMSEA = 0.074, NNFI = 0.70, CFI = 0.77, SRMR = 0.069). All second-order factor loadings (shown in Table 5) were significant (having t-values greater than 1.64) and in the correctly specified direction, however the loadings for role conflict were weak (T1 completely standardized estimate = -0.11, standard error = .06, t-value = -1.81; T2

Table 5

Factor Loadings of the Second-Order Measurement Model

	With role conflict			Without role conflict	
Parameter	Estimate (standard error)	t-value	Parameter	Estimate (standard error)	t-value
BE 7,49	.78 (.06)	14.61	BE 7,49	.78 (.06)	14.62
BE 8,49	.89 (.05)	17.76	BE 8,49	.89 (.05)	17.76
BE 9,49	.88 (.05)	17.42	BE 9,49	.88 (.05)	17.43
BE 10,49	.74 (.05)	14.21	BE 10,49	.74 (.05)	14.21
BE 11,49	.57 (.06)	9.89	BE 11,49	.57 (.06)	9.88
BE 12,50	.48 (.06)	7.74	BE 12,50	.49 (.07)	7.80
BE 13,50	.55 (.07)	8.57	BE 13,50	.57 (.07)	8.82
BE 14,50	11 (.06)	-1.81	N/A	N/A	N/A
BE 15,50	.50 (.06)	8.27	BE 15,50	.50 (.06)	8.25
BE 16,51	.79 (.06)	14.56	BE 16,51	.79 (.06)	14.55
BE 17,51	.83 (.06)	15.27	BE 17,51	.83 (.06)	15.28
BE 18,51	74 (.06)	-13.12	BE 18,51	74 (.06)	-13.13
BE 19,51	50 (.06)	-8.19	BE 19,51	50 (.06)	-8.15
BE 30,52	.69 (.06)	11.80	BE 30,52	.68 (.06)	11.78
BE 31,52	.83 (.06)	15.44	BE 31,52	.83 (.06)	15.43
BE 32,52	.73 (.06)	12.95	BE 32,52	.74 (.06)	13.03
BE 33,52	.40 (.06)	6.75	BE 33,52	.40 (.06)	6.74
BE 34,52	.49 (.06)	7.96	BE 34,52	.48 (.06)	7.93
BE 35,53	.64 (.06)	10.45	BE 35,53	.64 (.06)	10.40
BE 36,53	.59 (.07)	9.24	BE 36,53	.60 (.07)	9.31
BE 37,53	22 (.07)	-3.47	N/A	N/A	N/A
BE 38,53	.56 (.06)	9.28	BE 38,53	.55 (.06)	9.11
BE 39,54	.80 (.06)	14.69	BE 39,54	.80 (.06)	14.69
BE 40,54	.70 (.06)	11.83	BE 40,54	.70 (.06)	11.87
BE 41,54	74 (.06)	-13.14	BE 41,54	74 (.06)	-13.10
BE 42,54	43 (.07)	-6.86	BE 42,54	43 (.07)	-6.82

*Note.* Estimates are completely standardized estimates.

completely standardized estimate = -0.22, standard error = .07, t-value = -3.47,). No other loading was less than 0.40. In retrospect, it seems plausible that role conflict would not necessarily be highly related to role cognition. An individual can have a positive role cognition (i.e., believe that he/she is accepted by the group, has the ability to perform his/her job, and has a clear understanding of his/her role) and still experience conflict in his/her role (e.g., even though I know what to do and I know I can do it, I might feel conflict because there is a better way to do it or because I get positive feedback from one supervisor and negative feedback from another). Due to weak, albeit significant, factor loadings and questionable a priori theoretical rationale, role conflict was dropped from subsequent analyses. The fit of the second-order measurement model with role conflict removed (chi-square = 1299.01, df = 415, RMSEA = 0.076, NNFI = 0.72, CFI = 0.80, SRMR = 0.066) was similar to the second-order measurement model with role conflict included, and all parameters were again significant and in the correct direction (see Table 4 for parameter estimates and Appendix E for syntax and output).

The fit of the theoretical structural model was assessed again, this time without role conflict. The solution converged, however the fit indices were poor (chi square = 1724.24, df = 459, RMSEA = 0.089, NNFI = 0.64, CFI = 0.71, SRMR = 0.12) and the solution was inadmissible due to a correlation that was greater than 1.0 (the correlation between T1 role cognition and T1 affective reactions = 1.17).

In an attempt to obtain an admissible solution, several additional parameters were estimated. An exploratory approach was taken in which all theoretically plausible paths were estimated. The new model allowed all hypothesized relationships to be partially mediated. Several condition 10 tests (testing the absence of direct effects, or the presence

of full mediation; James et al., 1982) were replaced with condition 9 tests (testing the presence of direct effects, or partial mediation). Specifically, 56 additional parameters were estimated for the direct effects of individual differences, including all paths leading from each individual difference factor (learning goal orientation, performance goal orientation, extraversion, internal ability, external propensity, and internal propensity) to information seeking (T1 and T2), role cognition (T1 and T2), affective reactions (T1 and T2), and performance behavior (performance, tardiness, absenteeism, and turnover). Five additional parameters were estimated for the direct effects of information seeking, including paths from T1 information seeking to T2 affective reactions and performance behavior. Finally, four additional parameters were estimated for the direct effects of role cognition, including paths from T1 role cognition to performance behaviors. The solution was inadmissible due to eight beta coefficients that were larger than 1.0.

Continuing the quest for an admissible solution, a new model was tested in which all non-significant exploratory paths (t-values greater than 1.96 were used for statistical significance at p < .05 with exploratory parameters because they were non-directional relationships) that were added to the previous model were removed. All a priori paths and significant exploratory paths that were added in the previous model remained in the model. This resulted in a model that included all a priori paths and an additional 13 exploratory parameters. The solution converged and was admissible, however 2 exploratory paths that were previously significant were now non-significant. These 2 parameters were fixed to zero and the model was run again.

The final structural model (syntax and output are shown in Appendix F) included all a priori paths and an additional 11 parameters representing significant direct effects

(additional paths were from learning goal orientation to T1 role cognition [BE 50,43], T1 affective reactions [BE 51,43], and T2 role cognition [BE 53,43]; from performance goal orientation to T1 affective reactions [BE 51,44]; from extraversion to T1 role cognition [BE 50,45]; from internal ability to absenteeism [BE 22,46], T1 role cognition [BE 50,46], and T1 affective reactions [BE 51,46]; from internal propensity to T1 role cognition [BE 50,48] and T2 affective reactions [BE 54,48]; and from T1 information seeking to performance [BE 20,49]). Although the solution converged and was admissible, the chi-square and goodness-of-fit indices indicated that the model was a poor fit (chi-square = 1794.26, df = 461, RMSEA = 0.087, NNFI = 0.63, CFI = 0.69, SRMR = 0.13).

The factor loadings and structural parameter estimates for this model are shown in Tables 6-8. Results of the hypothesized structural model are depicted in Figure 3.

Results discussed below should be interpreted with caution due to poor overall model fit and the exploratory nature of the analyses. The factor loadings estimating the second-order measurement model were all significant. Hypothesis 4 received little support.

Extraversion was positively related to T1 direct inquiry (BE 7,45) and, contrary to hypothesis 4, positively related to T1 comparative appraisal (BE 9,45). All other parameter estimates (BE 30,45; BE 8,45; BE 31,45; BE 32,45; BE 11,45; and BE 34,45) were non-significant. This indicates that employees who are more extraverted initially use the direct inquiry and comparative appraisal strategies more frequently. All paths (significant and non-significant) were positive, suggesting that employees who are more extraverted may seek information more frequently regardless of the strategy used.

Table 6

Factor Loading Estimates of the Final Target Model (Measurement Parameters)

Factor loadings of the second-order measurement model					
Parameter	Estimate (standard error)	t-value	Parameter	Estimate (standard error)	t-value
BE 7,49	.75 (-)	-	BE 30,52	.52 (-)	-
BE 8,49	.87 (.08)	15.10	BE 31,52	.96 (.24)	7.71
BE 9,49	.82 (.08)	14.30	BE 32,52	.56 (.13)	8.20
BE 10,49	.64 (.07)	12.06	BE 33,52	.18 (.10)	3.53
BE 11,49	.54 (.08)	9.02	BE 34,52	.32 (.12)	5.15
BE 12,50	.42 (-)	-	BE 35,53	.54 (-)	-
BE 13,50	.57 (.24)	5.91	BE 36,53	.61 (.18)	6.59
BE 15,50	.49 (.21)	5.74	BE 38,53	.65 (.18)	6.52
BE 16,51	.70 (-)	-	BE 39,54	.62 (-)	-
BE 17,51	.80 (.10)	11.98	BE 40,54	.75 (.13)	9.72
BE 18,51	66 (.09)	-11.06	BE 41,54	66 (.11)	-9.50
BE 19,51	48 (.10)	-7.69	BE 42,54	45 (.11)	-6.61

*Note.* Estimates are completely standardized estimates. Parameters with a "-" were set equal to 1.0 to fix the scales of measurement in the second-order latent variables. For the above directional hypothesized parameters, t-values greater than 1.64 were significant at p < .05.

Table 7
Structural Parameter Estimates of the Final Target Model (Structural Parameters)

Structural parameter estimates of the second-order a priori structural model					
Parameter	Estimate (standard error)	t-value	Parameter	Estimate (standard error)	t-value
BE 7,45	.09 (.05)	1.68	BE 10,46	.01 (.06)	0.20
BE 30,45	.04 (.06)	0.58	BE 33,46	05 (.07)	-0.68
BE 8,45	.05 (.05)	1.12	BE 7,47	.24 (.06)	3.89
BE 31,45	.06 (.07)	0.79	BE 30,47	.21 (.07)	3.18
BE 9,45	.08 (.05)	1.81	BE 8,47	.33 (.06)	5.54
BE 32,45	.06 (.06)	0.99	BE 31,47	.25 (.07)	3.73
BE 11,45	.02 (.06)	0.37	BE 9,47	.36 (.06)	6.09
BE 34,45	.04 (.07)	0.56	BE 32,47	.27 (.07)	4.16
BE 7,48	08 (.06)	-1.39	BE 10,47	.32 (.06)	5.14
BE 30,48	32 (.07)	-4.57	BE 33,47	.24 (.07)	3.61
BE 8,48	10 (.06)	-1.71	BE 49,44	27 (.06)	-3.47
BE 31,48	24 (.08)	-3.07	BE 52,44	.03 (.04)	0.45
BE 9,48	14 (.06)	-2.36	BE 49,43	.02 (.06)	0.33
BE 32,48	33 (.07)	-4.76	BE 52,43	07 (.06)	-0.65
BE 10,48	14 (.06)	-2.28	BE 53,49	03 (.06)	-0.33
BE 33,48	16 (.07)	-2.44	BE 52,50	.16 (.22)	0.92
BE 7,46	.06 (.06)	1.00	BE 54,50	.56 (.19)	4.23
BE 30,46	.07 (.08)	0.97	BE 52,51	04 (.06)	-0.57
BE 8,46	01 (.06)	-0.10	BE 20,51	.27 (.11)	4.02
BE 31,46	04 (.09)	-0.48	BE 21,51	03 (.11)	-0.44
BE 9,46	04 (.06)	-0.67	BE 22,51	15 (.11)	-2.05
BE 32,46	06 (.08)	-0.77	BE 23,51	08 (.11)	-1.10

Note. Estimates are completely standardized estimates. For the above directional

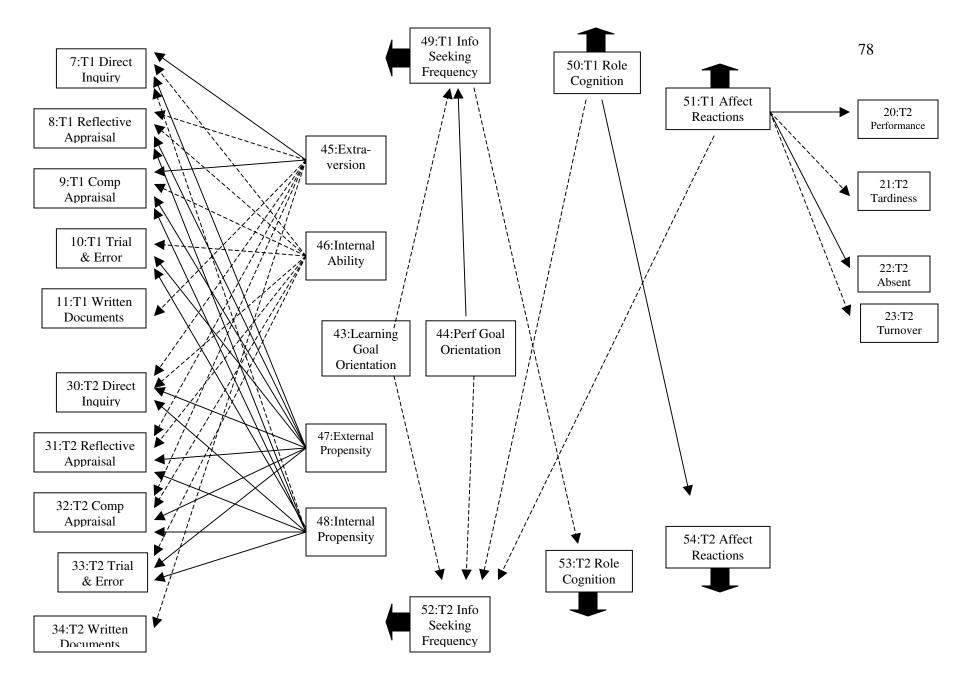
hypothesized parameters, t-values greater than 1.64 were significant at p < .05.

Table 8

Structural Parameter Estimates of the Final Target Model (Exploratory Parameters)

Structural parameter estimates of the second-order exploratory structural model					
Parameter	Estimate (standard error)	t-value	Parameter	Estimate (standard error)	t-value
BE 50,43	.39 (.04)	4.44	BE 50,46	.39 (.04)	4.33
BE 51,43	.24 (.05)	3.06	BE 51,46	.23 (.05)	3.16
BE 53,43	.37 (.05)	4.39	BE 50,48	.30 (.04)	3.57
BE 51,44	20 (.05)	-2.68	BE 54,48	36 (.06)	-3.78
BE 50,45	.23 (.03)	3.22	BE 20,49	25 (.09)	-3.98
BE 22,46	.13 (.07)	2.07			

*Note.* Estimates are completely standardized estimates. For the above exploratory parameters, t-values greater than 1.96 were significant at p < .05.



*Figure 3.* Hypothesized structural model results. Solid lines represent hypothesized paths that were significant (but not necessarily in the hypothesized direction). Dotted lines represent hypothesized paths that were not significant.

Hypothesis 5a received no support for the internal ability factor and moderate support for the internal propensity factor. Internal ability was not significantly related to any of the strategies at T1 or T2 (i.e., BE 7,46; BE 30,46; BE 8,46; BE 31,46; BE 9,46; BE 32,46; BE 10,46; and BE 33,46 were all non-significant). As hypothesized, there was a significant negative relationship between internal propensity and direct inquiry at T2 (BE 30,48), but not T1 (BE 7,48). Internal propensity was also negatively related to reflective appraisal (T1 and T2; BE 8,48 and BE 31,48 respectively) and comparative appraisal (T1 and T2; BE 9,48 and BE 32,48 respectively). Contrary to hypothesis 5a, internal propensity was negatively related to trial and error (T1 and T2; BE 10,48 and BE 33,48 respectively). The results suggest that the ability to self-assess performance has no impact on information seeking frequency. This might be due to the fact that the factor is an operationalization of self-reported ability rather than one's true ability. Results also suggest that employees with a high preference for internal feedback are less likely to use any information seeking strategy including the more internal trial and error strategy.

Hypothesis 5b received strong support. As predicted, external propensity was positively related to direct inquiry (T1 and T2; BE 7,47 and BE 30,47 respectively), reflective appraisal (T1 and T2; BE 8,47 and BE 31,47 respectively), and comparative appraisal (T1 and T2; BE 9,47 and BE 32,47 respectively), however, in contrast to hypothesis 5b, it was positively related to trial and error (T1 and T2; BE 10,47 and BE 33,47 respectively). The results suggest that employees with a high preference for external feedback are more likely to seek information more frequently regardless of the strategy used, including the more internal trial and error strategy.

Hypothesis 6a (predicting a negative relationship between performance goal orientation and feedback seeking frequency) was supported at T1 (BE 49,44), but not at T2 (BE 52,44). Hypothesis 6b (predicting a positive relationship between learning goal orientation and feedback seeking frequency) was not supported at T1 (BE 49,43) or T2 (BE 52,43). The results indicate that employees who have a higher performance goal orientation are initially (i.e., at T1, but not T2) less likely to seek information. Performance goal orientation has no impact on information seeking frequency.

Hypothesis 7 predicted a positive relationship between T1 information seeking and T2 role cognition (BE 53,49). This hypothesis was not supported. Information seeking at T1 was not related to role cognition at T2.

Hypothesis 8 predicted a negative relationship between T1 role cognition and T2 information seeking (BE 52,50). This hypothesis was not supported. T1 role cognition was not related to T2 information seeking, suggesting that the data does not support the proposed cyclical recursive relationship.

Hypothesis 9 predicted a positive relationship between T1 role cognition and T2 affective reactions (BE 54,50). This hypothesis was supported. The results indicate that employees who have more positive role cognitions also have more positive affective reactions.

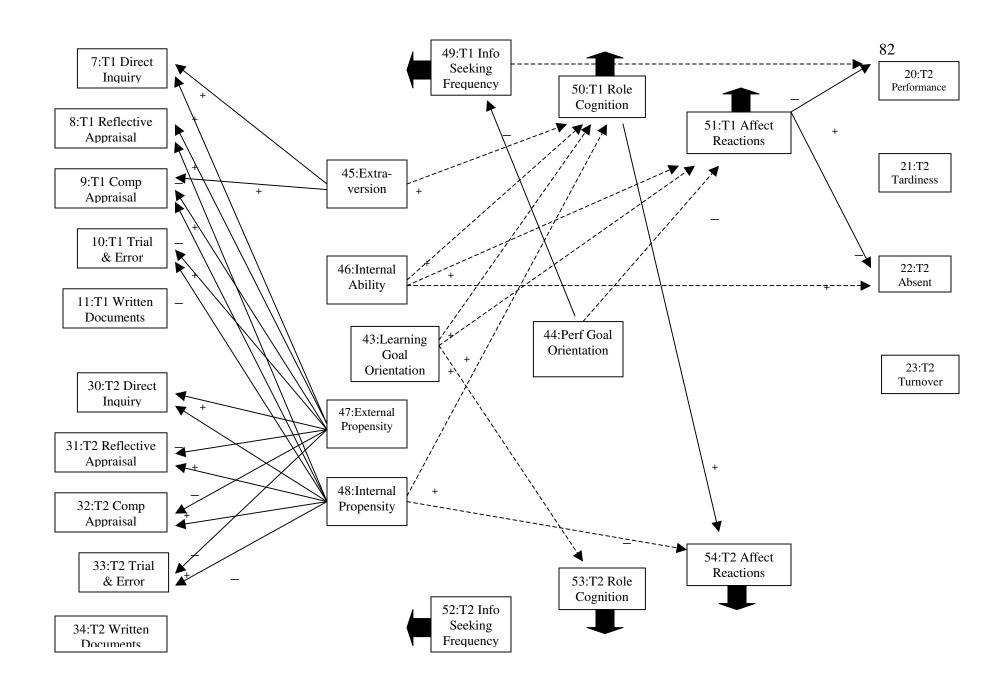
Hypothesis 10 predicted a positive relationship between T1 affective reactions and T2 information seeking (BE 52,51). This relationship was not supported. T1 affective reactions were not related to T2 information seeking, once again suggesting that the data does not support the proposed cyclical recursive relationship.

Hypothesis 11 predicted that T1 affective reactions would have a positive relationship with job performance and a negative relationship with tardiness, absenteeism, and turnover. This hypothesis received mixed support. T1 affective reaction was positively related to performance (BE 20,51) and negatively related to absenteeism (BE 22,51), but was not related to tardiness (BE 21,51) or turnover (BE 23,51). The results suggest that employees who have more positive affective reactions also have higher job performance and lower absenteeism rates.

Exploratory paths that were added to the a priori model yielded several interesting relationships in addition to the proposed fully mediated model (exploratory relationships are depicted in Figure 4). Extraversion had a positive relationship with T1 role cognition (BE 50,45). Employees who are more extraverted initially have more positive role cognitions. Learning goal orientation had a positive relationship with T1 role cognition, T1 affective reaction, and T2 role cognition (BE 50,43; BE 51,43; and BE 53,43 respectively). Employees who have a higher learning goal orientation will initially have more positive role cognitions and affective reactions and will also have more positive role cognitions at T2. Performance goal orientation had a negative relationship with T1 affective reaction (BE 51,44). Employees who have a higher performance goal orientation also have more negative initial affective reactions.

Feedback propensity and ability also yielded several interesting relationships.

Internal ability was positively related to absenteeism, T1 role cognition, and T1 affective reaction (BE 22,46; BE 50,46; and BE 51,46 respectively). Employees who have a higher self-reported ability to self-assess their performance initially have more positive role cognitions and affective reactions and are also more likely to be absent. Internal



*Figure 4.* Structural model results. Solid lines represent hypothesized paths that were significant (but not necessarily in the hypothesized direction). Dotted lines represent exploratory paths that were significant.

propensity was positively related to T1 role cognition (BE 50,48) and negatively related to T2 affective reaction (BE 54,48). Employees with a high preference for internal feedback are more likely to initially have more positive role cognitions and also more likely to have more negative affective reactions at T2. Finally, T1 information seeking was negatively related to performance (BE 20,49). Employees who sought information more frequently at T1 were more likely to subsequently have lower performance.

#### CHAPTER 4

#### DISCUSSION

The primary goal of this study was to examine the dynamic, complex socialization process from a cognition, affect, behavior framework. Theorists have proposed complex, comprehensive socialization models, however comprehensive empirical tests of these models are lacking. This study was more comprehensive than much of the previous research. The intent was to more holistically understand the newcomer socialization process from an individual's perspective via the assessment of longitudinally mediated and cyclical recursive relationships among stable individual differences and dynamic cognition, affect, and behavior. Unfortunately, the a priori model could not be tested due to problems with convergence and admissibility. Although the model that was ultimately tested differed from the a priori model and was deemed a poor fit via goodness-of-fit indices, several hypothesized paths were supported and the exploratory partial mediation paths that were added to the model yielded several interesting relationships.

The secondary goal of this study was to understand the centerpiece of the study, information seeking behavior, in more detail by investigating the information seeking content domain X strategy relationships.

Information Seeking Content Domains and Strategies

The results of this study are somewhat consistent with previous research.

Researchers have found that monitoring was the most frequently used information

seeking strategy for role information, group norms, organizational goals norms and values, performance feedback, and social feedback (Morrison, 1993b; Ostroff & Kozlowski, 1992). This study separated the monitoring strategy into reflective appraisal (i.e., monitoring others' reactions to one's behavior) and comparative appraisal (i.e., modeling others' behaviors). Consistent with hypothesis 2 and previous research, reflective appraisal was the monitoring strategy used most frequently for performance feedback (although not significantly more than direct inquiry at T1) and social feedback (although not significantly more than comparative appraisal at T1).

Although it was hypothesized that comparative appraisal would be the monitoring strategy most frequently used for role information, group norms, and organizational goals norms and values, reflective appraisal was actually the preferred monitoring strategy for role information and groups norms (although not significantly greater than comparative appraisal at T2). These findings were consistent with previous research. Thus, as previous theory and research suggest, employees rely on covert tactics when seeking information in most content domains. The tendency to use covert tactics was also supported when collapsing information seeking strategies across content domains; reflective appraisal was used more frequently than direct inquiry (significantly more at T2, but not T1).

Contrary to hypothesis 1 and previous research, direct inquiry was the most frequently used strategy for organizational goals, norms, and values. One possible, although speculative, reason for the reliance on direct inquiry for organizational goals norms and values rather than more covert tactics might be the host organization's culture. The organization has a strong traditional culture and promotes passing on the culture,

history, and legacy to all employees. This might have resulted in employees being more willing and comfortable to directly seek information since learning about the culture was valued. It might also have resulted in employees being more interested in and motivated to learn about the culture compared to other organizations where it is valued less. Finally, it is possible that the nature of the sample may have necessitated the use of direct inquiry more than covert tactics. The participants were blue-collar employees in a factory-type environment, so there might have been less information available to them and they might have been less exposed to organizational information, requiring them to use direct inquiry.

Previous research suggested that the direct inquiry strategy would be used most frequently for obtaining technical information because this information is important and also difficult to obtain through other strategies. This was partially supported at T1 since direct inquiry was used more frequently than all other strategies (significantly more than all strategies except reflective appraisal). However, at T2 direct inquiry was no longer the most frequently used strategy; direct inquiry and the two monitoring strategies were used with similar frequency. This shift in strategy use could be due to the nature of the work tasks. The employees' work was primarily physical labor (i.e., loading, sorting, and unloading packages) and had a relatively short learning curve which may have resulted in less of a need for technical information over time and, subsequently, a large drop in direct inquiry use. The work environment also made it very easy to use the monitoring strategies since employees typically worked in close quarters with several other employees and supervisors doing the same type of work. Finally, the shift from direct inquiry use could be a result of newcomers' perceptions that their honeymoon period was

over and the perceptions that oldtimers were less willing to provide information (Miller & Jablin, 1991).

Results show that newcomers tend to prefer covert information seeking tactics.

Therefore, it is important to have well trained supervisors and coworkers around newcomers so that they are able to monitor and model effective behavior and learn proper techniques. Direct inquiry is used frequently, although less frequently than the monitoring strategies in most cases. It is important for supervisors and coworkers to have the knowledge-base necessary to answer the newcomers' direct inquiries. Oldtimers should also be encouraged to provide information whenever requested, and for extended periods of time so newcomers do not feel bothersome as if their honeymoon period has expired.

Identifying which information seeking strategies are most effective for knowledge acquisition would be interesting and important. This study identified the frequency with which strategies were used for specific content domains and has shown that covert tactics are the strategies used most frequently, but it would also be important to identify which strategies are most effective for acquiring necessary knowledge in the various content domains. Although covert tactics were used more frequently, are these tactics as effective as direct inquiry for acquiring knowledge? The answer would help further the understanding of the role information seeking plays in the knowledge acquisition process.

#### **Information Seeking Antecedents**

Individual differences had an important impact on information seeking as well as on role cognition, affective reactions, and performance behaviors. At T1, extraverted individuals sought information using the direct inquiry and comparative appraisal

strategies more frequently than introverts. There are two plausible reasons why extraverts did not use the direct inquiry strategy more frequently than introverts at T2. First, extraverts may have sought enough information at T1 to gain the required knowledge, resulting in less of a need to use direct inquiry at T2. Second, introverts may have been in the work environment long enough at T2 to feel accepted and feel comfortable using direct inquiry and, as a result, may have used it more frequently.

It was hypothesized that extroverts would use the reflective appraisal, comparative appraisal, and written documents strategies less frequently than introverts, however the data supported the opposite. Extraverts used all strategies more frequently and, at T1, the comparative appraisal strategy significantly more than introverts. It is possible that introverts may have preferred covert tactics over direct inquiry and that introverts may have proportionately used the direct inquiry strategy less than covert tactics compared to extraverts, however extraverts appear to seek information more frequently in general. For example, introverts might use all strategies with equal frequency whereas extraverts tend to rely more on the direct inquiry strategy; regardless of strategy preferences extraverts use all strategies more frequently.

Extraversion was positively related to T1 role cognition. This is not surprising since they seek information more frequently and tend to be more social, resulting in more positive beliefs about their role and group acceptance. Extraversion was not related to T2 role cognition. As argued above, it is possible that by T2, introverts may have been in the work environment long enough to feel more comfortable and accepted and may have sought information more frequently.

It is surprising that information seeking did not mediate the relationship between individual differences and role cognition (i.e., it is surprising that T1 overall information seeking frequency did not influence T2 role cognition) since extraversion was positively related to information seeking strategies and role cognition. Perhaps the time lag (i.e., 5 weeks between T1 information seeking and T2 role cognition) used to test this mediated relationship was too long. In light of this, an exploratory test was conducted in an attempt to determine if there was a relationship between T1 information seeking and T1 role cognition. However, estimating this beta coefficient (BE 50,49) resulted in an inadmissible solution. In addition, the correlation between T1 information seeking and T1 role cognition was not significant (see the psi matrix in Appendix E, p. 212). Overall, it appears that extraversion is important early in the socialization process since it affects T1 information seeking frequency and T1 role cognition, but it becomes less important over time. Extraversion does not directly influence affect or performance, but does have an indirect effect through role cognition.

Internal feedback ability had no influence on information seeking frequency. This might be due to the fact that internal ability is an operationalization of self-reported ability rather than one's true ability. In addition, having the ability to self-assess performance does not necessarily dictate one's preferences for internal or external feedback or preferences for using internal or external information seeking strategies. In fact, internal ability was positively correlated with both internal and external propensity (see the psi matrix in Appendix F, p. 238).

Internal ability did influence T1 role cognition, T1 affect, and absenteeism.

Although these relationships were not hypothesized, given the theoretical rationale that

information and knowledge have a positive impact on beliefs about one's role and affective reactions, it is not surprising that individuals who can internally generate this knowledge have more positive beliefs about their role and more favorable affective reactions. Internal ability did not influence T2 role cognition or T2 affect, suggesting that differences in cognition and affect due to internal ability might fade over time and that any effect at T2 would be indirect, or fully mediated. It is inexplicable why individuals with a higher internal ability would have a higher rate of absenteeism.

Individuals with an internal feedback propensity were less likely to seek information using the direct inquiry (although not significant at T1), reflective appraisal, comparative appraisal, and trial and error strategies. This indicates that an internal feedback propensity results in less frequent information seeking in general rather than affecting tendencies to differentially rely on the proposed internal vs. external strategies. It also shows that the influence of internal propensity on information seeking frequency persists across time. Individuals with an internal feedback propensity also had more positive beliefs about their role at T1. Once again, the differences appear to be early on rather than long term since internal propensity was not related to T2 role cognition, and any T2 effects would be fully mediated. Finally, internal feedback propensity negatively influenced T2 affective reactions. It is unclear why the preference for internal feedback would result in more negative affective reactions, especially since internal propensity positively influenced T1 role cognition which, in turn, positively influenced T2 affective reactions. The fact that internal ability positively influences T1 role cognition and T1 affect and that internal propensity positively influences T1 role cognition appear to

suggest that information seeking or knowledge acquisition might mediate the relationship between personality and role cognition, however the data did not support this.

Individuals with an external feedback propensity were more likely to seek information using the direct inquiry, reflective appraisal, comparative appraisal, and trial and error strategies. The relationships were similar, but opposite to those of internal propensity, and indicate that an external feedback propensity results in more frequent information seeking in general rather than affecting tendencies to differentially rely on the proposed internal vs. external strategies. Like internal propensity, it also shows that the influence of external propensity on information seeking frequency persists across time. Contrary to internal ability and internal propensity, external propensity did not influence role cognition, affect, or performance behaviors.

Contrary to expectation, learning goal orientation did not influence overall information seeking frequency. Perhaps, regardless of one's learning goal orientation, newcomers have a similar need and desire to seek information and acquire knowledge. Learning goal orientation had a positive influence on role cognition at T1 and T2 and affective reactions at T1. This is consistent with the theoretical rationale of the proposed mediated relationships (i.e., sequential positive relationships) among learning goal orientation, information seeking, role cognition, and affective reactions respectively. However, as stated previously, the information seeking portion of the mediated model was not supported. Positive cognition, affect, and behavior are also consistent with adaptive response patterns more typical of individuals with a high learning goal orientation (Dweck & Leggett, 1988).

Performance goal orientation negatively influenced T1 information seeking frequency as expected. It is likely that performance goal oriented individuals initially sought information less frequently because they view feedback as having high costs and low value. Performance goal orientation also negatively influenced T1 affective reactions, which is consistent with maladaptive response patterns typical of those with a high performance goal orientation (Dweck & Leggett, 1988). Performance goal orientation did not influence information seeking at T2. It is possible that their perceptions of cost and value may have changed over time after realizing the importance of information and after experiencing negative affect, resulting in a null relationship between performance goal orientation and T2 information seeking.

In sum, individual differences yielded several interesting effects. Extraversion, external propensity, and internal propensity appear to influence overall information seeking frequency across all strategies rather than having differential strategy effects as hypothesized. The effects of extraversion on information seeking were short-term whereas the effects of feedback propensity persisted across time. Neither internal ability nor learning goal orientation affected information seeking. Performance goal orientation negatively influenced initial overall information seeking.

Extraversion, internal ability, internal propensity, learning goal orientation, and performance goal orientation had direct effects on T1 role cognition and/or T1 affective reactions that were consistent with the implicit indirect effects in the proposed mediated model. The influence of learning goal orientation on T2 role cognition was the only explainable direct effect on a T2 variable. Two direct effectors of T2 variables (the negative relationship between internal propensity and T2 affective reactions and the

positive relationship between internal ability and absenteeism) are inexplicable. Thus, the direct effects of stable individual differences on cognition and affect appear to be short-lived. Although individual differences have little direct impact on T2 factors or the organization's bottom line in terms of performance behaviors, the indirect mediated effects suggest these variables are important over time and have a long-term impact. The mediated model indicates that individuals who are more extraverted, have higher internal feedback propensity and ability, are more learning goal oriented and less performance goal oriented are more likely to have more positive beliefs about their role, more positive affective reactions, and higher performance.

Although many of the above relationships appear to be consistent with the proposed mediated model, the data did not support most of the relationships to and from overall information seeking. This may indicate that the second-order information seeking factor is a poor representation of overall information seeking. The second-order factor reflects the five first-order information seeking strategy factors. The second-order factor may obscure meaningful distinctions represented in the first-order factors. In addition, the items reflected in the first-order factors prompted participants to specific content domain X strategy combinations which could have been too specific to represent a more global information seeking construct. Even though the content domains and strategies assessed in the measure are believed to be the most important, others may have been excluded. A measure containing more global information seeking items may have yielded different results.

The lack of support for information seeking relationships may also indicate that information seeking may be an insufficient mediating variable. It was argued that the

information provided to newcomers by the organization is inadequate and that newcomers must proactively seek information to fill knowledge gaps. It was further argued that information seeking is a necessary but not sufficient condition for knowledge acquisition. It is possible that information seeking behavior was not sufficient enough for obtaining required knowledge. Finally, it is possible that the organization provided adequate information reducing the need for information seeking.

### **Proximal Cognitive Outcomes**

Previous theory and research strongly suggest that newcomers seek information to acquire knowledge in order to reduce uncertainty and that this affects, most directly, cognitive outcomes including one's beliefs about acceptance, competence, and one's role. Correlational data in this study also provided indirect evidence supporting this relationship. Several T1 information seeking strategies (i.e., role information, technical information, performance feedback, and group norms) were negatively correlated with role ambiguity at T2 (see the phi matrix in Appendix D, p. 152-153). Seeking information more frequently in these content domains at T1 resulted in greater role clarity at T2. However, contrary to expectation and previous literature, the second-order information seeking factor did not affect the second-order role cognition factor. This could be due to inadequate procedures used to assess overall information seeking, as discussed above.

Although it is difficult to compare this organization to organizations in previous research using anecdotal evidence, the null relationship could also be sample specific, caused by the type of position or organization. For example, the tasks performed by the participants are physical and relatively simple and, perhaps, required less proactive

information seeking compared to tasks performed by participants typically used in socialization research (e.g., graduate students, managers, business school alumni). In addition, newcomers received a large amount of information from the organization via a one week orientation and extended on the job training (i.e., a 30 day training program with extended follow up if needed). It is possible that this sample received much of the required information from the organization and did not need to proactively seek information. It would have been beneficial to assess knowledge acquisition gained through orientation and training using knowledge tests or training performance assessments. Even though information seeking is important for knowledge acquisition and uncertainty reduction and is a necessary but not sufficient condition for information seeking, future research should assess newcomer knowledge rather than information seeking.

Overall information seeking had a negative influence on performance. It is unclear why more information would result in lower performance. One explanation might be that individuals with higher cognitive ability might have to seek information less frequently to obtain the same knowledge (e.g., quick learners) and these same individuals perform well on the job. In contrast, slow learners must seek information more frequently and perform less well on the job. Additionally, the opposite causal order also seems reasonable; lower performance might result in more frequent information seeking. It is possible that low performers at T1 sought information more frequently, but were still the poor performers at T2. The causal influence of performance, or the cyclical recursive relationship between information seeking and performance could not be tested since performance data was only collected at T2.

#### **Distal Affective Outcomes**

Role cognition has been repeatedly shown to be related to affective or attitudinal variables. However, empirical evidence of this relationship is lacking in the early entry or socialization context. Role cognition positively influenced affective reactions. As previous theory and research would suggest, having more positive beliefs about one's role results in more positive affect. This study has demonstrated that this relationship also holds for newcomers entering new work environments. It is noteworthy that this relationship was tested and supported across time, rather than at a single time period, making it a more stringent test and increasing the confidence in causality. It is also noteworthy that role cognition did not have a direct influence on any performance behaviors, indicating that any effects of role cognition on performance are fully mediated by affective reactions.

#### Ultimate Behavioral Outcomes

Affect has repeatedly been shown to have an impact on performance. However, empirical evidence of this relationship is lacking in the early entry or socialization context. In addition, there is lack of empirical research investigating the antecedents of absenteeism and tardiness. This study has shown that affective reactions positively influence performance and negatively influence absenteeism. This indicates that, even in the context of socialization, individuals with higher affective reactions perform better and are absent less. It is noteworthy that (a) performance and absenteeism were assessed by supervisors rather than self-report and (b) the relationships were tested and supported across time. Affective reactions did not influence tardiness or turnover. In fact, not even turnover intention (neither T1 nor T2) was correlated with turnover (see the phi matrix in

Appendix D, pp. 157, 160). There are two plausible reasons for why affect did not influence turnover. First, participants were employed part-time. Many participants considered this a short-term temporary position, planning to quit soon for a variety of different reasons regardless of their affect. Second, due to the poor economy and higher unemployment rates, some participants would have been less likely to quit (again, regardless of their affect) since there were fewer employment options available.

# Cyclical Recursive Relationships

This study is the first empirical test of cyclical recursive relationships in the context of socialization. Unfortunately, the data did not support the hypothesized feedback loops from T1 role cognition and T1 affective reactions to T2 information seeking. Correlational relationships provided indirect support for the cyclical recursive relationships (see the phi matrix in Appendix D, pp. 150-164). As stated above, T1 first-order role information, technical information, performance feedback, and group norms factors were negatively correlated with T2 role ambiguity, supporting the positive forward influence of information seeking on role cognition (i.e., seeking more information *results in* a clearer role). In addition, T1 role ambiguity was positively correlated with T2 performance feedback and T2 social feedback, and T1 role conflict was positively correlated with T2 group norms, supporting the negative feedback loop from role cognition to information seeking (i.e., seeking more information is *a result of* unclear and conflicting roles).

There are 2 probable reasons why the cyclical recursive relationships were not supported at the second-order level. First, the relationships might be reciprocal (or nonrecursive) rather than cyclical recursive. Reciprocal relationships do not specify

causal order or cannot specify causal order because the mutual influences occur instantaneously. Although previous literature suggests that these relationships in the context of socialization are theoretically cyclical recursive, it is possible that the mutual influence is so dynamic and simultaneous that that the relationships should methodologically be treated as reciprocal. The variables might not mutually affect one another, but the causal order is so rapid that reliable causal intervals cannot be determined for either effect.

The second reason for null feedback loop effects is the suspect operationalization of overall feedback seeking frequency that has been repeatedly mentioned above. This latter reason seems more likely given (a) the correlational evidence suggesting cyclical recursive relationships and (b) the direct paths from individual difference variables to cognition and affect that are in a pattern similar to that expected if the information seeking mediator was supported.

## **Practical Implications**

The results of this study have several implications for improving and maximizing the socialization process for individuals and organizations. This study shows that socialization can directly impact an organization's bottom line. Increasing newcomer morale, or affective reactions, is important because it can improve organizational efficiency through higher productivity and fewer costly absences. This study could not identify whether or not newcomer morale affects (a) the rate at which newcomers reach full job proficiency or (b) their level of job proficiency because performance was collected only once, however this would be an important question to answer in future

research. This study has also shown that affect is not simply an outcome of socialization, but it is an important antecedent to performance behaviors.

Increasing newcomer morale is also important because it is a critical psychological outcome for the individual. Researchers have identified several ways in which newcomer morale can be increased, including increasing the availability of socialization opportunities, the perceived helpfulness of socialization programs, interactions with peers (Louis et al., 1983), and job knowledge (Ostroff & Kozlowski, 1992). Morale can also be increased through role cognition, that is, by increasing newcomer role clarity, self-efficacy, and feelings of group acceptance.

This study has shown that role cognition is not only an outcome of socialization, but is a direct antecedent of affect and an indirect antecedent of performance and absenteeism. Increasing newcomer role clarity, self–efficacy, and feelings of group acceptance will result in higher morale and ultimately in higher performance and lower absenteeism. Role cognition is a critical outcome because fitting in and reducing uncertainty are primary concerns upon entry (Morrison, 1993b). The fully mediated paths suggest that it might be difficult to increase morale and subsequently job performance if newcomers do not have positive beliefs about their role, making role cognition a necessary condition for successful performance. Decreasing anxiety will allow newcomers to focus on job performance sooner.

Increasing job related knowledge via training, orientation, coaching, and performance feedback can clarify newcomer roles. Clear and consistent feedback (Miller & Jablin, 1991) and clear communication (Mignerey et al., 1995) especially with

feedback related to goals, priorities and expected behaviors (Ashford & Cummings, 1983) are critical for role clarity.

Self-efficacy is influenced by performance accomplishments, vicarious experience, verbal persuasion, and physiological states (Bandura, 1977). Tactics for increasing newcomer self-efficacy might include: allowing for success early in the job, providing frequent feedback (especially positive feedback), providing successful role models, utilizing persuasive trainers and/or coaches, reducing stress, and minimizing physical requirements of the job (the latter might be especially helpful with the participants in this study since they perform physical labor).

Perceived group acceptance can be increased through building relationships with coworkers (Feldman, 1976) and communicating and interacting with oldtimers (Bauer & Green, 1994, 1998; Morrison, 1993b). Increasing cohort camaraderie in orientation and training and providing oldtimer mentors would be useful techniques for increasing acceptance.

Newcomer individual differences are critical because they directly influence information seeking, role cognition, and affective reactions and indirectly influence performance. Results suggest that newcomers who are extraverted, have the ability to create internal feedback, have an internal propensity for feedback, have a strong learning goal orientation and weak performance goal orientation are more easily socialized. Although these traits might facilitate socialization success, selecting newcomers based on these traits would not be advised because (a) they do not directly influence job performance and (b) the nature of their indirect influence on job performance is unclear. It is possible that individual differences might either affect the level of performance or

the time it takes newcomers to reach full job proficiency, however this does not indicate the nature of the relationship between individual differences and performance after the socialization process (i.e., after the 4 month time period investigated in this study).

Organizations should be aware of the impact of these individual differences and devise tactics that will facilitate socialization for all individuals. For example, newcomers might benefit from having mentors, but they might be especially beneficial for individuals who are more introverted. Providing frequent feedback, demonstrating the value of feedback (e.g., explaining the purpose and importance of feedback), and reducing the costs of feedback (e.g., making it private, emphasizing the positive, framing it in terms of developmental feedback, and encouraging and willingly providing feedback) would help facilitate socialization for individuals with a low performance goal orientation and high performance goal orientation as well as individuals with internal or external propensities.

## Limitations and Future Research

The above results demonstrate the importance of conducting research form the cognition, affect, behavior framework. Investigating the dynamics between cognition, affect, and behavior and the influence of stable individual differences further the understanding of the whole person. All components are important and interdependent. Cognition influences affect and affect influences behavior. Information seeking behavior does not appear to influence cognition or affect, but it is unclear to what extent this is due to true relationships or confounded by poor operationalization. Stable individual differences are also important and impact cognition, affect, and behavior (both information seeking and performance behaviors). The cognition, affect, behavior

framework is a powerful framework for all research and should be further explored in the future since investigating one or two of these components only allows a partial understanding of the individual. Following this framework will make structural equation models more complete and will likely reduce the possibility of missing relevant causes and violating self-containment (cf. James et al., 1982).

As discussed above, the information seeking measure may have been a limitation of this study. It was demonstrated that the measure contained both convergent and discriminant validity. It is believed that measure itself was not faulty, however the level of specificity and use of a second-order factor may have created problems with the operationalization of overall information seeking. The items were useful for understanding content domain X strategy relationships, however they appear to be less useful for understanding more global relationships; the items are simply too specific to adequately assess more global information seeking. Future researchers should consider the level of specificity when measuring information seeking behavior.

Another limitation of this study was the fact that the a priori model was untestable due to problems with admissibility and convergence. Future research should continue testing more comprehensive models but should include a larger sample, a complete data set (rather than using pairwise deletion) and, perhaps, better measures.

Although this study investigated information seeking frequency, it did not assess a knowledge-related component. Assessing knowledge is practically and methodologically more difficult, but critical for furthering the understanding of the socialization process.

Future research should work towards identifying the extent of job related knowledge

newcomers have at entry vs. how much is provided by the organization and learned in orientation and training vs. how much is obtained through information seeking.

Future research should also include more data collection time periods. This study attempted to understand the socialization process over the first 20 weeks of employment by using a cross-section of individuals with varying tenure, however it would be better to follow one or more cohorts over time with multiple measurement periods. The socialization process is dynamic and multiple assessments at closer time periods will do more to clarify the process than cross-sectional research or pre-post assessments or over long time lags.

The nature of the sample (i.e., a blue-collar part-time workforce) is both an advantage and a limitation. The advantage is that the supported results increase the generalizability of socialization theory and indicate that blue-collar and part-time employees (even employees who take a job knowing that is will last for a short time) follow the same patterns of socialization behaviors, thoughts and attitudes. The limitation of the sample is that it is unclear if the unsupported relationships are truly null, null due to methodological problems, or a result of the unique sample. For example, it is possible that participants had less of a need to seek information due to the type of work.

Finally, although it was claimed that this study was more holistic and comprehensive, it ignored organization characteristics (e.g., organizational socialization tactics or culture). The conclusions reached in this study might be specific to, and a result of, organizational characteristics. Future research should investigate the relative or mutual effects of individuals and organizations on the socialization process using hierarchical linear modeling or other techniques that allow for multi-level analysis.

Methodologically, socialization research is uniquely difficult. Cognition, affect, behavior, individual differences, and the organization all influence the process. In addition, the process is extremely dynamic making measurement difficult; a construct should be stabilized at the time of measurement in order to draw accurate conclusions (James et al., 1982). Many of the recommendations above (e.g., larger and more complete data sets, knowledge measures, multiple time periods, multi-level analyses) are more difficult practically. Researchers will need to meet these practical and methodological challenges to further the understanding of the existing comprehensive theoretical models. In addition to more advanced and difficult quantitative methods, researchers should use qualitative methods. Qualitative methods will allow for a more indepth understanding of the volatile nature of the socialization process.

In conclusion, this study was an attempt to investigate the dynamic socialization process using a more comprehensive cognition, affect, behavior framework and by testing longitudinal, mediated relationships. Unidirectional causation and personsituation interactions are important, especially for theory development, however research must become more comprehensive as theory becomes more developed. This study has shown that stable individual differences, cognition, affect, and behavior (information seeking and performance behavior) are important in newcomer socialization. They are interdependent and should not necessarily be thought of as outcomes. This study has also shown that socialization patterns appear to generalize to blue-collar workers and part-time workers. Although this study failed to provide compelling evidence in support of cyclical recursive relationships, these type of relationships are important, seem highly probable, and require more attention in future research.

## **NOTES**

- 1. BE a,b is the beta coefficient where a is the effect and b is the cause. Numbers substituted for a and b throughout the text correspond to the numbered factors shown in Figures 2a, 2b, and 2c. Hence, BE 7,45 represents the beta coefficient for the effect of extraversion (factor number 45) on direct inquiry (factor number 7) as shown in Figure 2b.
- 2. The *p:r* ratio = 2.9 is based of the total number of manifest variables and latent factors. It is different from the range of manifest indicators per latent factor because a MTMM approach was taken where manifest variables serve as indicators for more than one latent factor. MacCallum and colleagues (MacCallum, Widaman, Preacher, and Hong, 2001; MacCallum, Widaman, Zhang & Hong, 1999) do not address MTMM factor analysis where a manifest variable serves as an indicator for more than one latent factor.
- 3. The Maximum Likelihood method of estimation requires that the sample covariance matrix, S, be positive-definite, however this requirement is sometimes not met if there is near-multicollinearity among predictors. Ridge estimation allows for the analysis of a non-positive-definite S. A constant times the diagonal of S is added to S resulting in the analysis of S + c(diag[S]) in place of S (Jöreskog & Sörbom, 2001).

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## APPENDIX A

## SURVEY 1

This section of questions asks about your characteristics or preferences that you have in life in general (e.g., both within and outside of the work context). Read each statement below. Indicate the extent to which you agree with each statement using the scale below. Indicate your response by circling a number to the right of each statement.

St	Strongly Disagree Ag									Stı	ong	gly
D	isagree	Disagree	Somewhat	Uncertain	Somewhat		Αg	gree		A	gre	e
	1	2	3	4	5			6			7	
1	T C 4	. 1 1 .	Alexa Communication	1		1	2	2	4	_		7
	-		that force me to		-	1	2	3	4	5	6	7
		•	nallenging work i	-	me.	1	2 2	3	4	5	6	7
	<ul><li>3. The opportunity to learn new things is important to me.</li><li>4. I like to work on tasks that I have done well on in the past.</li></ul>							3	4	5	6	7
				-		1	2	3	4	5	6	7
			mething without			1	2	3	4	5	6	7
6.	l like to be before I att		ent that I can succ	cessfully perfor	m a task	1	2	3	4	5	6	7
7.		est at work whe	en I perform task	s on which I ki	now that I	1	2	3	4	5	6	7
8.	I have little	e to say.				1	2	3	4	5	6	7
9.	I am quiet	around strang	ers.			1	2	3	4	5	6	7
10.	I don't talk	a lot.				1	2	3	4	5	6	7
11.	I don't like	to draw atten	tion to myself.			1	2	3	4	5	6	7
12.	When I fin it well or n	_	, I can usually te	ll right away w	hether I did	1	2	3	4	5	6	7
13.	•	ave a clear ide g toward my g	ea of what I am tr oal.	ying to do and	how well I am	1	2	3	4	5	6	7
14.	I find that	I am usually a	pretty good judg	ge of my own p	erformance.	1	2	3	4	5	6	7
15.	I like gettii performane		edback from othe	ers concerning	my	1	2	3	4	5	6	7
16.	I like being	g told how we	ll I am doing on a	a project or tas	k.	1	2	3	4	5	6	7
17.			I have done a go		lot more	1	2	3	4	5	6	7
18.	18. If I think I have done something well, I don't let other people's opinions to the contrary get me down.						2	3	4	5	6	7
19.	9. What I think of myself and my work is more important to me than what others think.						2	3	4	5	6	7
20.	). How other people view my work is not as important as how I view my own work.						2	3	4	5	6	7

This section of questions asks about your work life. Read each statement below. Indicate the extent to which you agree with each statement using the scale below. Indicate your response by circling a number to the right of each statement.

Strongly									Strongly			
Disagree	Disagree	Somewhat	Uncertain	Somewhat		Agı			A	gree		
1	2	3	4	5		6	)			7		
These questions group.	ask the exten	t to which you fe	el accepted by	your work								
1. My cowor	kers seem to	like me.			1	2	3	4	5	6	7	
2. My cowoi	kers seem to	accept me as one	of them.		1	2	3	4	5	6	7	
3. I feel com	fortable arou	nd my coworkers			1	2	3	4	5	6	7	
These questions	Γhese questions address your beliefs about your ability to perform your jo											
_	My job is well within the scope of my abilities.							4	5	6	7	
		more challenging		ne I am doing	1	2	3	4	5	6	7	
	ident that my	skills and abilitie	-	_	1	2	3	4	5	6	7	
•		d for the job I am	doing.		1	2	3	4	5	6	7	
These questions among your role		extent to which yo	ou may experie	nce conflict								
1. I have to o	do things that	I think should be	done different	ly.	1	2	3	4	5	6	7	
2. I receive of	conflicting rec	uests from two o	r more people.		1	2	3	4	5	6	7	
3. I do thing accepted by		y to be accepted	by one person	and not	1	2	3	4	5	6	7	
4. I sometim assignmen		ore a rule or poli	cy in order to o	carry out an	1	2	3	4	5	6	7	
These questions	address the c	larity of your rol	e at work.									
1. I know wh	nat my respon	sibilities are.			1	2	3	4	5	6	7	
2. I know ex	actly what is	expected of me.			1	2	3	4	5	6	7	
3. I know that	at I have divid	led my time prop	erly.		1	2	3	4	5	6	7	
These questions	address your	commitment to y	our company.									
		great deal of effo p my company b		normally	1	2	3	4	5	6	7	
2. I talk up my company to my friends as a great organization to work						2	3	4	5	6	7	
<ul><li>for.</li><li>3. I really care about the fate of my company.</li></ul>						2	3	4	5	6	7	

Strongly		Disagree		Agree					Str	ong	ly
Disagree	Disagree	Somewhat	Uncertain	Somewhat		Agı	ree		Agree		
1	2	3	4	5		6	)	7			
These questions address how satisfied you are with your ich											
These questions address how satisfied you are with your job.											
<ol> <li>Generally</li> </ol>	speaking, I as	m very satisfied v	with my job.		1	2	3	4	5	6	7
2. I am gene	rally satisfied	with the kind of	work I do in m	y job.	1	2	3	4	5	6	7
3. I like my j	job.				1	2	3	4	5	6	7
These questions	address your	intentions to rem	nain with your	company.							
1. I scan the	newspapers a	nd other sources	for potential jo	bs.	1	2	3	4	5	6	7
2. I frequently think of quitting my job at my company.						2	3	4	5	6	7
3. I will probably look for a new job in the coming year.						2	3	4	5	6	7

These questions address the level of stress you might experience from your job. Read each statement below. Indicate how frequently you have felt this way in the last month (or since the start of your employment if you have been here for less than a month) by using the scale below. Indicate your response by circling a number to the right of each statement.

Ne	Never Almost never Sometimes Fairly of 4						ry ( 5	Oftei	a
		oth, how often have you gs at work?	u felt that you were una	able to control the	1	2	3	4	5
2. In t		th, how often have you	u felt nervous and stres	ssed because of	1	2	3	4	5
	3. In the last month, how often have you felt that difficulties at work were piling up so high that you could not overcome them?							4	5
4. In the last month, how often have you felt that things were going your way at work?						2	3	4	5

The following sections ask how frequently you have sought various types of information in the last 5 weeks of employment (or since the start of your employment if you have been here for less than 5 weeks). Read each statement below. Indicate how frequently your have sought information by using the scale below. Indicate your response by circling a number to the right of each statement.

	Once a	A few times	Once a	A few times	Once a	A few
Never	month	a month	week	a week	day	times a day
1	2	3	4	5	6	7

In the last 5 weeks at work, how often have you sought information about <u>what is</u> <u>expected of you in your job</u> (this may include boundaries of authority and responsibility as well as appropriate behaviors for your position) through:

directly asking others (including coworkers, supervisors, or other individuals).
 monitoring or observing other peoples' (including coworkers, supervisors, or other individuals) reactions to your own behavior or activities.
 watching others' (including coworkers, supervisors, or other individuals)
 2 3 4 5 6 7
 watching others' (including coworkers, supervisors, or other individuals)
 behaviors and modeling or imitating their behavior.
 trial and error or testing the waters by trying different things on your own.
 2 3 4 5 6 7
 turning to written sources such as documents, memos, manuals, web
 2 3 4 5 6 7

	Once a	A few times	Once a	A few times	Once a	A few
Never	month	a month	week	a week	day	times a day
1	2	3	4	5	6	7

In the last 5 weeks at work, how often have you sought information about <u>how to</u> <u>perform specific aspects of your job</u> (this may include task duties, procedures, assignments, priorities, or how to use equipment) through:

1. directly asking others (including coworkers, supervisors, or other individuals).	1	2	3	4	5	6	7
2. monitoring or observing other peoples' (including coworkers, supervisors, or other individuals) <i>reactions</i> to your own behavior or activities.	1	2	3	4	5	6	7
3. watching others' (including coworkers, supervisors, or other individuals) <i>behaviors</i> and modeling or imitating their behavior.	1	2	3	4	5	6	7
4. trial and error or testing the waters by trying different things on your own.	1	2	3	4	5	6	7
5. turning to written sources such as documents, memos, manuals, web pages, or other written material.	1	2	3	4	5	6	7

	Once a	A few times	Once a	A few times	Once a	A few
Never	month	a month	week	a week	day	times a day
1	2	3	4	5	6	7

In the last 5 weeks at work, how often have you sought feedback about <u>how well</u> <u>you are performing in your job</u> (this may include how others are perceiving and evaluating your job performance) through:

1. directly asking others (including coworkers, supervisors, or other individuals).	1	2	3	4	5	6	7
2. monitoring or observing other peoples' (including coworkers, supervisors, or other individuals) <i>reactions</i> to your own behavior or activities.	1	2	3	4	5	6	7
3. watching others' (including coworkers, supervisors, or other individuals) <i>behaviors</i> and modeling or imitating their behavior.	1	2	3	4	5	6	7
4. trial and error or testing the waters by trying different things on your own.	1	2	3	4	5	6	7
5. turning to written sources such as documents, memos, manuals, web pages, or other written material.	1	2	3	4	5	6	7

	Once a	A few times	Once a	A few times	Once a	A few
Never	month	a month	week	a week	day	times a day
1	2	3	4	5	6	7

In the last 5 weeks at work, how often have you sought information about <u>what your</u> <u>work group values and expects</u> (e.g., behaviors, attitudes, and coworker interaction) through:

1. directly asking others (including coworkers, supervisors, or other individuals).	1	2	3	4	5	6	7
2. monitoring or observing other peoples' (including coworkers, supervisors, or other individuals) <i>reactions</i> to your own behavior or activities.	1	2	3	4	5	6	7
3. watching others' (including coworkers, supervisors, or other individuals) <i>behaviors</i> and modeling or imitating their behavior.	1	2	3	4	5	6	7
4. trial and error or testing the waters by trying different things on your own.	1	2	3	4	5	6	7
5. turning to written sources such as documents, memos, manuals, web pages, or other written material.	1	2	3	4	5	6	7

	Once a	A few times	Once a	A few times	Once a	A few
Never	month	a month	week	a week	day	times a day
1	2	3	4	5	6	7

In the last 5 weeks at work, how often have you sought feedback about the <u>appropriateness of your social behavior at work</u> (including nontask behaviors) through:

1.	directly asking others (including coworkers, supervisors, or other individuals).	1	2	3	4	5	6	7
2.	monitoring or observing other peoples' (including coworkers, supervisors, or other individuals) <i>reactions</i> to your own behavior or activities.	1	2	3	4	5	6	7
3.	watching others' (including coworkers, supervisors, or other individuals) <i>behaviors</i> and modeling or imitating their behavior.	1	2	3	4	5	6	7
4.	trial and error or testing the waters by trying different things on your own.	1	2	3	4	5	6	7
5.	turning to written sources such as documents, memos, manuals, web pages, or other written material.	1	2	3	4	5	6	7

	Once a	A few times	Once a	A few times	Once a	A few
Never	month	a month	week	a week	day	times a day
1	2	3	4	5	6	7

In the last 5 weeks at work, how often have you sought information about the *goals*, *norms*, *and values of your company* and the behaviors and attitudes necessary to achieve your company's goals, norms, and values through:

1. directly asking others (including coworkers, supervisors, or other individuals).	1	2	3	4	5	6	7
2. monitoring or observing other peoples' (including coworkers, supervisors, or other individuals) <i>reactions</i> to your own behavior or activities.	1	2	3	4	5	6	7
3. watching others' (including coworkers, supervisors, or other individuals) <i>behaviors</i> and modeling or imitating their behavior.	1	2	3	4	5	6	7
4. trial and error or testing the waters by trying different things on your own.	1	2	3	4	5	6	7
5. turning to written sources such as documents, memos, manuals, web pages, or other written material.	1	2	3	4	5	6	7

Please <u>clearly print</u> your name below. Your name will be used for data tracking purposes only and will remain completely confidential. No one but the researcher will see your responses. No one but the researcher will be able to link your identity with your responses. Once all of the relevant data is collected, this information will be detached, destroyed, and replaced with a randomly assigned number. Once destroyed, no one, including the researcher will be able to link your identity to the responses.

Employee Name: _	 		

## APPENDIX B

## SURVEY 2

This section of questions asks about your work life. Read each statement below. Indicate the extent to which you agree with each statement using the scale below. Indicate your response by circling a number to the right of each statement.

Strongly Disagree 1	Disagree Disagree Somewhat Uncertain Somewh									ngly ree 7	/
These questions	s ask the exten	t to which you fe	el accepted by	your work group.							
	1. My coworkers seem to like me.							4	5	6	7
•		accept me as one	of them.		1	2	3	4	5	6	7
•		nd my coworkers			1	2	3	4	5	6	7
These questions	address vour	beliefs about you	ır ability to per	form your job.							
_	-	e scope of my ab		y y	1	2	3	4	5	6	7
• •		more challenging		ne I am doing.	1	2	3	4	5	6	7
		skills and abilitie	•	•	1	2	3	4	5	6	7
coworkers	-		1	j							
4. I feel I am	n overqualified	l for the job I am	doing.		1	2	3	4	5	6	7
These questions	address the e	xtent to which yo	ou may experie	nce conflict							
among your role	es at work.										
1. I have to	do things that	I think should be	done different	ly.	1	2	3	4	5	6	7
2. I receive of	conflicting rec	uests from two o	r more people.		1	2	3	4	5	6	7
3. I do thing by others.		y to be accepted	by one person	and not accepted	1	2	3	4	5	6	7
4. I sometim assignmen	_	ore a rule or poli	cy in order to o	carry out an	1	2	3	4	5	6	7
These questions	address the c	larity of your rol	e at work.								
1. I know wl	hat my respon	sibilities are.			1	2	3	4	5	6	7
2. I know ex	actly what is	expected of me.			1	2	3	4	5	6	7
3. I know that	at I have divid	led my time prop	erly.		1	2	3	4	5	6	7
These questions address your commitment to your company.											
<ol> <li>I am willing to put in a great deal of effort beyond that normally expected in order to help my company be successful.</li> </ol>						2	3	4	5	6	7
2. I talk up my company to my friends as a great organization to work for.					1	2	3	4	5	6	7
<ul><li>3. I really care about the fate of my company.</li></ul>						2	3	4	5	6	7

Strongly									Strongly		
Disagree	Disagree	Somewhat	Uncertain	Somewhat		Agree			Agree		
1 2 3 4 5						6			7		
These questions	address how	satisfied you are	with your job.								
1. Generally	speaking, I a	m very satisfied v	with my job.		1	2	3	4	5	6	7
2. I am gene	rally satisfied	with the kind of	work I do in m	y job.	1	2	3	4	5	6	7
3. I like my	job.				1	2	3	4	5	6	7
These questions	address your	intentions to ren	nain with your	company.							
1. I scan the	newspapers a	nd other sources	for potential jo	bs.	1	2	3	4	5	6	7
2. I frequently think of quitting my job at my company.					1	2	3	4	5	6	7
3. I will probably look for a new job in the coming year.					1	2	3	4	5	6	7

These questions address the level of stress you might experience from your job. Read each statement below. Indicate how frequently you have felt this way in the last month by using the scale below. Indicate your response by circling a number to the right of each statement.

	Never	Fairly often		Vei	уO	ften			
	1	4			5				
1.	In the last mon important thing	•	ı felt that you were una	able to control the	1	2	3	4	5
2.	In the last mon work?	th, how often have you	ı felt nervous and stres	ssed because of	1	2	3	4	5
3.		th, how often have you you could not overcon	a felt that difficulties a me them?	t work were piling	1	2	3	4	5
4.	In the last mon work?	th, how often have you	a felt that things were g	going your way at	1	2	3	4	5

The following sections ask how frequently you have sought various types of information in the last 5 weeks of employment (or since the start of your employment if you have been here for less than 5 weeks). Read each statement below. Indicate how frequently your have sought information by using the scale below. Indicate your response by circling a number to the right of each statement.

	Once a	A few times	Once a	A few times	Once a	A few
Never	month	a month	week	a week	day	times a day
1	2	3	4	5	6	7

In the last 5 weeks at work, how often have you sought information about <u>what is</u> <u>expected of you in your job</u> (this may include boundaries of authority and responsibility as well as appropriate behaviors for your position) through:

1. directly asking others (including coworkers, supervisors, or other 2 individuals). 2. monitoring or observing other peoples' (including coworkers, 2 3 supervisors, or other individuals) reactions to your own behavior or activities. 3. watching others' (including coworkers, supervisors, or other individuals) behaviors and modeling or imitating their behavior. 4. trial and error or testing the waters by trying different things on your own. 2 5. turning to written sources such as documents, memos, manuals, web 3 7 pages, or other written material.

	Once a	A few times	Once a	A few times	Once a	A few
Never	month	a month	week	a week	day	times a day
1	2	3	4	5	6	7

In the last 5 weeks at work, how often have you sought information about <u>how to</u> <u>perform specific aspects of your job</u> (this may include task duties, procedures, assignments, priorities, or how to use equipment) through:

1. directly asking others (including coworkers, supervisors, or other individuals).	1	2	3	4	5	6	7
2. monitoring or observing other peoples' (including coworkers, supervisors, or other individuals) <i>reactions</i> to your own behavior or activities.	1	2	3	4	5	6	7
3. watching others' (including coworkers, supervisors, or other individuals) <i>behaviors</i> and modeling or imitating their behavior.	1	2	3	4	5	6	7
4. trial and error or testing the waters by trying different things on your own.	1	2	3	4	5	6	7
5. turning to written sources such as documents, memos, manuals, web pages, or other written material.	1	2	3	4	5	6	7

	Once a	A few times	Once a	A few times	Once a	A few
Never	month	a month	week	a week	day	times a day
1	2	3	4	5	6	7

In the last 5 weeks at work, how often have you sought feedback about <u>how well you</u> <u>are performing in your job</u> (this may include how others are perceiving and evaluating your job performance) through:

1. directly asking others (including coworkers, supervisors, or other individuals).	1	2	3	4	5	6	7
2. monitoring or observing other peoples' (including coworkers, supervisors, or other individuals) <i>reactions</i> to your own behavior or activities.	1	2	3	4	5	6	7
3. watching others' (including coworkers, supervisors, or other individuals) <i>behaviors</i> and modeling or imitating their behavior.	1	2	3	4	5	6	7
4. trial and error or testing the waters by trying different things on your own.	1	2	3	4	5	6	7
5. turning to written sources such as documents, memos, manuals, web pages, or other written material.	1	2	3	4	5	6	7

	Once a	A few times	Once a	A few times	Once a	A few
Never	month	a month	week	a week	day	times a day
1	2	3	4	5	6	7

In the last 5 weeks at work, how often have you sought information about <u>what your</u> <u>work group values and expects</u> (e.g., behaviors, attitudes, and coworker interaction) through:

1. directly asking others (including coworkers, supervisors, or other individuals).	1	2	3	4	5	6	7
2. monitoring or observing other peoples' (including coworkers, supervisors, or other individuals) <i>reactions</i> to your own behavior or activities.	1	2	3	4	5	6	7
3. watching others' (including coworkers, supervisors, or other individuals) <i>behaviors</i> and modeling or imitating their behavior.	1	2	3	4	5	6	7
4. trial and error or testing the waters by trying different things on your own.	1	2	3	4	5	6	7
5. turning to written sources such as documents, memos, manuals, web pages, or other written material.	1	2	3	4	5	6	7

	Once a	A few times	Once a	A few times	Once a	A few
Never	month	a month	week	a week	day	times a day
1	2	3	4	5	6	7

In the last 5 weeks at work, how often have you sought feedback about the <u>appropriateness of your social behavior at work</u> (including nontask behaviors) through:

1. directly asking others (including coworkers, supervisors, or other individuals).	1	2	3	4	5	6	7
2. monitoring or observing other peoples' (including coworkers, supervisors, or other individuals) <i>reactions</i> to your own behavior or activities.	1	2	3	4	5	6	7
3. watching others' (including coworkers, supervisors, or other individuals) <i>behaviors</i> and modeling or imitating their behavior.	1	2	3	4	5	6	7
4. trial and error or testing the waters by trying different things on your own.	1	2	3	4	5	6	7
5. turning to written sources such as documents, memos, manuals, web pages, or other written material.	1	2	3	4	5	6	7

	Once a	A few times	Once a	A few times	Once a	A few
Never	month	a month	week	a week	day	times a day
1	2	3	4	5	6	7

In the last 5 weeks at work, how often have you sought information about the *goals*, *norms*, *and values of your company* and the behaviors and attitudes necessary to achieve your company's goals, norms, and values through:

1. directly asking others (including coworkers, supervisors, or other individuals).	1	2	3	4	5	6	7
2. monitoring or observing other peoples' (including coworkers, supervisors, or other individuals) <i>reactions</i> to your own behavior or activities.	1	2	3	4	5	6	7
3. watching others' (including coworkers, supervisors, or other individuals) <i>behaviors</i> and modeling or imitating their behavior.	1	2	3	4	5	6	7
4. trial and error or testing the waters by trying different things on your own.	1	2	3	4	5	6	7
5. turning to written sources such as documents, memos, manuals, web pages, or other written material.	1	2	3	4	5	6	7

Please <u>clearly print</u> your name below. Your name will be used for data tracking purposes only and will remain completely confidential. No one but the researcher will see your responses. No one but the researcher will be able to link your identity with your responses. Once all of the relevant data is collected, this information will be detached, destroyed, and replaced with a randomly assigned number. Once destroyed, no one, including the researcher will be able to link your identity to the responses.

Employee Name:	 		

# APPENDIX C

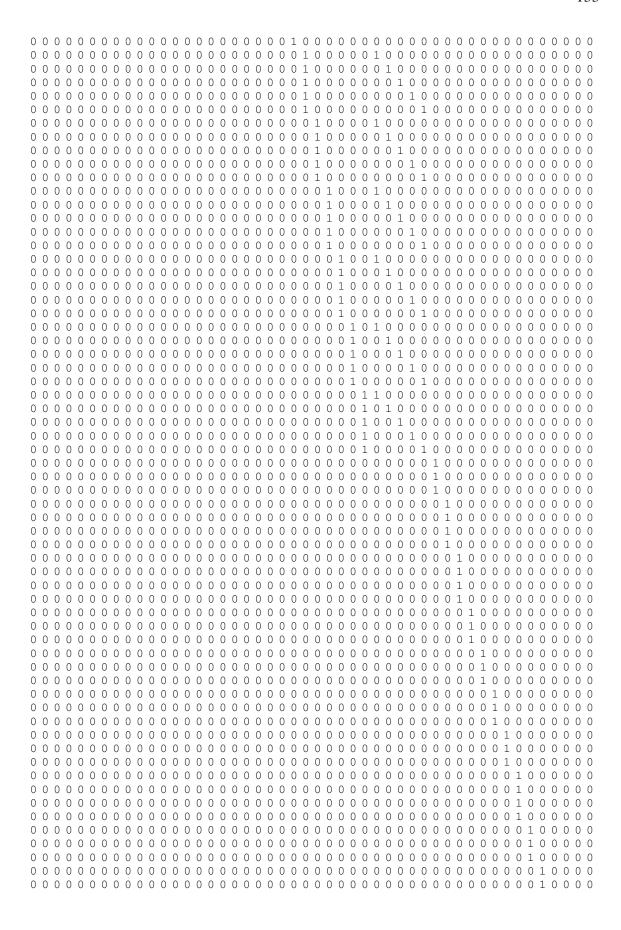
## PERFORMANCE, TARDINESS, AND ABSENTEEISM RATINGS

Employee:								
Please rate the pe	rformance of the a	bove employee by	using the scale be	elov	v.			
Far below	Below		Above		F	ar al	bove	e
expectation	expectation	As expected	expectation		ex	pect	tatio	n
1	2	3	4			5	!	
Compared to a ty	pical employee of	this tenure						
1. How does this employee perform in general?							4	5
2. How is the quality of this employee's work?						3	4	5
3. How quickly does this person work?							4	5
4. How well has this employee learned to master his/her work tasks?							4	5
5. How safely of	does this employee	work?		1	2	3	4	5
During the time p	period between Mo	nday, Month XX a	nd Friday, Month	ı X	X:			
1. How many tin	nes has this individ	lual been tardy/late	?	_				
2. How many tin	nes has this individ	ual been absent?						

## APPENDIX D

#### SELECT LISREL SYNTAX AND OUTPUT: FIRST-ORDER MEASUREMENT MODEL

```
CFA of 1st Order Meas Model
DA NI=144 NO=255 MA=CM
CM FI=A:\LISREL Diss Data Cov.cov
LΑ
id ten turn
lgo1 lgo2 lgo3 pgo1 pgo2 pgo3 pgo4 ex1 ex4 ex5 ex8 ia2 ia3 ia4 ep1 ep2 ep3 ip1 ip2
ga2a ga3a ga4a se1a se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a oc4a
jsla js2a js4a toila toi2a toi4a psla ps2a ps3a ps4a
ridil riral rical ritel riwdl tidil tiral tical titel tiwdl pfdil pfral pfcal pftel
pfwdl gndil gnral gncal gntel gnwdl sfdil sfral sfcal sftel sfwdl orgdil orgral
orgcal orgtel orgwdl
qa2b qa3b qa4b se1b se2b se3b se4b rc1b rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b
jslb js2b js4b toilb toi2b toi4b ps1b ps2b ps3b ps4b
ridi2 rira2 rica2 rite2 riwd2 tidi2 tira2 tica2 tite2 tiwd2 pfdi2 pfra2 pfca2 pfte2
pfwd2 gndi2 gnra2 gnca2 gnte2 gnwd2 sfdi2 sfra2 sfca2 sfte2 sfwd2 orgdi2 orgra2
orgca2 orgte2 orgwd2
perf1b perf2b perf3b perf4b perf5b late2 absnt2
SE
ridil riral rical ritel riwdl tidil tiral tical titel tiwdl pfdil pfral pfcal pftel
pfwdl gndil gnral gncal gntel gnwdl sfdil sfral sfcal sftel sfwdl orgdil orgral
orgcal orgtel orgwdl ga2a ga3a ga4a se1a se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a
oc3a oc4a
jsla js2a js4a toila toi2a toi4a ps1a ps2a ps3a ps4a
perf1b perf2b perf3b perf4b perf5b late2 absnt2 turn
ridi2 rira2 rica2 rite2 riwd2 tidi2 tira2 tica2 tite2 tiwd2 pfdi2 pfra2 pfca2 pfte2
pfwd2 gndi2 gnra2 gnca2 gnte2 gnwd2 sfdi2 sfra2 sfca2 sfte2 sfwd2 orgdi2 orgra2
orgca2 orgte2 orgwd2 ga2b ga3b ga4b se1b se2b se3b se4b rc1b rc2b rc3b rc4b ra2b ra3b ra4b oc1b
oc3b oc4b
jslb js2b js4b toilb toi2b toi4b ps1b ps2b ps3b ps4b
ip3/
MO NY=0 NX=142 NE=0 NK=48 LX=FU,FI PH=SY,FR TD=SY,FI
LK
RI1 TI1 PF1 GN1 SF1 ORG1 DI1 RA1 CA1 TE1 WD1 ACCEP1 SE1 RCON1 RAMB1
OCOM1 JSAT1 TOI1 STRES1 PERF TARD ABS TO
RI2 TI2 PF2 GN2 SF2 ORG2 DI2 RA2 CA2 TE2 WD2 ACCEP2 SE2 RCON2 RAMB2
OCOM2 JSAT2 TOI2 STRES2 LGO PGO EXTRA IA EP IP
PA LX
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PA PH
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FI PH (1,1) PH (2,2) PH (3,3) PH (4,4) PH (5,5) PH (6,6) PH (7,7) PH (8,8) PH (9,9) PH (10,10)
FI PH (11,11) PH (12,12) PH (13,13) PH (14,14) PH (15,15) PH (16,16) PH (17,17) PH (18,18) PH
(19,19) PH (20,20)
FI PH (21,21) PH (22,22) PH (23,23) PH (24,24) PH (25,25) PH (26,26) PH (27,27) PH (28,28) PH
(29,29) PH (30,30)
FI PH (31,31) PH (32,32) PH (33,33) PH (34,34) PH (35,35) PH (36,36) PH (37,37) PH (38,38) PH
(39,39) PH (40,40)
FI PH (41,41) PH (42,42) PH (43,43) PH (44,44) PH (45,45) PH (46,46) PH (47,47) PH (48,48)
VA 1.0 PH (1,1) PH (2,2) PH (3,3) PH (4,4) PH (5,5) PH (6,6) PH (7,7) PH (8,8) PH (9,9) PH
(10, 10)
VA 1.0 PH (11,11) PH (12,12) PH (13,13) PH (14,14) PH (15,15) PH (16,16) PH (17,17) PH (18,18) PH
(19,19) PH (20,20)
VA 1.0 PH (21,21) PH (22,22) PH (23,23) PH (24,24) PH (25,25) PH (26,26) PH (27,27) PH (28,28) PH
(29,29) PH (30,30)
VA 1.0 PH (31,31) PH (32,32) PH (33,33) PH (34,34) PH (35,35) PH (36,36) PH (37,37) PH (38,38) PH
(39,39) PH (40,40)
VA 1.0 PH (41,41) PH (42,42) PH (43,43) PH (44,44) PH (45,45) PH (46,46) PH (47,47) PH (48,48)
FR TD (1,1) TD (2,2) TD (3,3) TD (4,4) TD (5,5) TD (6,6) TD (7,7) TD (8,8) TD (9,9) TD (10,10)
FR TD (11,11) TD (12,12) TD (13,13) TD (14,14) TD (15,15) TD (16,16) TD (17,17) TD (18,18) TD
(19,19) TD (20,20)
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(39,39) TD (40,40)
FR TD (41,41) TD (42,42) TD (43,43) TD (44,44) TD (45,45) TD (46,46) TD (47,47) TD (48,48) TD
(49,49) TD (50,50)
FR TD (51,51) TD (52,52) TD (53,53) TD (54,54) TD (55,55) TD (56,56) TD (57,57) TD (58,58) TD
(59,59) TD (60,60)
FR TD (61,61) TD (62,62) TD (66,66) TD (67,67) TD (68,68) TD (69,69) TD (70,70)
FR TD (71,71) TD (72,72) TD (73,73) TD (74,74) TD (75,75) TD (76,76) TD (77,77) TD (78,78) TD
(79,79) TD (80,80)
FR TD (81,81) TD (82,82) TD (83,83) TD (84,84) TD (85,85) TD (86,86) TD (87,87) TD (88,88) TD
(89,89) TD (90,90)
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FR TD (101,101) TD (102,102) TD (103,103) TD (104,104) TD (105,105)
FR TD (106,106) TD (107,107) TD (108,108) TD (109,109) TD (110,110)
FR TD (111,111) TD (112,112) TD (113,113) TD (114,114) TD (115,115)
FR TD (116,116) TD (117,117) TD (118,118) TD (119,119) TD (120,120)
FR TD (121,121) TD (122,122) TD (123,123) TD (124,124) TD (125,125)
FR TD (126,126) TD (127,127) TD (128,128) TD (129,129) TD (130,130)
FR TD (131,131) TD (132,132) TD (133,133) TD (134,134) TD (135,135)
FR TD (136,136) TD (137,137) TD (138,138) TD (139,139) TD (140,140)
FR TD (141,141) TD (142,142)
FR TD (1,66) TD (2,67) TD (3,68) TD (4,69) TD (5,70) TD (6,71) TD (7,72) TD (8,73) TD (9,74) TD
(10,75)
FR TD (11,76) TD (12,77) TD (13,78) TD (14,79) TD (15,80) TD (16,81) TD (17,82) TD (18,83) TD
(19,84) TD (20,85)
FR TD (21,86) TD (22,87) TD (23,88) TD (24,89) TD (25,90) TD (26,91) TD (27,92) TD (28,93) TD
(29,94) TD (30,95)
FR TD (31,96) TD (32,97) TD (33,98) TD (34,99) TD (35,100) TD (36,101) TD (37,102) TD (38,103) TD
(39,104) TD (40,105)
FR TD (41,106) TD (42,107) TD (43,108) TD (44,109) TD (45,110) TD (46,111) TD (47,112) TD
(48,113) TD (49,114) TD (50,115)
FR TD (51,116) TD (52,117) TD (53,118) TD (54,119) TD (55,120) TD (56,121) TD (57,122)
```

OU SE TV SC PH=A:\Diss\_Step2\_Corr.cor AD=OFF

CFA of 1st Order Meas Model

Number of Input Variables144
Number of Y - Variables 0
Number of X - Variables 142
Number of ETA - Variables 0
Number of KSI - Variables 48
Number of Observations 255

 $\underline{\text{W\_A\_R\_N\_I\_N\_G:}}$  Total sample size is smaller than the number of parameters. Parameter estimates are unreliable.

CFA of 1st Order Meas Model

Number of Iterations =303

LISREL Estimates (Maximum Likelihood)

LAMBDA-X

	RI1	TI1	PF1	GN1	SF1	ORG1
ridi1	1.29 (0.14) 9.46					
riral	0.82 (0.15) 5.58					
rical	1.07 (0.15) 6.97					
rite1	0.90 (0.14) 6.28					
riwd1	0.37 (0.13) 2.96					
tidi1		1.31 (0.13) 9.96				
tiral		1.10 (0.14) 8.00				
tica1		1.38 (0.14) 9.86				
tite1		0.86 (0.14)				

	6.28				
tiwd1	 0.58 (0.12) 4.78				
pfdi1	 	0.50 (0.15) 3.33			
pfra1	 	1.21 (0.14) 8.49			
pfcal	 	1.40 (0.15) 9.59			
pfte1	 	0.98 (0.13) 7.81			
pfwd1	 	0.76 (0.13) 6.05			
gndi1	 		1.25 (0.14) 8.78		
gnra1	 		1.48 (0.14) 10.89		
gnca1	 		1.65 (0.14) 12.14		
gnte1	 		1.48 (0.12) 12.24		
gnwd1	 		1.29 (0.12) 11.00		
sfdil	 			1.59 (0.12) 12.90	
sfral	 			1.79 (0.13) 13.95	
sfcal	 			1.71 (0.13) 13.36	
sfte1	 			1.57 (0.12) 13.24	
sfwd1	 			1.14	

					(0.10) 11.11	
orgdi1						1.19 (0.12) 10.12
orgra1						1.30 (0.12) 10.63
orgca1						1.37 (0.13) 10.63
orgte1						1.20 (0.12) 10.05
orgwd1						1.11 (0.12) 9.41
L	AMBDA-X					
	DI1	RA1	CA1	TE1	WD1	ACCEP1
ridi1	0.92 (0.15) 6.30					
rira1		1.20 (0.14) 8.72				
rica1			1.40 (0.14) 9.80			
ritel				1.46 (0.13) 11.27		
riwd1					1.59 (0.11) 14.38	
tidi1	1.14 (0.14) 8.08					
tira1		1.39 (0.13) 10.83				
tical			1.34 (0.14) 9.66			
tite1				1.40 (0.12) 11.57		

tiwdl					1.58 (0.11) 14.90	
pfdi1	1.83 (0.12) 15.22					
pfral		1.54 (0.13) 11.87				
pfcal			1.53 (0.14) 11.21			
pfte1				1.30 (0.12) 10.90		
pfwd1					1.51 (0.12) 12.26	
gndi1	1.48 (0.13) 11.18					
gnra1		1.38 (0.13) 10.61				
gnca1			1.33 (0.13) 9.92			
gnte1				1.12 (0.12) 9.12		
gnwd1					1.22 (0.12) 10.41	
sfdi1	0.89 (0.13) 6.91					
sfra1		1.14 (0.13) 8.75				
sfcal			1.12 (0.13) 8.68			
sfte1				1.04 (0.12) 8.72		
sfwd1					1.08 (0.10)	

					10.64	
orgdi1	1.24 (0.12) 10.49					
orgra1		1.36 (0.12) 11.60				
orgca1			1.48 (0.12) 12.24			
orgte1				1.16 (0.12) 9.77		
orgwd1					1.21 (0.12) 10.05	
ga2a						0.86 (0.05) 16.13
ga3a						0.89 (0.05) 16.42
ga4a						0.73 (0.05) 13.77
LA	MBDA-X					
	SE1	RCON1	RAMB1	OCOM1	JSAT1	TOI1
sela	SE1  0.64 (0.07) 8.71	RCON1 	RAMB1 	OCOM1 	JSAT1  	TOI1
se1a se2a	0.64 (0.07)	RCON1 	RAMB1 	OCOMI 	JSAT1 	TOI1
	0.64 (0.07) 8.71 0.87 (0.09)	RCON1	RAMB1 	OCOMI	JSAT1 	TOI1
se2a	0.64 (0.07) 8.71 0.87 (0.09) 9.34 0.73 (0.08)	RCON1	RAMB1 	OCOMI	JSAT1	TOI1
se2a se3a	0.64 (0.07) 8.71 0.87 (0.09) 9.34 0.73 (0.08) 9.73	RCON1 1.00 (0.11) 8.91	RAMB1	OCOMI	JSAT1	TOI1

rc3a		1.48 (0.11) 13.39				
rc4a		1.00 (0.13) 7.70				
ra2a			0.71 (0.04) 15.96			
ra3a			0.84 (0.05) 16.88			
ra4a			0.83 (0.06) 13.20			-, -
ocla				0.89 (0.08) 11.20		-, -
oc3a				1.40 (0.10) 14.56		-, -
oc4a				1.20 (0.09) 13.41		-, -
js1a					1.25 (0.08) 15.19	
js2a			-, -,		1.14 (0.09) 12.41	
js4a					1.16 (0.08) 15.21	-, -
toila						1.23 (0.13) 9.50
toi2a						1.56 (0.11) 14.36
toi4a						1.58 (0.11) 13.97
LAN	∕BDA-X					
	STRES1	PERF	TARD	ABS	TO	RI2
psla	0.73 (0.08)					

	9.19					
ps2a	0.98 (0.08) 12.74					
ps3a	0.81 (0.07) 11.93					
ps4a	0.27 (0.08) 3.64					
perf1b		0.89 (0.05) 17.23				
perf2b		0.87 (0.05) 16.17				
perf3b		0.95 (0.06) 15.63				
perf4b		0.94 (0.06) 16.70				
perf5b		0.68 (0.05) 12.85				
late2			1.72 (0.08) 22.59			
absnt2		-, -		1.65 (0.07) 22.55		
turn					0.46 (0.02) 22.54	
ridi2						1.18 (0.11) 10.37
rira2						1.57 (0.12) 12.57
rica2		-, -				1.57 (0.13) 12.18
rite2						0.57 (0.13) 4.40
riwd2						0.71

(0.11)	
6.34	

	TI2	PF2	GN2	SF2	ORG2	DI2
ridi2						0.78 (0.12) 6.35
rira2						
rica2						
rite2						
riwd2						
tidi2	1.25 (0.11) 10.94					0.88 (0.12) 7.33
tira2	1.55 (0.13) 12.29					
tica2	1.66 (0.12) 14.31					
tite2	0.78 (0.12) 6.32					
tiwd2	0.62 (0.11) 5.51					
pfdi2		1.26 (0.14) 8.97				1.39 (0.13) 10.51
pfra2		1.54 (0.14) 11.31				
pfca2		1.59 (0.14) 11.64				
pfte2		1.36 (0.12) 11.74				
pfwd2		1.00 (0.11) 8.89				
gndi2			1.49 (0.11) 13.15			0.92 (0.12) 7.92

gnra2			1.67 (0.12) 13.46			
gnca2			1.61 (0.12) 12.94			
gnte2			1.34 (0.11) 12.63			
gnwd2			1.19 (0.11) 11.07			
sfdi2				1.59 (0.12) 13.45		0.84 (0.12) 6.94
sfra2				1.83 (0.12) 15.30		
sfca2				1.63 (0.12) 13.60		
sfte2				1.30 (0.11) 11.74		
sfwd2				0.98 (0.10) 9.80		
orgdi2					1.45 (0.12) 11.78	1.03 (0.13) 8.08
orgra2					1.56 (0.13) 11.91	
orgca2					1.57 (0.12) 12.57	
orgte2					1.30 (0.11) 11.53	
orgwd2					0.77 (0.10) 7.51	
LAI	MBDA-X					
	RA2	CA2	TE2	WD2	ACCEP2	SE2
rira2	0.77					

	(0.15) 5.04				
rica2		0.76 (0.15) 5.04			 
rite2			1.42 (0.11) 12.42		 
riwd2				1.30 (0.11) 11.73	 
tidi2					 
tira2	1.01 (0.14) 7.01				 
tica2		0.67 (0.15) 4.59			 
tite2			1.30 (0.11) 11.66		 
tiwd2				1.59 (0.11) 14.92	 
pfdi2					 
pfra2	1.22 (0.14) 8.56				 
pfca2		1.16 (0.14) 8.04			 
pfte2			1.16 (0.13) 8.92		 
pfwd2				1.31 (0.12) 10.90	 
gndi2					 
gnra2	1.08 (0.13) 8.37				 
gnca2		0.96 (0.13) 7.46			 
gnte2			0.98 (0.11)		 

			8.67			
gnwd2				1.24 (0.11) 10.99		
sfdi2						
sfra2	0.74 (0.13) 5.52					
sfca2		0.74 (0.12) 5.92				
sfte2			1.01 (0.11) 9.00			
sfwd2				1.16 (0.10) 11.49		
orgdi2						
orgra2	1.22 (0.14) 8.96					
orgca2		0.95 (0.13) 7.10				
orgte2			0.93 (0.12) 7.48			
orgwd2				1.33 (0.11) 12.22		
ga2b					0.89 (0.06) 15.66	
ga3b					0.98 (0.05) 18.17	
ga4b					0.96 (0.06) 15.99	
selb						0.86 (0.07) 11.51
se2b						0.91 (0.10) 8.90
se3b						0.92

se4b						(0.08) 12.18 0.88
						(0.10) 8.77
LAI	MBDA-X					
	RCON2	RAMB2	OCOM2	JSAT2	TOI2	STRES2
rc1b	1.20 (0.12) 9.90					
rc2b	1.48 (0.12) 12.21					
rc3b	1.42 (0.12) 11.99					
rc4b	1.34 (0.13) 10.50					
ra2b		0.95 (0.06) 15.16				
ra3b		1.05 (0.06) 18.09				
ra4b		0.91 (0.07) 13.29				
oc1b			1.21 (0.09) 13.97			
oc3b			1.62 (0.10) 16.44			
oc4b			1.45 (0.09) 16.57			
js1b				1.36 (0.08) 16.62		
js2b				1.39 (0.09) 15.82		
js4b				1.40 (0.09) 16.31		

toi1b					1.23 (0.13) 9.38	
toi2b					1.71 (0.12) 14.44	
toi4b					1.65 (0.11) 14.44	
ps1b						0.80 (0.08) 9.63
ps2b						1.02 (0.08) 13.38
ps3b						0.83 (0.07) 12.38
ps4b						0.16 (0.08) 1.89
LA	MBDA-X					
	LGO	PGO	EXTRA	IA	EP	IP
lgo1	1.GO 0.96 (0.08) 12.27	PGO 	EXTRA 	IA 	EP 	
lgo1	0.96 (0.08)	PGO	EXTRA	IA 	EP 	
	0.96 (0.08) 12.27 0.92 (0.07)	PGO	EXTRA	IA  	EP  	
lgo2	0.96 (0.08) 12.27 0.92 (0.07) 13.46 0.73 (0.06)	PGO	EXTRA	IA  	EP	
lgo2 lgo3	0.96 (0.08) 12.27 0.92 (0.07) 13.46 0.73 (0.06)	   0.61 (0.07)	EXTRA	IA 	EP	
lgo2 lgo3 pgo1	0.96 (0.08) 12.27 0.92 (0.07) 13.46 0.73 (0.06)	  0.61 (0.07) 8.37 0.68 (0.08)	EXTRA		EP	
lgo2 lgo3 pgo1	0.96 (0.08) 12.27 0.92 (0.07) 13.46 0.73 (0.06)		EXTRA		EP	

			(0.12) 10.23			
ex4			1.62 (0.12) 13.05			
ex5			1.48 (0.12) 11.98			
ex8			0.93 (0.12) 7.79			
ia2				0.67 (0.09) 7.89		
ia3				0.81 (0.07) 12.38		
ia4				0.76 (0.07) 10.74		
ep1					1.01 (0.09) 11.57	
ep2					0.90 (0.09) 10.59	
ер3					0.82 (0.11) 7.38	
ip1						0.69 (0.09) 7.37
ip2						0.83 (0.09) 9.39
ip3						0.86 (0.12) 7.07
PHI						
	RI1	TI1	PF1	GN1	SF1	ORG1
RI1	1.00					
TI1	0.86 (0.05) 17.98	1.00				
PF1	0.46	0.49	1.00			

	(0.11) 4.04	(0.10) 4.91				
GN1	0.64 (0.07) 8.94	0.69 (0.06) 11.74	0.77 (0.05) 15.16	1.00		
SF1	0.46 (0.09) 5.21	0.59 (0.07) 8.72	0.83 (0.04) 19.93	0.79 (0.04) 22.42	1.00	
ORG1	0.41 (0.10) 3.99	0.48 (0.09) 5.39	0.56 (0.08) 7.07	0.71 (0.05) 13.57	0.81 (0.04) 22.21	1.00
DI1						
RA1						
CA1						-, -,
TE1						
WD1						-, -,
ACCEP1	0.09	0.04	0.03	0.11	0.08	0.04
	(0.10)	(0.09)	(0.10)	(0.08)	(0.07)	(0.09)
	0.91	0.49	0.26	1.42	1.01	0.42
SE1	0.04	-0.04	0.09	0.04	-0.01	-0.08
	(0.11)	(0.10)	(0.11)	(0.09)	(0.09)	(0.10)
	0.33	-0.40	0.84	0.43	-0.11	-0.84
RCON1	0.12	0.01	0.07	0.03	0.00	0.09
	(0.10)	(0.09)	(0.10)	(0.08)	(0.08)	(0.09)
	1.24	0.16	0.69	0.40	0.06	1.08
RAMB1	-0.05	-0.09	-0.03	-0.02	0.03	-0.01
	(0.10)	(0.09)	(0.10)	(0.08)	(0.07)	(0.09)
	-0.52	-0.98	-0.28	-0.28	0.43	-0.06
OCOM1	0.18	0.15	0.10	0.21	0.18	0.22
	(0.10)	(0.09)	(0.10)	(0.08)	(0.08)	(0.09)
	1.76	1.54	0.95	2.60	2.34	2.47
JSAT1	-0.07	-0.11	-0.08	0.02	0.02	0.02
	(0.10)	(0.09)	(0.10)	(0.08)	(0.08)	(0.09)
	-0.67	-1.20	-0.83	0.22	0.24	0.22
TOI1	0.08	0.04	0.01	-0.02	0.01	0.03
	(0.10)	(0.09)	(0.10)	(0.08)	(0.08)	(0.09)
	0.80	0.46	0.07	-0.29	0.16	0.39
STRES1	0.31	0.23	0.29	0.19	0.20	0.19
	(0.10)	(0.10)	(0.10)	(0.08)	(0.08)	(0.09)
	3.10	2.37	2.96	2.27	2.57	2.04
PERF	0.15	0.05	0.09	0.04	-0.01	0.10
	(0.09)	(0.09)	(0.09)	(0.08)	(0.07)	(0.08)
	1.57	0.59	0.98	0.53	-0.16	1.17
TARD	0.16	0.01	0.02	0.02	0.04	0.10
	(0.09)	(0.08)	(0.09)	(0.07)	(0.07)	(0.08)

	1.77	0.07	0.18	0.32	0.62	1.21
ABS	0.05	-0.04	0.04	0.02	-0.04	-0.01
ADS	(0.09)	(0.08)	(0.09)	(0.07)	(0.07)	(0.08)
	0.52	-0.48	0.45	0.25	-0.60	-0.19
	0.52	0.40	0.45	0.25	0.00	0.19
TO	-0.09	-0.06	-0.12	-0.05	-0.02	-0.01
	(0.09)	(0.08)	(0.09)	(0.08)	(0.07)	(0.08)
	-1.04	-0.76	-1.31	-0.68	-0.27	-0.18
RI2	-0.17	0.00	0.00	0.02	0.03	-0.04
	(0.12)	(0.11)	(0.12)	(0.10)	(0.09)	(0.10)
	-1.38	-0.01	0.00	0.19	0.31	-0.35
TI2	-0.19	0.08	-0.05	0.03	0.12	0.01
112	(0.12)	(0.11)	(0.11)	(0.09)	(0.09)	(0.10)
	-1.60	0.73	-0.43	0.37	1.34	0.06
	1.00	0.75	0.10	0.37	1.01	0.00
PF2	-0.21	0.05	0.30	0.22	0.32	0.14
	(0.13)	(0.11)	(0.11)	(0.10)	(0.09)	(0.11)
	-1.64	0.43	2.58	2.25	3.70	1.35
GN2	-0.03	0.18	0.14	0.22	0.21	0.22
	(0.11)	(0.10)	(0.11)	(0.09)	(0.08)	(0.09)
	-0.25	1.76	1.29	2.43	2.56	2.32
SF2	-0.10	0.07	0.34	0.31	0.38	0.23
	(0.11)	(0.10)	(0.10)	(0.08)	(0.07)	(0.09)
	-0.94	0.73	3.48	3.87	5.28	2.53
ORG2	-0.10	0.11	0.30	0.28	0.30	0.13
	(0.12)	(0.11)	(0.11)	(0.09)	(0.09)	(0.10)
	-0.85	0.98	2.67	3.00	3.45	1.24
DI2	0.26	0.04	0.16	0.07	0.20	0.14
210	(0.13)	(0.13)	(0.13)	(0.11)	(0.10)	(0.11)
	1.98	0.33	1.26	0.60	2.03	1.24
RA2	0.34	0.03	0.15	0.07	0.13	0.17
	(0.13)	(0.13)	(0.13)	(0.11)	(0.10)	(0.12)
	2.57	0.25	1.12	0.65	1.29	1.45
CA2	0.50	0.16	0.28	0.21	0.16	0.18
	(0.15)	(0.14)	(0.14)	(0.12)	(0.11)	(0.13)
	3.43	1.11	1.93	1.69	1.46	1.39
TE2	0.16	0.04	0.04	0.01	0.08	0.17
1112	(0.11)	(0.10)	(0.10)	(0.09)	(0.08)	(0.09)
	1.46	0.38	0.38	0.09	1.03	1.88
r. TD 0	0 11	0.01	0.00	0.04	0.15	0.10
WD2	0.11	-0.01	0.08	0.04	0.15	0.18
	(0.10)	(0.09)	(0.09)	(0.08)	(0.07)	(0.08)
	1.10	-0.13	0.84	0.45	2.00	2.14
ACCEP2	-0.03	-0.13	-0.09	-0.04	-0.03	-0.04
	(0.10)	(0.09)	(0.09)	(0.08)	(0.07)	(0.08)
	-0.27	-1.47	-0.98	-0.50	-0.41	-0.47
SE2	-0.03	-0.02	0.07	-0.02	0.02	0.02
222	(0.10)	(0.10)	(0.10)	(0.09)	(0.08)	(0.09)
	-0.25	-0.23	0.68	-0.20	0.25	0.26
DCCCTC	0.00	0.01	0.10	0.04	0.00	0.00
RCON2	-0.08	0.04	0.12	0.04	-0.03	-0.08

	(0.10)	(0.09)	(0.10)	(0.08)	(0.08)	(0.09)
	-0.78	0.39	1.15	0.49	-0.33	-0.85
RAMB2	-0.25	-0.19	-0.22	-0.20	-0.08	-0.09
	(0.09)	(0.09)	(0.09)	(0.08)	(0.07)	(0.08)
	-2.71	-2.14	-2.36	-2.59	-1.10	-1.02
OCOM2	0.02	0.02	0.05	0.07	0.07	0.11
	(0.10)	(0.09)	(0.10)	(0.08)	(0.08)	(0.08)
	0.18	0.22	0.50	0.87	0.96	1.31
JSAT2	-0.13	-0.24	-0.10	-0.03	-0.04	-0.06
	(0.10)	(0.09)	(0.10)	(0.08)	(0.07)	(0.08)
	-1.38	-2.70	-1.09	-0.35	-0.60	-0.76
TOI2	0.11	0.17	0.07	-0.01	0.00	0.01
	(0.10)	(0.09)	(0.10)	(0.08)	(0.08)	(0.09)
	1.09	1.81	0.70	-0.14	0.00	0.07
STRES2	0.17	0.14	0.20	0.10	0.10	0.04
	(0.10)	(0.09)	(0.10)	(0.08)	(0.08)	(0.09)
	1.72	1.51	1.96	1.18	1.26	0.42
LGO	0.03	-0.01	0.02	0.01	-0.02	-0.03
	(0.10)	(0.09)	(0.10)	(0.08)	(0.08)	(0.09)
	0.31	-0.08	0.19	0.09	-0.31	-0.29
PGO	0.29	0.25	0.31	0.16	0.14	0.17
	(0.11)	(0.10)	(0.10)	(0.09)	(0.08)	(0.10)
	2.70	2.50	2.94	1.75	1.72	1.82
EXTRA	-0.05	-0.04	-0.07	0.05	0.01	0.04
	(0.10)	(0.10)	(0.10)	(0.08)	(0.08)	(0.09)
	-0.50	-0.42	-0.71	0.54	0.17	0.45
IA	0.14	-0.04	0.07	0.07	0.03	0.10
	(0.11)	(0.10)	(0.11)	(0.09)	(0.08)	(0.09)
	1.36	-0.38	0.67	0.82	0.39	1.04
EP	0.02	-0.01	0.07	0.02	0.04	-0.02
	(0.11)	(0.10)	(0.11)	(0.09)	(0.08)	(0.10)
	0.15	-0.12	0.65	0.19	0.53	-0.21
IP	0.05	-0.05	0.17	0.04	0.11	0.09
	(0.12)	(0.11)	(0.12)	(0.10)	(0.09)	(0.10)
	0.44	-0.43	1.44	0.37	1.16	0.90
PH	I					
	DI1	RA1	CA1	TE1	WD1	ACCEP1
DI1	1.00					
RA1	0.78 (0.04) 19.73	1.00				
CA1	0.73 (0.05) 15.84	0.88 (0.03) 34.16	1.00			
TE1	0.65	0.72	0.75	1.00		

	(0.06) 11.79	(0.05) 14.81	(0.04) 17.38			
WD1	0.63 (0.05) 12.16	0.57 (0.06) 9.50	0.51 (0.07) 7.68	0.56 (0.06) 9.14	1.00	
ACCEP1	0.03 (0.08) 0.39	0.08 (0.08) 0.96	0.09 (0.09) 1.05	0.01 (0.08) 0.15	-0.06 (0.08) -0.76	1.00
SE1	-0.05	-0.02	-0.08	-0.07	0.15	0.40
	(0.09)	(0.10)	(0.10)	(0.10)	(0.09)	(0.07)
	-0.57	-0.16	-0.78	-0.77	1.80	5.45
RCON1	-0.09	-0.07	-0.09	-0.07	-0.03	-0.08
	(0.08)	(0.09)	(0.09)	(0.09)	(0.08)	(0.07)
	-1.08	-0.80	-1.01	-0.86	-0.40	-1.16
RAMB1	0.16	0.16	0.21	0.19	0.17	0.26
	(0.08)	(0.08)	(0.08)	(0.08)	(0.07)	(0.07)
	1.98	1.93	2.47	2.29	2.37	3.90
OCOM1	0.11	0.19	0.18	0.11	0.13	0.34
	(0.08)	(0.09)	(0.09)	(0.09)	(0.08)	(0.07)
	1.32	2.18	2.04	1.32	1.71	4.97
JSAT1	0.05	0.12	0.16	0.10	0.09	0.25
	(0.08)	(0.09)	(0.09)	(0.08)	(0.08)	(0.07)
	0.63	1.41	1.88	1.23	1.18	3.65
TOI1	-0.11	-0.16	-0.14	-0.01	-0.08	-0.13
	(0.08)	(0.09)	(0.09)	(0.09)	(0.08)	(0.07)
	-1.35	-1.89	-1.53	-0.08	-1.03	-1.78
STRES1	-0.03	-0.08	-0.12	-0.03	-0.20	-0.20
	(0.09)	(0.09)	(0.09)	(0.09)	(0.08)	(0.08)
	-0.34	-0.86	-1.28	-0.38	-2.53	-2.70
PERF	-0.17	-0.18	-0.17	-0.17	-0.25	0.12
	(0.08)	(0.08)	(0.08)	(0.08)	(0.07)	(0.07)
	-2.20	-2.28	-2.02	-2.09	-3.59	1.71
TARD	0.11	0.04	0.00	0.02	0.11	0.09
	(0.07)	(0.08)	(0.08)	(0.08)	(0.07)	(0.07)
	1.50	0.47	-0.01	0.24	1.60	1.31
ABS	-0.07	-0.04	0.02	-0.01	-0.06	0.07
	(0.07)	(0.08)	(0.08)	(0.08)	(0.07)	(0.07)
	-0.98	-0.47	0.21	-0.15	-0.89	0.98
TO	0.02	0.01	-0.01	-0.01	0.04	-0.03
	(0.08)	(0.08)	(0.08)	(0.08)	(0.07)	(0.07)
	0.25	0.18	-0.18	-0.17	0.60	-0.38
RI2	0.04	0.10	0.06	0.01	0.07	0.06
	(0.10)	(0.10)	(0.11)	(0.10)	(0.09)	(0.09)
	0.45	0.99	0.53	0.05	0.83	0.68
TI2	0.05	0.17	0.09	-0.03	0.11	0.02
	(0.10)	(0.10)	(0.11)	(0.10)	(0.09)	(0.08)
	0.46	1.76	0.86	-0.27	1.24	0.19

PF2	0.12	0.21	0.12	-0.03	0.14	0.12
	(0.10)	(0.10)	(0.11)	(0.10)	(0.09)	(0.09)
	1.21	2.17	1.12	-0.27	1.57	1.37
GN2	-0.05	0.03	-0.07	-0.17	-0.11	0.05
	(0.09)	(0.09)	(0.10)	(0.09)	(0.08)	(0.08)
	-0.59	0.33	-0.75	-1.81	-1.29	0.57
SF2	0.12	0.23	0.12	0.05	0.05	0.13
	(0.08)	(0.08)	(0.09)	(0.09)	(0.08)	(0.08)
	1.50	2.73	1.37	0.53	0.65	1.74
ORG2	0.03	0.10	-0.02	-0.07	0.02	0.14
	(0.09)	(0.10)	(0.10)	(0.10)	(0.09)	(0.09)
	0.33	1.01	-0.18	-0.75	0.26	1.63
DI2	0.55	0.48	0.52	0.50	0.30	0.00
	(0.10)	(0.10)	(0.11)	(0.11)	(0.10)	(0.10)
	5.75	4.61	4.85	4.55	3.10	0.00
RA2	0.50	0.55	0.51	0.49	0.34	0.05
	(0.10)	(0.10)	(0.11)	(0.11)	(0.10)	(0.10)
	4.83	5.39	4.60	4.29	3.38	0.46
CA2	0.43	0.37	0.54	0.58	0.31	-0.01
	(0.12)	(0.13)	(0.12)	(0.12)	(0.11)	(0.11)
	3.64	2.90	4.39	4.65	2.70	-0.12
TE2	0.33	0.35	0.40	0.71	0.34	-0.14
	(0.09)	(0.09)	(0.09)	(0.07)	(0.08)	(0.08)
	3.63	3.76	4.31	9.72	4.22	-1.63
WD2	0.35	0.40	0.31	0.43	0.52	-0.09
	(0.08)	(0.08)	(0.09)	(0.08)	(0.06)	(0.08)
	4.49	5.02	3.59	5.36	8.12	-1.14
ACCEP2	-0.09	0.00	-0.08	-0.10	-0.06	0.52
	(0.08)	(0.08)	(0.08)	(0.08)	(0.07)	(0.05)
	-1.17	-0.03	-0.95	-1.18	-0.86	9.63
SE2	-0.03	-0.01	-0.10	-0.09	-0.02	0.09
	(0.09)	(0.09)	(0.09)	(0.09)	(0.08)	(0.08)
	-0.32	-0.11	-1.12	-0.94	-0.23	1.13
RCON2	-0.06	-0.11	-0.08	0.09	0.02	-0.07
	(0.08)	(0.09)	(0.09)	(0.09)	(0.08)	(0.08)
	-0.77	-1.30	-0.93	1.04	0.22	-0.91
RAMB2	0.00	0.14	0.05	0.00	0.02	0.16
	(0.08)	(0.08)	(0.09)	(0.08)	(0.07)	(0.07)
	-0.05	1.74	0.58	0.04	0.33	2.24
OCOM2	0.08	0.13	0.07	0.03	0.12	0.22
	(0.08)	(0.08)	(0.09)	(0.08)	(0.07)	(0.07)
	1.01	1.57	0.85	0.39	1.63	3.21
JSAT2	0.12	0.17	0.14	0.15	0.13	0.22
	(0.08)	(0.08)	(0.08)	(0.08)	(0.07)	(0.07)
	1.56	2.03	1.68	1.83	1.73	3.24
TOI2	-0.01	-0.17	-0.07	0.00	-0.11	-0.19
	(0.08)	(0.09)	(0.09)	(0.09)	(0.08)	(0.07)
	-0.06	-1.97	-0.78	-0.03	-1.41	-2.67

STRES2	0.04 (0.09) 0.45	-0.11 (0.09) -1.22	-0.08 (0.09) -0.91	0.01 (0.09) 0.11	-0.05 (0.08) -0.56	-0.13 (0.08) -1.76
LGO	0.00 (0.08) -0.02	0.04 (0.09) 0.46	0.02 (0.09) 0.22	-0.09 (0.09) -1.01	0.13 (0.08) 1.62	0.25 (0.07) 3.48
PGO	-0.07 (0.09) -0.74	-0.12 (0.10) -1.23	-0.12 (0.10) -1.19	0.01 (0.09) 0.08	-0.01 (0.09) -0.15	0.21 (0.08) 2.63
EXTRA	0.12 (0.08) 1.41	0.08 (0.09) 0.93	0.12 (0.09) 1.37	0.05 (0.09) 0.52	0.04 (0.08) 0.45	0.19 (0.07) 2.62
IA	0.11 (0.09) 1.27	0.06 (0.09) 0.68	0.02 (0.09) 0.22	0.06 (0.09) 0.71	0.03 (0.08) 0.41	0.34 (0.07) 4.76
EP	0.21 (0.09) 2.39	0.26 (0.09) 2.93	0.27 (0.09) 2.93	0.26 (0.09) 2.89	0.06 (0.08) 0.75	0.27 (0.08) 3.61
IP	-0.01 (0.10) -0.14	-0.03 (0.10) -0.30	-0.09 (0.10) -0.82	-0.06 (0.10) -0.55	0.02 (0.09) 0.24	0.26 (0.08) 3.09
PHI	<u>.</u>					
	SE1	RCON1	RAMB1	OCOM1	JSAT1	TOI1
SE1	SE1  1.00	RCON1	RAMB1	OCOM1	JSAT1 	TOI1
SE1 RCON1		RCON1	RAMB1	OCOM1 	JSAT1 	TOI1
	1.00 0.13 (0.08)		RAMB1	OCOM1	JSAT1	TOI1
RCON1	1.00 0.13 (0.08) 1.61 0.29 (0.08)	-0.11 (0.07)		000M1 	JSAT1	TOI1
RCON1 RAMB1	1.00 0.13 (0.08) 1.61 0.29 (0.08) 3.75 0.31 (0.08)	-0.11 (0.07) -1.54 -0.05 (0.08)	1.00 0.27 (0.07)		JSAT1	TOI1
RCON1 RAMB1 OCOM1	1.00 0.13 (0.08) 1.61 0.29 (0.08) 3.75 0.31 (0.08) 3.83 0.16 (0.08)	-0.11 (0.07) -1.54 -0.05 (0.08) -0.68 -0.15 (0.07)	1.00 0.27 (0.07) 3.73 0.20 (0.07)	1.00 0.75 (0.04)		TOI1
RCON1 RAMB1 OCOM1 JSAT1	1.00 0.13 (0.08) 1.61 0.29 (0.08) 3.75 0.31 (0.08) 3.83 0.16 (0.08) 1.95 -0.04 (0.09)	1.00  -0.11 (0.07) -1.54  -0.05 (0.08) -0.68  -0.15 (0.07) -2.00  0.20 (0.07)	1.00 0.27 (0.07) 3.73 0.20 (0.07) 2.88 -0.11 (0.07)	1.00 0.75 (0.04) 16.96 -0.63 (0.06)	1.00 -0.69 (0.05)	

TARD	0.05	-0.05	0.04	0.04	-0.05	0.07
	(0.08)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
	0.65	-0.69	0.52	0.53	-0.70	1.02
ABS	-0.05	0.00	0.03	-0.05	-0.08	0.15
	(0.08)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
	-0.61	0.03	0.48	-0.64	-1.15	2.17
TO	-0.06	0.05	0.01	-0.16	-0.02	0.05
	(0.08)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
	-0.83	0.80	0.12	-2.25	-0.24	0.74
RI2	0.24	0.09	0.05	0.04	0.12	-0.04
	(0.10)	(0.09)	(0.08)	(0.09)	(0.09)	(0.09)
	2.50	1.05	0.56	0.49	1.40	-0.50
TI2	0.15	0.15	0.00	0.13	0.10	-0.02
	(0.10)	(0.09)	(0.08)	(0.09)	(0.09)	(0.09)
	1.57	1.76	0.01	1.46	1.22	-0.19
PF2	0.23	0.13	0.20	0.12	0.11	-0.12
	(0.10)	(0.09)	(0.09)	(0.09)	(0.09)	(0.10)
	2.22	1.37	2.29	1.23	1.15	-1.23
GN2	0.14	0.17	0.07	0.12	0.11	-0.10
	(0.09)	(0.08)	(0.08)	(0.09)	(0.08)	(0.09)
	1.53	2.01	0.80	1.41	1.35	-1.17
SF2	0.15	0.06	0.16	0.13	0.23	-0.12
	(0.09)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
	1.66	0.74	2.16	1.56	2.97	-1.49
ORG2	0.22	0.08	0.08	0.19	0.21	-0.25
	(0.10)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)
	2.28	0.93	0.90	2.08	2.38	-2.85
DI2	-0.02	-0.07	0.15	0.15	0.00	0.16
	(0.11)	(0.10)	(0.09)	(0.10)	(0.10)	(0.10)
	-0.22	-0.70	1.58	1.52	-0.05	1.62
RA2	-0.01	-0.07	0.08	0.10	0.02	0.06
	(0.12)	(0.11)	(0.10)	(0.11)	(0.10)	(0.11)
	-0.11	-0.68	0.80	0.95	0.16	0.54
CA2	-0.11	-0.08	0.04	0.03	-0.12	0.16
	(0.13)	(0.12)	(0.11)	(0.12)	(0.11)	(0.12)
	-0.86	-0.67	0.40	0.25	-1.02	1.33
TE2	-0.11	0.07	0.06	0.07	0.05	0.10
	(0.10)	(0.09)	(0.08)	(0.09)	(0.09)	(0.09)
	-1.16	0.81	0.75	0.80	0.57	1.17
WD2	0.09	-0.07	0.18	0.18	0.06	0.03
	(0.09)	(0.08)	(0.07)	(0.08)	(0.08)	(0.08)
	1.05	-0.93	2.44	2.29	0.77	0.37
ACCEP2	0.18	-0.04	0.22	-0.01	0.06	0.04
	(0.08)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
	2.24	-0.60	3.19	-0.19	0.87	0.59
SE2	0.38 (0.08)	0.14 (0.08)	0.09 (0.08)	0.01 (0.08)	-0.03 (0.08)	0.04 (0.08)

	4.87	1.74	1.12	0.10	-0.33	0.54
RCON2	0.06	0.54	-0.09	-0.06	-0.11	0.17
	(0.09)	(0.06)	(0.08)	(0.08)	(0.08)	(0.08)
	0.71	9.22	-1.23	-0.76	-1.45	2.12
RAMB2	0.09	-0.05	0.59	0.07	0.14	-0.19
	(0.08)	(0.07)	(0.05)	(0.07)	(0.07)	(0.07)
	1.17	-0.66	11.77	0.99	1.90	-2.62
OCOM2	0.25	0.01	0.15	0.83	0.66	-0.58
	(0.08)	(0.07)	(0.07)	(0.03)	(0.05)	(0.06)
	3.22	0.18	2.11	26.15	13.85	-10.52
JSAT2	0.19	-0.10	0.18	0.46	0.68	-0.42
	(0.08)	(0.07)	(0.07)	(0.06)	(0.04)	(0.06)
	2.39	-1.40	2.58	7.44	15.77	-6.58
TOI2	-0.06	0.19	-0.06	-0.57	-0.64	0.78
	(0.09)	(0.07)	(0.07)	(0.06)	(0.05)	(0.04)
	-0.70	2.49	-0.76	-9.61	-12.29	19.93
STRES2	-0.29	0.17	-0.12	-0.21	-0.36	0.27
	(0.08)	(0.08)	(0.08)	(0.08)	(0.07)	(0.08)
	-3.48	2.27	-1.58	-2.68	-5.10	3.52
LGO	0.40	-0.10	0.39	0.30	0.18	-0.09
	(0.08)	(0.08)	(0.07)	(0.07)	(0.08)	(0.08)
	5.17	-1.36	5.89	4.09	2.43	-1.12
PGO	0.12	0.00	0.31	0.14	-0.01	0.17
	(0.09)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
	1.34	-0.03	4.19	1.71	-0.12	2.00
EXTRA	0.12	-0.13	0.04	0.10	0.17	-0.13
	(0.09)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
	1.37	-1.69	0.53	1.27	2.24	-1.60
IA	0.39	-0.15	0.46	0.30	0.23	-0.09
	(0.08)	(0.08)	(0.07)	(0.08)	(0.08)	(0.08)
	4.72	-1.91	6.83	3.78	2.97	-1.13
EP	0.27	0.09	0.33	0.30	0.09	0.04
	(0.09)	(0.08)	(0.07)	(0.08)	(0.08)	(0.08)
	3.06	1.07	4.41	3.70	1.10	0.43
IP	0.37	-0.02	0.32	0.03	0.08	0.01
	(0.09)	(0.09)	(0.08)	(0.09)	(0.09)	(0.09)
	3.89	-0.18	3.87	0.35	0.85	0.15
PHI						
	STRES1	PERF	TARD	ABS	TO	RI2
STRES1	1.00					
PERF	-0.14 (0.07) -1.89	1.00				
TARD	0.02 (0.07)	-0.12 (0.06)	1.00			

	0.21	-1.93				
ABS	0.09 (0.07) 1.19	-0.11 (0.06) -1.78	0.30 (0.06) 5.28	1.00		
TO	0.00 (0.07) -0.04	-0.20 (0.06) -3.19	0.06 (0.06) 0.88	0.09 (0.06) 1.44	1.00	
RI2	0.04 (0.09) 0.48	0.12 (0.08) 1.49	-0.17 (0.08) -2.17	-0.12 (0.08) -1.49	-0.07 (0.08) -0.87	1.00
TI2	-0.01 (0.09) -0.07	-0.02 (0.08) -0.25	-0.13 (0.08) -1.68	-0.02 (0.08) -0.28	-0.01 (0.08) -0.18	0.70 (0.05) 13.68
PF2	-0.02 (0.10) -0.21	0.00 (0.09) 0.01	-0.20 (0.08) -2.43	-0.01 (0.09) -0.09	-0.01 (0.09) -0.14	0.50 (0.08) 6.61
GN2	0.00 (0.09) -0.01	0.03 (0.08) 0.33	-0.10 (0.08) -1.24	0.01 (0.08) 0.11	0.01 (0.08) 0.07	0.49 (0.07) 7.02
SF2	0.01 (0.08) 0.13	0.09 (0.08) 1.20	-0.12 (0.07) -1.59	0.02 (0.07) 0.29	-0.07 (0.07) -1.00	0.54 (0.06) 8.50
ORG2	-0.02 (0.09) -0.17	0.09 (0.08) 1.03	-0.29 (0.08) -3.71	-0.08 (0.08) -1.01	-0.04 (0.08) -0.48	0.49 (0.07) 6.56
DI2	0.14 (0.11) 1.29	0.01 (0.09) 0.15	0.19 (0.09) 2.10	-0.02 (0.09) -0.24	0.00 (0.09) -0.03	
RA2	0.04 (0.11) 0.37	0.08 (0.10) 0.78	0.24 (0.09) 2.56	-0.02 (0.10) -0.22	-0.02 (0.10) -0.20	
CA2	0.16 (0.12) 1.34	-0.04 (0.11) -0.40	0.30 (0.10) 2.88	0.06 (0.10) 0.53	-0.09 (0.10) -0.89	
TE2	0.07 (0.09) 0.77	0.04 (0.08) 0.54	0.12 (0.08) 1.54	0.00 (0.08) 0.04	0.01 (0.08) 0.08	
WD2	-0.10 (0.08) -1.16	-0.01 (0.07) -0.12	0.12 (0.07) 1.75	-0.04 (0.07) -0.63	0.01 (0.07) 0.15	
ACCEP2	-0.06 (0.08) -0.82	0.09 (0.07) 1.37	0.02 (0.07) 0.25	-0.03 (0.07) -0.46	0.07 (0.07) 1.01	0.24 (0.08) 2.91
SE2	0.03 (0.08) 0.30	0.08 (0.08) 1.06	0.06 (0.07) 0.84	-0.04 (0.07) -0.58	-0.01 (0.07) -0.09	0.13 (0.09) 1.44
RCON2	0.23	-0.04	0.02	0.02	0.05	0.09

	(0.08)	(0.07)	(0.07)	(0.07)	(0.07)	(0.09)
	2.91	-0.50	0.29	0.32	0.65	1.03
RAMB2	-0.11	0.03	-0.02	-0.03	0.08	0.06
	(0.08)	(0.07)	(0.07)	(0.07)	(0.07)	(0.08)
	-1.49	0.48	-0.36	-0.44	1.28	0.69
OCOM2	-0.24	0.26	-0.06	-0.05	-0.07	0.09
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.09)
	-3.19	4.03	-0.95	-0.78	-0.98	1.11
JSAT2	-0.32	0.15	0.07	-0.06	-0.01	0.11
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.08)
	-4.46	2.14	1.09	-0.83	-0.17	1.29
TOI2	0.41	-0.27	0.02	0.14	0.07	-0.10
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.09)
	5.69	-4.00	0.25	2.07	0.98	-1.15
STRES2	0.56	-0.17	0.07	0.16	0.05	-0.10
	(0.06)	(0.07)	(0.07)	(0.07)	(0.07)	(0.09)
	8.99	-2.40	1.02	2.23	0.66	-1.05
LGO	-0.22	0.04	0.07	-0.02	-0.04	0.11
	(0.08)	(0.07)	(0.07)	(0.07)	(0.07)	(0.09)
	-2.71	0.59	0.95	-0.26	-0.51	1.18
PGO	0.08	0.17	0.10	0.08	-0.08	0.01
	(0.09)	(0.08)	(0.08)	(0.08)	(0.08)	(0.10)
	0.86	2.20	1.32	1.03	-1.13	0.12
EXTRA	-0.07	-0.06	0.06	0.02	0.12	-0.19
	(0.08)	(0.07)	(0.07)	(0.07)	(0.07)	(0.09)
	-0.89	-0.81	0.83	0.26	1.79	-2.17
IA	-0.19	0.08	0.11	0.11	0.03	0.31
	(0.08)	(0.08)	(0.07)	(0.07)	(0.07)	(0.09)
	-2.24	1.08	1.53	1.47	0.34	3.40
EP	-0.08	0.04	0.09	0.03	-0.02	0.11
	(0.09)	(0.08)	(0.07)	(0.08)	(0.08)	(0.10)
	-0.93	0.45	1.16	0.44	-0.20	1.11
IP	-0.16	0.03	-0.07	-0.05	-0.18	0.11
	(0.09)	(0.09)	(0.08)	(0.08)	(0.08)	(0.11)
	-1.72	0.33	-0.85	-0.63	-2.25	1.01
PH	I					
	TI2	PF2	GN2	SF2	ORG2	DI2
TI2	1.00					
PF2	0.59 (0.06) 9.22	1.00				
GN2	0.62 (0.06) 11.21	0.58 (0.06) 9.73	1.00			
SF2	0.52	0.76	0.61	1.00		

	(0.06) 8.25	(0.04) 19.30	(0.05) 11.58			
ORG2	0.45 (0.08) 5.96	0.67 (0.05) 12.86	0.55 (0.06) 8.84	0.67 (0.05) 13.95	1.00	
DI2						1.00
RA2						0.68 (0.07) 10.02
CA2						0.43 (0.11) 3.79
TE2						0.24 (0.11) 2.19
WD2						0.41 (0.08) 4.93
ACCEP2	0.12	0.12	0.18	0.11	0.18	-0.04
	(0.08)	(0.09)	(0.08)	(0.08)	(0.08)	(0.10)
	1.41	1.31	2.24	1.44	2.10	-0.44
SE2	0.11	0.17	0.20	0.14	0.21	0.01
	(0.09)	(0.10)	(0.09)	(0.08)	(0.09)	(0.11)
	1.17	1.77	2.32	1.66	2.24	0.13
RCON2	0.08	-0.03	-0.11	-0.11	-0.11	-0.10
	(0.09)	(0.09)	(0.09)	(0.08)	(0.09)	(0.10)
	0.93	-0.35	-1.28	-1.33	-1.18	-0.99
RAMB2	0.09	0.19	0.19	0.18	0.21	0.05
	(0.08)	(0.09)	(0.08)	(0.08)	(0.08)	(0.10)
	1.12	2.15	2.46	2.38	2.47	0.54
OCOM2	0.23	0.20	0.23	0.15	0.27	0.18
	(0.08)	(0.09)	(0.08)	(0.08)	(0.08)	(0.09)
	2.80	2.28	2.90	1.94	3.34	1.96
JSAT2	0.11	0.05	0.11	0.17	0.17	0.13
	(0.08)	(0.09)	(0.08)	(0.08)	(0.08)	(0.10)
	1.33	0.54	1.36	2.23	2.02	1.37
TOI2	-0.13	-0.09	-0.20	-0.19	-0.20	0.00
	(0.09)	(0.09)	(0.08)	(0.08)	(0.09)	(0.10)
	-1.48	-1.00	-2.37	-2.41	-2.22	-0.02
STRES2	-0.11	-0.09	-0.11	-0.10	-0.12	0.09
	(0.09)	(0.10)	(0.09)	(0.08)	(0.09)	(0.10)
	-1.20	-0.96	-1.23	-1.24	-1.32	0.90
LGO	0.09	0.00	-0.01	-0.07	0.07	0.03
	(0.09)	(0.10)	(0.09)	(0.08)	(0.09)	(0.10)
	0.99	-0.03	-0.14	-0.89	0.72	0.33
PGO	0.06	0.08	0.15	0.08	0.09	0.11
	(0.10)	(0.10)	(0.09)	(0.09)	(0.10)	(0.11)

	0.61	0.79	1.67	0.94	0.94	1.00
EXTRA	-0.03	-0.02	-0.10	-0.05	-0.04	0.12
	(0.09)	(0.10)	(0.09)	(0.08)	(0.09)	(0.10)
	-0.35	-0.16	-1.14	-0.62	-0.43	1.16
IA	0.00	0.16	0.07	0.18	0.20	0.06
	(0.09)	(0.10)	(0.09)	(0.08)	(0.09)	(0.11)
	0.03	1.61	0.76	2.17	2.11	0.60
EP	0.10	0.15	0.16	0.17	0.09	0.21
	(0.10)	(0.10)	(0.09)	(0.09)	(0.10)	(0.11)
	1.01	1.49	1.72	1.91	0.95	1.92
IP	0.01	0.22	0.09	0.17	0.26	-0.25
	(0.10)	(0.11)	(0.10)	(0.10)	(0.10)	(0.12)
	0.13	1.96	0.89	1.76	2.52	-2.10
PHI	-					
	RA2	CA2	TE2	WD2	ACCEP2	SE2
RA2	1.00					
CA2	0.71 (0.07) 9.86	1.00				
TE2	0.40 (0.10) 4.05	0.42 (0.11) 3.98	1.00			
WD2	0.47 (0.08) 5.91	0.35 (0.10) 3.63	0.44 (0.07) 6.13	1.00		
ACCEP2	-0.03 (0.10) -0.33	-0.09 (0.11) -0.84	-0.11 (0.08) -1.28	-0.09 (0.07) -1.27	1.00	
SE2	-0.13 (0.11) -1.15	-0.27 (0.12) -2.23	-0.05 (0.09) -0.53	-0.02 (0.08) -0.18	0.35 (0.07) 4.99	1.00
RCON2	-0.08	-0.14	0.19	0.04	-0.17	-0.06
	(0.11)	(0.12)	(0.09)	(0.08)	(0.07)	(0.08)
	-0.77	-1.22	2.14	0.48	-2.31	-0.69
RAMB2	-0.02	-0.11	0.02	0.03	0.44	0.43
	(0.10)	(0.11)	(0.08)	(0.08)	(0.06)	(0.07)
	-0.19	-0.98	0.18	0.44	7.61	6.59
OCOM2	0.12	-0.02	0.06	0.12	0.24	0.23
	(0.10)	(0.11)	(0.08)	(0.08)	(0.07)	(0.07)
	1.22	-0.14	0.67	1.55	3.61	3.11
JSAT2	0.23	0.12	0.09	0.10	0.29	0.16
	(0.10)	(0.11)	(0.08)	(0.07)	(0.06)	(0.08)
	2.34	1.08	1.09	1.34	4.55	2.08
TOI2	-0.05	-0.01	0.11	0.02	-0.23	-0.04
	(0.11)	(0.12)	(0.09)	(0.08)	(0.07)	(0.08)

	-0.51	-0.06	1.21	0.31	-3.28	-0.44
STRES2	0.12 (0.11) 1.09	0.22 (0.12) 1.84	0.10 (0.09) 1.09	-0.04 (0.08) -0.53	-0.17 (0.07) -2.39	-0.20 (0.08) -2.51
LGO	0.09 (0.11) 0.80	-0.01 (0.12) -0.05	0.01 (0.09) 0.12	0.15 (0.08) 1.88	0.26 (0.07) 3.67	0.24 (0.08) 3.02
PGO	0.11 (0.11) 0.97	0.09 (0.13) 0.73	0.15 (0.09) 1.59	-0.02 (0.09) -0.26	0.21 (0.08) 2.70	0.05 (0.09) 0.61
EXTRA	0.14 (0.11) 1.35	0.15 (0.12) 1.26	0.14 (0.09) 1.55	0.06 (0.08) 0.70	0.03 (0.07) 0.43	-0.10 (0.08) -1.22
IA	0.03 (0.11) 0.28	-0.06 (0.12) -0.47	-0.01 (0.09) -0.11	0.03 (0.08) 0.37	0.21 (0.08) 2.72	0.14 (0.09) 1.59
EP	0.26 (0.11) 2.39	0.21 (0.12) 1.72	0.21 (0.09) 2.23	0.13 (0.09) 1.47	0.10 (0.08) 1.30	0.20 (0.09) 2.32
IP	-0.19 (0.12) -1.55	-0.31 (0.14) -2.28	-0.13 (0.10) -1.24	-0.12 (0.09) -1.25	0.12 (0.09) 1.36	0.18 (0.09) 1.97
PH	Ι					
PHI	I RCON2	RAMB2	OCOM2	JSAT2 	TOI2	STRES2
PH: RCON2		RAMB2	OCOM2 	JSAT2 	TOI2	STRES2
	RCON2	RAMB2 	OCOM2 	JSAT2 	TOI2	STRES2
RCON2	RCON2 		000M2	JSAT2 	TOI2	STRES2
RCON2 RAMB2	RCON2  1.00 -0.19 (0.07) -2.57 -0.12 (0.08)	1.00 0.28 (0.07)		JSAT2	TOI2	STRES2
RCON2 RAMB2 OCOM2	RCON2 	0.28 (0.07) 4.23 0.22 (0.07)	1.00 0.60 (0.05)		TOI2	STRES2
RCON2 RAMB2 OCOM2 JSAT2	RCON2 1.00 -0.19 (0.07) -2.57 -0.12 (0.08) -1.59 -0.10 (0.08) -1.32 0.25 (0.08)	1.00 0.28 (0.07) 4.23 0.22 (0.07) 3.29 -0.21 (0.07)	1.00 0.60 (0.05) 12.20 -0.63 (0.05)	1.00 -0.63 (0.05)		STRES2
RCON2 RAMB2 OCOM2 JSAT2 TOI2	RCON2 1.00 -0.19 (0.07) -2.57 -0.12 (0.08) -1.59 -0.10 (0.08) -1.32 0.25 (0.08) 3.29 0.20 (0.08)	1.00 0.28 (0.07) 4.23 0.22 (0.07) 3.29 -0.21 (0.07) -2.92 -0.08 (0.08)	1.00 0.60 (0.05) 12.20 -0.63 (0.05) -12.41 -0.28 (0.07)	1.00 -0.63 (0.05) -12.22 -0.39 (0.07)	1.00 0.38 (0.07)	

	1.27	2.85	2.58	1.88	1.42	0.01
EXTRA	-0.09 (0.08) -1.15	0.01 (0.07) 0.13	0.14 (0.07) 1.84	0.19 (0.07) 2.66	-0.08 (0.08) -1.02	0.11 (0.08) 1.43
IA	-0.18 (0.08) -2.15	0.21 (0.08) 2.72	0.21 (0.08) 2.68	0.21 (0.08) 2.80	-0.10 (0.08) -1.24	-0.24 (0.08) -2.90
EP	0.11 (0.08) 1.31	0.09 (0.08) 1.15	0.18 (0.08) 2.26	0.14 (0.08) 1.73	0.03 (0.08) 0.38	-0.13 (0.08) -1.58
IP	-0.09 (0.09) -0.99	0.12 (0.09) 1.35	-0.04 (0.09) -0.50	-0.05 (0.09) -0.57	0.06 (0.09) 0.64	0.09 (0.09) 0.96
PHI						
	LGO	PGO	EXTRA	IA	EP	IP
LGO	1.00					
PGO	0.53 (0.07) 7.74	1.00				
EXTRA	0.03 (0.08) 0.39	-0.18 (0.08) -2.14	1.00			
IA	0.47 (0.07) 6.68	0.36 (0.08) 4.37	0.00 (0.08) 0.01	1.00		
EP	0.46 (0.07) 6.32	0.58 (0.07) 7.94	-0.04 (0.08) -0.53	0.46 (0.08) 5.88	1.00	
IP	0.28 (0.09) 3.16	0.28 (0.10) 2.98	-0.19 (0.09) -2.07	0.49 (0.09) 5.73	0.31 (0.09) 3.33	1.00
THE	ETA-DELTA					
	ridi1	riral	rical	ritel	riwd1	tidi1
ridi1	1.80 (0.21) 8.52					
riral		2.83 (0.27) 10.52				
rical			2.23 (0.23) 9.68			
rite1				1.68		

				(0.19) 8.82		
riwd1					1.46 (0.17) 8.81	
tidi1						1.60 (0.18) 8.97
ridi2	0.25 (0.13) 1.96					
rira2		0.49 (0.16) 3.13				
rica2			0.57 (0.16) 3.66			
rite2				-0.13 (0.13) -1.00		
riwd2					-0.16 (0.12) -1.33	
tidi2						0.29 (0.11) 2.55
THE	ETA-DELTA					
	tiral	tical	titel	tiwd1	pfdi1	pfra1
tiral	1.47 (0.16) 9.18					
tica1		1.19 (0.15) 8.05				
titel			1.55 (0.17) 9.17			
tiwd1				1.13 (0.14) 8.25		
pfdi1					1.21 (0.21) 5.92	
pfra1						1.17 (0.14) 8.17

tira2	0.39 (0.10) 3.72					
tica2		-0.04 (0.10) -0.43				
tite2			0.21 (0.12) 1.77			
tiwd2				0.19 (0.10) 1.92		
pfdi2					0.25 (0.13) 1.92	
pfra2						0.17 (0.10) 1.69
TH	ETA-DELTA					
	pfca1	pfte1	pfwd1	gndi1	gnra1 	gnca1
pfca1	0.95 (0.13) 7.10					
pfte1		1.46 (0.16) 9.33				
pftel		(0.16)	1.99 (0.21) 9.58			
		(0.16)	(0.21)	1.49 (0.17) 8.93		
pfwdl		(0.16)	(0.21)	(0.17)	1.17 (0.13) 8.78	
pfwdl gndi1		(0.16)	(0.21)	(0.17)	(0.13)	0.99 (0.12) 7.96
pfwdl gndil gnral	0.08 (0.10) 0.89	(0.16)	(0.21)	(0.17)	(0.13)	(0.12)
pfwdl gndil gnral gnral	0.08 (0.10)	(0.16)	(0.21)	(0.17)	(0.13)	(0.12)

			(0.14) 2.13			
gndi2				0.09 (0.11) 0.84		
gnra2					0.18 (0.09) 2.02	
gnca2						0.03 (0.09) 0.35
THI	ETA-DELTA					
	gnte1	gnwd1	sfdi1	sfra1	sfca1	sfte1
gnte1	1.10 (0.13) 8.34					
gnwd1		1.42 (0.16) 8.90				
sfdi1			1.50 (0.16) 9.22			
sfra1				1.03 (0.12) 8.42		
sfcal					1.14 (0.13) 8.80	
sfte1						1.16 (0.13) 8.73
gnte2	0.23 (0.09) 2.39					
gnwd2		0.35 (0.11) 3.12				
sfdi2			0.29 (0.11) 2.55			
sfra2				0.03 (0.09) 0.34		
sfca2					-0.10 (0.10) -1.06	

sfte2						0.27 (0.10) 2.68
TH	ETA-DELTA					
	sfwd1	orgdi1	orgra1	orgca1	orgte1	orgwd1
sfwd1	1.19 (0.13) 9.38					
orgdi1		1.25 (0.14) 8.75				
orgra1			1.06 (0.12) 8.49			
orgca1				0.92 (0.13) 7.26		
orgte1					1.52 (0.16) 9.31	
orgwd1						1.95 (0.20) 9.72
sfwd2	0.27 (0.09) 2.89					
orgdi2		0.16 (0.11) 1.46				
orgra2			0.17 (0.09) 1.83			
orgca2				0.10 (0.09) 1.07		
orgte2					0.24 (0.12) 1.99	
orgwd2						0.46 (0.13) 3.49
TH	ETA-DELTA					
	ga2a 	ga3a 	ga4a 	se1a 	se2a 	se3a 

ga2a	0.28 (0.04) 6.92					
ga3a		0.27 (0.04) 6.42				
ga4a			0.42 (0.05) 9.37			
sela				0.85 (0.09) 9.50		
se2a					1.45 (0.15) 9.43	
se3a						1.01 (0.11) 9.43
ga2b	0.05 (0.03) 1.59					
ga3b		0.03 (0.03) 1.08				
ga4b			0.17 (0.03) 4.90			
se1b				0.17 (0.06) 2.69		
se2b					0.65 (0.13) 5.13	
se3b						0.53 (0.08) 6.47
TH	ETA-DELTA					
	se4a	rcla	rc2a	rc3a	rc4a	ra2a
se4a	2.51 (0.25) 10.19					
rcla		2.24 (0.22) 10.30				
rc2a			1.03 (0.20)			

			5.23			
rc3a				1.54 (0.20) 7.82		
rc4a					3.71 (0.35) 10.71	
ra2a						0.21 (0.03) 7.72
se4b	1.22 (0.18) 6.92					
rc1b		0.32 (0.16) 2.00				
rc2b			0.51 (0.15) 3.37			
rc3b				0.51 (0.15) 3.42		
rc4b					1.67 (0.25) 6.59	
ra2b						0.05 (0.03) 1.75
THE	ETA-DELTA					
	ra3a	ra4a	oc1a	oc3a	oc4a	js1a 
ra3a	0.21 (0.03) 6.19					
ra4a		0.59 (0.06) 9.69				
ocla			1.10 (0.11) 10.33			
oc3a				1.17 (0.13) 8.74		
oc4a					1.14 (0.12) 9.41	

js1a						0.77 (0.10) 8.08
ra3b	-0.02 (0.03) -0.64					
ra4b		0.12 (0.05) 2.47				
oclb			0.32 (0.08) 4.00			
oc3b				0.41 (0.10) 4.08		
oc4b					0.29 (0.08) 3.51	
js1b						0.11 (0.06) 1.72
TH	ETA-DELTA					
	js2a	js4a	toi1a	toi2a	toi4a	psla
js2a	1.30 (0.13) 9.77					
js4a		0.69 (0.08) 8.26				
toila			3.22 (0.31) 10.49			
toi2a				1.43 (0.18) 8.05		
toi4a					1.66 (0.19) 8.52	
psla						1.10 (0.11) 10.06
js2b	0.24 (0.08) 2.89					
js4b		0.25 (0.07)				

		3.90				
toilb			1.39 (0.24) 5.80			
toi2b				0.43 (0.14) 3.02		
toi4b					0.59 (0.15) 4.01	
ps1b						0.34 (0.08) 4.11
THETA-DELTA						
	ps2a	ps3a 	ps4a	perf1b	perf2b	perf3b
ps2a	0.76 (0.10) 7.89					
ps3a		0.64 (0.07) 8.60				
ps4a			1.32 (0.12) 11.13			
perf1b				0.25 (0.03) 8.15		
perf2b					0.32 (0.04) 8.96	
perf3b						0.44 (0.05) 9.27
ps2b	0.23 (0.07) 3.38					
ps3b		0.17 (0.05) 3.22				
ps4b			0.66 (0.10) 6.47			
THETA-DELTA						
	perf4b	perf5b	late2	absnt2	turn	ridi2

perf4b	0.32 (0.04) 8.59					
perf5b		0.44 (0.04) 10.26				
late2						
absnt2						
turn						
ridi2						1.57 (0.17) 9.17
THETA-DELTA						
	rira2	rica2	rite2	riwd2	tidi2	tira2
rira2	1.47 (0.18) 8.31					
rica2		1.72 (0.20) 8.50				
rite2			1.57 (0.18) 8.50			
riwd2				1.66 (0.18) 9.44		
tidi2					1.29 (0.14) 8.88	
tira2						0.92 (0.13) 7.24
THETA-DELTA						
	tica2	tite2	tiwd2	pfdi2	pfra2	pfca2
tica2	1.02 (0.15) 6.85					
tite2		1.48 (0.16) 9.08				
tiwd2			1.15 (0.14)			

			8.01			
pfdi2				1.35 (0.18) 7.70		
pfra2					1.15 (0.15) 7.85	
pfca2						0.85 (0.13) 6.37
TH	ETA-DELTA					
	pfte2	pfwd2	gndi2	gnra2	gnca2	gnte2
pfte2	1.31 (0.16) 8.20					
pfwd2		1.75 (0.18) 9.58				
gndi2			1.13 (0.14) 8.22			
gnra2				0.85 (0.12) 7.07		
gnca2					1.07 (0.13) 8.02	
gnte2						1.18 (0.14) 8.56
TH	ETA-DELTA					
	gnwd2	sfdi2	sfra2	sfca2	sfte2	sfwd2
gnwd2	1.44 (0.16) 9.04					
sfdi2		1.36 (0.16) 8.73				
sfra2			1.10 (0.14) 7.80			
sfca2				1.34 (0.15) 8.78		

sfte2					1.41 (0.16) 9.05	
sfwd2						1.28 (0.14) 9.30
TH	ETA-DELTA					
	orgdi2	orgra2	orgca2	orgte2	orgwd2 	ga2b
orgdi2	1.42 (0.17) 8.37					
orgra2		0.88 (0.14) 6.54				
orgca2			1.09 (0.14) 7.61			
orgte2				1.60 (0.17) 9.21		
orgwd2					1.54 (0.17) 9.33	
ga2b						0.37 (0.04) 8.60
TH	ETA-DELTA					
	ga3b	ga4b	se1b	se2b	se3b	se4b
ga3b	0.20 (0.04) 5.55					
ga4b		0.43 (0.05) 8.69				
selb			0.74 (0.09) 8.18			
se2b	~ =			1.86 (0.19) 9.95		
se3b					0.89 (0.11) 8.32	

se4b						2.09 (0.20) 10.18
THE	ETA-DELTA					
	rclb	rc2b	rc3b	rc4b	ra2b	ra3b
rc1b	2.33 (0.24) 9.60					
rc2b		1.98 (0.24) 8.22				
rc3b			1.96 (0.23) 8.47			
rc4b				2.99 (0.31) 9.69		
ra2b					0.47 (0.05) 8.80	
ra3b						0.22 (0.04) 5.00
THE	ETA-DELTA					
	ra4b	oclb	oc3b	oc4b	js1b	js2b
ra4b	0.70 (0.07) 9.85					
oc1b		1.06 (0.11) 9.52				
oc3b			0.99 (0.13) 7.85			
oc4b				0.76 (0.10) 7.69		
js1b					0.65 (0.09) 7.47	
js2b						0.86 (0.10) 8.35

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	js4b	toi1b	toi2b	toi4b	pslb	ps2b
js4b	0.78 (0.10) 7.96					
toilb		3.33 (0.32) 10.50				
toi2b			1.69 (0.21) 8.03			
toi4b				1.61 (0.20) 8.16		
pslb					1.16 (0.12) 9.78	
ps2b						0.64 (0.09) 6.80
TI	HETA-DELTA					
	ps3b	ps4b	lgo1	lgo2	1go3	pgo1
ps3b	0.58 (0.07) 7.89					
ps4b		1.62 (0.14) 11.23				
lgo1			0.83 (0.10) 8.63			
1go2				0.54 (0.07) 7.58		
1go3					0.52 (0.06) 8.81	
pgo1						0.90 (0.09) 10.12
TI	HETA-DELTA					
	pgo2	pgo3	pgo4	ex1	ex4	ex5
pgo2	1.01					

	(0.10) 9.97					
pgo3		1.15 (0.13) 9.19				
pgo4			1.70 (0.18) 9.62			
ex1				2.22 (0.24) 9.35		
ex4					1.70 (0.25) 6.89	
ex5						1.96 (0.24) 8.06
THE	ETA-DELTA					
	ex8	ia2	ia3	ia4	ep1	ep2
ex8	2.52 (0.24) 10.32					
ia2		1.26 (0.12) 10.26				
ia3			0.49 (0.07) 7.24			
ia4				0.72 (0.08) 8.94		
ep1					0.89 (0.12) 7.35	
ep2						0.98 (0.12) 8.48
THE	ETA-DELTA					
	ep3	ip1	ip2	ip3		
ер3	2.12 (0.21) 10.23					
ip1		1.34 (0.14)				

		9.77					
2			0.96 (0.12) 7.83				
3					2.32 (0.23) 9.92		
Squa	ared Multip	ole Correlat	cions for	Х -	- Variables		
	ridi1	riral	rica1		rite1	riwd1	tidi1
-	0.58	0.43	0.58	_	0.64	0.65	0.65
Squa	ared Multip	ole Correlat	ions for	Х -	- Variables		
	tiral	tical	tite1		tiwd1	pfdi1	pfra1
-	0.68	0.76	0.63	-	0.72	0.75	0.77
Squa	ared Multip	ole Correlat	ions for	Х -	- Variables		
	pfca1	pfte1	pfwd1		gndi1	gnra1	gnca1
-	0.82	0.64	0.59	-	0.72	0.78	0.82
Squa	ared Multip	ole Correlat	ions for	Х -	- Variables		
	gnte1	gnwd1	sfdi1		sfra1	sfca1	sfte1
-	0.76	0.69	0.69	-	0.81	0.79	0.75
Squa	ared Multip	ole Correlat	ions for	Х -	- Variables		
	sfwd1	orgdi1	orgra1		orgca1	orgte1	orgwd1
-	0.67	0.70	0.77	-	0.81	0.65	0.58
Squa	ared Multip	ole Correlat	ions for	Х -	- Variables		
	ga2a	ga3a	ga4a		sela	se2a	se3a
-	0.73	0.75	0.56	-	0.33	0.34	0.35
Squa	ared Multip	ole Correlat	ions for	Х -	- Variables		
	se4a	rcla	rc2a		rc3a	rc4a	ra2a
-	0.24	0.31	0.73	-	0.59	0.21	0.71
Squa	ared Multip	ole Correlat	ions for	Х -	- Variables		
	ra3a	ra4a	oc1a		oc3a	oc4a	jsla
-	0.77	0.54	0.42	-	0.62	0.56	0.67
Squa	ared Multip	ole Correlat	tions for	X -	· Variables		

0.50	0.66	0.32	0.63	0.60	0.32
Squared Multip	ole Correlat	tions for X	X - Variables		
ps2a	ps3a	ps4a	perf1b	perf2b	perf3b
0.56	0.50	0.05	0.76	0.70	0.67
Squared Multip	ole Correlat	tions for X	X - Variables		
perf4b	perf5b	late2	absnt2	turn	ridi2
0.73	0.51	1.00	1.00	1.00	0.56
Squared Multip	ole Correlat	tions for X	X - Variables		
rira2	rica2	rite2	riwd2	tidi2	tira2
0.68	0.64	0.60	0.57	0.64	0.79
Squared Multip	ole Correlat	tions for X	X - Variables		
tica2	tite2	tiwd2	pfdi2	pfra2	pfca2
0.76	0.61	0.72	0.72	0.77	0.82
Squared Multip	ole Correlat	tions for X	X - Variables		
pfte2	pfwd2	gndi2	gnra2	gnca2	gnte2
0.71	0.61	0.73	0.82	0.77	0.70
Squared Multip	ole Correlat	tions for X	X - Variables		
Squared Multip	ole Correlat	zions for X	X - Variables sfca2	sfte2	sfwd2
-				sfte2 0.66	sfwd2 
gnwd2 	sfdi2  0.70	sfra2  0.78	sfca2  0.71		
gnwd2  0.67	sfdi2  0.70	sfra2  0.78	sfca2  0.71		
gnwd2  0.67 Squared Multip	sfdi2  0.70 ble Correlat	sfra2  0.78	sfca2  0.71 X - Variables	0.66	0.64
gnwd2  0.67 Squared Multip orgdi2	sfdi2 0.70  Dle Correlat  orgra2 0.82	sfra2 0.78 cions for 2 orgca2 0.76	sfca2 	0.66 orgwd2	0.64 ga2b
gnwd2  0.67 Squared Multip orgdi2  0.69	sfdi2 0.70  Dle Correlat  orgra2 0.82	sfra2 0.78 cions for 2 orgca2 0.76	sfca2 	0.66 orgwd2	0.64 ga2b
gnwd2 0.67  Squared Multip orgdi2 0.69  Squared Multip	sfdi2 0.70  Dle Correlat  orgra2 0.82  Dle Correlat	sfra2 0.78  cions for 2  orgca2  0.76  cions for 2	sfca2 0.71  X - Variables orgte2 0.62  X - Variables	0.66 orgwd2 	ga2b  0.68
gnwd2 0.67  Squared Multip orgdi2 0.69  Squared Multip ga3b	sfdi2 0.70  Dle Correlat orgra2 0.82  Dle Correlat ga4b 0.68	sfra2 0.78 cions for 2 orgca2 0.76 cions for 2 selb 0.50	sfca2 	0.66 orgwd2 0.60	ga2b 
gnwd2 0.67  Squared Multip 0.69  Squared Multip ga3b 0.83	sfdi2 0.70  Dle Correlat orgra2 0.82  Dle Correlat ga4b 0.68	sfra2 0.78 cions for 2 orgca2 0.76 cions for 2 selb 0.50	sfca2 	0.66 orgwd2 0.60	ga2b 
gnwd2 0.67  Squared Multip orgdi2 0.69  Squared Multip ga3b 0.83  Squared Multip	sfdi2 0.70  Dele Correlation orgra2 0.82  Dele Correlation ga4b 0.68  Dele Correlation	sfra2  0.78  cions for 2  orgca2  0.76  cions for 2  selb  0.50  cions for 2	sfca2 0.71  X - Variables orgte2 0.62  X - Variables se2b 0.31  X - Variables	0.66 orgwd2 0.60 se3b	ga2b  0.68 se4b 
gnwd2	sfdi2 0.70  Dele Correlate orgra2 0.82  Dele Correlate ga4b 0.68  Dele Correlate rc2b 0.52	sfra2  0.78  cions for 2  orgca2  0.76  cions for 2  selb  0.50  cions for 2  rc3b  0.51	sfca2 	0.66  orgwd2  0.60  se3b  0.49	ga2b 
gnwd2 	sfdi2 0.70  Dele Correlate orgra2 0.82  Dele Correlate ga4b 0.68  Dele Correlate rc2b 0.52	sfra2  0.78  cions for 2  orgca2  0.76  cions for 2  selb  0.50  cions for 2  rc3b  0.51	sfca2 	0.66  orgwd2  0.60  se3b  0.49	ga2b 
gnwd2	sfdi2 0.70  Dele Correlate orgra2 0.82  Dele Correlate ga4b 0.68  Dele Correlate rc2b 0.52  Dele Correlate	sfra2  0.78  cions for 2  orgca2  0.76  cions for 2  selb  0.50  cions for 2  rc3b  0.51  cions for 2	sfca2 0.71  X - Variables orgte2 0.62  X - Variables se2b 0.31  X - Variables rc4b 0.37  X - Variables	0.66  orgwd2  0.60  se3b  0.49  ra2b  0.65	ga2b 0.68 se4b 0.27 ra3b 0.83

js4b	toilb	toi2b	toi4b	ps1b	ps2b
0.72	0.31	0.63	0.63	0.36	0.62
Squared Mul	tiple Correl	ations for	X - Variabl	es	
ps3b	ps4b	lgo1	lgo2	1go3	pgo1
0.54	0.01	0.53	0.61	0.51	0.29
Squared Mul	tiple Correl	ations for	X - Variabl	es	
pgo2	pgo3	pgo4	ex1	ex4	ex5
0.32	0.42	0.37	0.41	0.61	0.53
Squared Mul	tiple Correl	ations for	X - Variabl	es	
ex8	ia2	ia3	ia4	ep1	ep2
0.26	0.26	0.57	0.45	0.53	0.45
Squared Mul	tiple Correl	ations for	X — Variabl	es	

PH was written to file A:\Diss\_Step2\_Corr.cor

ip1

0.26

ер3

0.24

#### Goodness of Fit Statistics

ip2

0.42

ip3

0.24

Degrees of Freedom = 8687

Minimum Fit Function Chi-Square = 9233.62 (P = 0.00)

Normal Theory Weighted Least Squares Chi-Square = 8310.38 (P = 1.00)

Estimated Non-centrality Parameter (NCP) = 0.0

90 Percent Confidence Interval for NCP = (0.0; 0.0)

Minimum Fit Function Value = 36.35
Population Discrepancy Function Value (F0) = 0.0
90 Percent Confidence Interval for F0 = (0.0; 0.0)
Root Mean Square Error of Approximation (RMSEA) = 0.0
90 Percent Confidence Interval for RMSEA = (0.0; 0.0)
P-Value for Test of Close Fit (RMSEA < 0.05) = 1.00

Chi-Square for Independence Model with 10011 Degrees of Freedom = 29844.37

Independence AIC = 30128.37

Model AIC = 11242.38

Saturated AIC = 20306.00

Independence CAIC = 30773.23

Model CAIC = 17899.87

Saturated CAIC = 66413.45

Normed Fit Index (NFI) = 0.69 Non-Normed Fit Index (NNFI) = 0.97 Parsimony Normed Fit Index (PNFI) = 0.60 Comparative Fit Index (CFI) = 0.97 Incremental Fit Index (IFI) = 0.97 Relative Fit Index (RFI) = 0.64

Critical N (CN) = 248.48

Root Mean Square Residual (RMR) = 0.17 Standardized RMR = 0.052 Goodness of Fit Index (GFI) = 0.68 Adjusted Goodness of Fit Index (AGFI) = 0.63 Parsimony Goodness of Fit Index (PGFI) = 0.59

CFA of 1st Order Meas Model

### Completely Standardized Solution

LAMBDA-X

	RI1	TI1	PF1	GN1	SF1	ORG1
ridi1	0.62					
rira1	0.37					
rica1	0.46					
rite1	0.42					
riwd1	0.18					
tidi1		0.61				
tira1		0.51				
tica1		0.62				
tite1		0.42				
tiwd1		0.29				
pfdi1			0.23			
pfra1			0.54			
pfca1			0.61			
pfte1			0.48			
pfwd1			0.35			
gndi1				0.55		
gnra1				0.65		
gnca1				0.71		
gnte1				0.69		
gnwd1				0.60		
sfdi1					0.72	
sfra1					0.76	
sfca1					0.74	
sfte1					0.72	
sfwd1					0.60	
orgdi1						0.58
orgra1						0.61
orgca1						0.61
orgte1						0.58
orgwd1						0.51

### LAMBDA-X

	DI1	RA1	CA1	TE1	WD1	ACCEP1
ridi1	0.44					
rira1		0.54				
rica1			0.61			
ritel				0.68		
riwd1					0.78	

tidi1	0.53					
tira1		0.65				
tica1			0.61			
			0.01			
tite1				0.68		
tiwd1					0.80	
pfdi1	0.83					
pfra1		0.69				
pfca1			0.67			
pfte1				0.64		
_						
pfwd1					0.69	
gndi1	0.65					
gnra1		0.60				
gnca1			0.57			
gnte1				0.53		
gnwd1					0.57	
_						
sfdi1	0.41					
sfra1		0.48				
sfca1			0.48			
sfte1				0.48		
sfwd1					0.57	
orgdi1	0.60					
_						
orgra1		0.64				
orgca1			0.66			
orgte1				0.56		
orgwd1					0.56	
ga2a						0.85
ga3a						0.87
_						
ga4a						0.75
LA	MBDA-X					
	SE1	RCON1	D7MD1	000141	TC 7 TP 1	TOI1
			KAMBI	()(,),)()	JSATI	
			RAMB1	OCOM1	JSAT1	1011
1-						
sela	0.57					
se2a	0.57 0.59					
	0.57					
se2a	0.57 0.59	 	  	  	  	 
se2a se3a se4a	0.57 0.59 0.59	   	  	  	  	  
se2a se3a se4a rc1a	0.57 0.59 0.59 0.49	    0.56		   	   	   
se2a se3a se4a rc1a rc2a	0.57 0.59 0.59 0.49		    	    	    	
se2a se3a se4a rc1a rc2a rc3a	0.57 0.59 0.59 0.49 	   0.56 0.86 0.77				
se2a se3a se4a rc1a rc2a rc3a rc4a	0.57 0.59 0.59 0.49			    	    	
se2a se3a se4a rc1a rc2a rc3a	0.57 0.59 0.59 0.49 	   0.56 0.86 0.77				
se2a se3a se4a rc1a rc2a rc3a rc4a	0.57 0.59 0.59 0.49 	  0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a	0.57 0.59 0.59 0.49 	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a	0.57 0.59 0.59 0.49 	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a	0.57 0.59 0.59 0.49 	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a	0.57 0.59 0.59 0.49 	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a oc4a	0.57 0.59 0.59 0.49 	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a oc4a js1a	0.57 0.59 0.59 0.49 	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a oc4a js1a	0.57 0.59 0.59 0.49 	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a oc4a js1a js2a	0.57 0.59 0.59 0.49 	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a oc4a js1a js2a js4a	0.57 0.59 0.59 0.49 	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a oc4a js1a js2a js4a toi1a	0.57 0.59 0.59 0.49 	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a oc4a js1a js2a js4a toi1a toi2a	0.57 0.59 0.59 0.49 	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a oc4a js1a js2a js4a toi1a	0.57 0.59 0.59 0.49 	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a oc4a js1a js2a js4a toi1a toi2a	0.57 0.59 0.59 0.49 	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a oc4a js1a js2a js4a toi1a toi2a	0.57 0.59 0.59 0.49 	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a oc4a js1a js2a js4a toi1a toi2a	0.57 0.59 0.59 0.49 	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a oc4a js1a js2a js4a toi1a toi2a	0.57 0.59 0.59 0.49	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a oc4a js1a js2a js4a toi1a toi2a	0.57 0.59 0.59 0.49 	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a oc4a js1a js2a js4a toi1a toi2a	0.57 0.59 0.59 0.49	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a oc4a js1a js2a js4a toi1a toi2a toi4a	0.57 0.59 0.59 0.49	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a oc4a js1a js2a js4a toi1a toi2a toi4a	0.57 0.59 0.59 0.49 	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a oc4a js1a js2a js4a toi1a toi2a toi4a  LA  ps1a ps2a ps3a	0.57 0.59 0.59 0.49 	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a oc4a js1a js2a js4a toi1a toi2a toi4a	0.57 0.59 0.59 0.49 	0.56 0.86 0.77 0.46				
se2a se3a se4a rc1a rc2a rc3a rc4a ra2a ra3a ra4a oc1a oc3a oc4a js1a js2a js4a toi1a toi2a toi4a  LA  ps1a ps2a ps3a	0.57 0.59 0.59 0.49 	0.56 0.86 0.77 0.46				

perf2b perf3b perf4b perf5b late2 absnt2 turn ridi2 rira2 rica2	     	0.84 0.82 0.86 0.72 				     0.63 0.74
rite2						0.29
riwd2	 MBDA-X					0.36
T-7-7	TI2	PF2	GN2	SF2	ORG2	DI2
	112			5f Z 		
ridi2 rira2 rica2 rite2 riwd2 tidi2 tira2 tica2 tite2 tiwd2 pfdi2 pfca2 pfca2 pfte2 pfwd2 gndi2 gnra2 gnca2 gnte2 gnwd2 sfdi2 sfca2	0.66 0.74 0.81 0.40 0.31					0.41 0.46 0.63 0.45 0.39 0.48
orgwd2					0.39	
LAI	MBDA-X					
	RA2	CA2	TE2	WD2	ACCEP2	SE2
ridi2 rira2 rica2 rite2 riwd2 tidi2 tira2 tica2 tite2 tiwd2 pfdi2	0.36	0.35   0.33 		0.66 		

pfra2	0.55					
pfca2		0.53				
pfte2			0.55			
pfwd2				0.62		
gndi2						
gnra2	0.49					
gnca2		0.45				
			0.49			
gnte2				0.59		
gnwd2						
sfdi2	0.33					
sfra2						
sfca2		0.35				
sfte2			0.50			
sfwd2				0.61		
orgdi2						
orgra2	0.56					
orgca2		0.45				
orgte2			0.46			
orgwd2				0.67		
ga2b					0.83	
ga3b					0.91	
ga4b					0.82	
se1b						0.71
se2b						0.55
se3b						0.70
se4b						0.52
2012						0.02
LAM	BDA-X					
	RCON2	RAMB2	OCOM2	JSAT2	TOI2	STRES2
rc1b	0.62					
rc2b	0.72			 		 
rc2b rc3b	0.72 0.71	 	 	  	 	
rc2b rc3b rc4b	0.72 0.71 0.61	  		  		  
rc2b rc3b rc4b ra2b	0.72 0.71	   0.81	  	   	  	
rc2b rc3b rc4b ra2b ra3b	0.72 0.71 0.61 	  0.81 0.91	   	   	   	  
rc2b rc3b rc4b ra2b ra3b ra4b	0.72 0.71 0.61 	  0.81 0.91 0.74	   	   	   	
rc2b rc3b rc4b ra2b ra3b ra4b oc1b	0.72 0.71 0.61 	0.81	     0.76	   	    	   
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b	0.72 0.71 0.61   	  0.81 0.91 0.74	     0.76 0.85	    	    	  
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b	0.72 0.71 0.61 	 0.81 0.91 0.74 		    	    	   
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b js1b	0.72 0.71 0.61 	  0.81 0.91 0.74 	   0.76 0.85 0.86	      0.86	      	     
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b js1b js2b	0.72 0.71 0.61 	 0.81 0.91 0.74 			    	   
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b js1b js2b js4b	0.72 0.71 0.61 	  0.81 0.91 0.74 	   0.76 0.85 0.86	      0.86	        	     
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b js1b js2b js4b toi1b	0.72 0.71 0.61 	  0.81 0.91 0.74 	   0.76 0.85 0.86			     
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b js1b js2b js4b toi1b toi2b	0.72 0.71 0.61 	  0.81 0.91 0.74 	   0.76 0.85 0.86			     
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b js1b js2b js4b toi1b toi2b toi4b	0.72 0.71 0.61 	  0.81 0.91 0.74 	   0.76 0.85 0.86			
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b js1b js2b js4b toi1b toi2b toi4b ps1b	0.72 0.71 0.61 	  0.81 0.91 0.74 	   0.76 0.85 0.86			
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b js1b js2b js4b toi1b toi2b toi4b ps1b ps2b	0.72 0.71 0.61 	  0.81 0.91 0.74 	   0.76 0.85 0.86			
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b js1b js2b js4b toi1b toi2b toi4b ps1b ps2b ps3b	0.72 0.71 0.61 	  0.81 0.91 0.74 	   0.76 0.85 0.86			
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b js1b js2b js4b toi1b toi2b toi4b ps1b ps2b	0.72 0.71 0.61 	  0.81 0.91 0.74 	   0.76 0.85 0.86			
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b js1b js2b js4b toi1b toi2b toi4b ps1b ps2b ps3b ps4b	0.72 0.71 0.61 	  0.81 0.91 0.74 	   0.76 0.85 0.86			
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b js1b js2b js4b toi1b toi2b toi4b ps1b ps2b ps3b ps4b	0.72 0.71 0.61 	  0.81 0.91 0.74 	   0.76 0.85 0.86			
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b js1b js2b js4b toi1b toi2b toi4b ps1b ps2b ps3b ps4b	0.72 0.71 0.61 	  0.81 0.91 0.74 	   0.76 0.85 0.86			
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b js1b js2b js4b toi1b toi2b toi4b ps1b ps2b ps3b ps4b	0.72 0.71 0.61          -	0.81 0.91 0.74 	0.76 0.85 0.86 			
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b js1b js2b js4b toi1b toi2b toi4b ps1b ps2b ps3b ps4b	0.72 0.71 0.61 	0.81 0.91 0.74 	0.76 0.85 0.86 			
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b js1b js2b js4b toi1b toi2b toi4b ps1b ps2b ps3b ps4b	0.72 0.71 0.61 	0.81 0.91 0.74 	0.76 0.85 0.86 			
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b js1b js2b js4b toi1b toi2b toi4b ps1b ps2b ps3b ps4b  LAM	0.72 0.71 0.61 	0.81 0.91 0.74 	0.76 0.85 0.86 			
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b js1b js2b js4b toi1b toi2b toi4b ps1b ps2b ps3b ps4b  LAM	0.72 0.71 0.61 	0.81 0.91 0.74	0.76 0.85 0.86 			
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b js1b js2b js4b toi1b toi2b toi4b ps1b ps2b ps3b ps4b  LAM  lgo1 lgo2 lgo3 pgo1 pgo2	0.72 0.71 0.61 	PGO	0.76 0.85 0.86 			
rc2b rc3b rc4b ra2b ra3b ra4b oc1b oc3b oc4b js1b js2b js4b toi1b toi2b toi4b ps1b ps2b ps3b ps4b  LAM	0.72 0.71 0.61 	0.81 0.91 0.74	0.76 0.85 0.86 			

ex1			0.64			
ex4			0.78			
ex5			0.73			
ex8			0.51			
ia2				0.51		
ia3				0.76		
ia4				0.67		
ep1					0.73	
ep2					0.67	
ep3					0.49	
ip1						0.51
ip2						0.65
ip3						0.49
PHI	Т					
111						
	RI1	TI1	PF1	GN1 	SF1	ORG1
RI1	1.00					
TI1	0.86	1.00				
PF1	0.46	0.49	1.00			
GN1	0.64	0.69	0.77	1.00		
SF1	0.46	0.59	0.83	0.79	1.00	
ORG1	0.41	0.48	0.56	0.71	0.81	1.00
DI1						
RA1						
CA1						
TE1						
WD1						
ACCEP1	0.09	0.04	0.03	0.11	0.08	0.04
SE1	0.04	-0.04	0.09	0.04	-0.01	-0.08
RCON1	0.12	0.01	0.07	0.03	0.00	0.09
RAMB1	-0.05	-0.09	-0.03	-0.02	0.03	-0.01
OCOM1	0.18	0.15	0.10	0.21	0.18	0.22
JSAT1	-0.07	-0.11	-0.08	0.02	0.02	0.02
TOI1	0.08	0.04	0.01	-0.02	0.01	0.03
STRES1	0.31	0.23	0.29	0.19	0.20	0.19
PERF	0.15	0.05	0.09	0.04	-0.01	0.10
TARD	0.16	0.01	0.02	0.02	0.04	0.10
ABS	0.05	-0.04	0.04	0.02	-0.04	-0.01
TO	-0.09	-0.06	-0.12	-0.05	-0.02	-0.01
RI2	-0.17	0.00	0.00	0.02	0.03	-0.04
TI2	-0.19	0.08	-0.05	0.03	0.12	0.01
PF2	-0.21	0.05	0.30	0.22	0.32	0.14
GN2	-0.03	0.18	0.14	0.22	0.21	0.22
SF2	-0.10	0.07	0.34	0.31	0.38	0.23
ORG2	-0.10	0.11	0.30	0.28	0.30	0.13
DI2	0.26	0.04	0.16	0.07	0.20	0.14
RA2	0.34	0.03	0.15	0.07	0.13	0.17
CA2	0.50	0.16	0.28	0.21	0.16	0.18
TE2	0.16	0.04	0.04	0.01	0.08	0.17
WD2	0.11	-0.01	0.08	0.04	0.15	0.18
ACCEP2	-0.03	-0.13	-0.09	-0.04	-0.03	-0.04
SE2	-0.03	-0.02	0.07	-0.02	0.02	0.02
RCON2	-0.08	0.04	0.12	0.04	-0.03	-0.08
RAMB2	-0.25	-0.19	-0.22	-0.20	-0.08	-0.09
OCOM2	0.02	0.02	0.05	0.07	0.07	0.11
JSAT2	-0.13	-0.24	-0.10	-0.03	-0.04	-0.06
TOI2	0.11	0.17	0.07	-0.01	0.00	0.01
STRES2	0.17	0.14	0.20	0.10	0.10	0.04
LGO	0.03	-0.01	0.02	0.01	-0.02	-0.03
PGO	0.29	0.25	0.31	0.16	0.14	0.17
EXTRA	-0.05	-0.04	-0.07	0.05	0.01	0.04

IA	0.14	-0.04	0.07	0.07	0.03	0.10
EP	0.02	-0.01	0.07	0.02	0.04	-0.02
IP	0.05	-0.05	0.17	0.04	0.11	0.09
PHI	-					
	DI1	RA1	CA1	TE1	WD1	ACCEP1
DI1	1.00					
RA1	0.78	1.00				
CA1	0.73	0.88	1.00			
TE1	0.65	0.72	0.75	1.00		
WD1	0.63	0.57	0.51	0.56	1.00	1 00
ACCEP1 SE1	0.03 -0.05	0.08 -0.02	0.09 -0.08	0.01 -0.07	-0.06 0.15	1.00 0.40
RCON1	-0.09	-0.07	-0.09	-0.07	-0.03	-0.08
RAMB1	0.16	0.16	0.21	0.19	0.17	0.26
OCOM1	0.11	0.19	0.18	0.11	0.13	0.34
JSAT1	0.05	0.12	0.16	0.10	0.09	0.25
TOI1	-0.11	-0.16	-0.14	-0.01	-0.08	-0.13
STRES1	-0.03	-0.08	-0.12	-0.03	-0.20	-0.20
PERF TARD	-0.17 0.11	-0.18 0.04	-0.17 0.00	-0.17 0.02	-0.25 0.11	0.12
ABS	-0.07	-0.04	0.00	-0.01	-0.06	0.03
TO	0.02	0.01	-0.01	-0.01	0.04	-0.03
RI2	0.04	0.10	0.06	0.01	0.07	0.06
TI2	0.05	0.17	0.09	-0.03	0.11	0.02
PF2	0.12	0.21	0.12	-0.03	0.14	0.12
GN2	-0.05	0.03	-0.07	-0.17	-0.11	0.05
SF2 ORG2	0.12 0.03	0.23 0.10	0.12 -0.02	0.05 -0.07	0.05 0.02	0.13 0.14
DI2	0.03	0.10	0.52	0.50	0.30	0.00
RA2	0.50	0.55	0.51	0.49	0.34	0.05
CA2	0.43	0.37	0.54	0.58	0.31	-0.01
TE2	0.33	0.35	0.40	0.71	0.34	-0.14
WD2	0.35	0.40	0.31	0.43	0.52	-0.09
ACCEP2	-0.09	0.00	-0.08	-0.10	-0.06	0.52
SE2 RCON2	-0.03 -0.06	-0.01 -0.11	-0.10 -0.08	-0.09 0.09	-0.02 0.02	0.09 -0.07
RAMB2	0.00	0.14	0.05	0.09	0.02	0.16
OCOM2	0.08	0.13	0.07	0.03	0.12	0.22
JSAT2	0.12	0.17	0.14	0.15	0.13	0.22
TOI2	-0.01	-0.17	-0.07	0.00	-0.11	-0.19
STRES2	0.04	-0.11	-0.08	0.01	-0.05	-0.13
LGO	0.00	0.04	0.02	-0.09	0.13	0.25
PGO	-0.07	-0.12 0.08	-0.12 0.12	0.01	-0.01 0.04	0.21
EXTRA IA	0.12 0.11	0.06	0.12	0.05 0.06	0.04	0.19 0.34
EP	0.21	0.26	0.27	0.26	0.06	0.27
IP	-0.01	-0.03	-0.09	-0.06	0.02	0.26
PHI	-					
	SE1	RCON1	RAMB1	OCOM1	JSAT1	TOI1
OF 1	1 00					
SE1 RCON1	1.00 0.13	1.00				
RAMB1	0.13	-0.11	1.00			
OCOM1	0.31	-0.05	0.27	1.00		
JSAT1	0.16	-0.15	0.20	0.75	1.00	
TOI1	-0.04	0.20	-0.11	-0.63	-0.69	1.00
STRES1	-0.32	0.37	-0.38	-0.35	-0.40	0.53
PERF	0.16	-0.03	0.02	0.22	0.22	-0.24

TARD	0.05	-0.05	0.04	0.04	-0.05	0.07
ABS	-0.05	0.00	0.03	-0.05	-0.08	0.15
TO	-0.06	0.05	0.01	-0.16	-0.02	0.05
RI2	0.24	0.09	0.05	0.04	0.12	-0.04
TI2	0.15	0.15	0.00	0.13	0.10	-0.02
PF2	0.23	0.13	0.20	0.12	0.11	-0.12
GN2	0.14	0.17	0.07	0.12	0.11	-0.10
SF2	0.15	0.06	0.16	0.13	0.23	-0.12
ORG2	0.22	0.08	0.08	0.19	0.21	-0.25
DI2	-0.02	-0.07	0.15	0.15	0.00	0.16
RA2	-0.01	-0.07	0.08	0.10	0.02	0.06
CA2	-0.11	-0.08	0.04	0.03	-0.12	0.16
TE2	-0.11	0.07	0.06	0.07	0.05	0.10
WD2	0.09	-0.07	0.18	0.18	0.05	0.03
ACCEP2	0.18	-0.04	0.22	-0.01	0.06	0.03
SE2	0.18	0.04	0.09	0.01	-0.03	0.04
RCON2	0.06	0.14	-0.09	-0.06	-0.03	0.04
RAMB2	0.09	-0.05	0.59	0.07	0.14	-0.19
OCOM2	0.25	0.01	0.15	0.83	0.66	-0.58
JSAT2	0.19	-0.10	0.18	0.46	0.68	-0.42
TOI2	-0.06	0.19	-0.06	-0.57	-0.64	0.78
STRES2	-0.29	0.17	-0.12	-0.21	-0.36	0.27
LGO	0.40	-0.10	0.39	0.30	0.18	-0.09
PGO	0.12	0.00	0.31	0.14	-0.01	0.17
EXTRA	0.12	-0.13	0.04	0.10	0.17	-0.13
IA	0.39	-0.15	0.46	0.30	0.23	-0.09
EP	0.27	0.09	0.33	0.30	0.09	0.04
IP	0.37	-0.02	0.32	0.03	0.08	0.01
PHI	• •					
	STRES1	PERF	TARD	ABS	TO	RI2
STRES1	1.00					
PERF	-0.14	1.00				
TARD	0.02	-0.12	1.00			
ABS	0.09	-0.11	0.30	1.00		
TO	0.00	-0.20	0.06	0.09	1.00	
RI2	0.04	0.12	-0.17	-0.12	-0.07	1.00
TI2	-0.01	-0.02	-0.13	-0.02	-0.01	0.70
PF2	-0.02	0.00	-0.20	-0.01	-0.01	0.50
GN2	0.00	0.03	-0.10	0.01	0.01	0.49
SF2	0.01	0.09	-0.12	0.02	-0.07	0.54
ORG2	-0.02	0.09	-0.29	-0.08	-0.04	0.49
DI2	0.14	0.01	0.19	-0.02	0.00	
RA2	0.04	0.08	0.24	-0.02	-0.02	
CA2	0.16	-0.04	0.30	0.06	-0.09	
TE2	0.07	0.04	0.12	0.00	0.01	
WD2	-0.10	-0.01	0.12	-0.04	0.01	
ACCEP2	-0.06	0.09	0.02	-0.03	0.07	0.24
SE2	0.03	0.08	0.06	-0.04	-0.01	0.13
RCON2	0.23	-0.04	0.02	0.02	0.05	0.09
RAMB2	-0.11	0.03	-0.02	-0.03	0.08	0.06
OCOM2	-0.24	0.03	-0.06	-0.05	-0.07	0.09
JSAT2	-0.24	0.20	0.07	-0.05	-0.07	0.09
	0.41	-0.27	0.07		0.01	-0.10
TOI2 STRES2			0.02	0.14	0.07	
	0.56	-0.17		0.16		-0.10
LGO	-0.22	0.04	0.07	-0.02	-0.04	0.11
PGO	0.08	0.17	0.10	0.08	-0.08	0.01
EXTRA	-0.07	-0.06	0.06	0.02	0.12	-0.19
IA	-0.19	0.08	0.11	0.11	0.03	0.31
EP	0 00	0 0 1	0 00	0 00	0 00	0 11
	-0.08	0.04	0.09	0.03	-0.02	0.11
IP	-0.08 -0.16	0.04 0.03	0.09 -0.07	0.03 -0.05	-0.02 -0.18	0.11 0.11

- 6	n	τ	J	п

	TI2	PF2	GN2	SF2	ORG2	DI2
TI2 PF2 GN2 SF2 ORG2	1.00 0.59 0.62 0.52 0.45	1.00 0.58 0.76 0.67	1.00 0.61 0.55	1.00 0.67	1.00	
DI2 RA2 CA2 TE2 WD2 ACCEP2 SE2 RCON2 RAMB2 OCOM2 JSAT2 TO12 STRES2 LGO PGO EXTRA IA	0.12 0.11 0.08 0.09 0.23 0.11 -0.13 -0.11 0.09 0.06 -0.03 0.00	0.12 0.17 -0.03 0.19 0.20 0.05 -0.09 -0.09 0.00 0.08 -0.02 0.16	0.18 0.20 -0.11 0.19 0.23 0.11 -0.20 -0.11 -0.01 0.15 -0.10 0.07	0.11 0.14 -0.11 0.18 0.15 0.17 -0.19 -0.10 -0.07 0.08 -0.05 0.18	0.18 0.21 -0.11 0.21 0.27 0.17 -0.20 -0.12 0.07 0.09 -0.04 0.20	1.00 0.68 0.43 0.24 0.41 -0.04 0.01 -0.10 0.05 0.18 0.13 0.00 0.09 0.03 0.11 0.12 0.06
EP IP PHI	0.10 0.01	0.15 0.22	0.16 0.09	0.17 0.17	0.09 0.26	0.21 -0.25
	RA2	CA2	TE2	WD2	ACCEP2	SE2
RA2 CA2 TE2 WD2 ACCEP2 SE2 RCON2 RAMB2 OCOM2 JSAT2 TO12 STRES2 LGO PGO EXTRA IA EP IP	1.00 0.71 0.40 0.47 -0.03 -0.13 -0.08 -0.02 0.12 0.23 -0.05 0.12 0.09 0.11 0.14 0.03 0.26 -0.19	1.00 0.42 0.35 -0.09 -0.27 -0.14 -0.11 -0.02 0.12 -0.01 0.22 -0.01 0.09 0.15 -0.06 0.21 -0.31	1.00 0.44 -0.11 -0.05 0.19 0.02 0.06 0.09 0.11 0.10 0.01 0.15 0.14 -0.01 0.21	1.00 -0.09 -0.02 0.04 0.03 0.12 0.10 0.02 -0.04 0.15 -0.02 0.06 0.03 0.13 -0.12	1.00 0.35 -0.17 0.44 0.24 0.29 -0.23 -0.17 0.26 0.21 0.03 0.21 0.10	1.00 -0.06 0.43 0.23 0.16 -0.04 -0.20 0.24 0.05 -0.10 0.14 0.20 0.18
PHI						
DCONO	RCON2	RAMB2 	OCOM2	JSAT2 	TOI2	STRES2
RCON2 RAMB2 OCOM2 JSAT2 TOI2 STRES2	1.00 -0.19 -0.12 -0.10 0.25 0.20	1.00 0.28 0.22 -0.21 -0.08	1.00 0.60 -0.63 -0.28	1.00 -0.63 -0.39	1.00 0.38	1.00

LGO PGO EXTRA IA EP IP	-0.01 0.11 -0.09 -0.18 0.11 -0.09	0.28 0.22 0.01 0.21 0.09 0.12	0.32 0.20 0.14 0.21 0.18 -0.04	0.25 0.15 0.19 0.21 0.14 -0.05	-0.07 0.12 -0.08 -0.10 0.03 0.06	-0.16 0.00 0.11 -0.24 -0.13 0.09
PHI						
	LGO	PGO	EXTRA	IA	EP	IP
LGO PGO EXTRA IA EP IP	1.00 0.53 0.03 0.47 0.46 0.28	1.00 -0.18 0.36 0.58 0.28	1.00 0.00 -0.04 -0.19	1.00 0.46 0.49	1.00	1.00
THE	TA-DELTA	1	1			
	ridi1 	rira1 	rica1 	rite1 	riwd1 	tidi1 
ridil riral rical ritel riwdl tidil ridi2 rira2 rica2 rite2 rite2 tidi2	0.42 	0.57   0.10  	0.42    0.11 	0.36    -0.03 	0.35     -0.04 	0.35 
THE	TA-DELTA					
	tiral	tica1	tite1	tiwd1	pfdi1	pfra1
tiral tical titel tiwdl pfdil pfral tira2 tica2 tite2 tite2 tiwd2 pfdi2 pfdi2 pfra2	0.32	0.24	0.37   0.05 	0.28 	0.25	0.23     0.03
THE	TA-DELTA					
	pfca1	pfte1	pfwd1	gndi1	gnra1	gnca1
pfcal pftel pfwdl gndil gnral gncal pfca2	0.18     0.02	0.36	0.41	0.28	0.22	0.18

pfte2 pfwd2 gndi2 gnra2 gnca2	   	0.12   	 0.06  	  0.02 	  0.04 	   0.01
THE	ETA-DELTA					
	gnte1	gnwd1	sfdil	sfral	sfcal	sftel
gntel gnwdl sfdil sfral sfcal sftel gnte2 gnwd2 sfdi2 sfdi2 sfra2 sfca2 sfte2	0.24    0.05   	0.31     0.08   	0.31     0.06  	0.19     0.01 	0.21 	0.25    0.06
THE	ETA-DELTA					
	sfwdl	orgdil	orgral	orgcal	orgte1	orgwd1
sfwdl orgdil orgral orgcal orgtel orgwdl sfwd2 orgdi2 orgdi2 orgra2 orgca2 orgca2 orgte2 orgwd2	0.33	0.30    0.04 	0.23 	0.19 0.02	0.35    0.06 	0.42     0.11
THE	ETA-DELTA					
	ga2a 	ga3a 	ga4a 	se1a	se2a	se3a
ga2a ga3a ga4a se1a se2a se3a ga2b ga3b ga4b se1b se2b se3b	0.27	0.25	0.44 	0.67 	0.66      0.27	0.65      0.33
	ETA-DELTA					0.33
1111	se4a	rcla	rc2a	rc3a	rc4a	ra2a
se4a rc1a	0.76	0.69				

0			0.07			
rc2a			0.27	0 41		
rc3a				0.41	0.79	
rc4a					0.79	0.20
ra2a se4b	0.40					0.29
rc1b	0.40	0.09				
rc2b		0.09	0.13			
rc3b			0.13	0.13		
rc4b					0.35	
ra2b					0.33	0.05
Lazu						0.05
THE	ETA-DELTA					
	ra3a	ra4a	oc1a	oc3a	oc4a	js1a
ra3a	0.23					
ra4a		0.46				
oc1a			0.58			
oc3a				0.38		
oc4a					0.44	
js1a						0.33
ra3b	-0.02					
ra4b		0.08				
oc1b			0.15			
oc3b				0.12		
oc4b					0.11	
js1b						0.05
THE	ETA-DELTA					
	js2a	js4a	toi1a	toi2a	toi4a	ps1a
js2a	0.50					
js4a		0.34				
toi1a			0.68			
toi2a				0.37		
toi4a					0.40	
ps1a						0.68
js2b	0.09					
js4b		0.11				
toi1b			0.29			
toi2b				0.10		
toi4b					0.14	
ps1b						0.20
THE	ETA-DELTA					
	ps2a	ps3a	ps4a	perf1b	perf2b	perf3b
ps2a	0.44					
ps3a		0.50				
ps4a			0.95			
perf1b				0.24		
perf2b					0.30	
perf3b						0.33
ps2b	0.13					
ps3b		0.13				
ps4b			0.43			
	ETA-DELTA					
	perf4b	perf5b	late2	absnt2	turn	ridi2

perf4b perf5b late2 absnt2 turn ridi2	0.27	0.49   	  	  	 	0.44
THE	ETA-DELTA					
	rira2	rica2	rite2	riwd2	tidi2	tira2
rira2 rica2 rite2 riwd2 tidi2 tira2	0.32	0.36	0.40	0.43	0.36	0.21
1111	CTA-DELTA					
	tica2 	tite2	tiwd2 	pfdi2 	pfra2 	pfca2 
tica2 tite2 tiwd2 pfdi2 pfra2 pfca2	0.24   	0.39   	0.28   	0.28  	0.23	0.18
THE	ETA-DELTA					
	pfte2	pfwd2	gndi2	gnra2	gnca2	gnte2
pfte2 pfwd2 gndi2 gnra2 gnca2 gnte2	0.29    	0.39   	0.27  	0.18  	0.23	0.30
THE	ETA-DELTA					
	gnwd2	sfdi2	sfra2	sfca2	sfte2	sfwd2
gnwd2 sfdi2 sfra2 sfca2 sfte2 sfwd2	0.33	0.30   	0.22   	0.29  	0.34	0.36
THE	ETA-DELTA					
	orgdi2	orgra2	orgca2	orgte2	orgwd2	ga2b
orgdi2 orgra2 orgca2 orgte2 orgwd2 ga2b	0.31	0.18	0.24	0.38	0.40	0.32

THETA-DELTA

	ga3b	ga4b	se1b	se2b	se3b	se4b
ga3b ga4b se1b se2b se3b se4b	0.17 	0.32	0.50	0.69 	0.51 	0.73
THE	TA-DELTA					
	rc1b	rc2b	rc3b	rc4b	ra2b	ra3b
rc1b rc2b rc3b rc4b ra2b ra3b	0.62     	0.48   	0.49	0.63  	0.35	0.17
11111	ra4b	oc1b	oc3b	oc4b	js1b	js2b
ra4b oc1b	0.46	0.42				
oc3b oc4b js1b js2b	  	  	0.28  	0.27  	0.26	0.31
THE	TA-DELTA					
	js4b 	toi1b	toi2b	toi4b	ps1b	ps2b
js4b toi1b toi2b toi4b ps1b ps2b	0.28    	0.69   	0.37   	0.37  	0.64	0.38
THE	TA-DELTA					
	ps3b	ps4b	lgo1 	1go2	1go3	pgo1
ps3b ps4b lgo1 lgo2 lgo3 pgo1	0.46    	0.99   	0.47   	0.39  	0.49	0.71
THE	TA-DELTA					
	pgo2	pgo3	pgo4	ex1	ex4	ex5
pgo2 pgo3 pgo4 ex1 ex4	0.68   	0.58  	0.63  	0.59 	0.39	

ex5						0.47
THE	ETA-DELTA					
	ex8	ia2	ia3	ia4	ep1	ep2
ex8	0.74					
ia2		0.74				
ia3			0.43			
ia4				0.55		
ep1					0.47	
ep2						0.55
THE	ETA-DELTA					
	ep3	ip1	ip2	ip3		
ер3	0.76					
ip1		0.74				
ip2			0.58			
ip3				0.76		

Time used: 557.016 Seconds

#### APPENDIX E

### SELECT LISREL SYNTAX AND OUTPUT: SECOND-ORDER MEASUREMENT MODEL

CFA of 2nd Order Measurement Model: No Role Conflict DA NI=48 NO=255 MA=KM KM FI=A:\Diss\_Step2\_Corr.cor LΑ RI1 TI1 PF1 GN1 SF1 ORG1 DI1 RA1 CA1 TE1 WD1 ACCEP1 SE1 RCON1 RAMB1 OCOM1 JSAT1 TOI1 STRES1 PERF TARD ABS TO RI2 TI2 PF2 GN2 SF2 ORG2 DI2 RA2 CA2 TE2 WD2 ACCEP2 SE2 RCON2 RAMB2 OCOM2 JSAT2 TOI2 STRES2 LGO PGO EXTRA IA EP IP SE DI1 RA1 CA1 TE1 WD1 ACCEP1 SE1 RAMB1 OCOM1 JSAT1 TOI1 STRES1 PERF TARD ABS TO DI2 RA2 CA2 TE2 WD2 ACCEP2 SE2 RAMB2 OCOM2 JSAT2 TOI2 STRES2 LGO PGO EXTRA IA EP IP/ MO NY=34 NE=40 LY=FU, FI BE=FU, FI PS=SY, FR TE=ZE LE DI1 RA1 CA1 TE1 WD1 ACCEP1 SE1 RAMB1 OCOM1 JSAT1 TOI1 STRES1 PERF TARD ABS TO DI2 RA2 CA2 TE2 WD2 ACCEP2 SE2 RAMB2 OCOM2 JSAT2 TOI2 STRES2 LGO PGO EXTRA IA EP IP TOTSEK1 TOTSEK2 ROLCOG2 AFFECT2 ROLCOG1 AFFECT1 VA 1.0 LY (1,1) LY (2,2) LY (3,3) LY (4,4) LY (5,5) LY (6,6) LY (7,7) LY (8,8) LY (9,9) LY (10,10) VA 1.0 LY (11,11) LY (12,12) LY (13,13) LY (14,14) LY (15,15) LY (16,16) LY (17,17) LY (18,18) LY (19,19) LY (20,20) VA 1.0 LY (21,21) LY (22,22) LY (23,23) LY (24,24) LY (25,25) LY (26,26) LY (27,27) LY (28,28) LY (29,29) LY (30,30) VA 1.0 LY (31,31) LY (32,32) LY (33,33) LY (34,34) PA BE

ST=.01 BE(1,1)-BE(40,40)

```
 \  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  \, 0\  
 0 0 0 0 0 0 0 0 0 0 0 0 1 0
 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0
 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 0
 1000000000000000001
 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1
 ST=.5 PS(1,1)-PS(40,40)
 VA 1.0 PS (13,13) PS (14,14) PS (15,15) PS (16,16)
 VA 1.0 PS (29,29) PS (30,30)
 VA 1.0 PS (31,31) PS (32,32) PS (33,33) PS (34,34) PS (35,35) PS (36,36)
 VA 1.0 PS (37,37) PS (38,38) PS (39,39) PS (40,40)
 OU NS SE TV SC AD=OFF
 CFA of 2nd Order Measurement Model: No Role Conflict
                                          Number of Input Variables 48
                                          Number of Y - Variables 34
                                          Number of X - Variables
                                          Number of ETA - Variables 40
                                          Number of KSI - Variables 0
                                          Number of Observations 255
W_A_R_N_I_N_G: Matrix to be analyzed is not positive definite,
```

ridge option taken with ridge constant = 0.100

CFA of 2nd Order Measurement Model: No Role Conflict

Number of Iterations = 34

# LISREL Estimates (Maximum Likelihood)

Τ	,Δ	M	B	D7	\—	Υ

יונ-ארד.	IDDA I					
	DI1	RA1	CA1	TE1	WD1	ACCEP1
DI1	1.00					
RA1		1.00				
CA1			1.00			
TE1				1.00		
WD1					1.00	
ACCEP1						1.00
LAN	IBDA-Y					
	SE1	RAMB1	OCOM1	JSAT1	TOI1	STRES1
SE1	1.00					
RAMB1		1.00				
OCOM1			1.00			
JSAT1				1.00		
TOI1					1.00	
STRES1						1.00
LAN	BDA-Y					
	PERF	TARD	ABS	TO	DI2	RA2
PERF	1.00					
TARD		1.00				
ABS			1.00			
TO				1.00		
DI2					1.00	
RA2						1.00
LAN	IBDA-Y					
	CA2	TE2	WD2	ACCEP2	SE2	RAMB2

CA2	1.00					
TE2		1.00				
WD2			1.00			
ACCEP2				1.00		
SE2					1.00	
RAMB2						1.00
LA	MBDA-Y					
	OCOM2	JSAT2	TOI2	STRES2	LGO	PGO
OCOM2	1.00					
JSAT2		1.00				
TOI2			1.00			
STRES2				1.00		
LGO					1.00	
PGO						1.00
T.A	MBDA-Y					
	EXTRA	IA	EP	IP	TOTSEK1	TOTSEK2
EXTRA	1.00	_ =			= =	= =
IA		1.00				
EP			1.00			
IP				1.00		
LA	MBDA-Y					
	ROLCOG2	AFFECT2	ROLCOG1	AFFECT1		
BE	TA					
	DI1	RA1	CA1	TE1	WD1	ACCEP1

BETA						
	SE1	RAMB1	OCOM1	JSAT1	TOI1	STRES1
BETA						
	PERF	TARD	ABS	TO	DI2	RA2
BETA						
	CA2	TE2	WD2	ACCEP2	SE2	RAMB2
BETA						
	OCOM2	JSAT2	TOI2	STRES2	LGO	PGO
BETA						
	EXTRA	IA	EP	IP	TOTSEK1	TOTSEK2
DI1					0.82 (0.06) 14.62	
RA1					0.93 (0.05) 17.76	
CA1					0.92 (0.05) 17.43	
TE1					0.75 (0.05) 14.21	
WD1					0.59 (0.06) 9.88	
DI2						0.71 (0.06) 11.78
RA2						0.87

			(0.06) 15.43
CA2	 	 	 0.77 (0.06) 13.03
TE2	 	 	 0.40 (0.06) 6.74
WD2	 	 	 0.51 (0.06) 7.93

BETA

	ROLCOG2	AFFECT2	ROLCOG1	AFFECT1
ACCEP1			0.51 (0.07) 7.80	
SE1			0.59 (0.07) 8.82	
RAMB1			0.51 (0.06) 8.25	
OCOM1				0.83 (0.06) 14.55
JSAT1				0.87 (0.06) 15.28
TOI1				-0.76 (0.06) -13.13
STRES1				-0.52 (0.06) -8.15
ACCEP2	0.67 (0.06) 10.40			
SE2	0.62 (0.07) 9.31			
RAMB2	0.58			

	(0.06) 9.11		
OCOM2		0.84 (0.06) 14.69	 
JSAT2		0.73 (0.06) 11.87	 
TOI2		-0.77 (0.06) -13.10	 
STRES2		-0.45 (0.07) -6.82	 

# Covariance Matrix of ETA

	DI1	RA1	CA1	TE1	WD1	ACCEP1
DI1	1.08					
RA1	0.76	1.10				
CA1	0.75	0.86	1.10			
TE1	0.61	0.70	0.69	1.02		
WD1	0.48	0.56	0.55	0.44	1.08	
ACCEP1	0.05	0.06	0.06	0.05	0.04	1.07
SE1	0.06	0.07	0.07	0.05	0.04	0.30
RAMB1	0.05	0.06	0.06	0.05	0.04	0.26
OCOM1	0.13	0.14	0.14	0.11	0.09	0.19
JSAT1	0.13	0.15	0.15	0.12	0.10	0.20
TOI1	-0.11	-0.13	-0.13	-0.10	-0.08	-0.17
STRES1	-0.08	-0.09	-0.09	-0.07	-0.06	-0.12
PERF	-0.15	-0.18	-0.17	-0.14	-0.11	0.09
TARD	0.03	0.04	0.03	0.03	0.02	0.05
ABS	-0.02	-0.03	-0.03	-0.02	-0.02	0.01
TO	0.00	0.00	0.00	0.00	0.00	-0.02
DI2	0.48	0.46	0.45	0.37	0.29	0.01
RA2	0.49	0.61	0.56	0.45	0.36	0.01
CA2	0.43	0.50	0.58	0.40	0.32	0.01
TE2	0.23	0.26	0.26	0.58	0.17	0.00
WD2	0.29	0.33	0.32	0.26	0.48	0.01
ACCEP2	-0.03	-0.04	-0.04	-0.03	-0.02	0.51
SE2	-0.03	-0.03	-0.03	-0.03	-0.02	0.12
RAMB2	-0.03	-0.03	-0.03	-0.02	-0.02	0.11
OCOM2	0.10	0.11	0.11	0.09	0.07	0.15
JSAT2	0.09	0.10	0.10	0.08	0.06	0.13
TOI2	-0.09	-0.10	-0.10	-0.08	-0.07	-0.14
STRES2	-0.05	-0.06	-0.06	-0.05	-0.04	-0.08
LGO	0.01	0.01	0.01	0.01	0.01	0.29
PGO	-0.08	-0.09	-0.09	-0.07	-0.06	0.16
EXTRA	0.07	0.08	0.08	0.07	0.05	0.10
IA	0.05	0.06	0.06	0.05	0.04	0.33
EP	0.22	0.25	0.24	0.20	0.16	0.24

IP TOTSEK1 TOTSEK2 ROLCOG2 AFFECT2 ROLCOG1 AFFECT1	-0.04 0.82 0.56 -0.05 0.12 0.10	-0.05 0.93 0.65 -0.05 0.14 0.12	-0.05 0.92 0.64 -0.05 0.13 0.11	-0.04 0.75 0.52 -0.04 0.11 0.09 0.14	-0.03 0.59 0.41 -0.03 0.09 0.07	0.27 0.06 0.01 0.19 0.18 0.51 0.23
Cov	variance Mat	rix of ETA				
	SE1	RAMB1	OCOM1	JSAT1	TOI1	STRES1
SE1 RAMB1 OCOM1 JSAT1 TOI1 STRES1 PERF TARD ABS TO DI2 RA2 CA2 TE2 WD2 ACCEP2 SE2 RAMB2 OCOM2 JSAT2 TOI2 STRES2 LGO PGO EXTRA IA EP IP TOTSEK1 TOTSEK1 TOTSEK2 ROLCOG2 AFFECT2 ROLCOG1 AFFECT1	1.08 0.30 0.22 0.23 -0.20 -0.14 0.10 0.06 0.01 -0.03 0.01 0.01 0.01 0.00 0.01 0.14 0.37 0.13 0.18 0.15 -0.16 -0.10 0.34 0.18 0.11 0.38 0.28 0.31 0.07 0.01 0.22 0.21 0.59 0.27	1.06 0.19 0.20 -0.17 -0.12 0.09 0.05 0.01 -0.02 0.01 0.01 0.01 0.02 0.12 0.12 0.57 0.15 0.13 -0.14 -0.08 0.29 0.16 0.10 0.33 0.24 0.27 0.06 0.01 0.19 0.18 0.51 0.23	1.11 0.72 -0.63 -0.44 0.20 -0.02 -0.08 -0.06 -0.01 -0.01 -0.01 0.00 0.02 0.02 0.02 0.02 0.02 0.12 0.1	1.10 -0.66 -0.45 0.21 -0.02 -0.09 -0.06 -0.01 -0.01 -0.01 0.00 0.00 0.03 0.02 0.62 0.62 0.68 -0.57 -0.34 0.19 -0.02 0.13 0.21 0.11 0.04 0.16 -0.01 0.04 0.74 0.39 0.87	1.05 0.40 -0.19 0.02 0.07 0.06 0.01 0.01 0.00 0.00 -0.02 -0.02 -0.02 -0.54 -0.47 0.71 0.29 -0.17 0.02 -0.11 -0.19 -0.10 -0.04 -0.14 0.01 -0.03 -0.65 -0.34 -0.76	1.09 -0.13 0.01 0.05 0.04 0.00 0.01 0.00 -0.02 -0.01 -0.37 -0.32 0.34 0.57 -0.12 0.01 -0.08 -0.13 -0.07 -0.02 -0.10 0.01 -0.02 -0.44 -0.23 -0.52
Cov	variance Mat	rix of ETA				
	PERF	TARD	ABS	TO	DI2	RA2
PERF TARD ABS	1.00 -0.10 -0.09	1.00	1.00			

-0.17

0.03

0.03

TO

DI2

RA2

0.04

0.19

0.24

0.07

-0.01

-0.01

1.00

-0.03

-0.03

1.08

0.62

1.10

CA2 TE2 WD2 ACCEP2 SE2 RAMB2 OCOM2 JSAT2 TO12 STRES2 LGO PGO EXTRA IA EP IP TOTSEK1 TOTSEK1 TOTSEK2 ROLCOG2 AFFECT2	0.03 0.01 0.02 0.07 0.07 0.06 0.23 0.20 -0.21 -0.13 0.03 0.14 -0.05 0.07 0.03 0.02 -0.19 0.04 0.11 0.28	0.21 0.11 0.14 0.01 0.01 0.01 -0.03 -0.03 0.02 0.05 0.08 0.05 0.09 0.07 -0.06 0.04 0.27 0.02 -0.04 0.10	-0.01 0.00 -0.01 -0.04 -0.04 -0.09 -0.08 0.08 0.05 -0.02 0.07 0.01 0.09 0.03 -0.04 -0.03 -0.01 -0.06 -0.11	-0.03 -0.02 -0.02 0.05 0.05 0.04 -0.03 -0.03 0.02 -0.03 -0.07 0.10 0.03 -0.01 -0.15 0.00 -0.04 0.07 -0.04	0.55 0.29 0.36 -0.07 -0.07 -0.06 0.05 -0.05 -0.03 0.04 0.08 0.11 0.01 0.20 -0.20 0.49 0.71 -0.11	0.67 0.35 0.44 -0.09 -0.08 -0.06 -0.06 -0.04 0.10 0.14 0.01 0.25 -0.24 0.60 0.87 -0.13
ROLCOG1	0.17	0.10	0.02	-0.05	0.01	0.02
AFFECT1	0.24	-0.02	-0.10	-0.07	-0.01	-0.01
Cov	variance Mat	rix of ETA				
	CA2	TE2	WD2	ACCEP2	SE2	RAMB2
CA2	1.09					
TE2	0.31	1.03				
WD2	0.39	0.20	1.09			
ACCEP2	-0.08	-0.04	-0.05	1.10		
SE2	-0.07	-0.04	-0.05	0.42	1.08	
RAMB2	-0.07	-0.04	-0.04	0.38	0.36	1.10
OCOM2	0.06	0.03	0.04	0.25	0.23	0.21
JSAT2	0.05	0.03	0.03	0.21	0.20	0.19
TOI2	-0.05	-0.03	-0.03	-0.23	-0.21	-0.20
STRES2	-0.03	-0.02	-0.02	-0.13	-0.13	-0.12
LGO	0.05	0.03	0.03	0.25	0.24	0.22
PGO	0.09	0.05	0.06	0.14	0.13	0.12
EXTRA	0.12	0.06	0.08	-0.02	-0.01	-0.01
IA	0.01	0.01	0.01	0.17	0.16	0.14
EP	0.22	0.11	0.14	0.11	0.10	0.09
IP	-0.21	-0.11	-0.14	0.13	0.12	0.11
TOTSEK1	0.53	0.28	0.35	-0.04	-0.04	-0.03
TOTSEK2	0.77	0.40	0.51	-0.10	-0.09	-0.09
ROLCOG2	-0.12	-0.06	-0.08	0.67	0.62	0.58
AFFECT2	0.07	0.04	0.04	0.29	0.28	0.25
ROLCOG1	0.02	0.01	0.01	0.24	0.23	0.21
AFFECT1	-0.01	0.00	-0.01	0.03	0.03	0.03
	variance Mat					
	01101100 1100					
	OCOM2	JSAT2 	TOI2	STRES2	LGO	PGO
OCOM2	1.11					
JSAT2	0.61	1.08				
TOT 2	0.65	0.56	1 07			

TOI2

-0.65

-0.56

1.07

CA1			0.25 (0.03) 7.73			
RA1		0.23 (0.03) 7.21				
DI1	0.42 (0.04) 9.63					
	DI1	RA1	CA1	TE1	WD1	ACCEP1
PS	I					
ROLCOG2 AFFECT2 ROLCOG1 AFFECT1	1.00 0.44 0.37 0.04	1.00 0.36 0.85	1.00 0.45	1.00		
	ROLCOG2	AFFECT2	ROLCOG1	AFFECT1		
Со	variance Ma	trix of ETA				
AFFECT1	0.15	0.24	0.13	0.05	0.18	-0.01
AFFECT2 ROLCOG1	0.14 0.19	0.21 0.64	0.09 0.47	-0.07 0.52	0.14 0.12	0.09
ROLCOG2	-0.02	0.25	0.16	0.19	-0.06	-0.15
TOTSEK1	0.16	0.00	0.28	-0.28	0.69	1.00
IP TOTSEK1	-0.16 0.09	0.42 0.06	0.26 0.26	1.00 -0.05	1.00	
EP	-0.03	0.38	1.00	1 00		
EXTRA IA	1.00 0.01	1.00				
	EXTRA	IA	EP	IP	TOTSEK1	TOTSEK2
Со	variance Ma	trix of ETA				
AFFECT1	0.72	0.62	-0.65	-0.39	0.22	-0.03
ROLCOG1	0.30	0.75	-0.27	-0.16	0.23	0.31
ROLCOG2 AFFECT2	0.37 0.84	0.32 0.73	-0.34 -0.77	-0.20 -0.45	0.38 0.25	0.21 0.07
TOTSEK2	0.07	0.06	-0.07	-0.04	0.06	0.11
TOTSEK1	-0.06 0.12	0.11	-0.11	-0.03	0.23	0.23 -0.10
EP IP	0.08	0.07 -0.05	-0.07 0.05	-0.04 0.03	0.38 0.23	0.49
IA	0.17	0.15	-0.16	-0.09	0.40	0.29
EXTRA	0.00	0.03	-0.03	-0.05	0.40	-0.15
LGO PGO	0.21 0.06	0.18 0.05	-0.19 -0.05	-0.11 -0.03	1.00 0.46	1.00
STRES2	-0.38	-0.33	0.35	1.12		

WD1					0.72 (0.07) 10.78	
ACCEP1						0.82 (0.08) 10.11
DI2	0.08 (0.04) 2.14					
RA2		0.05 (0.03) 1.77				
CA2			0.09 (0.03) 2.81			
TE2				0.38 (0.05) 7.65		
WD2					0.27 (0.05) 5.09	
ACCEP2						0.39 (0.06) 6.41
PS1	[					
	SE1	RAMB1	OCOM1	JSAT1	TOI1	STRES1
SE1	0.72 (0.08) 9.23					
RAMB1		0.80 (0.08) 10.06				
OCOM1			0.42 (0.05) 8.16			
JSAT1				0.05		
				0.35 (0.05) 7.19		

STRES1						0.82 (0.08) 10.68
SE2	0.23 (0.06) 4.15					
RAMB2		0.46 (0.06) 7.33				
OCOM2			0.26 (0.04) 5.89			
JSAT2				0.15 (0.04) 3.51		
TOI2					0.22 (0.04) 5.11	
STRES2						0.37 (0.06) 6.01
PSI	<u>.</u>					
PSI	PERF	TARD	ABS	TO	DI2	RA2
PSI PERF		TARD	ABS	TO 	DI2 	RA2
	PERF	TARD  1.00	ABS 	TO 	DI2 	RA2
PERF	PERF  1.00 -0.10 (0.06)		ABS	TO	DI2 	RA2
PERF TARD	PERF 1.00 -0.10 (0.06) -1.67 -0.09 (0.06)	1.00 0.25 (0.06)		TO	DI2 	RA2
PERF TARD ABS	PERF 1.00 -0.10 (0.06) -1.67 -0.09 (0.06) -1.53 -0.17 (0.06)	0.25 (0.06) 4.43 0.04 (0.06)	1.00 0.07 (0.06)		DI2  0.57 (0.06) 9.72	RA2
PERF TARD ABS	PERF 1.00 -0.10 (0.06) -1.67 -0.09 (0.06) -1.53 -0.17 (0.06)	0.25 (0.06) 4.43 0.04 (0.06)	1.00 0.07 (0.06)		0.57 (0.06)	0.34 (0.05) 7.14

	(0.06) 0.52	(0.06) 0.87	(0.06) -0.32	(0.06) -0.45		
PGO	0.14 (0.06) 2.38	0.08 (0.06) 1.35	0.07 (0.06) 1.07	-0.07 (0.06) -1.10		
EXTRA	-0.05 (0.06) -0.76	0.05 (0.06) 0.78	0.01 (0.06) 0.21	0.10 (0.06) 1.66		
IA	0.07 (0.06) 1.13	0.09 (0.06) 1.52	0.09 (0.06) 1.50	0.03 (0.06) 0.45		
EP	0.03 (0.06) 0.40	0.07 (0.06) 1.14	0.03 (0.06) 0.40	-0.01 (0.06) -0.14		
IP	0.02 (0.06) 0.27	-0.06 (0.06) -0.99	-0.04 (0.06) -0.72	-0.15 (0.06) -2.51		
TOTSEK1	-0.19 (0.06) -3.01	0.04 (0.07) 0.58	-0.03 (0.07) -0.46	0.00 (0.07) -0.01		
TOTSEK2	0.04 (0.07) 0.54	0.27 (0.06) 4.30	-0.01 (0.07) -0.16	-0.04 (0.07) -0.56		
ROLCOG2	0.11 (0.08) 1.40	0.02 (0.08) 0.28	-0.06 (0.08) -0.80	0.07 (0.08) 0.92		
AFFECT2	0.28 (0.06) 4.34	-0.04 (0.07) -0.55	-0.11 (0.07) -1.55	-0.04 (0.07) -0.60		
ROLCOG1	0.17 (0.08) 2.02	0.10 (0.09) 1.13	0.02 (0.09) 0.19	-0.05 (0.09) -0.57		
AFFECT1	0.24 (0.06) 3.83	-0.02 (0.07) -0.33	-0.10 (0.07) -1.46	-0.07 (0.07) -1.07		
PSI	- -					
	CA2	TE2	WD2	ACCEP2	SE2	RAMB2
CA2	0.50 (0.05) 9.14					
TE2		0.87				

		(0.08) 10.96				
WD2			0.84 (0.08) 10.75			
ACCEP2				0.65 (0.08) 8.70		
SE2					0.69 (0.08) 9.19	
RAMB2						0.77 (0.08) 9.72
PSI	<u>-</u> -					
	OCOM2	JSAT2	TOI2	STRES2	LGO	PGO
OCOM2	0.40 (0.05) 7.69					
JSAT2		0.55 (0.06) 9.08				
TOI2			0.48 (0.06) 8.77			
STRES2				0.91 (0.08) 10.83		
LGO					1.00	
PGO					0.46 (0.05) 10.12	1.00
EXTRA					0.03 (0.06) 0.54	-0.15 (0.06) -2.52
IA					0.40 (0.05) 8.19	0.29 (0.05) 5.44
EP					0.38 (0.05) 7.81	0.49 (0.04) 11.69

IP					0.23 (0.06) 3.96	0.23 (0.06) 3.99
TOTSEK1					0.01 (0.06) 0.15	-0.10 (0.06) -1.59
TOTSEK2					0.06 (0.07) 0.93	0.11 (0.07) 1.68
ROLCOG2					0.38 (0.07) 5.43	0.21 (0.08) 2.74
AFFECT2					0.25 (0.06) 3.83	0.07 (0.07) 1.04
ROLCOG1					0.57 (0.07) 8.39	0.31 (0.08) 3.95
AFFECT1					0.22 (0.06) 3.45	-0.03 (0.07) -0.43
PSI	-					
PSI	EXTRA	IA	EP	IP	TOTSEK1	TOTSEK2
PSI EXTRA		IA 	EP	IP	TOTSEK1	TOTSEK2
	EXTRA	IA 	EP 	IP 	TOTSEK1	TOTSEK2
EXTRA	EXTRA 1.00 0.01 (0.06)		EP	IP 	TOTSEK1	TOTSEK2
EXTRA IA	EXTRA 1.00 0.01 (0.06) 0.11 -0.03 (0.06)	1.00 0.38 (0.05)		IP 	TOTSEK1	TOTSEK2
EXTRA IA EP	EXTRA 1.00 0.01 (0.06) 0.11 -0.03 (0.06) -0.53 -0.16 (0.06)	1.00 0.38 (0.05) 7.69 0.42 (0.05)	1.00 0.26 (0.06)		TOTSEK1	TOTSEK2
EXTRA IA EP IP	EXTRA 1.00  0.01 (0.06) 0.11  -0.03 (0.06) -0.53  -0.16 (0.06) -2.60  0.09 (0.06)	1.00 0.38 (0.05) 7.69 0.42 (0.05) 8.78 0.06 (0.06)	0.26 (0.06) 4.54 0.26 (0.06)	1.00 -0.05 (0.06)		TOTSEK2

	(0.08) -0.29	(0.07) 3.35	(0.08) 2.10	(0.08) 2.53	(0.08) -0.70	(0.09) -1.78
AFFECT2	0.14 (0.07) 2.10	0.21 (0.07) 3.13	0.09 (0.07) 1.35	-0.07 (0.07) -0.97	0.14 (0.07) 2.03	0.09 (0.08) 1.17
ROLCOG:	0.19 (0.08) 2.31	0.64 (0.06) 10.19	0.47 (0.07) 6.48	0.52 (0.07) 7.53	0.12 (0.09) 1.40	0.02 (0.09) 0.21
AFFECT:	0.15 (0.07) 2.22	0.24 (0.06) 3.86	(0.07)	0.05 (0.07) 0.71	(0.07)	-0.01 (0.07) -0.15
	PSI					
	ROLCOG2	AFFECT2	ROLCOG1	AFFECT1		
ROLCOG	2 1.00					
AFFECT2	0.44 (0.08) 5.77	1.00				
ROLCOG:	0.37 (0.10) 3.84	0.36 (0.09) 4.05	1.00			
AFFECT:	0.04 (0.09) 0.53	0.85 (0.03) 32.29		1.00		
	Squared Mult	tiple Correl	lations for	Structural	Equations	
	DI1	RA1	CA1	TE1	WD1	ACCEP1
	0.61	0.79	0.77	0.54	0.33	0.24
	Squared Mult	tiple Correl	lations for	Structural	Equations	
	SE1	RAMB1	OCOM1	JSAT1	TOI1	STRES1
	0.33	0.25	0.62	0.69	0.55	0.25
	Squared Mult	ciple Correl	lations for	Structural	Equations	
	PERF	TARD	ABS	TO	DI2	RA2
					0.47	0.69
	Squared Mult	ciple Correl	lations for	Structural	Equations	
	CA2	TE2	WD2	ACCEP2	SE2	RAMB2

0.54	0.16	0.24	0.40	0.36	0.30
Squared Multi	ple Correlat	tions for	Structural	Equations	
OCOM2	JSAT2	TOI2	STRES2	LGO	PGO
0.64	0.49	0.55	0.18		
Squared Multi	ple Correlat	tions for	Structural	Equations	
EXTRA	IA	EP	IP	TOTSEK1	TOTSEK2
Squared Multi	ple Correlat	tions for	Structural	Equations	
ROLCOG2	AFFECT2	ROLCOG1	AFFECT1		
Squared Multi	ple Correlat	tions for	Y - Variabl	les	
DI1	RA1	CA1	TE1	WD1	ACCEP1
1.00	1.00	1.00	1.00	1.00	1.00
Squared Multi	ple Correlat	tions for	Y - Variabl	Les	
SE1	RAMB1	OCOM1	JSAT1	TOI1	STRES1
1.00	1.00	1.00	1.00	1.00	1.00
Squared Multi	ple Correlat	tions for	Y - Variabl	Les	
PERF	TARD	ABS	TO	DI2	RA2
1.00	1.00	1.00	1.00	1.00	1.00
Squared Multi	ple Correlat	tions for	Y - Variabl	Les	
CA2	TE2	WD2	ACCEP2	SE2	RAMB2
1.00	1.00	1.00	1.00	1.00	1.00
Squared Multi	ple Correlat	tions for	Y - Variabl	Les	
OCOM2	JSAT2	TOI2	STRES2	LGO	PGO
1.00	1.00	1.00	1.00	1.00	1.00
Squared Multi	ple Correlat	tions for	Y - Variabl	Les	
EXTRA	IA	EP	IP		
1.00	1.00	1.00	1.00		

#### Goodness of Fit Statistics

Degrees of Freedom = 415

Minimum Fit Function Chi-Square = 1299.01 (P = 0.0)

Normal Theory Weighted Least Squares Chi-Square = 1020.18 (P = 0.0)

Estimated Non-centrality Parameter (NCP) = 605.18

90 Percent Confidence Interval for NCP = (515.21; 702.84)

Minimum Fit Function Value = 5.11

Population Discrepancy Function Value (F0) = 2.38

90 Percent Confidence Interval for F0 = (2.03; 2.77)

Root Mean Square Error of Approximation (RMSEA) = 0.076

90 Percent Confidence Interval for RMSEA = (0.070; 0.082)

P-Value for Test of Close Fit (RMSEA < 0.05) = 0.00

Chi-Square for Independence Model with 561 Degrees of Freedom = 4905.46

Independence AIC = 4973.46

Model AIC = 1380.18

Saturated AIC = 1190.00

Independence CAIC = 5127.86

Model CAIC = 2197.61

Saturated CAIC = 3892.05

Normed Fit Index (NFI) = 0.74 Non-Normed Fit Index (NNFI) = 0.72 Parsimony Normed Fit Index (PNFI) = 0.54 Comparative Fit Index (CFI) = 0.80 Incremental Fit Index (IFI) = 0.80 Relative Fit Index (RFI) = 0.64

Critical N (CN) = 95.82

Root Mean Square Residual (RMR) = 0.070 Standardized RMR = 0.066 Goodness of Fit Index (GFI) = 0.82 Adjusted Goodness of Fit Index (AGFI) = 0.74 Parsimony Goodness of Fit Index (PGFI) = 0.57

CFA of 2nd Order Measurement Model: No Role Conflict

Completely Standardized Solution

## LAMBDA-Y

	DI1	RA1	CA1	TE1	WD1	ACCEP1
DI1	1.00					
DII	1.00					
RA1		1.00				
CA1			1.00			
TE1				1.00		
WD1					1.00	

ACCEP1						1.00
LAM	IBDA-Y					
	SE1	RAMB1	OCOM1	JSAT1	TOI1	STRES1
SE1	1.00					
RAMB1		1.00				
OCOM1			1.00			
JSAT1				1.00		
TOI1					1.00	1 00
STRES1						1.00
LAM	IBDA-Y					
	PERF	TARD	ABS	TO	DI2	RA2
PERF	1.00					
TARD		1.00				
ABS			1.00			
TO				1.00		
DI2					1.00	1 00
RA2						1.00
LAM	IBDA-Y					
	CA2	TE2	WD2	ACCEP2	SE2	RAMB2
CA2	1.00					
TE2		1.00				
WD2			1.00			
ACCEP2				1.00		
SE2					1.00	
RAMB2						1.00
LAM	IBDA-Y					
	OCOM2	JSAT2	TOI2	STRES2	LGO	PGO
OCOM2	1.00					
JSAT2		1.00				
TOI2			1.00			
STRES2				1.00		
LGO					1.00	
PGO						1.00
LAM	IBDA-Y					
	EXTRA	IA	EP	IP	TOTSEK1	TOTSEK2
EXTRA	1.00					
IA		1.00				
EP			1.00			
IP				1.00		

LAMBDA-Y

	ROLCOG2	AFFECT2	ROLCOG1	AFFECT1		
BE	ΤA					
	DI1	RA1	CA1	TE1	WD1	ACCEP1
BE"	ΓA					
	SE1	RAMB1	OCOM1	JSAT1	TOI1	STRES1
BE"	ΓA					
	PERF	TARD	ABS	TO	DI2	RA2
BE'	ΤΆ					
	CA2	TE2	WD2	ACCEP2	SE2	RAMB2
BE	ΤA					
	OCOM2	JSAT2	TOI2	STRES2	LGO	PGO
BE	ΤA					
	EXTRA	IA	EP	IP	TOTSEK1	TOTSEK2
DI1					0.78	
RA1					0.89	
CA1 TE1					0.88 0.74	
WD1					0.74	
DI2						0.68
RA2						0.83
CA2						0.74
TE2						0.40
WD2						0.48
BE'	TA					
	ROLCOG2	AFFECT2	ROLCOG1	AFFECT1		
ACCEP1			0.49			
SE1			0.57			
RAMB1			0.50			
OCOM1				0.79		

JSAT1			 0.83
TOI1			 -0.74
STRES1			 -0.50
ACCEP2	0.64		 
SE2	0.60		 
RAMB2	0.55		 
OCOM2		0.80	 
JSAT2		0.70	 
TOI2		-0.74	 
STRES2		-0.43	 

Correlation Matrix of ETA

	DI1	RA1	CA1	TE1	WD1	ACCEP1
DI1	1.00					
RA1	0.70	1.00				
CA1	0.69	0.78	1.00			
TE1	0.58	0.66	0.65	1.00		
WD1	0.45	0.51	0.50	0.42	1.00	
ACCEP1	0.05	0.05	0.05	0.04	0.03	1.00
SE1	0.06	0.06	0.06	0.05	0.04	0.28
RAMB1	0.05	0.05	0.05	0.05	0.04	0.24
OCOM1	0.11	0.13	0.13	0.11	0.08	0.17
JSAT1	0.12	0.14	0.13	0.11	0.09	0.18
TOI1	-0.11	-0.12	-0.12	-0.10	-0.08	-0.16
STRES1	-0.07	-0.08	-0.08	-0.07	-0.05	-0.11
PERF	-0.15	-0.17	-0.17	-0.14	-0.11	0.08
TARD	0.03	0.03	0.03	0.03	0.02	0.05
ABS	-0.02	-0.03	-0.03	-0.02	-0.02	0.01
TO	0.00	0.00	0.00	0.00	0.00	-0.02
DI2	0.44	0.42	0.42	0.35	0.27	0.01
RA2	0.45	0.56	0.51	0.43	0.33	0.01
CA2	0.40	0.45	0.53	0.38	0.29	0.01
TE2	0.22	0.25	0.24	0.57	0.16	0.00
WD2	0.26	0.30	0.29	0.25	0.45	0.00
ACCEP2	-0.03	-0.03	-0.03	-0.03	-0.02	0.47
SE2	-0.03	-0.03	-0.03	-0.03	-0.02	0.11
RAMB2	-0.02	-0.03	-0.03	-0.02	-0.02	0.10
OCOM2	0.09	0.10	0.10	0.09	0.07	0.14
JSAT2	0.08	0.09	0.09	0.07	0.06	0.12
TOI2	-0.08	-0.10	-0.09	-0.08	-0.06	-0.13
STRES2	-0.05	-0.06	-0.05	-0.05	-0.04	-0.07
LGO	0.01	0.01	0.01	0.01	0.01	0.28
PGO	-0.08	-0.09	-0.09	-0.07	-0.06	0.15
EXTRA	0.07	0.08	0.08	0.07	0.05	0.09
IA	0.05	0.06	0.05	0.05	0.04	0.32
EP	0.21	0.24	0.23	0.20	0.15	0.23
IP TOTAL	-0.04	-0.04	-0.04	-0.04	-0.03	0.26
TOTSEK1	0.78	0.89	0.88	0.74	0.57	0.06
TOTSEK2	0.54	0.62	0.61	0.51	0.40	0.01
ROLCOG2	-0.05	-0.05	-0.05	-0.04	-0.03	0.18
AFFECT2	0.11	0.13	0.13	0.11	0.08	0.17
ROLCOG1	0.10	0.11	0.11	0.09	0.07	0.49
AFFECT1	0.14	0.16	0.16	0.14	0.11	0.22

Correlation Matrix of ETA

	SE1	RAMB1	OCOM1	JSAT1	TOI1	STRES1
SE1	1.00					
RAMB1	0.28	1.00				
OCOM1	0.20	0.18	1.00			
JSAT1	0.21	0.18	0.65	1.00		
TOI1	-0.19	-0.16	-0.58	-0.61	1.00	
STRES1	-0.13	-0.11	-0.40	-0.41	0.37	1.00
PERF	0.10	0.08	0.19	0.20	-0.18	-0.12
TARD	0.05	0.05	-0.02	-0.02	0.02	0.01
ABS	0.01	0.01	-0.08	-0.08	0.07	0.05
TO	-0.03	-0.02	-0.06	-0.06	0.05	0.04
DI2	0.01	0.01	-0.01	-0.01	0.01	0.00
RA2	0.01	0.01	-0.01	-0.01	0.01	0.00
CA2	0.01	0.01	-0.01	-0.01	0.01	0.00
TE2	0.00	0.00	0.00	0.00	0.00	0.00
WD2	0.01	0.00	0.00	0.00	0.00	0.00
ACCEP2	0.13	0.12	0.02	0.02	-0.02	-0.01
SE2	0.34	0.11	0.02	0.02	-0.02	-0.01
RAMB2	0.12	0.53	0.02	0.02	-0.02	-0.01
OCOM2	0.16	0.14	0.77	0.56	-0.50	-0.34
JSAT2	0.14	0.12	0.47	0.63	-0.44	-0.30
TOI2	-0.15	-0.13	-0.50	-0.52	0.67	0.32
STRES2	-0.09	-0.08	-0.29	-0.30	0.27	0.52
LGO	0.32	0.28	0.17	0.18	-0.16	-0.11
PGO	0.18	0.15	-0.02	-0.02	0.02	0.01
EXTRA	0.11	0.09	0.12	0.12	-0.11	-0.07
IA	0.37	0.32	0.19	0.20	-0.18	-0.12
EP	0.27	0.23	0.10	0.11	-0.10	-0.07
IP	0.30	0.26	0.04	0.04	-0.04	-0.02
TOTSEK1	0.07	0.06	0.15	0.15	-0.14	-0.09
TOTSEK2	0.01	0.01	-0.01	-0.01	0.01	0.01
ROLCOG2	0.21	0.18	0.04	0.04	-0.03	-0.02
AFFECT2	0.20	0.18	0.67	0.70	-0.63	-0.43
ROLCOG1	0.57	0.50	0.36	0.37	-0.33	-0.22
AFFECT1	0.26	0.22	0.79	0.83	-0.74	-0.50
Cor	rrelation Ma	trix of ETA				
	PERF	TARD	ABS	TO	DI2	RA2
PERF	1.00					
TARD	-0.10	1.00				
ABS	-0.09	0.25	1.00			
TO	-0.17	0.04	0.07	1.00		
DI2	0.03	0.19	-0.01	-0.03	1.00	
RA2	0.03	0.23	-0.01	-0.03	0.57	1.00
CA2	0.03	0.20	-0.01	-0.03	0.50	0.61
TE2	0.01	0.11	0.00	-0.02	0.27	0.33
WD2	0.02	0.13	-0.01	-0.02	0.33	0.40
ACCEP2	0.07	0.01	-0.04	0.05	-0.07	-0.08
SE2	0.07	0.01	-0.04	0.04	-0.06	-0.08
RAMB2	0.06	0.01	-0.03	0.04	-0.06	-0.07
OCOM2	0.22	-0.03	-0.08	-0.03	0.05	0.06
JSAT2	0.19	-0.03	-0.07	-0.03	0.04	0.05
TOI2	-0.20	0.03	0.08	0.03	-0.04	-0.05

0.23

-0.10

0.11

0.23

0.01

0.06

STRES2	-0.12	0.02	0.05	0.02	-0.03	-0.03
LGO	0.03	0.05	-0.02	-0.03	0.04	0.05
PGO	0.14	0.08	0.07	-0.07	0.08	0.09
EXTRA	-0.05	0.05	0.01	0.10	0.11	0.13
IA	0.07	0.09	0.09	0.03	0.01	0.01
EP	0.03	0.07	0.03	-0.01	0.19	0.23
IP	0.02	-0.06	-0.04	-0.15	-0.19	-0.23
TOTSEK1	-0.19	0.04	-0.03	0.00	0.47	0.58
TOTSEK2	0.04	0.27	-0.01	-0.04	0.68	0.83
ROLCOG2	0.11	0.02	-0.06	0.07	-0.10	-0.13
AFFECT2	0.28	-0.04	-0.11	-0.04	0.06	0.07
ROLCOG1	0.17	0.10	0.02	-0.05	0.01	0.02
AFFECT1	0.24	-0.02	-0.10	-0.07	-0.01	-0.01
Cor	rrelation Ma	trix of ETA				
	CA2	TE2	WD2	ACCEP2	SE2	RAMB2
CA2	1.00					
TE2	0.29	1.00				
WD2	0.36	0.19	1.00			
ACCEP2	-0.07	-0.04	-0.05	1.00		
SE2	-0.07	-0.04	-0.04	0.38	1.00	
RAMB2	-0.06	-0.03	-0.04	0.35	0.33	1.00
OCOM2	0.05	0.03	0.03	0.22	0.21	0.19
JSAT2	0.05	0.02	0.03	0.20	0.19	0.17
TOI2	-0.05	-0.03	-0.03	-0.21	-0.20	-0.18
STRES2	-0.03	-0.02	-0.02	-0.12	-0.11	-0.10
LGO	0.05	0.03	0.03	0.24	0.23	0.21
PGO	0.08	0.04	0.05	0.13	0.12	0.11
EXTRA	0.12	0.06	0.08	-0.01	-0.01	-0.01
IA	0.01	0.00	0.01	0.16	0.15	0.14
EP	0.21	0.11	0.14	0.10	0.10	0.09
IP	-0.20	-0.11	-0.13	0.12	0.12	0.11
TOTSEK1	0.51	0.28	0.34	-0.04	-0.03	-0.03
TOTSEK2	0.74	0.40	0.48	-0.10	-0.09	-0.08
ROLCOG2	-0.11	-0.06	-0.07	0.64	0.60	0.55
AFFECT2	0.07	0.04	0.04	0.28	0.26	0.24
ROLCOG1	0.01	0.01	0.01	0.23	0.22	0.20
AFFECT1	-0.01	0.00	-0.01	0.03	0.03	0.02
Cor	rrelation Ma	trix of ETA	L			
	OCOM2	JSAT2	TOI2	STRES2	LGO	PGO
OCOM2	1.00					
JSAT2	0.56	1.00				
TOI2	-0.59	-0.52	1.00			
STRES2	-0.34	-0.30	0.32	1.00		
LGO	0.20	0.17	-0.18	-0.11	1.00	
PGO	0.06	0.05	-0.05	-0.03	0.46	1.00
EXTRA	0.11	0.10	-0.11	-0.06	0.03	-0.15
IA	0.16	0.14	-0.15	-0.09	0.40	0.29
EP	0.07	0.06	-0.07	-0.04	0.38	0.49

ΙP

TOTSEK1

TOTSEK2

-0.05

0.12

0.07

-0.05

0.10

0.06

0.05

-0.11

-0.07

0.03

-0.06

-0.04

ROLCOG2 AFFECT2 ROLCOG1 AFFECT1	0.35 0.80 0.28 0.68	0.31 0.70 0.25 0.59	-0.33 -0.74 -0.26 -0.63	-0.19 -0.43 -0.15 -0.37	0.38 0.25 0.57 0.22	0.21 0.07 0.31 -0.03
Co	rrelation M	Matrix of ET	A			
	EXTRA	IA	EP	IP	TOTSEK1	TOTSEK2
EXTRA IA EP IP TOTSEK1 TOTSEK2 ROLCOG2 AFFECT2 ROLCOG1	1.00 0.01 -0.03 -0.16 0.09 0.16 -0.02 0.14	1.00 0.38 0.42 0.06 0.01 0.25 0.21	1.00 0.26 0.26 0.28 0.16 0.09	1.00 -0.05 -0.28 0.19 -0.07 0.52	1.00 0.69 -0.06 0.14 0.12	1.00 -0.15 0.09 0.02
AFFECT1	0.15	0.24	0.13	0.05	0.18	-0.01
Co:		Matrix of ET.		3		
ROLCOG2 AFFECT2 ROLCOG1 AFFECT1	1.00 0.44 0.37 0.04	1.00 0.36 0.85	1.00 0.45	AFFECT1		
PS	I					
	DI1	RA1	CA1	TE1	WD1	ACCEP1
DI1 RA1 CA1 TE1 WD1 ACCEP1 DI2 RA2 CA2 TE2 WD2	0.39 	0.21 	0.23    0.08 	0.46    0.37	0.67     0.25	0.76    
ACCEP2						0.35
PS	I					
	SE1	RAMB1	OCOM1	JSAT1	TOI1	STRES1
SE1 RAMB1 OCOM1 JSAT1 TOI1 STRES1 SE2	0.67 	0.75    	0.38   	0.31  	0.45  	0.75 

RAMB2 OCOM2 JSAT2 TOI2 STRES2	   	0.43   	0.23 	  0.13 	   0.21	    0.34
PSI						
	PERF	TARD	ABS	TO	DI2	RA2
PERF TARD ABS TO D12 RA2 LGO PGO EXTRA IA EP IP TOTSEK1 TOTSEK2 ROLCOG2 AFFECT2 ROLCOG1	1.00 -0.10 -0.09 -0.17  0.03 0.14 -0.05 0.07 0.03 0.02 -0.19 0.04 0.11 0.28 0.17	1.00 0.25 0.04  0.05 0.08 0.05 0.09 0.07 -0.06 0.04 0.27 0.02 -0.04 0.10	1.00 0.07 	1.00 	0.53	0.31
AFFECT1	0.24	-0.02	-0.10	-0.07		
PSI						
	CA2	TE2	WD2	ACCEP2	SE2	RAMB2
CA2 TE2 WD2 ACCEP2 SE2 RAMB2	0.46	0.84	0.76	0.60		
			 	 	0.64 	0.70
PSI				 	0.64	0.70
PSI	OCOM2	JSAT2	TOI2	  STRES2	0.64  LGO	0.70
OCOM2 JSAT2 TOI2 STRES2 LGO PGO EXTRA IA EP IP TOTSEK1 TOTSEK2 ROLCOG2		JSAT2 0.51	TOI2	0.82 		

AFFECT2 ROLCOG1 AFFECT1	  	  	  	  	0.25 0.57 0.22	0.07 0.31 -0.03
PSI						
	EXTRA	IA	EP	IP	TOTSEK1	TOTSEK2
EXTRA	1.00					
IA	0.01	1.00				
EP	-0.03	0.38	1.00			
IP	-0.16	0.42	0.26	1.00		
TOTSEK1	0.09	0.06	0.26	-0.05	1.00	
TOTSEK2	0.16	0.01	0.28	-0.28	0.69	1.00
ROLCOG2	-0.02	0.25	0.16	0.19	-0.06	-0.15
AFFECT2	0.14	0.21	0.09	-0.07	0.14	0.09
ROLCOG1	0.19	0.64	0.47	0.52	0.12	0.02
AFFECT1	0.15	0.24	0.13	0.05	0.18	-0.01

PSI

	ROLCOG2	AFFECT2	ROLCOG1	AFFECT1
ROLCOG2	1.00			
AFFECT2	0.44	1.00		
ROLCOG1	0.37	0.36	1.00	
AFFECT1	0.04	0.85	0.45	1.00

Time used: 1.172 Seconds

### APPENDIX F

# SELECT LISREL SYNTAX AND OUTPUT: FINAL STRUCTURAL MODEL

CFA of Final Exploratory Target Model

DA NI=48 NO=255 MA=KM

KM FI=A:\Diss\_Step2\_Corr.cor

LΑ

\*

RI1 TI1 PF1 GN1 SF1 ORG1 DI1 RA1 CA1 TE1 WD1 ACCEP1 SE1 RCON1 RAMB1 OCOM1 JSAT1 TOI1 STRES1 PERF TARD ABS TO
RI2 TI2 PF2 GN2 SF2 ORG2 DI2 RA2 CA2 TE2 WD2 ACCEP2 SE2 RCON2 RAMB2 OCOM2 JSAT2 TOI2 STRES2 LGO PGO EXTRA IA EP IP

SE

\*

DI1 RA1 CA1 TE1 WD1 ACCEP1 SE1 RAMB1 OCOM1 JSAT1 TOI1 STRES1 PERF TARD ABS TO
DI2 RA2 CA2 TE2 WD2 ACCEP2 SE2 RAMB2 OCOM2 JSAT2 TOI2 STRES2

LGO PGO EXTRA IA EP IP/

MO NY=34 NE=40 LY=FU,FI BE=FU,FI PS=SY,FR TE=ZE

LΕ

\*

DI1 RA1 CA1 TE1 WD1

ACCEP1 SE1 RAMB1

CCOM1 JSAT1 TOI1 STRES1

PERF TARD ABS TO

DI2 RA2 CA2 TE2 WD2

ACCEP2 SE2 RAMB2

CCOM2 JSAT2 TOI2 STRES2

LGO PGO EXTRA IA EP IP

TOTSEK1 TOTSEK2 ROLCOG2 AFFECT2

ROLCOG1 AFFECT1

VA 1.0 LY (1,1) LY (2,2) LY (3,3) LY (4,4) LY (5,5) LY (6,6) LY (7,7) LY (8,8) LY (9,9) LY (10,10)

VA 1.0 LY (11,11) LY (12,12) LY (13,13) LY (14,14) LY (15,15) LY (16,16) LY (17,17) LY (18,18) LY (19,19) LY (20,20)

VA 1.0 LY (21,21) LY (22,22) LY (23,23) LY (24,24) LY (25,25) LY (26,26) LY (27,27) LY (28,28) LY (29,29) LY (30,30)

VA 1.0 LY (31,31) LY (32,32) LY (33,33) LY (34,34)

PA BE

\*

ST=.1 BE (1,1) -BE (40,40)

FI BE (1,35) BE (6,39) BE (9,40) BE (17,36) BE (22,37) BE (25,38) VA 1.0 BE (1,35) BE (6,39) BE (9,40) BE (17,36) BE (22,37) BE (25,38)

```
0000000001
0 0 0 0 0 0 0 0 0 0 1
000000000001
00000000000001
000000000000001
00000000000000001
000000000000000001
1000000000000000001
0100000000000000001
0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1
0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1
0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1
ST=.9 PS(1,1)-PS(40,40)
VA 1.0 PS (29,29) PS (30,30) PS (31,31) PS (32,32) PS (33,33) PS (34,34)
OU NS SE TV SC AD=OFF
CFA of Final Exploratory Target Model
          Number of Input Variables 48
          Number of Y - Variables
          Number of X - Variables
          Number of ETA - Variables 40
          Number of KSI - Variables 0
          Number of Observations 255
W_A_R_N_I_N_G: Matrix to be analyzed is not positive definite,
      ridge option taken with ridge constant = 0.100
CFA of Final Exploratory Target Model
```

Number of Iterations = 36

LISREL Estimates (Maximum Likelihood)

L	AMBDA-Y					
	DI1	RA1	CA1	TE1	WD1	ACCEP1
DI1	1.00					
RA1		1.00				
CA1			1.00			
TE1				1.00		
WD1					1.00	
ACCEP1						1.00
L	AMBDA-Y					
	SE1	RAMB1	OCOM1	JSAT1	TOI1	STRES1
SE1	1.00					
RAMB1		1.00				
OCOM1			1.00			
JSAT1				1.00		
TOI1					1.00	
STRES1						1.00
L	AMBDA-Y					
	PERF	TARD	ABS	TO	DI2	RA2
PERF	1.00					
TARD		1.00				
ABS			1.00			
TO				1.00		
DI2					1.00	
RA2						1.00
L	AMBDA-Y					
	CA2	TE2	WD2	ACCEP2	SE2	RAMB2
CA2	1.00					

TE2		1.00				
WD2			1.00			
ACCEP2				1.00		
SE2					1.00	
RAMB2						1.00
LAI	MBDA-Y					
	OCOM2	JSAT2 	TOI2	STRES2	LGO	PGO
OCOM2	1.00					
JSAT2		1.00				
TOI2			1.00			
STRES2				1.00		
LGO					1.00	
PGO						1.00
LA	MBDA-Y					
	EXTRA	IA	EP 	IP 	TOTSEK1	TOTSEK2
EXTRA	1.00					
IA		1.00				
EP			1.00			= =
IP				1.00		
LA	MBDA-Y					
	ROLCOG2	AFFECT2	ROLCOG1	AFFECT1		
<i>1</i> -1-1-1						
BE'	1A					
	DI1	RA1	CA1	TE1	WD1	ACCEP1

BETA

	SE1	RAMB1	OCOM1	JSAT1	TOI1	STRES1
BET	'A					
	PERF	TARD	ABS	TO	DI2	RA2
BET	'A					
	CA2	TE2	WD2	ACCEP2	SE2	RAMB2
BET	'A					
	OCOM2	JSAT2	TOI2	STRES2	LGO	PGO
TOTSEK1					0.02 (0.06) 0.33	-0.20 (0.06) -3.47
TOTSEK2					-0.04 (0.06) -0.65	0.02 (0.04) 0.45
ROLCOG2					0.21 (0.05) 4.39	
AFFECT2						
ROLCOG1					0.16 (0.04) 4.44	
AFFECT1					0.16 (0.05) 3.06	-0.14 (0.05) -2.68
BET	'A					
	EXTRA	IA	EP	IP	TOTSEK1	TOTSEK2
DI1	0.09 (0.05) 1.68	0.07 (0.06) 1.00	0.24 (0.06) 3.89	-0.09 (0.06) -1.39	1.00	
RA1	0.05 (0.05)	-0.01 (0.06)	0.34 (0.06)	-0.10 (0.06)	1.19 (0.08)	

	1.12	-0.10	5.54	-1.71	15.10	
CA1	0.09 (0.05) 1.81	-0.04 (0.06) -0.67	0.36 (0.06) 6.09	-0.14 (0.06) -2.36	1.11 (0.08) 14.30	
TE1		0.01 (0.06) 0.20	0.31 (0.06) 5.14	-0.14 (0.06) -2.28	0.82 (0.07) 12.06	
WD1	0.02 (0.06) 0.37				0.73 (0.08) 9.02	
PERF					-0.35 (0.09) -3.98	
ABS		0.14 (0.07) 2.07				
DI2	0.04 (0.06) 0.58	0.07 (0.08) 0.97	0.21 (0.07) 3.18	-0.33 (0.07) -4.57		1.00
RA2	0.06 (0.07) 0.79	-0.04 (0.09) -0.48	0.26 (0.07) 3.73	-0.25 (0.08) -3.07		1.84 (0.24) 7.71
CA2	0.06 (0.06) 0.99	-0.06 (0.08) -0.77	0.27 (0.07) 4.16	-0.34 (0.07) -4.76		1.07 (0.13) 8.20
TE2		-0.05 (0.07) -0.68	0.24 (0.07) 3.61	-0.17 (0.07) -2.44		0.34 (0.10) 3.53
WD2	0.04 (0.07) 0.56					0.62 (0.12) 5.15
TOTSEK1						
TOTSEK2						
ROLCOG2					-0.02 (0.06) -0.33	
AFFECT2				-0.22 (0.06) -3.78		

ROLCOG1	0.10 (0.03) 3.22	0.16 (0.04) 4.33	 0.13 (0.04) 3.57	 
AFFECT1		0.16 (0.05) 3.16	 	 

BETA

	ROLCOG2	AFFECT2	ROLCOG1	AFFECT1
ACCEP1			1.00	
SE1			1.40 (0.24) 5.91	
RAMB1			1.18 (0.21) 5.74	
OCOM1				1.00
JSAT1				1.24 (0.10) 11.98
TOI1				-0.96 (0.09) -11.06
STRES1				-0.75 (0.10) -7.69
PERF				0.43 (0.11) 4.02
TARD				-0.05 (0.11) -0.44
ABS				-0.23 (0.11) -2.05
TO				-0.12 (0.11) -1.10
ACCEP2	1.00			
SE2	1.15			

	(0.18) 6.59			
RAMB2	1.20 (0.18) 6.52			
OCOM2		1.00		
JSAT2		1.23 (0.13) 9.72		
TOI2		-1.09 (0.11) -9.50		
STRES2		-0.76 (0.11) -6.61		
TOTSEK1				
TOTSEK2			0.21 (0.22) 0.92	-0.03 (0.06) -0.57
ROLCOG2				
AFFECT2			0.80 (0.19) 4.23	
ROLCOG1				
AFFECT1				

# Covariance Matrix of ETA

	DI1	RA1	CA1	TE1	WD1	ACCEP1
DI1	1.03					
RA1	0.72	1.06				
CA1	0.69	0.82	1.04			
TE1	0.51	0.61	0.59	0.96		
WD1	0.41	0.48	0.45	0.33	1.03	
ACCEP1	0.02	0.01	0.00	0.00	-0.02	1.04
SE1	0.03	0.01	-0.01	0.00	-0.02	0.25
RAMB1	0.03	0.01	0.00	0.00	-0.02	0.21
OCOM1	0.03	0.02	0.01	0.01	0.01	0.07
JSAT1	0.03	0.02	0.01	0.02	0.01	0.09
TOI1	-0.03	-0.02	-0.01	-0.01	0.00	-0.07
STRES1	-0.02	-0.01	-0.01	-0.01	0.00	-0.05
PERF	-0.18	-0.22	-0.21	-0.15	-0.15	0.04
TARD	0.00	0.00	0.00	0.00	0.00	0.00

3.00	0.00	0.00	0 01	0.00	0.01	0.00
ABS	0.00	0.00	-0.01	0.00	-0.01	0.02
TO	0.00	0.00	0.00	0.00	0.00	-0.01
DI2	0.16	0.07	0.08	0.07	-0.01	0.01
RA2	0.06	0.16	0.09	0.07	-0.01	0.03
CA2	0.06	0.08	0.20	0.08	-0.01	-0.01
TE2	0.04	0.06	0.07	0.49	-0.01	0.00
WD2	0.01	0.00	0.00	0.00	0.30	0.02
ACCEP2	0.00	-0.01	-0.01	0.00	-0.02	0.45
SE2	0.00	-0.01	-0.01	0.00	-0.02	0.06
RAMB2	-0.01	-0.01	-0.01	0.00	-0.02	0.07
OCOM2	0.03	0.02	0.02	0.02	0.00	0.10
JSAT2	0.04	0.03	0.03	0.03	-0.01	0.12
TOI2	-0.03	-0.02	-0.03	-0.02	0.01	-0.11
STRES2	-0.02	-0.02	-0.02	-0.02	0.00	-0.07
LGO	0.03	0.02	0.01	0.03	-0.05	0.26
PGO	-0.09	-0.10	-0.09	-0.03	-0.15	0.14
EXTRA	0.13	0.10	0.13	0.04	0.04	0.08
IA	0.07	0.02	-0.02	0.03	-0.04	0.28
EP	0.15	0.19	0.21	0.21	-0.07	0.16
IP	-0.05	-0.08	-0.12	-0.09	-0.03	0.22
TOTSEK1	0.55	0.66	0.61	0.45	0.42	-0.02
TOTSEK2	0.00	0.00	0.00	0.00	0.00	0.03
ROLCOG2	0.00	-0.01	-0.01	0.00	-0.02	0.05
AFFECT2	0.03	0.02	0.02	0.02	0.00	0.10
ROLCOG1	0.02	0.01	0.00	0.00	-0.02	0.18
AFFECT1	0.03	0.02	0.01	0.01	0.01	0.07
1212011	0.05	0.02	0.01	0.01	0.01	0.07

Covariance Matrix of ETA

	SE1	RAMB1	OCOM1	JSAT1	TOI1	STRES1
SE1	1.08					
RAMB1	0.30	1.06				
OCOM1	0.10	0.08	0.92			
JSAT1	0.12	0.10	0.56	1.07		
TOI1	-0.09	-0.08	-0.43	-0.53	0.95	
STRES1	-0.07	-0.06	-0.33	-0.42	0.32	1.08
PERF	0.05	0.04	0.19	0.23	-0.18	-0.14
TARD	0.00	0.00	-0.02	-0.03	0.02	0.02
ABS	0.03	0.03	-0.08	-0.10	0.08	0.06
TO	-0.01	-0.01	-0.05	-0.07	0.05	0.04
DI2	0.02	0.02	0.00	-0.01	0.00	0.00
RA2	0.04	0.03	-0.02	-0.03	0.02	0.02
CA2	-0.02	-0.02	-0.03	-0.03	0.02	0.02
TE2	0.00	0.00	-0.01	-0.01	0.01	0.01
WD2	0.03	0.02	0.00	0.00	0.00	0.00
ACCEP2	0.08	0.06	0.03	0.04	-0.03	-0.03
SE2	0.37	0.07	0.04	0.05	-0.04	-0.03
RAMB2	0.09	0.51	0.04	0.05	-0.04	-0.03
OCOM2	0.14	0.11	0.38	0.05	-0.04	-0.03
JSAT2	0.17	0.14	0.05	0.24	-0.05	-0.04
TOI2	-0.15	-0.12	-0.04	-0.05	0.37	0.03
STRES2	-0.10	-0.09	-0.03	-0.04	0.03	0.39
LGO	0.37	0.31	0.16	0.20	-0.16	-0.12
PGO	0.19	0.16	-0.02	-0.02	0.01	0.01
EXTRA	0.12	0.10	0.03	0.03	-0.03	-0.02
IA	0.40	0.34	0.18	0.23	-0.17	-0.14

מים	0.22	0 10	0.06	0 07	0.05	0 04
EP IP	0.22 0.31	0.18 0.26	0.06 0.07	0.07 0.09	-0.05 -0.07	-0.04 -0.05
TOTSEK1	-0.03	-0.03	0.07	0.01	-0.01	0.00
TOTSEK2	0.04	0.03	-0.01	-0.01	0.01	0.01
ROLCOG2	0.08	0.06	0.03	0.04	-0.03	-0.03
AFFECT2	0.14	0.11	0.04	0.05	-0.04	-0.03
ROLCOG1	0.25	0.21	0.07	0.09	-0.07	-0.05
AFFECT1	0.10	0.08	0.45	0.56	-0.43	-0.33
Cov	variance Mat	rix of ETA				
	PERF	TARD	ABS	TO	DI2	RA2
PERF	1.11					
TARD	-0.01	1.10				
ABS	-0.03	0.00	1.10			
TO	-0.02	0.00	0.01	1.10		
DI2	0.00	0.00	0.01	0.00	1.04	
RA2	0.00	0.00	0.01	0.00	0.62	1.07
CA2	-0.01	0.00	0.00	0.00	0.43	0.67
TE2	0.00	0.00	0.00	0.00	0.17	0.25
WD2	0.00	0.00	0.00	0.00	0.18	0.33
ACCEP2	0.02	0.00	0.00	0.00	0.01	0.01
SE2	0.03	0.00	0.00	0.00	0.01	0.02
RAMB2	0.03	0.00	0.00	0.00	0.01	0.02
OCOM2	0.02	0.00	0.01	0.00	0.06	0.05
JSAT2	0.02	0.00	0.01	-0.01	0.07	0.07
TOI2 STRES2	-0.02 -0.02	0.00	-0.01 -0.01	0.01 0.00	-0.06 -0.04	-0.06 -0.04
LGO	0.10	-0.01	0.02	-0.02	0.04	0.07
PGO	0.06	0.00	0.02	0.00	0.08	0.11
EXTRA	0.00	0.00	-0.01	0.00	0.09	0.11
IA	0.10	-0.01	0.10	-0.02	0.06	0.03
EP	0.06	0.00	0.04	-0.01	0.18	0.22
IP	0.04	0.00	0.04	-0.01	-0.21	-0.14
TOTSEK1	-0.20	0.00	-0.01	0.00	-0.01	-0.02
TOTSEK2	0.00	0.00	0.01	0.00	0.28	0.52
ROLCOG2	0.02	0.00	0.00	0.00	0.01	0.01
AFFECT2	0.02	0.00	0.01	0.00	0.06	0.05
ROLCOG1		0.00	0.02			0.03
AFFECT1	0.19	-0.02	-0.08	-0.05	0.00	-0.02
Cov	variance Mat	rix of ETA				
	CA2	TE2	WD2	ACCEP2	SE2	RAMB2
CA2	1.05					
TE2	0.19	1.05				
WD2	0.19	0.06	1.07			
ACCEP2	0.01	0.01	0.00	1.09		
SE2	0.01	0.01	0.00	0.36	1.11	
RAMB2	0.01	0.01	0.00	0.38	0.44	1.07
OCOM2	0.05	0.02	0.01	0.03	0.04	0.04
JSAT2	0.06	0.03	0.02	0.04	0.05	0.05
TOI2	-0.05	-0.02	-0.01	-0.04	-0.04	-0.04
STRES2	-0.04	-0.02	-0.01	-0.03	-0.03	-0.03
LGO	0.03	0.04	0.01	0.21	0.24	0.25

PGO	0.06	0.08	0.01	0.10	0.11	0.12
EXTRA	0.12	0.02	0.04	0.01	0.01	0.01
IA	-0.05	-0.01	0.03	0.08	0.10	0.10
EP	0.19	0.19	0.01	0.08	0.09	0.10
IP	-0.26	-0.11	0.02	0.05	0.05	0.06
TOTSEK1	-0.01	-0.02	0.00	-0.03	-0.03	-0.03
TOTSEK2	0.30	0.10	0.18	0.00	0.01	0.01
ROLCOG2	0.01	0.01	0.00	0.32	0.36	0.38
AFFECT2	0.05	0.02	0.01	0.03	0.04	0.04
ROLCOG1	-0.01	0.00	0.02	0.05	0.06	0.07
AFFECT1	-0.03	-0.01	0.00	0.03	0.04	0.04
Cov	variance Mat	rix of ETA				

	OCOM2	JSAT2	TOI2	STRES2	LGO	PGO
OCOM2	0.98					
JSAT2	0.46	1.02				
TOI2	-0.41	-0.50	1.02			
STRES2	-0.29	-0.35	0.31	1.08		
LGO	0.16	0.20	-0.18	-0.12	1.00	
PGO	0.06	0.08	-0.07	-0.05	0.45	1.00
EXTRA	0.10	0.12	-0.11	-0.08	0.03	-0.15
IA	0.14	0.17	-0.15	-0.10	0.40	0.29
EP	0.07	0.09	-0.08	-0.05	0.38	0.49
IP	-0.04	-0.05	0.05	0.03	0.23	0.23
TOTSEK1	-0.01	-0.01	0.01	0.01	-0.07	-0.19
TOTSEK2	0.01	0.02	-0.02	-0.01	0.02	0.03
ROLCOG2	0.03	0.04	-0.04	-0.03	0.21	0.10
AFFECT2	0.38	0.46	-0.41	-0.29	0.16	0.06
ROLCOG1	0.10	0.12	-0.11	-0.07	0.26	0.14
AFFECT1	0.04	0.05	-0.04	-0.03	0.16	-0.02

Covariance Matrix of ETA

	EXTRA	IA	EP	IP	TOTSEK1	TOTSEK2
EXTRA	1.00					
IA	0.01	1.00				
EP	-0.03	0.38	1.00			
IP	-0.16	0.42	0.25	1.00		
TOTSEK1	0.03	-0.05	-0.09	-0.04	0.57	
TOTSEK2	0.01	0.04	0.03	0.04	-0.01	0.29
ROLCOG2	0.01	0.08	0.08	0.05	-0.03	0.00
AFFECT2	0.10	0.14	0.07	-0.04	-0.01	0.01
ROLCOG1	0.08	0.28	0.16	0.22	-0.02	0.03
AFFECT1	0.03	0.18	0.06	0.07	0.01	-0.01

Covariance Matrix of ETA

	ROLCOG2	AFFECT2	ROLCOG1	AFFECT1
ROLCOG2	0.32			
AFFECT2	0.03	0.38		
ROLCOG1	0.05	0.10	0.18	
AFFECT1	0.03	0.04	0.07	0.45

PSI

	DI1	RA1	CA1	TE1	WD1	ACCEP1
DI1	0.42 (0.04) 9.67					
RA1		0.20 (0.03) 6.53				
CA1			0.26 (0.03) 7.88			
TE1				0.51 (0.05) 10.38		
WD1					0.73 (0.07) 10.79	
ACCEP1						0.86 (0.08) 10.61
DI2	0.10 (0.04) 2.66					
RA2		0.09 (0.03) 3.43				
CA2			0.09 (0.03) 3.20			
TE2				0.43 (0.05) 8.13		
WD2					0.30 (0.06) 5.32	
ACCEP2						0.39 (0.06) 6.35
PSI						
	SE1	RAMB1	OCOM1	JSAT1	TOI1	STRES1

RAMB1	(0.08) 9.52	0.80				
IAMDI		(0.08) 10.24				
OCOM1			0.47 (0.05) 8.80			
JSAT1				0.38 (0.06) 6.55		
TOI1					0.54 (0.06) 9.36	
STRES1						0.83 (0.08) 10.52
SE2	0.29 (0.06) 5.16					
RAMB2		0.44 (0.06) 7.33				
OCOM2			0.34 (0.05) 7.19			
JSAT2				0.18 (0.04) 4.31		
TOI2					0.33 (0.05) 6.83	
STRES2						0.37 (0.06) 5.97
PSI						
	PERF	TARD	ABS	TO	DI2	RA2
PERF	0.96 (0.09) 10.97					

TARD		1.10 (0.10) 11.27				
ABS			1.07 (0.10) 11.21			
ТО				1.09 (0.10) 11.25		
DI2					0.65 (0.06) 10.26	
RA2						0.00 (0.09) 0.03
PSI						
	CA2	TE2	WD2	ACCEP2	SE2	RAMB2
CA2	0.57 (0.06) 9.70					
TE2		0.95 (0.08) 11.27				
WD2			0.96 (0.09) 11.21			
ACCEP2				0.78 (0.08) 9.29		
SE2					0.69 (0.08) 8.13	
RAMB2						0.61 (0.08) 7.24
PSI						
	OCOM2	JSAT2	TOI2	STRES2	LGO	PGO
OCOM2	0.61 (0.07) 9.25					

JSAT2		0.44 (0.06) 6.95				
TOI2			0.58 (0.07) 8.67			
STRES2				0.86 (0.08) 10.45		
LGO					1.00	
PGO					0.45 (0.05) 10.10	1.00
EXTRA					0.03 (0.06) 0.54	-0.15 (0.06) -2.52
IA				- '-	0.40 (0.05) 8.17	0.29 (0.05) 5.45
EP				- '-	0.38 (0.05) 7.80	0.49 (0.04) 11.66
IP					0.23 (0.06) 3.94	0.23 (0.06) 3.98
PSI						
	EXTRA	IA	EP	IP	TOTSEK1	TOTSEK2
EXTRA	1.00					
IA	0.01 (0.06) 0.12	1.00				
EP	-0.03 (0.06) -0.53	0.38 (0.05) 7.68	1.00			
IP	-0.16 (0.06) -2.62	0.42 (0.05) 8.69	0.25 (0.06) 4.52	1.00		
TOTSEK1					0.54 (0.08) 6.93	

0.28

IOISEKZ	<u> </u>					(0.06) 4.42
	PSI					
	ROLCOG2	AFFECT2	ROLCOG1	AFFECT1		
ROLCOG2	0.27 (0.07) 4.09					
AFFECT2	2	0.29 (0.06) 5.15				
ROLCOG1			0.05 (0.02) 2.43			
AFFECT1				0.39 (0.06) 6.50		
	Squared Mult	iple Correl	ations for	Structural	Equations	
	DI1	RA1	CA1	TE1	WD1	ACCEP1
	0.59	0.81	0.75	0.47	0.30	0.17
	Squared Mult	iple Correl	ations for	Structural	Equations	
	SE1	RAMB1	OCOM1	JSAT1	TOI1	STRES1
	0.33	0.24	0.49	0.65	0.43	0.23
	Squared Mult	iple Correl	ations for	Structural	Equations	
	PERF	TARD	ABS	TO	DI2	RA2
	0.14	0.00	0.03	0.01	0.38	1.00
	Squared Mult	iple Correl	ations for	Structural	Equations	
	CA2	TE2	WD2	ACCEP2	SE2	RAMB2
	0.45	0.09	0.10	0.29	0.38	0.42
	Squared Mult	iple Correl	ations for	Structural	Equations	
	OCOM2	JSAT2	TOI2	STRES2	LGO	PGO
	0.38	0.56	0.44	0.20		

TOTSEK2

TOTSEK2	TOTSEK1	IP	EP	IA	EXTRA
0.02	0.07				

Squared Multiple Correlations for Structural Equations

AFFECT1	ROLCOG1	AFFECT2	ROLCOG2
0.13	0.70	0.23	0.14

Squared Multiple Correlations for Y - Variables

ACCEP1	WD1	TE1	CA1	RA1	DI1
1.00	1.00	1.00	1.00	1.00	1.00

Squared Multiple Correlations for Y - Variables

SE1	RAMB1	OCOM1	JSAT1	TOI1	STRES1
1.00	1.00	1.00	1.00	1.00	1.00

Squared Multiple Correlations for Y - Variables

RA2	DI2	TO	ABS	TARD	PERF
1.00	1.00	1.00	1.00	1.00	1.00

Squared Multiple Correlations for Y - Variables

RAMB2	SE2	ACCEP2	WD2	TE2	CA2
1.00	1.00	1.00	1.00	1.00	1.00

Squared Multiple Correlations for Y - Variables

OCOM2	JSAT2	TOI2	STRES2	LGO	PGO
1.00	1.00	1.00	1.00	1.00	1.00

Squared Multiple Correlations for Y - Variables

IP	EP	IA	EXTRA
1.00	1.00	1.00	1.00

Goodness of Fit Statistics

Degrees of Freedom = 461
Minimum Fit Function Chi-Square = 1794.26 (P = 0.0)
Normal Theory Weighted Least Squares Chi-Square = 1341.04 (P = 0.0)
Estimated Non-centrality Parameter (NCP) = 880.04
90 Percent Confidence Interval for NCP = (774.18; 993.51)

Minimum Fit Function Value = 7.06

Population Discrepancy Function Value (F0) = 3.46

90 Percent Confidence Interval for F0 = (3.05; 3.91)

Root Mean Square Error of Approximation (RMSEA) = 0.087

90 Percent Confidence Interval for RMSEA = (0.081; 0.092)

P-Value for Test of Close Fit (RMSEA < 0.05) = 0.00

Chi-Square for Independence Model with 561 Degrees of Freedom = 4905.46

Independence AIC = 4973.46

Model AIC = 1609.04

Saturated AIC = 1190.00

Independence CAIC = 5127.86

Model CAIC = 2217.57

Saturated CAIC = 3892.05

Normed Fit Index (NFI) = 0.63 Non-Normed Fit Index (NNFI) = 0.63 Parsimony Normed Fit Index (PNFI) = 0.52 Comparative Fit Index (CFI) = 0.69 Incremental Fit Index (IFI) = 0.70 Relative Fit Index (RFI) = 0.55

Critical N (CN) = 76.67

Root Mean Square Residual (RMR) = 0.14 Standardized RMR = 0.13 Goodness of Fit Index (GFI) = 0.77 Adjusted Goodness of Fit Index (AGFI) = 0.70 Parsimony Goodness of Fit Index (PGFI) = 0.59

CFA of Final Exploratory Target Model

Completely Standardized Solution

#### LAMBDA-Y

	DI1	RA1	CA1	TE1	WD1	ACCEP1
DI1	1.00					
RA1		1.00				
CA1			1.00			
TE1				1.00		
WD1					1.00	
ACCEP1						1.00

### LAMBDA-Y

STRES1	TOI1	JSAT1	OCOM1	RAMB1	SE1	
					1.00	SE1
				1.00		RAMB1

OCOM1 JSAT1	 	 	1.00	 1.00	 	 
TOI1 STRES1					1.00	 1.00
SINESI						1.00
LAN	∕BDA-Y					
	PERF	TARD	ABS	TO	DI2	RA2
PERF	1.00					
TARD		1.00				
ABS			1.00			
TO DI2				1.00	1.00	
RA2						1.00
LAN	∕BDA−Y					
	CA2	TE2	WD2	ACCEP2	SE2	RAMB2
CA2	1.00					
TE2		1.00				
WD2			1.00			
ACCEP2				1.00	1 00	
SE2 RAMB2	 		 		1.00	1.00
14 11 11 12						1.00
LAN	MBDA-Y					
	OCOM2	JSAT2	TOI2	STRES2	LGO	PGO
OCOM2	1.00					
JSAT2		1.00				
TOI2			1.00			
STRES2				1.00	1 00	
LGO PGO					1.00	1.00
	MBDA-Y					
	EXTRA	IA	EP	IP	TOTSEK1	TOTSEK2
EXTRA	1.00					
IA		1.00				
EP			1.00			
IP				1.00		
LAN	MBDA-Y					
	ROLCOG2	AFFECT2	ROLCOG1	AFFECT1		
BET	ΓΑ					
	DI1	RA1	CA1	TE1	WD1	ACCEP1

BET	A					
	SE1	RAMB1	OCOM1	JSAT1	TOI1	STRES1
BET	A					
	PERF	TARD	ABS	TO	DI2	RA2
BET	A					
	CA2	TE2	WD2	ACCEP2	SE2	RAMB2
BET	A					
	OCOM2	JSAT2	TOI2	STRES2	LGO	PGO
TOTSEK1 TOTSEK2 ROLCOG2 AFFECT2 ROLCOG1 AFFECT1					0.02 -0.07 0.37  0.39 0.24	-0.27 0.03    -0.20
BET	A					
	EXTRA	IA	EP	IP	TOTSEK1	TOTSEK2
DI1 RA1 CA1 TE1 WD1 PERF ABS DI2 RA2 CA2 TE2 WD2 TOTSEK1 TOTSEK2 ROLCOG2 AFFECT2 ROLCOG1 AFFECT1	0.09 0.05 0.08  0.02  0.04 0.06 0.06  0.04  0.02 	0.06 -0.01 -0.04 0.01 0.13 0.07 -0.04 -0.06 -0.05 0.39 0.23	0.24 0.33 0.36 0.32 0.21 0.25 0.27 0.24	-0.08 -0.10 -0.14 -0.140.32 -0.24 -0.33 -0.160.36 0.30	0.75 0.87 0.82 0.64 0.54 -0.25        	
BET	A					
	ROLCOG2	AFFECT2	ROLCOG1	AFFECT1		

ACCEP1			0.42	
SE1			0.57	
RAMB1			0.49	
OCOM1				0.70
JSAT1				0.80
TOI1				-0.66
STRES1				-0.48
PERF				0.27
TARD				-0.03
ABS				-0.15
TO				-0.08
ACCEP2	0.54			
SE2	0.61			
RAMB2	0.65			
OCOM2		0.62		
JSAT2		0.75		
TOI2		-0.66		
STRES2		-0.45		
TOTSEK1				
TOTSEK2			0.16	-0.04
ROLCOG2				
AFFECT2			0.56	
ROLCOG1				
AFFECT1				

## Correlation Matrix of ETA

	DI1	RA1	CA1	TE1	WD1	ACCEP1
DI1	1.00					
RA1	0.69	1.00				
CA1	0.66	0.78	1.00			
TE1	0.52	0.61	0.59	1.00		
WD1	0.39	0.46	0.44	0.33	1.00	
ACCEP1	0.02	0.01	0.00	0.00	-0.01	1.00
SE1	0.03	0.01	-0.01	0.00	-0.02	0.24
RAMB1	0.02	0.01	0.00	0.00	-0.02	0.20
OCOM1	0.03	0.02	0.01	0.02	0.01	0.07
JSAT1	0.03	0.02	0.01	0.02	0.01	0.08
TOI1	-0.03	-0.02	-0.01	-0.01	0.00	-0.07
STRES1	-0.02	-0.01	-0.01	-0.01	0.00	-0.05
PERF	-0.17	-0.21	-0.20	-0.15	-0.14	0.03
TARD	0.00	0.00	0.00	0.00	0.00	0.00
ABS	0.00	0.00	0.00	0.00	-0.01	0.02
TO	0.00	0.00	0.00	0.00	0.00	-0.01
DI2	0.15	0.07	0.08	0.07	-0.01	0.01
RA2	0.05	0.15	0.08	0.07	-0.01	0.03
CA2	0.06	0.08	0.19	0.08	-0.01	-0.01
TE2	0.04	0.06	0.07	0.49	-0.01	0.00
WD2	0.00	0.00	0.00	0.00	0.29	0.02
ACCEP2	0.00	-0.01	-0.01	0.00	-0.02	0.42
SE2	0.00	-0.01	-0.01	0.00	-0.02	0.06
RAMB2	0.00	-0.01	-0.01	0.00	-0.02	0.06
OCOM2	0.03	0.02	0.02	0.02	0.00	0.10
JSAT2	0.03	0.02	0.03	0.03	-0.01	0.12
TOI2	-0.03	-0.02	-0.03	-0.02	0.00	-0.10

STRES2	-0.02	-0.01	-0.02	-0.02	0.00	-0.07
LGO	0.03	0.02	0.01	0.03	-0.05	0.26
PGO	-0.09	-0.10	-0.09	-0.03	-0.14	0.14
EXTRA	0.12	0.09	0.13	0.04	0.04	0.08
IA	0.07	0.02	-0.02	0.03	-0.04	0.28
EP	0.15	0.19	0.20	0.21	-0.07	0.15
IP	-0.05	-0.07	-0.12	-0.09	-0.03	0.21
TOTSEK1	0.72	0.84	0.79	0.61	0.55	-0.03
TOTSEK2	0.00	0.00	-0.01	0.00	-0.01	0.05
ROLCOG2	-0.01	-0.01	-0.02	0.00	-0.03	0.10
AFFECT2	0.05	0.03	0.04	0.04	-0.01	0.15
ROLCOG1	0.05	0.01	-0.01	0.01	-0.03	0.42
AFFECT1	0.04	0.03	0.02	0.02	0.01	0.10
Cor	rrelation Ma	trix of ETA	A			
	SE1	RAMB1	OCOM1	JSAT1	TOI1	STRES1
SE1	1.00					
RAMB1	0.28	1.00				
OCOM1	0.10	0.08	1.00			
JSAT1	0.11	0.09	0.56	1.00		
TOI1	-0.09	-0.08	-0.46	-0.53	1.00	
STRES1	-0.07	-0.06	-0.34	-0.39	0.32	1.00
PERF	0.05	0.04	0.19	0.22	-0.18	-0.13
TARD	0.00	0.00	-0.02	-0.02	0.02	0.01
ABS	0.03	0.03	-0.08	-0.09	0.07	0.05
TO	-0.01	-0.01	-0.05	-0.06	0.05	0.04
DI2	0.02	0.02	0.00	-0.01	0.00	0.00
RA2	0.04	0.03	-0.02	-0.03	0.02	0.02
CA2	-0.02	-0.01	-0.03	-0.03	0.02	0.02
TE2	0.00	0.00	-0.01	-0.01	0.01	0.01
WD2	0.03	0.02	0.00	0.00	0.00	0.00
ACCEP2	0.07	0.06	0.03	0.04	-0.03	-0.02
SE2	0.34	0.07	0.04	0.04	-0.04	-0.03
RAMB2	0.09	0.48	0.04	0.05	-0.04	-0.03
OCOM2	0.13	0.11	0.39	0.05	-0.04	-0.03
JSAT2	0.16	0.14	0.05	0.23	-0.05	-0.03
TOI2	-0.14	-0.12	-0.04	-0.05	0.37	0.03
STRES2	-0.10	-0.08	-0.03	-0.03	0.03	0.36
LGO PGO	0.35	0.30	0.17 -0.02	0.20 -0.02	-0.16	-0.12
	0.19	0.16 0.10	0.03	0.03	0.02 -0.03	0.01 -0.02
EXTRA IA	0.11 0.38	0.10	0.03	0.03	-0.03	-0.02
EP	0.30	0.18	0.19	0.22	-0.15	-0.13
IP	0.21	0.10	0.00	0.07	-0.03	-0.04
TOTSEK1	-0.04	-0.04	0.01	0.01	-0.01	-0.01
TOTSEK2	0.07	0.04	-0.01	-0.02	0.01	0.01
ROLCOG2	0.13	0.00	0.06	0.02	-0.06	-0.04
AFFECT2	0.13	0.11	0.07	0.08	-0.06	-0.05
ROLCOG1	0.57	0.49	0.17	0.19	-0.16	-0.12
AFFECT1	0.14	0.12	0.70	0.80	-0.66	-0.48
Cor	rrelation Ma	trix of ETA	A			
301						

PERF TARD ABS TO DI2 RA2

PERF	1.00					
TARD	-0.01	1.00				
ABS	-0.03	0.00	1.00			
TO	-0.02	0.00	0.01	1.00		
DI2	0.00	0.00	0.01	0.00	1.00	
RA2	0.00	0.00	0.01	0.00	0.59	1.00
CA2	-0.01	0.00	0.00	0.00	0.41	0.64
TE2	0.00	0.00	0.00	0.00	0.17	0.24
WD2	0.00	0.00	0.00	0.00	0.17	0.31
ACCEP2	0.02	0.00	0.00	0.00	0.01	0.01
SE2	0.02	0.00	0.00	0.00	0.01	0.01
RAMB2	0.03	0.00	0.00	0.00	0.01	0.02
OCOM2	0.02	0.00	0.01	0.00	0.06	0.05
JSAT2	0.02	0.00	0.01	-0.01	0.07	0.06
TOI2	-0.02	0.00	-0.01	0.00	-0.06	-0.06
STRES2	-0.01	0.00	-0.01	0.00	-0.04	-0.04
LGO	0.09	-0.01	0.02	-0.02	0.06	0.06
PGO	0.06	0.00	0.04	0.00	0.08	0.10
EXTRA	0.00	0.00	-0.01	0.00	0.09	0.11
IA	0.09	-0.01	0.09	-0.02	0.06	0.03
EP	0.05	0.00	0.04	-0.01	0.18	0.22
IP	0.04	0.00	0.04	-0.01	-0.21	-0.13
TOTSEK1	-0.25	0.00	-0.01	0.00	-0.02	-0.03
TOTSEK2	0.00	0.00	0.01	0.00	0.52	0.95
ROLCOG2	0.04	0.00	0.01	-0.01	0.02	0.02
AFFECT2	0.03	0.00	0.02	-0.01	0.09	0.08
ROLCOG1	0.08	-0.01	0.05	-0.02	0.03	0.07
AFFECT1	0.27	-0.03	-0.11	-0.08	-0.01	-0.03

Correlation Matrix of ETA

	CA2	TE2	WD2	ACCEP2	SE2	RAMB2
G7.0	1 00					
CA2	1.00	4 00				
TE2	0.19	1.00				
WD2	0.18	0.06	1.00			
ACCEP2	0.01	0.01	0.00	1.00		
SE2	0.01	0.01	0.00	0.33	1.00	
RAMB2	0.01	0.01	0.00	0.35	0.40	1.00
OCOM2	0.05	0.02	0.01	0.03	0.04	0.04
JSAT2	0.06	0.03	0.01	0.04	0.04	0.05
TOI2	-0.05	-0.02	-0.01	-0.03	-0.04	-0.04
STRES2	-0.03	-0.02	-0.01	-0.02	-0.03	-0.03
LGO	0.03	0.04	0.01	0.20	0.23	0.24
PGO	0.06	0.08	0.01	0.09	0.11	0.11
EXTRA	0.12	0.02	0.04	0.01	0.01	0.01
IA	-0.05	-0.01	0.03	0.08	0.09	0.10
EP	0.19	0.19	0.01	0.08	0.09	0.09
IP	-0.26	-0.11	0.02	0.05	0.05	0.06
TOTSEK1	-0.02	-0.02	0.00	-0.03	-0.04	-0.04
TOTSEK2	0.55	0.17	0.32	0.01	0.01	0.01
ROLCOG2	0.01	0.02	0.01	0.54	0.61	0.65
AFFECT2	0.07	0.04	0.02	0.05	0.06	0.06
ROLCOG1	-0.03	-0.01	0.05	0.12	0.14	0.15
AFFECT1	-0.04	-0.01	-0.01	0.05	0.05	0.06

Correlation Matrix of ETA

	OCOM2	JSAT2	TOI2	STRES2	LGO	PGO
OCOM2	1.00					
JSAT2	0.46	1.00				
TOI2	-0.41	-0.50	1.00			
STRES2	-0.28	-0.34	0.30	1.00		
LGO	0.16	0.20	-0.17	-0.12	1.00	
PGO	0.06	0.07	-0.07	-0.04	0.45	1.00
EXTRA	0.10	0.12	-0.11	-0.07	0.03	-0.15
IA	0.14	0.17	-0.15	-0.10	0.40	0.29
EP	0.07	0.09	-0.07	-0.05	0.38	0.49
IP	-0.04	-0.05	0.05	0.03	0.23	0.23
TOTSEK1	-0.01	-0.02	0.01	0.01	-0.10	-0.26
TOTSEK2	0.03	0.03	-0.03	-0.02	0.04	0.06
ROLCOG2	0.06	0.07	-0.06	-0.04	0.37	0.17
AFFECT2	0.62	0.75	-0.66	-0.45	0.26	0.10
ROLCOG1	0.23	0.28	-0.25	-0.17	0.62	0.32
AFFECT1	0.06	0.07	-0.06	-0.04	0.24	-0.02
Cor	rrelation M	Matrix of ET	A			
	EXTRA	IA	EP	IP	TOTSEK1	TOTSEK2
EXTRA	1.00					
IA	0.01	1.00				
EP	-0.03	0.38	1.00			
IP	-0.16	0.42	0.25	1.00		
TOTSEK1	0.04	-0.07	-0.12	-0.06	1.00	
TOTSEK2	0.02	0.08	0.05	0.07	-0.01	1.00
ROLCOG2	0.01	0.15	0.14	0.08	-0.06	0.01
AFFECT2	0.16	0.22	0.11	-0.07	-0.02	0.04
ROLCOG1	0.20	0.67	0.37	0.52	-0.07	0.12
AFFECT1	0.04	0.27	0.08	0.11	0.01	-0.02
				0.11	0.01	0.02
Cor	rrelation M	Matrix of ET	'A			
	ROLCOG2	AFFECT2	ROLCOG1	AFFECT1		
ROLCOG2	1.00					
AFFECT2	0.10	1.00				
ROLCOG1	0.23	0.37	1.00			
AFFECT1	0.09	0.10	0.24	1.00		
PSI	Į.					
	DI1	RA1	CA1	TE1	WD1	ACCEP1
DI1	0.41					
RA1		0.19				
CA1			0.25	0		
TE1				0.53		
WD1					0.70	0.00
ACCEP1						0.83
DI2	0.09					
RA2		0.08				
CA2			0.09			

TE2 WD2 ACCEP2	  	  	  	0.43 	 0.29 	  0.37
PSI						
	SE1	RAMB1	OCOM1	JSAT1	TOI1	STRES1
SE1 RAMB1 OCOM1 JSAT1 TOI1 STRES1 SE2 RAMB2 OCOM2 JSAT2 TOI2 STRES2	0.67    0.26   	0.76    0.41   	0.51    0.35  	0.35 	0.57 	0.77     0.34
PSI	PERF	TARD	ABS	TO	DI2	RA2
PERF TARD ABS TO DI2 RA2	0.86   	1.00  	0.97  	0.99	0.62 	0.00
PSI						
	CA2	TE2	WD2	ACCEP2	SE2	RAMB2
CA2 TE2 WD2 ACCEP2 SE2 RAMB2	0.55    	0.91   	0.90  	0.71	0.62 	0.58
PSI						
	OCOM2	JSAT2	TOI2	STRES2	LGO	PGO
OCOM2 JSAT2 TOI2 STRES2 LGO PGO EXTRA IA EP IP	0.62	0.44      	0.56     	0.80     	1.00 0.45 0.03 0.40 0.38 0.23	1.00 -0.15 0.29 0.49 0.23

PSI

	EXTRA	IA	EP	IP	TOTSEK1	TOTSEK2
EXTRA	1.00					
IA	0.01	1.00				
EP	-0.03	0.38	1.00			
IP	-0.16	0.42	0.25	1.00		
TOTSEK1					0.93	
TOTSEK2						0.98

PSI

	ROLCOG2	AFFECT2	ROLCOG1	AFFECT1
ROLCOG2	0.86			
AFFECT2		0.77		
ROLCOG1			0.30	
AFFECT1				0.87

Time used: 1.406 Seconds