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# Selecting For Commitment: Intentional And Habitual Predictors

Carl Witten

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## Recommended Citation

# SELECTING FOR COMMITMENT: INTENTIONAL AND HABITUAL PREDICTORS

A Masters Thesis

Presented to

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In Partial Fulfillment

Of the Requirements for the Degree

Master of Science, Psychology

By

Carl Witten

December 2016

**SELECTING FOR COMMITMENT:  INTENTIONAL AND HABITUAL PREDICTORS**

Industrial and Organizational Psychology

Missouri State University, December 2016

Master of Science

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**ABSTRACT**

This study examines long term strategic thinking (LTST) as a predictor of organizational commitment and turnover intentions, and attempts to distinguish it from the personality factor conscientiousness.  Although LTST is related to conscientiousness, its use as a selection device relies on enhanced prediction above conscientiousness alone. Results of a survey study show that different facets of organizational commitment are to some extent differentially predicted by these two constructs.


**KEYWORDS**:  long-term strategic thinking, LTST, conscientiousness, prudence, work adjustment theory, organizational commitment

This abstract is approved as to form and content

_____
Robert G. Jones PhD
Chairperson, Advisory Committee
Missouri State University

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# PREDICTORS

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Dec 2016

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# INTRODUCTION

Recent research by Jones and his colleagues (Witten, Jones, & Anderson, 2013; Anderson, et al., 2014) has resulted in the development of a predictor construct called long term strategic thinking (LTST). Along with other desirable psychometric properties, the scale developed to measure LTST predicts supervisor ratings of performance ($r = .38$, $p < .05$). This would suggest a beneficial use for employers as a selection measure. However, criteria other than performance may also be important to employers, but have not yet received attention. The proposed research will examine LTST as a predictor of organizational commitment and turnover intention, both of which can be costly if not managed well.

In addition, although LTST is related to conscientiousness (Jones, Corwin, Anderson, & McKenna, 2015), its use as a selection device relies on enhanced prediction above conscientiousness alone. Previous research has shown that conscientiousness is an antecedent to affective and continuance components of organizational commitment (Kumar, & Bakhshi, 2010). We predict that LTST has the potential to enhance this relationship. Specifically, we argue that LTST will focus conscientious inclinations into deliberative decisions, in an effort to match the individual's personal beliefs and ambitions with that of a compatible organization. Thus, different aspects of commitment will be predicted to different extents by LTST and conscientiousness.

**Long Term Strategic Thinking and Conscientiousness**

Jones et al.'s results indicate that long term strategic thinking (LTST) is "a reliable, predictive indicator that is likely to be effective in applied settings" (Jones, Corwin, Anderson, & McKenna, 2015). They have defined LTST as the extent to which people hold a developmental perspective on life experience and mortality. This development aspect is what distinguishes LTST from previous research involving time perceptions, and has been born out empirically in studies comparing LTST with time perception measures (Jones, et al, 2015).

However, this same prior research has demonstrated that LTST scores correlate positively ($r = .54$, $p < .01$) with Conscientiousness. Conscientious is defined partly in terms of deliberate, rather than impulsive decision making, consideration of obligations to others, intention to do tasks well, and a neat and orderly approach to life. Conscientiousness has been a sought after trait for employers for many years due to its antecedent relationship with organizational citizenship behaviors (Chiaburu, Oh, Berry, Li, & Gardner, 2011) and consistent prediction of organizational commitment (Choi, Oh, Colbert, 2015).

Conscientiousness and LTST differ in two important aspects. The first is thoughtfulness of others. LTST correlates positively ($r = .17$, $p < .01$) with altruism on the MVPI (Jones, Corwin, Anderson, & McKenna, 2015). This indicates a pro-social factor that doesn't fit with empirical descriptions of conscientiousness. The second is the strategic component of LTST. Jones defines LTST as "the extent to which people hold a strategic developmental perspective on life experience and mortality. This advanced developmental understanding involves deliberate consideration of the relationship

between one's own actions and the likely consequences of these actions. It is termed 'strategic' because such deliberation is generally required when making choices among alternative courses of action" (Jones, Corwin, Anderson, & McKenna, 2015).

LTST does not correlate significantly with mental ability scores (r = -.01, ns) but has shown to correlate with education attainment (r = .40, p < .001; 2015). This supports the definition of LTST as a developed trait. LTST is developed through life experiences, such as education attainment, and is molded throughout the lifespan. This differs from conscientiousness, which is often viewed as both stable, and based in habitual approaches toward life and work. In addition, LTST has shown higher positive r values with outcomes usually predicted by conscientiousness, including work performance and citizenship (Jones et al, 2015). This shows LTST has the potential to be a strong predictor-- possibly stronger than conscientiousness alone.

Consistent with Work Adjustment Theory (Dawis, 2005) LTST is believed to involve a dynamic relationship between the individual and organization. LTST is hypothesized to be a developmental characteristic, and not the same kind of identity-based personality characteristic as Conscientiousness. The current research will attempt to use the dynamic nature of work adjustment theory to show that LTST is more calculative in nature than the personality factor conscientiousness. Put another way, LTST indicates intentionality, while conscientiousness is more indicative of self-perception and habitual responding than of the conscious effort to stop and deliberate.

Considering conscientiousness as a habitual approach to life and work and LTST as a more mindful consideration of behavioral choice reveals a potentially complex

predictive relationship. This may be important for behavioral choice outcomes, such as commitment and intent to leave.

**Organizational Commitment**

Commitment is a complex, multi-dimensional construct defined as an attitude toward one's work organization. A commonly accepted model of commitment is the three-component model (Meyer, & Allen, 1997). This model breaks commitment down into affective, continuance, and normative components which address *why* an employee is committed to the organization. "Employees with strong affective commitment remain because they *want* to, those with strong continuance commitment because they *need* to, and those with strong normative commitment because they feel they *ought* to do so" (Allen & Meyer, 1990). The *need* to represents a coerced, conformed reason for staying. An employee that feels they *ought* to stay does so because of higher level, values-based reasons. Organizational commitment has been linked to many important organizational outcomes, including turnover, organizational citizenship behavior, and job performance, all of which can be predicted using the three-component model of organizational commitment. The relationship between any of the three organizational commitment components and LTST will be beneficial in advancing the applied use of the scale for selection purposes.

Affective, normative, and continuance commitment are based on different degrees of deliberate choice. Affective commitment is strengthened based on emotive responses to the organization. The employee stays because they like the organization. They are emotionally attached and enjoy the people they work with. They believe in what the

organization is trying to accomplish and want to do their part to help.  Normative

commitment is based more on a habitual response to social influences.  The individual

perceives an obligation to the organization and stay due to a sense of inequity between

them and the organization. Normative commitment is indicated by responses to questions

like, "I should stick around because they've been there for me" And, "They gave me the

job so I owe them my service."

Continuance commitment, however, may rely more on a meta-cognitive analysis

by an individual to determine their level of commitment.  Continuance commitment

involves an assessment by the individual of the pros and cons of staying with an

organization.  Based on an individual's needs, if the pros outweigh the cons then the

individual's continuance commitment will increase and turnover intention will decrease.

We believe that the calculative, deliberate nature of LTST will lead to higher

reports of continuance commitment and lower turnover intention.  Work Adjustment

Theory provides a basis for this expectation.

**Work Adjustment Theory**

The theory of work adjustment (Dawis, 2005) provides an interactive model for

describing the relationship between individuals and work environments.  Work

adjustment theory considers the work environment as everything that encompasses the

individual within their work role.  The influences of interpersonal relationships,

organizational factors, social, and physical features are all taken into account. In this

model, both the individual and the organization have needs that require fulfillment to

reach "satisfaction". In this case the state of satisfaction for the organization is referred to as "satisfactoriness".

Work Adjustment theory suggests that people seek employment for many reasons (Dawis, 1980). Some individuals will take jobs that are in specific markets, industries, or regions. Certain jobs include a perception of prestige that is sought by some individuals. Others, driven by what has been called a "Puritan work ethic" seek out positions not because of prestige, but because the nature of the work itself fulfills a need for a sense of pride in what they do.

The theory also argues that the relationship between individual and environmental factors isn't merely a static matching of variables, however. The theory of work adjustment describes a "continuous and dynamic process by which the individual seeks to achieve and maintain correspondence with his or her work environment" (Dawis & Lofquist, 1976). This relationship becomes reciprocal over time as the individual and organization work to fulfill each other's needs. *Correspondence* is the term used to describe the mutual responsiveness between individual and environment. Through this mutual fulfillment, the utility value each offers the other increases over time. The increase in value for the organization can be seen in the knowledge acquired by the individual by staying employed at the organization for an extended amount of time. If the employee uses this increased knowledge to improve effectiveness, then overall satisfactoriness increases for the organization. The same can be said in the reverse direction. Over time, the organization can adjust the reinforcers it offers to fulfill the individual's needs. The fulfillment of these needs then increases the employee's satisfaction.

In an attempt to describe the interaction between individual work personality and the work environment, Dawis & Lofquist (1976) examined the relationships between work adjustment and personality.  This is an important step in the development of a model that can serve as an applied resource.  Differences in performance based on individual differences in personality provide measures for employers to use to determine an appropriate individual/environmental match.  Similarly, differences in individuals' approaches to job choices can be used to predict their ongoing satisfaction and commitment experiences in the workplace.

**Commitment, Conscientiousness, and Long Term Strategic Thinking**

 Such matching decisions can be made more or less deliberatively. Specifically, the three components of commitment may be based on more and less deliberative processes. For affective commitment, the attachment is based on emotive responses to organizational events. These are, almost by definition, non-deliberative processes (Jones, 2015; Zajonc, 1980; Weiss & Cropanzano, 1996).  As mentioned earlier, normative commitment is based on social heuristics related to obligation (Cialdini, et al., 1975), rather than on more deliberative processes. Only continuance commitment appears to be based on more deliberative processes.

With conscientiousness defined in terms of habit and social attachment, it is expected to be a better predictor of affective and normative commitment.  LTST, however, is indicative of a more strategic, deliberative approach that has developed out of individual experience.  It represents a meta-cognitive process which compares actions to potential individual consequences (Jones, Corwin, Anderson, & McKenna, 2015).  For

that reason, it is expected to be a better predictor of continuance commitment and intention to leave, which are based on weighing the pros and cons of staying with an organization.

**Hypothesis**

Although both LTST and conscientiousness are expected to predict all commitment facets, I hypothesize that these predictions will differ substantially. Specifically:

1. Conscientiousness will predict affective and normative commitment.
2. LTST will predict continuance commitment.

Consistent with work adjustment theory (Dawis, 2005), it is also expected that LTST will correlate positively with deliberative factors found in the Minnesota Importance Questionnaire (MIQ) (Rounds, Henly, Dawis, Lofquist & Weiss, 1981) and conscientiousness will be related to the habitual factors found in the MIQ.

3. LTST will correlate with MIQ deliberative factors.
4. Conscientiousness will correlate with MIQ habitual factors.

Meyer and colleagues (Meyer et al, 2004; Meyer & Herscovitch, 2001) also suggest that "personality may exert influence on organizational commitment by affecting its major proximal antecedents, including identification with and internalization of organizational values." Jones' et al (2015) description of LTST as a strategic and meta-cognitive function supports an alternative possibility to hypotheses 2 and 3, above. In particular, LTST may moderate the relationship between conscientiousness and commitment. It is believed that high LTST motivates an individual to consider the "big picture" when seeking an organization which has values similar to their own. If people work hard at this deliberation (i.e. are conscientious about it), then their deliberations may be more likely to be met with success. Thus, in the presence of high LTST, the relationship between conscientiousness and organizational commitment should strengthen. Thus, the following hypothesis is offered as a possible alternative to direct prediction of commitment by LTST:

5. LTST will moderate the relationship between conscientiousness and organizational commitment.

**METHODS**

**Procedures**

A survey consisting of the four pertinent measures was constructed digitally using the online resource Qualtrics.com Survey Designer(2016). Retrieved from www.qualtrics.com.  This allowed the researcher to design an interface that was aesthetically appealing and user friendly. Transitions between the distinct measures gave participants clear instructions on how they were expected to complete that specific section of the questionnaire.  The first page of the survey was a required informed consent that participants had to deliberately agree to continue the questionnaire.  The questionnaire was only offered in English.

Once the questionnaire was completed, a link was published to the online recruiting site Mturk Survey Publisher (2016). Retrieved at www.mturk.com.  This is a site where researchers and surveyors can offer monetary reimbursement for participation. For this study, the researcher offered compensation which equaled $3.00 for a completed survey.  The average length of time it took to complete the survey was just under 17 minutes.  This resulted in participants earning roughly $10.60 when calculated as hourly. This exceeds the current national minimum wage.

Unfortunately, the initial questionnaire included an incomplete survey.  The Minnesota Importance Questionnaire lacked a majority of the items as posted.  As a result, the researcher redesigned the follow up questionnaire to include the missing items. This follow-up survey was published on Mturk.com at a rate of $1.00 per completed survey and again at $2.00 per completed survey when low participation resulted from the

lower rate.  After the reimbursement was increased, an acceptable number of participants

had completed the survey for the follow-up.  Participants remained anonymous and a web

generated identifier was used to match follow up questionnaires to original for analysis.

IRB approval was received before any participant data was gathered.  A copy of

the IRB approval is located in appendix A.  A total of 114 currently employed

participants from across the United States were surveyed for this study.  Feasibility

analysis resulted in a power > .90 with 100 participants. A little over half of the sample

(54.4%) were male and ages ranged from 23 to 63 years old.  The average age was 37.20

(SD = 10.35).  About 92% of participants reported being American, 7% Indian, and < 1%

were Canadian.  Caucasians made up 78% of participants, 10.5% were Asian, Hispanic

and African Americans each comprised 4.4%, and 2.6% selected "other".  A bachelor's

degree had been obtained by 44.7% of the sample, 33.3% had some college, 12.3% a high

school diploma, and 9.6% had graduate degrees.

**Measures**

**LTST.**  Long Term Strategic Thinking was measured using the Strategic

Preferences Questionnaire (Jones, 2015).  This is a 28-item scale which has reported

Cronbach's alpha measurements of .71-.92 with most being in the .80-.89 range. The

scale is measured on a 7 point Likert-type scale from Strongly Disagree to Strongly

Agree.  Zero is used to indicate do not know/no response.  The items focus on

participants' beliefs about the future, such as "My expectations about the future often turn

out to be right."  An example of a reverse-scored item would be "I take my life one day at

a time." Responses were averaged across items to produce a measure of LTST. A full version of the scale can be found in Appendix B.

**Conscientiousness**. Participants completed the prudence subscale of the Hogan Personality Inventory (Hogan & Hogan, 1992). The subscale has a Cronbach's alpha of .78 which is considered acceptable. The subscale is comprised of seven *Homogenous Item Composites* or HICs. These HICs are subthemes which cluster together within the larger subscale. Example items and HICs include "When I was in school I gave the teachers a lot of trouble" (Avoids Trouble), "I get away with a lot of things" (Impulse Control), "In school I worked hard for my grades" (Mastery), "I have never hated anyone" (Moralistic), "I don't care if others like the things I do" (Not Autonomous), "I never know what I will do tomorrow" (Not Spontaneous), and "I never resent not getting my way" (Virtuous). Responses were collected using a 5-point Likert-type scale from Strongly Disagree to Strongly Agree. Answers are then averaged across items with each HIC then those averages are averaged into a composite score for analysis. For the full scale refer to Appendix C.

**Organizational Commitment**. Overall commitment was measured using the 18-item TCM Employee Commitment Survey (Meyer & Allen, 2004). The 18 items are broken down into three components; Affective, Normative, and Continuance commitment. Items are scored on a 5-point Likert-type scale from Strongly Disagree to Strongly Agree. Component scores are averaged across items to get a score for each component then those scores are averaged for an overall commitment score. Example items include; "I am very happy being a member of this organization" (Affective), "I feel that I owe this organization quite a bit because of what it has done for me" (Normative),

"I am loyal to his organization because I have invested a lot in it, emotionally, socially, and economically" (Continuance).  Reliability and validity of the surveys has been supported by extensive research for many years (1993).  Full scale can be found in Appendix D.

    **Employee Needs.**  The Minnesota Importance Questionnaire (Dawis, Lofquist, 1976) was used to measure employee needs.  The full scale can be found in appendix E.  The scale is designed to measure 20 psychological needs which can be represented by six underlying values.  Dawis and Lofquist chose the 20 needs they believe "constitute a representative sampling of those needs found to be the most significant in relation to work" (1981).  The six underlying values have been found to be relevant to work adjustment, specifically to satisfaction with work.  Some example needs and items that represent them in the MIQ include *Ability Utilization* (I could do something that makes use of my abilities) and *Achievement* (The job could give me a feeling of accomplishment).  These two psychological needs are represented by the value of achievement.  An organizational environment that encourages accomplishment would satisfy this work value in an individual.

The MIQ is a paired-comparison instrument which pairs each statement with one of the other 19.  The twenty statements are then rated as important or not by themselves.  Reliability has consistently been adequate, with coefficients ranging from .77 to .81.  Also, "several validity studies of the MIQ have indicated that it measures what it was intended to measure" (1981).  A full list of needs, statements that represent these needs, and values can be found in Appendices E and F.

# RESULTS

Analyses was performed using IBM SPSS Version 20.  Table 1 provides the descriptive statistics for the LTST, conscientiousness, and the three components of organizational commitment.

Table 1. Descriptive Statistics

| | Mean | SD | Correlations | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | | 1 | 2 | 3 | 4 | 5 | 6 |
| 1 LTST | 4.67 | .76 | (.89) | | | | | |
| 2 Conscientiousness | 3.26 | .42 | .46** | (.83) | | | | |
| 3 Organizational Commitment | 3.11 | .75 | .31** | .28** | (.94) | | | |
| 4 Affective Commitment | 3.22 | .91 | .33** | .37** | .89** | (.92) | | |
| 5 Normative Commitment | 3.22 | .89 | .32** | .32** | .95** | .85** | (.89) | |
| 6 Continuance Commitment | 2.90 | .81 | .15 | .02 | .76** | .42** | .59** | (.84) |

**. Correlation is significant at the .01 level (1-tailed).
 *. Correlation is significant at the .05 level (1-tailed).
Note, Cronbach's α appears diagonally in parenthesis.
LTST – Long Term Strategic Thinking
OC – Organizational Commitment

Table 1 shows that conscientiousness had a strong correlation with affective and normative commitment. However, neither LTST nor conscientiousness was significantly correlated with continuance commitment.  This provides preliminary support for hypothesis 1 but not hypothesis 2.

A between subjects MANOVA was performed with conscientiousness and LTST being used as the independent variables and affective, normative, and continuance commitment as the dependent variables. Step one added support to hypothesis one, showing that conscientiousness predicted organizational commitment, (Wilk's Lambda = .90, $F(3,109) = 3.96$, $p < .05$). However, LTST was not predictive (Wilk's Lambda = .96, $F(3,109) = 1.65$, $p = .18$) when conscientiousness was entered first. There was no significant interaction effect.

Individual regression analyses were then performed for conscientiousness and LTST as separate predictors of the three components of organizational commitment. Conscientiousness predicted affective commitment $F(1,111) = 7.09$, $p < .05$ and normative commitment $F(1,111) = 4.45$, $p < .05$. This is consistent with hypothesis 1. A similar individual regression with LTST showed that LTST approached significance for affective commitment $F(1,111) = 3.89$, $p = .051$) and predicted normative commitment $F(1,111) = 4.58$, $p < .05$.

Correlations run between LTST, conscientiousness, and the WIQ indicated a three significant correlations. Conscientiousness correlated significantly with ability utilization (r = -.28, n = .44, p < .05) and social status (r = .34, n = 44, p < .05). LTST was related to recognition (r = .28, n = 46, p < .05) and working conditions (r = .28, n = 46, p < .05). Simple linear regression analysis indicated conscientiousness predicts a need for social status $F(1,42) = 5.61$, $p < .05$ but not ability utilization. LTST approached predictive value for need for recognition $F(1,44) = 3.79$, $p = .058$ and the need for having good working conditions $F(1,44) = 3.81$, $p = .057$. These results gave some indication of a

difference in the concepts of LTST and conscientiousness, but did not support hypothesis 3 or 4.

An additional moderation analysis was conducted using PROCESS version 2.15 for IBM SPSS version 20.  This analysis did not support LTST as a moderator between conscientiousness and organizational commitment or any of the three components (affective, normative, and continuance).  This is inconsistent with hypothesis 5.

**DISCUSSION**

The primary purpose of this study was to examine the relationship between Long Term Strategic Thinking and organizational commitment. LTST has been shown in this work to predict organizational commitment, which has been shown to decrease an employee's intention to quit. This is important information for employers because of the high cost associated with turnover. It did not, however, help to further distinguish LTST from conscientiousness.

MANOVA evidence strongly supported hypothesis 1. Higher levels of conscientiousness were associated with stronger emotional attachment to an organization. The same analysis contradicted hypothesis 2, however. It was believed that, because of the intentional nature of LTST, people high in this trait would be more committed to an organization due to more economical and calculative motives. This turned out not to be the case. LTST scores were slightly more predictive of affective commitment, and neither predictor correlated with continuance commitment. It might be the case that individuals who evaluate the long term consequences of their actions are likely to exercise the diligence necessary to find an organization that will benefit them in the long run. This may also increase their satisfaction with their organization, at least in the form of their emotional commitment.

LTST and conscientiousness predicted different psychological needs found in the Minnesota Importance Questionnaire. This indicates a distinction between the two constructs. Those who were high in conscientiousness seemed to want to be able to take advantage of their abilities and desired a certain level of social status associated with

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certain jobs. Those that scored high in LTST desired good working conditions and appeared to want recognition for their efforts. However, the expected split along intentional and habitual needs was not found.

**Limitations and Future Research**

Samples for LTST, conscientiousness, and organizational commitment were sufficient for hypothesis testing, but there were issues collecting data on the MIQ. The initial questionnaire was incomplete and efforts to collect complete samples only yielded a 40% retention rate. Although LTST and organizational commitment assumptions are based on adequate sample sizes, additional research is needed to have a more complete sample for testing the distinction of LTST and conscientiousness based on MIQ factors.

Online sampling also has limitations. It's difficult to determine an individual's mindset while answering the questionnaire. It is also difficult to measure the authenticity of their answers. Future research should be performed on site at organizations to further verify the relationships found in this study.

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# APPENDICES

## Appendix A:  Human Subjects IRB Approval

**From:** IRB [mailto:irb_no_reply@cayuse.com]
**Sent:** Thursday, April 07, 2016 8:35 AM
**To:** Jones, Robert G
**Subject:** IRB Notice

 **To**: Robert Jones
Psychology
Hill Hall 101 901 S National Ave Springfield MO 65897-0027

**Approval Date**: 4/06/2016
**Expiration Date of Approval:** 4/05/2017

**RE**: Notice of IRB Approval by Expedited Review (under 45 CFR 46.110)
**Submission Type**: Initial
**Expedited Category**: 7.Surveys/interviews/focus groups
**Study #:** 16-0382

**Study Title**: Selecting for Commitment: Intentional and Habitual Predictors

This submission has been approved by the above IRB for the period indicated. It has been determined that the risk involved in this research is no more than minimal.

**Investigator's Responsibilities:**

Federal regulations require that all research be reviewed at least annually. It is the Principal Investigator's responsibility to submit for renewal and obtain approval before the expiration date. You may not continue any research activity beyond the expiration date without IRB approval. Failure to receive approval for continuation before the expiration date will result in automatic termination of the approval for this study on the expiration date.
You are required to obtain IRB approval for any changes to any aspect of this study before they can be implemented (use the procedures found at http://orc.missouristate.edu). Should any adverse event or unanticipated problem involving risks to subjects or others occur it must be reported immediately to the IRB following the adverse event procedures at the same website.
This study was reviewed in accordance with federal regulations governing human subjects research, including those found at 45 CFR 46 (Common Rule), 45 CFR 164 (HIPAA), 21 CFR 50 & 56 (FDA), and 40 CFR 26 (EPA), where applicable.

## Appendix B: Strategic Preferences Questionnaire

The following statements refer to people's beliefs about the future. For each item, please indicate the extent to which you agree or disagree with the statement. Please use the following scale, and enter your answer on the line provided.

1 – Strongly disagree

2 - Disagree

3 - Somewhat Disagree

4 - Neutral

5 - Somewhat agree

6 - Agree

7 - Strongly Agree

If you are unsure or do not want to respond, please use the following option:

0 - Do not know/No response

1. My expectations about the future often turn out to be right.

2. I take my life one day at a time.

3. Compared to my friends, I am the one who sets long term goals.

4. I like to play games with a lot of strategy in them.

5. I try not to think too far ahead.

6. It is fun for me to try to figure out what will happen in the future.

7. Planning for the future should include consideration of the outcomes of our actions after we are dead and gone.

8. I like to live without a lot of expectations.

9. I plan carefully for the long run.

10. I have no idea what is going to happen to me.

11. It is easy for me to picture my future.

12. I have thought a lot about how I will get by after I retire from the workforce.

13. I don't believe that I can plan for the future.

14. I believe that we have a good bit of control over our own futures.

15. I like to be in charge of figuring out where to take vacations.

16. I am unsure about what I will be doing tomorrow or 10 days from now.

17. I have really thought through my future carefully.

18. I like to guess what the outcome of a movie is going to be before it reaches the end.

19. I live day to day.

20. I am a bit pessimistic about the future.

21. Life is best when we live with its end in mind.

22. I always am one step ahead of people I work with.

23. I care a lot about the distant future of humanity.

24. One of my favorite things to do is to think through what to do with my future.

25. Some people might think of me as a schemer because I think through what will happen if I take different courses of action.

26. I always try to consider different possible courses of action when I am making important decisions.

27. I approach life with the assumption that I will live a long time.

28. I want to leave a better world for the people who come after me.

## Appendix C:  Prudence Subscale Items from HPI

When I was in school I gave the teachers a lot of trouble.
In school, I was frequently rebellious.
Most people are not as honest as they seem.
People think I am a nonconformist.
People will steal if they are sure they won't get caught.
I get away with a lot of things.
I like to do things on the spur of the moment.
I frequently do things on impulse.
Life is no fun when you play it safe.
Sometimes I enjoy going against the rules.
In school I worked hard for my grades.
I strive for perfection in everything I do.
When someone gives me a job to do I finish it no matter what.
I am a hard and steady worker.
I have never hated anyone.
I always practice what I preach.
I have never deliberately told a lie.
I never resent being asked for a favor.
If I am wrong, I usually admit it right away.
I don't care if others like the things I do.
I don't really care what other people think of me.
Other people's opinions of me are not important.
I never know what I will do tomorrow.
Planning things in advance takes the fun out of life.
I get tired of doing things the same old way.
I like not knowing what tomorrow will bring.
I never resent not getting my way.
I am a good listener no matter whom I talk to.
I rarely get angry with others.
I don't hate anyone.
I do my job as well as I possibly can.

**Appendix D: TCM Employee Commitment Survey**


Instructions:
     Listed below is a series of statements that represent feelings that individuals might have about the company or organization for which they work.  With respect to your own feelings about the particular organization for which you are now working, please indicate the degree of your agreement or disagreement with each statement by circling a number from 1 to 7 using the scale below.

1 = strongly disagree 2 = disagree 3 = slightly disagree 4= undecided 5 = slightly agree 6= agree 7 = strongly agree


Affective Commitment Scale
1. I would be very happy to spend the rest of my career with this organization.
2. I really feel as if this organization's problems are my own.
3. I do not feel a strong sense of "belonging" to my organization. (R)
4. I do not feel "emotionally attached" to this organization. (R)
5. I do not feel like "part of the family" at my organization. (R)
6. This organization has a great deal of personal meaning for me.

Continuance Commitment Scale
1. Right now, staying with my organization is a matter of necessity as much as desire.
2. It would be very hard for me to leave my organization right now, even if I wanted to.
3. Too much of my life would be disrupted if I decided I wanted to leave my
    organization now.
4. I feel that I have too few options to consider leaving this organization.
5. If I had not already put so much of myself into this organization, I might    consider
    working elsewhere.
6. One of the few negative consequences of leaving this organization would be the
    scarcity of available alternatives.

Normative Commitment Scale
1. I do not feel any obligation to remain with my current employer. (R)
2. Even if it were to my advantage, I do not feel it would be right to leave my
    organization now.
3. I would feel guilty if I left my organization now.
4. This organization deserves my loyalty.
5. I would not leave my organization right now because I have a sense of obligation to
    the people in it.
6. I owe a great deal to my organization.

Note.  (R) indicates a reverse-keyed item.  Scores on these items should be reflected (i.e., 1 =7, 2 = 6, 3 = 5, 4 = 4, 5 = 3, 6 = 2, 7 = 1) before computing scale scores.

**Appendix E: MIQ Needs and Statements**

1. Ability Utilization (AU): I could do something that makes use of my abilities.

2. Achievement (Ach): The job could give me a feeling of accomplishment.

3. Activity (Act): I could be busy all the time.

4. Advancement (Adv): The job would provide an opportunity for advancement.

5. Authority (Au): I could tell people what to do.

6. Company Policies and Practices (CPP): The company would administer its policies fairly.

7. Compensation (Com): My pay would compare well with that of other workers.

8. Co-workers (Cow): my co-workers would be easy to make friends with.

9. Creativity (Cre): I could try out some of my own ideas.

10. Independence (Ind): I could work alone on the job.

11. Moral Values (MV): I could do the work without feeling that it is morally wrong.

12. Recognition (Rec): I could get recognition for the work I do.

13. Responsibility (Res): I could make decisions on my own.

14. Security (Sec): The job would provide for steady employment.

15. Social Service (SSe): I could do things for other people.

16. Social Status (SSt): I could be "somebody" in the community.

17. Supervision—Human Relations (SHR): My boss would back up the workers (with top management).

18. Supervision—Technical (ST): My boss would train the workers well.

19. Variety (Var): I could do something different every day.

20. Working Conditions (WC): The job would have good working conditions.

**Appendix F: MIQ Values**

The twenty MIQ needs can be represented by six underlying values. These values and the component needs that define each value are the following:

1. *Achievement Value*:  Ability Utilization, Achievement

2. *Comfort Value*:  Activity, Independence, Variety, Compensation, Security, Working Conditions

3. *Status Value*:  Advancement, Recognition, Authority, Social Status

4. *Altruism Value*:  Co-workers, Social Service, Moral Values

5. *Safety Value*:  Company Policies and Practices, Supervision--Human Relations, Supervision—Technical

6. *Autonomy Value*:  Creativity, Responsibility