WOMEN'S LEADERSHIP: USING THE COMPETING VALUES FRAMEWORK TO EVALUATE THE INTERACTIVE EFFECTS OF GENDER AND PERSONALITY TRAITS ON LEADERSHIP ROLES

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The Competing Values Framework (CVF) is useful for differentiating leadership roles (Quinn, 1988), as well as grouping these roles and personality traits (Belasen & Frank, 2008) into an organizing schema. This paper expands the CVF's utility by proposing distinctions between men and women, particularly with respect to transformational and transactional leadership. Using LISREL path analysis, findings show that being a woman manager influenced the conscientiousness personality trait, which, in turn, influenced the CVF role strengths of *monitor*, *coordinator,* and *producer* – three roles associated with transactional leadership. Explanations for the failure of our findings to support the proposition that women would display stronger scores in transformational roles are provided. We conclude the study with a discussion of the Catch-22 women face as they try to get past the invisible glass barrier and provide implications for leadership development. Suggestions for future research are also included.

This paper addresses the interactive effects of gender and personality traits on transformational and transactional leadership using the Competing Values Framework (CVF). First, we review theories and studies relating to transformational and transactional leadership roles, including gender studies that seek to relate the disproportionate representation of women in senior levels of management to the 'vision thing' (Ibarra & Obodaru, 2008). Second, we examine the tenets of the CVF as an organizing schema to help group and differentiate leadership roles (Quinn, 1988). We then provide a categorization of leadership roles and personality traits and discuss its relevance to studying women leadership (Belasen & Frank,

2008) followed by a review of the research objectives of the current study, methods of analysis and results. Finally we suggest a number of explanations for the findings that, in addition to transformational strengths, women perceive themselves as strong in CVF-related transactional roles. We conclude the study with a discussion of the Catch-22 women face as they try to get past the invisible glass barrier and provide implications for leadership development and suggestions for future research.

Transformational and Transactional Roles

As the number of women in the workforce and in leadership roles increases (Jenner & Ferguson, 2009), it is important to understand the intersection of gender and leadership. Debates about the leadership styles of women and men gained momentum in the 1990s because of new research attempting to identify the styles that are especially attuned to contemporary organizational conditions (Eagly & Carli, 2004). The new emphasis was on leadership that is transformational in the sense that it is future-oriented rather than present-oriented and that strengthens organizations by inspiring followers' commitment and creativity. As its name implies, transformational leadership is a process that that changes and transforms individuals (Northouse, 2001).

Mounting evidence that transformational leadership contributes to increased employee motivation and performance has encouraged research into the mechanisms behind its achievements (Alimo-Metcalfe, 1995; Barker & Young, 1994; Eagly, Johannesen-Schmidt, & Van Engen, 2003; Rosener, 1990; Kark, Shamir, & Chen, 2003; Trinidad & Normore, 2005). There is new support for the finding that the success of transformational leadership can be attributed to interpersonal abilities that enhance personal identification of the follower with the leader, and to promote social identification with the work unit (Kark, et al., 2003). The transformational leader affects the feelings of the follower, creating positive identification with both the leader and the work unit. Ironically, this interaction is characterized by both dependence and independence, an interpersonal dependence between the leader and constituents and an empowering independence that encourages work group identification (Kark et al., 2003).

Burns (1978) used the term "transforming leadership" to describe a relationship in which "leaders and followers raise one another to higher levels of motivation and morality" (p. 18). For Burns, leadership is quite different from wielding power, because it is inseparable from followers' needs.

Transformational leadership, on the other hand, offers an emotional bond that raises the level of motivation and morality in both the leader and the follower. Building on the initial conceptualization, Bass (1985; 1990) extended the concept of transformational leadership to describe those who motivate followers to do more than they originally intended to do by presenting followers with a compelling vision and encouraging them to transcend their own interests for those of the group or unit.

Transformational roles have been typically categorized into four types: idealized influence, inspirational motivation, intellectual stimulation, and individual consideration. Idealized influence refers to leaders who have high standards of moral and ethical conduct, who are held in high personal regard, and who engender loyalty from followers. Inspirational motivation refers to leaders with a strong vision for the future based on values and ideas that

generate enthusiasm, build confidence, and inspire followers using symbolic actions and persuasive language. These two traits, idealized influence and inspirational motivation, are highly correlated and are sometimes combined to form a measure of charisma. The third trait, intellectual stimulation, refers to leaders who challenge existing organizational norms, encourage divergent thinking, and who push followers to develop innovative strategies. Individual consideration, the fourth transformational leadership trait, refers to leader behaviors aimed at recognizing the unique growth and developmental needs of followers as well as coaching followers and consulting with them.

Burns (1978) also introduced the distinction between transactional and transformational leaders. Transactional leadership refers to the bulk of leadership models, which focus on the exchanges that occur between leaders and their followers. For example, managers who use rewards and sanctions to achieve compliance of employees with stated performance objectives are exhibiting transactional leadership. Transactional leadership behaviors are aimed at monitoring and controlling employees through rational or economic means. Using contingent rewards, transactional leaders focus their attention on exchange or trade relationships providing tangible or intangible support and resources to followers in exchange for their efforts and performance and sanctioning undesired behaviors or unattained performance levels. To deal with unexpected surprises or non-routine events, transactional leaders may also rely on management by exception, revising and updating standards and monitoring deviations from these standards. In the passive version of management by exception, leaders take an inactive approach, intervening only when problems become serious. Active management by exception characterizes enhanced monitoring activities by transactional managers who initiate corrective actions and intensely evaluate progress toward achieving desired performance levels (Bono & Judge, 2004). Bass (1990) included laissez-faire under the transactional leadership label, though it can be viewed as non-leadership or the abdication of leadership responsibilities.

Gender Effects on Transformational and Transactional Leadership

We find that the literature on women leadership often seeks to identify unique attributes that distinguish between the styles of men and women performing leadership roles (Eagly & Carli, 2007; Eagly, Johannesen-Schmidt, & Van Engen, 2003). A common view is that gender leadership styles reflect the power differentials seen in society as a whole (Fine, 2007), and that masculine qualities, such as task focus, assertiveness, authoritativeness, and lack of emotionality, more so than communal qualities, appear synonymous with leadership within US and European cultures (Izraeli & Adler, 1994; Schein, 2001; Fine & Buzzanell, 2000). Nonetheless, feminist researchers have strongly reasoned that transformational leadership might be particularly advantageous to women because of its androgynous qualities and, indeed, the substantial research literature comparing women and men on these styles has yielded interesting outcomes including the finding that women are less likely to promote themselves than men due to systemic and stereotypical barriers (Bowles & McGinn, 2005; Eagly & Carli, 2007).

Meanwhile, as organizations reinforce masculine qualities through rewards and incentives (Chin, 2004), images such as "The Glass Ceiling" and "The Glass Cliff" (Weyer, 2007; Ryan, Haslam, & Postmes, 2007) continue to reflect reality. Eagly and Carli (2007) go so far as to argue that, since there are actually several barriers that women must overcome to reach

senior positions, we should move beyond the glass-ceiling metaphor, and that a more accurate metaphor would be the 'labyrinth'—associated with inertia that moves in a circular path—a Catch-22.

The effects of gender on leadership roles and leadership effectiveness has gained renewed attention with Eagly, Johannesen-Schmidt, and Van Engen's (2003) seminal meta-analysis of 45 studies that compared male and female managers on measures of transformational, transactional, and laissez-faire leadership styles. In general, the meta-analysis revealed that, compared with male leaders, female leaders were more transformational as well as engaged in the contingent reward that characterizes transactional behavior. Male leaders were more likely than female leaders to manifest the two other aspects of transactional leadership: active management by exception and passive management by exception. Men were also higher on laissez-faire leadership.

The argument that men and women are biologically and socially different would certainly suggest basic dispositional and personality differences between men and women (Semykina & Linz, 2007). Women managers see themselves as being more agreeable, while men see themselves as being agreeable at times and assertive at other times (Judge, Higgins, Thoresen & Barrick, 1999). Fittingly, when researchers studied perceptions of effective leadership skills, women were seen as giving more attention to detail, as being more emotional, and as being more likely to seek input from others. Men were seen as more likely to delegate detail work to others (Irby, Brown, Duffy, & Trautman, 2002). Women often score significantly higher than men on conscientiousness and national cultures frequently signify this. In Russia, for example, men exhibit internal locus of control, while women were found to have external locus of control (Semykina & Linz, 2007). Even in terms of Prediger's (1982) "people-things" and "ideas-data" dimensions, both men and women related to the people-things dimension with women leaning more toward the people side and men leaning more toward the task side (Lippa, 1998). Yet other approaches made the case that, although relations leadership was associated with agreeableness and task leadership was associated with assertiveness and conscientiousness (Won, 2006), there was no support for gender differences in relationship versus task orientation (Toren, Konrad, Yoshioka, & Kashlak, 1997; Won, 2006).

Women's self-reports of assertiveness, dominance, and masculinity (Twenge, 1997, 2001), and the value that women place on job attributes, such as freedom, challenges, leadership, prestige, and influence (Konrad, Ritchie, Lieb, & Corrigall, 2000), have all become as prevalent as in men. They also work harder and wisely choose the leadership style that they feel comfortable with, and that does not contradict their feminine image. They can be go-getters in management, and inspire others as leaders, at the same time. One of the crucial survival skills that successful female leaders have in common is adaptability. Female leaders were rated as having more idealized influence, providing more inspirational motivation, being more individually considerate, and offering more intellectual stimulation (Daft, 2011). For example, no differences were found in task-leadership (Won, 2006; Toren, Konrad, Yoshioka, & Kashlak, 1997), women were stronger in the *producer* role (Parker, 2004), women were higher in conscientiousness (Cavallo & Brienza, 2006), women are more analytical (Hayes, Allinson, & Armstrong, 2004), women are more detailed (Irby, et al., 2002), and yet, no support was found for how significant others perceive effectiveness between genders (Vilkanis, 2000), and only

small differences were found in women's tendencies toward transformational leadership styles in the Eagly and Johannesen-Schmidt (2001) meta-analysis.

The above studies, as well as more recent findings (Frank & Belasen, 2008a; 2008b), are also consistent with the view that women are "as good" as men (if not better than men) in performing leadership roles, and therefore gender is not necessarily a reliable indicator of leadership performance.

Transformational Leadership and the 'Vision Thing'

Transformational leadership draws on the confluence of vision and interpersonal communication to mobilize support and commitment of followers. If women have the ability to influence followers to embrace and enact the vision, then they certainly possess qualities of successful visionary leaders. Ibarra and Obodaru (2008), for example, found that, with one exception, forwardness of thinking, women managers displayed stronger skills than men in all measurement areas, including process and practicality. Unfortunately for women seeking career advancement to higher levels of an organization, vision and innovation are strong markers for promotion potential. A primary reason is the perceived causal path that exists between vision and forward thinking, business performance, financial performance, and overall stakeholder satisfaction (Cameron, Quinn, DeGraff, & Thakor, 2006; Hart & Quinn, 1993). Strengths in other areas may not always compensate for perceptions of weakness in innovativeness and vision. Innovativeness is also a stronger predictor of promotability than relationship skills (Post, DiTomaso, Lowe, Farris & Cordere, 2009).

There are three strong reasons why innovation and vision (forward thinking) are essential elements for achieving senior positions and are the obstacles women face in advancement to top levels. First, although women managers are often thought to have a "female advantage" of greater relational skills than men, giving them an edge when both are equally qualified for promotions, that "advantage" is only an advantage when the female is also perceived as being visionary and innovative (Post, DiTomaso, Lowe, Farris, & Cordere, 2009). Thus, the transformational leadership advantage exists only when the candidate for promotion displays not only relationship skills but also visionary, forward-thinking skills. Next, vision appears more frequently as an essential quality in upper-level managers than in mid- and lower-level managers (Hart & Quinn, 1993; Cameron, Quinn, DeGraff, & Thakor, 2006). As a personal and executive characteristic, vision distinguishes top level managers from other managers. Finally, when asked to rate the relative contribution of managerial attributes to leadership effectiveness, graduates of executive leadership programs selected "ability to inspire others," a reflection of vision, as the top requirement for successful leadership (Prime, Carter, & Welbourne, 2009).

If women are perceived as being less visionary and innovative (Ibarra & Obodaru, 2008) and if they are seen as being less successful in handling novel or exceptional situations, does this lead to the perception that they are less effective managers and less qualified to perform top level leadership roles? If so, then how can we explain reports that companies with a higher proportion of women at the top performed better in both the short and long terms (Burgess & Tharenou, 2002)? These arguments for vision as an essential requirement for top-level leadership outline the context of the executive glass ceiling paradox, and give shape to four obstacles women face in upward mobility: Women are seen as being lower in vision than men by their male peers

(Ibarra & Obodaru, 2008); women are perceived as being stronger in relationship oriented skills, which are of low priority in top-level leadership skills (Prime, Carter & Welbourne, 2009); women are seen as being stronger in transactional, organizational skills (Frank & Belasen, 2008a); and finally, the so-called "female qualities" of relationship and organizational skills are seen as more important at lower levels of the managerial hierarchy (Frank & Belasen, 2008b).

Competing Values Framework

Given the expanding presence of women in management, it becomes increasingly important to understand whether men and women share similar behavioral characteristics when performing the Competing Values Framework (CVF) transformational and transactional leadership roles. The CVF is highlighted in the literature as one of the 40 most important frameworks in the history of business, and the framework has been studied and tested in organizations for more than 25 years (Cameron, Quinn, DeGraff, & Thakor, 2006). The purpose of this paper, therefore, is to extend the CVF to investigations of women in leadership.

Originated by Quinn and Rohrbaugh (1983), and Quinn (1988), the Competing Values Framework (CVF) highlights the contradictory nature inherent in organizational environments and the complexity of choices faced by managers when responding to competing tensions. These responses include a variety of transactional and transformational roles differentiated by situational contingencies. The CVF displays the repertoire of leadership roles by aligning pairs of roles with specific organizational environments (Figure 1). For example, the *innovator* and *broker* roles rely on creativity and communication skills to bring about change and acquire the resources necessary for change management. The *monitor* and *coordinator* roles are more relevant for system maintenance and integration and require project management and supervision skills. While the *director* and *producer* roles are geared toward goal achievement, the *facilitator* and *mentor* roles are aimed at generating a motivated work force driven by commitment and involvement. The upper part of the framework contains transformational roles while the lower part includes transactional roles (Quinn, 1988). Denison and Spreitzer (1991) pointed out that, when managers overemphasize one set of values (or play certain roles extensively without considering the other roles), the organization may become dysfunctional. High-performing managers, on the other hand, display behavioral complexity that allows them to master contradictory behaviors while also maintaining some measure of behavioral integrity and credibility. The concept of paradox reinforces the idea that the structure of this behavioral complexity is not neat, linear, or bipolar, but must take a more complicated form (Denison, Hooijberg, & Quinn, 1995). Support for this framework was found in a study by Buenger, Daft, Conlan, and Austin (1996) that showed that giving priority to certain organizational environments (e. g., *compliance*) might impede the accomplishment of goals in other areas (e. g., *collaboration*).

Figure 1. Competing Values Leadership: Transformational and Transactional Roles
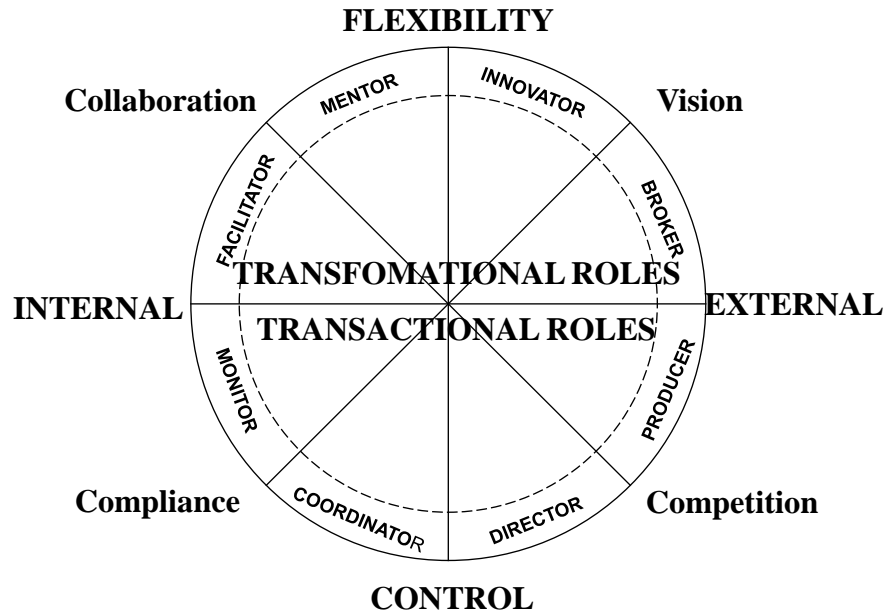
Recently, the CVF has received renewed attention from organizational researchers and leadership development scholars. Much of this attention has focused on the wide applicability of the CVF as a diagnostic and development tool, with particular attention on cultural variables (Cameron & Quinn, 2007; Garman, 2006; Igo & Skitmore, 2006), human resource development (Belasen & Frank, 2004; Panayotopoulou, Bourantas & Papalexandris, 2003), and the relationships between leadership roles and management education (Belasen & Rufer, 2007). One study which rated the importance of the different roles perceived by managers in a large financial institution showed that there are many striking similarities in the importance of the roles played by managers at different levels (Belasen, 1998). Overall, the evidence suggested that managers at each level were able to identify with all eight CVF roles, with distinctions relating to scope based on hierarchical levels. Lower levels connected well with functional knowledge and technical skills to manage work units while higher levels relied more on conceptual skills and institutional knowledge. Other directions of research came from investigations that set out to modify the CVF configuration to include an additional role (Vilkinas & Cartan, 2001; 2006), justification for the reordering of the CVF roles within each quadrant (Belasen & Frank, 2005; Denison, et al., 1995), and variation in emphasizing particular roles depending on situational contingencies (Hooijberg, Bullis, & Hunt, 1999).

Competing Values Framework and Women's Leadership

While the connection between female themes and transformational skill-related differences between men and women seems to be well documented (Eagly, et al., 2003; Eagly & Carli, 2007), the relationship of these beliefs to the eight CVF roles, particularly the roles in the upper (transformational) quadrants, bears exploration. This viewpoint would predict the strengths from women managers as depicted in Table 1.

Unfortunately, these predictions require further support since research on gender differences within the CVF is scarce, methodologies vary widely, and results are mixed. For example: self-assessments of retail sales managers place women higher than men in *mentor* and *broker* roles (Kim & Shim, 2003), women who are communication and information technology managers preferred the *producer* role (Parker, 2004), and finally, assessments of both men and women found no significant differences in perceptions of role performance competencies (Vilkinas, 2000).

Table 1: Transformational and Transactional Roles

Transformational	Feminist Theme	CVF focus
Collaboration	Caring Empowering	Mentor Facilitator
Vision	Forward Thinking Innovative	Broker Innovator
Transactional	**Feminist Theme**	**CVF focus**
Competition	Consultative Inclusive	Director Producer
Compliance	Fair	Coordinator
	Equitable	Monitor

Based on: Frank & Belasen, 2008a. Roles women transform, roles women play.

If effective managers, particularly upper-level managers, are more successful in handling novel or exceptional situations and generally exhibit greater behavioral and cognitive complexity (Denison, et al., 1995; Hart & Quinn, 1993) than less effective (and presumably lower-level) managers, do men and women alike manifest these behaviors in playing leadership roles? Are there any significant differences between men and women in playing the transformational and transactional roles? Do they emphasize the same roles across different situations or task environments? An interesting question is how managers actually choose appropriate roles to play and how cognitive styles, reflected in personality traits, affect these choices. The interplay of traits and leadership roles, for example, is a well-known tool for selecting individuals and matching them with organizational positions (Dastmalchian, Lee, & Ng, 2000).

Research often focuses on how women lead, while rarely examining the dispositional underpinnings that would explain why their leadership styles might differ (Fine, 2007). Style and skill theories look at "how" managers manage, but only recently have traits (the dispositional "why") been causally connected to managerial styles. Recent work by Belasen and Frank (2008), for example, reports causal paths illustrating the influence of traits on corresponding CVF role

strengths. The trait, conscientiousness, for instance, was causally related to the strengths in the *compliance* quadrant of the CVF (see Table 2).

Table 2: Traits associated with CVF Roles

Personality Traits	CVF Quadrant Roles
Agreeableness	**Collaboration:** Mentor Facilitator
Openness to New Ideas	**Vision:** Innovator Broker
Assertiveness	**Competition:** Director Producer
Conscientiousness	**Compliance:** Coordinator Monitor

Based on: Frank & Belasen, 2008a. Roles women transform, roles women play.

Prior to Frank and Belasen's (2008a) study, trait research typically addressed both men's and women's differences, but did not tie traits to specific CVF managerial role behaviors. Thus, the current research also provides a unique opportunity to build on trait/role findings by assessing gender differences in traits and their corresponding CVF roles.

Since women are often seen as more emotional and people oriented, it would seem that their behaviors would align more closely with their fundamental dispositions and personality traits, consistent with beliefs that women are biologically and temperamentally different from men. Belasen and Frank (2008) found direct influences of traits on managerial styles, thus indicating that gender differences in traits should correspond to gender differences in managerial styles.

Research Objectives

This paper expands the Competing Values Framework's utility by proposing distinctions between men and women particularly with respect to the upper two transformational quadrants (*collaboration, vision*) and the lower two transactional quadrants (*competition, compliance*). Specifically:
1. Women's self-perceptions as having strengths in the roles identified with the two upper quadrants of the CVF will be higher than men's for these four roles (*mentor, facilitator,*

innovator, broker). These roles are characterized by forward thinking, flexibility and an interpersonal focus, are transformational in nature, and therefore are expected to be perceived by women higher than their self-perceptions of transactional roles (lower two quadrants of *coordinator, monitor, producer, director*).

2. Women will also have higher emphasis than men on the personality traits (*agreeableness, openness*) associated with the upper half of the CVF model as shown in Table 2.

Methods

A representative sample of successful mid- to upper-level managers was selected from a pool of nearly 300 managers participating in an online MBA program, with a response rate of approximately 33%. (N = 132, 67 were women, 65 were men (See Table 3 for a demographic distribution of this sample).

Table 3: Demographics of Respondents

Years At Rank	Women	Men
<1	30%	10%
1-3	42%	42%
3-6	13%	30%
7-12	10%	10%
>12	5%	8%

Position	Women	Men
CEO	2%	9%
Director	10%	15%
President	6%	4%
VP	11%	5%
Manager	51%	50%
Supervisor	14%	13%
Self	18%	5%

Number of Employees in Organization	Women	Men
10,000 +	31%	34%
5000-9999	6%	3%
1000-4999	5%	5%
500-999	53%	5%
250-499	6%	6%
100-249	4%	6%
20-99	16%	16%
< 20	36%	26%

Respondents generally represented higher levels of management within their organizations. Over half of the respondents represented large organizations and had a wide range of experience within their present positions. Demographically by gender, approximately 50% of women had been on the job less than three years and 40% reported to the vice presidential level or higher. About 42% of the women described themselves as managers, while 30% described themselves as directors. The average age for women was 39 while the average age for men was 41. Approximately 33% of men had been on the job less than 3 years and 50% reported to the vice presidential level or higher.

A 60-item research instrument was developed from a consolidation of two separate instruments assessing (a) competing values skills; and, (b) personality traits (Frank & Belasen, 2008b). To reassess the validity of the survey items, we conducted a Confirmatory Factor Analysis. The highest loading items in each factor were submitted to Chronbach's alpha reliability analyses to support their suitability for constructing scales for additional analyses.

We used LISREL to examine the relationships between traits and roles (Belasen & Frank, 2008). The LISREL method estimates the unknown coefficients of the set of linear structural equations. It is particularly useful in accommodating models that include latent variables, measurement errors in dependent and independent variables, reciprocal causation, simultaneity, and interdependence. The model consists of two parts, the measurement model and the structural equation model. The measurement model specifies how latent variables or hypothetical constructs depend upon or are indicated by the observed variables. It describes the measurement properties (reliability and validity) of the observed variables. The structural equation model specifies the causal relationships among the latent variables, describes the causal effects, and assigns the explained and unexplained variance.

One problem is that the Factor Analysis has to be for ordinal data and we can only do that in LISREL. Moreover, LISREL results have their own built-in scale reliability. Significant paths always mean significant scale reliability because that is part of the technique. This means that we don't have the usual Chronbach's alpha reliability table we often see in different studies based on instrument validation. Another problem is that if we try to run the SPSS scale reliability feature using the items produced by the LISREL ordinal factor analysis, the reliabilities aren't significant because LISREL computes "weights" contributed by each variable whereas SPSS does not. Hence, we included two different factor analysis tables. The one for ordinal data is from LISREL. The other one is from SPSS but is not specifically for ordinal data and, therefore, it is not technically appropriate for this application (see Tables 4a, 4b).

Table 4a: Ordinal factor analysis, Varimax rotation, LISREL

Factors items denoted with * that form significant paths in the model indicate distinctions between male and female leadership characteristics. All other factor items were included in the original model but eventually dropped out, indicating lack of significant differences in those areas between male and female leadership.

(Eigenvalues for factors 1 through 7 are greater than 1. 0. Eigen value for Factor 8 = 0. 93.)

	Factor1 Explains 13% of Variance **Agreeable** (trait)	Facto2 Explains 10% of Variance **Monitor** (Role)	Factor3 Explains 9. 3% of Variance **Conscientio us** (trait)	Factor4 Explains 9. 2% of Variance **Vision** (Role)	Factor5 Explains 8.7% of Variance **Open** (trait)	Factor6 Explains 8. 5% of Variance **Coordinator** (Role)	Factor7 Explains 8.0% of Variance **Assertive** (trait)	Factor8 Explains 7. 0% of Variance **Director - Producer** (Role)
AG-59	**0. 664**	.018	-0.164	0.099	.139	0.007	0.074	0.122
AG-58	**0. 640**	.010	-0.114	0.012	.123	0.063	0.115	0.029
AG-60	**0. 634**	.03xq9	-0.254	0.106	0.036	0.034	-0.043	0.193
AG-57	**0. 626**	.248	0.013	0.104	.076	0.143	0.077	-0.019

Mon-33*	0. 038	**.610**	-0.263	0.154	.054	0.019	0.168	0.222
Mon-34*	0. 146	**.536**	-0.043	0.136	.110	0.143	0.211	0.101
Con-44*	0. 239	.221	**-0.680**	-0.025	.109	0.139	0.027	0.074
Con-45*	0. 121	.044	**-0.644**	0.222	.140	0.171	0.125	0.008
Vis-12	0. 132	.060	-0.119	**0.739**	.073	0.068	0.057	0.079
Vis-13	0. 048	.085	-0.010	**0.545**	.126	-0.006	0.171	0.282
Vis-11	0. 170	.300	0.036	**0.519**	.260	0.123	0.004	0.080
OP-9	0. 131	.062	-0.160	0.156	**.651**	0.057	0.071	0.181
OP-10	0. 192	.040	-0.032	0.252	**.603**	0.046	0.216	-0.019
Coor-39*	0. 077	.007	-0.100	0.122	.030	**0.779**	0.111	0.117
Coor-40*	0. 181	.191	-0.184	0.036	.121	**0.684**	0.092	0.044
Assert-29	0. 040	.222	-0.143	0.089	.017	0.053	**0.621**	0.225
Assert-28	0. 102	.070	-0.012	0.125	.157	0.105	**0.534**	0.216
Dir/Prod-21	0. 080	.117	0.029	0.127	.069	0.062	0.199	**0.635**
Dir/Prod-22	0. 068	.172	-0.148	0.236	.137	0.112	0.153	**0.517**
Dir/Prod-24*	0. 049	.402	0.108	0.323	.404	0.046	-0.227	**0.543**

Table 4b: Ordinal factor analysis, Varimax rotation, LISREL

Factors items that form significant paths in the model indicate distinctions between male and female leadership characteristics. All other factor items were included in the original model but eventually dropped out, indicating lack of significant differences in those areas between male and female leadership.

(Eigenvalues for factors 1 through 7 are greater than 1. 0. Eigenvalue for Factor 8 = 0. 93.)

Factor1 Explains 13% of Variance **Agreeable** (trait)	Factor2 Explains 10% of Variance **Monitor** (Role)	Factor3 Explains 9.3% of Variance **Conscientious** (trait)	Factor4 Explains 9. 2% of Variance **Vision** (Role)	Factor5 Explains 8. 7% of Variance **Open** (trait)	Factor6 Explains 8. 5% of Variance **Coordinator** (Role)	Factor7 Explains 8. 0% of Variance **Assertive** (trait)	Factor8 Explains 7. 0% of Variance **Director - Producer** (Role)

Findings

Based on a previous LISREL model with causal paths between personality traits and CVF leadership roles (Belasen & Frank, 2008), a path analysis of these items was conducted, using the CVF roles as latent variables, to indicate a relationship between women and these CVF roles (see Figure 2). A significant path indicates that women scored higher than men for these constructs.

Only significant paths are shown in Figure 2, which shows paths that were significant between the dummy single indicator gender variable (where a dummy variable value of 1 indicates a woman respondent) and the latent variables as indicated by path T-values. Again, it is important to point out that non-significant paths do not appear in LISREL model results, in part, because poor or incorrect measurement typically does not produce a valid path analysis. Using LISREL path analysis, being a woman influenced the conscientiousness personality trait, which, in turn, influenced the CVF role strengths of *monitor* and *coordinator*.

Being a woman also directly influenced (without the intervening personality trait, conscientiousness) a single indicator of *producer* role strengths. It is important to note that this path analysis brings in the *coordinator* role, the second *compliance* role, in addition to the *monitor* and *producer* roles found in the regression analysis. There were no areas where men scored higher than women. Finally, paths in the remaining quadrants were not significant and did not appear in the final path diagram. See Table 5 for fit indices.

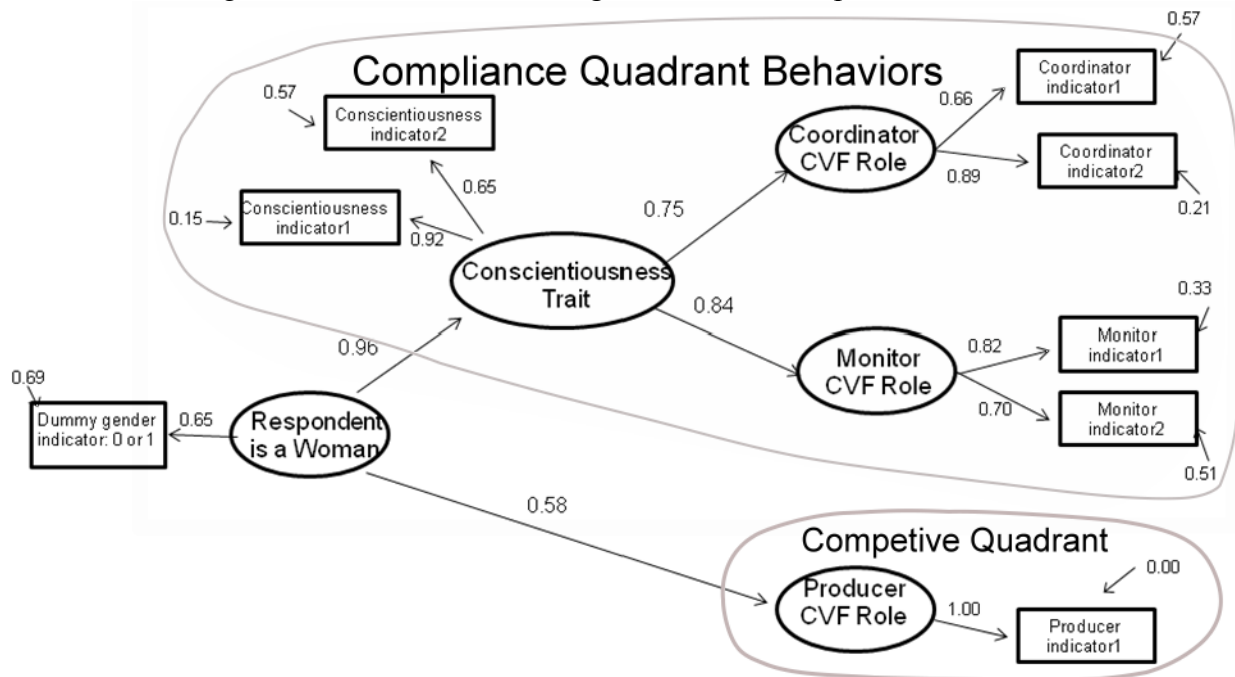Figure 2: Women's Role Strengths: Standardized path coefficients

Table 5: LISREL Fit Indices for Women's Role Strength Model

Fit Measure	Fit Results	Significance
Minimum Fit Function Chi-Square	118.35)	($p = 0.0$, $df = 17$
Root Mean Square Error of Approximation (RMSEA)	0.21	P-Value for Test of Close Fit (RMSEA < 0.05) = 0. 00
Comparative Fit Index (CFI) =	0.98	N/A
Goodness of Fit Index (GFI) =	1.00	N/A

Discussion

Our findings that female self-perception scores were significantly higher than male self-perception scores in the transactional roles of *monitor* and *coordinator* (*compliance* quadrant), and *producer* (one of two *competition* quadrant roles) would indicate that, in spite of common perceptions, women do not always see themselves as having strengths in the nurturing, relationship aspects of transformation leadership. To the contrary, in this study, women saw their strengths as being not at all transformational, but more transactional, focused on practical, efficient, task achievement oriented managerial leadership.

Explanations for the failure of our findings to support the proposition that women would display stronger scores in transformational roles include the following: First, since our sample population came from an MBA program rather than from helping or service organizations, it is possible that the women who took part in the study were not strong exemplars of traditional approaches to women leadership because self-selection into the business education program

could indicate a subset of women who are likely to exemplify a more balanced view of the importance of all of the CVF roles.

Second, it is also not inconceivable that the men in our sample, due to the educated and diverse nature of its population, yielded to behaviors that were compatible with feminist approaches and were more transformational in managerial styles than we might have anticipated. The current study is based on self-reported perceptions of leadership behaviors, and, although it can be argued that research designs based on self-reports might produce results that vary from those based on evaluation by co-workers, findings from literature often report results from both types of research design (Judge, Higgins, Thoresen & Barrick, 1999; Twenge, 1997, 2001; Kim & Shim, 2003; Parker, 2004). As suggested by Eagly, et al., (2003: 572): "Self-definitions of managers may thus reflect an integration of their managerial role and gender role, and through self-regulatory processes, these composite self-definitions influence behavior, thereby shading the discretionary aspects of managerial behavior in gender-stereotypic directions."

Third, although unlikely, it is possible that the CVF roles do not correspond as strongly with transformational managerial behaviors as we might have anticipated. In fact, while Figure 1 shows a configuration of the transformational/transactional roles split between upper and lower parts, the women in our sample showed stronger bias toward the *left side* (or internal) versus the *right side* (or external) of the CVF configuration, displaying behaviors that are closely associated with the socio-technical systems (left side) more so than performance systems (right side). Hence, operationalization of these roles might not reflect the exact same constructs as previous research on transformational leadership has shown (Avolio & Bass, 1988; Bass, Avolio & Goodheim, 1987; Bass, Waldman, Avolio & Bebb, 1987; Bennis & Nanus, 1985; Conger & Kanungo, 1987; House, Spangler & Woycke, 1991; House, Woycke & Fodor, 1988; Roberts, 1985; Trice & Beyer, 1991).

Nevertheless, for other possible explanations of the unexpected and surprising results, we must also consider the possibility that differences in perceptions toward conscientiousness and monitoring would lead women to score themselves higher than men, when there is actually little practical difference in their behaviors (Costa, Terracciano, & McCrae, 2001). Finally, we must consider the possibility that differences in the nature of the sample might account for the previous failures to find a strong monitoring role for women. Ultimately, we are left with the conclusion that, in spite of the fact that the other three quadrants *(competition, vision, collaboration)* have been represented as showing distinctions between women and men in previous studies, women have not shown *compliance* quadrant strengths in previous research. This is surprising, since traits can influence CVF role behaviors (Belasen & Frank, 2008) and studies have shown gender differences in conscientiousness (Cavallo & Brienza, 2006; Gelissen & DeGraff, 2006), analytical cognitive styles (Hayes, et al., 2004), and detail-orientation (Irby, et al., 2002).

According to Costa et al., (2001) personality variations between each gender category, in comparison to variations within the genders, are actually fairly small. Since variations between genders are small, and reports of gender differences in personality rarely lead to actual differences in managerial effectiveness (Xie & Whyte, 1997), perhaps we should search elsewhere for an explanation of our unexpected results. Proven, successful managers are tested and honed by experience and education. Viewing the managerial progression as an evolutionary process, upper levels of management are populated with higher proportions of well-balanced,

emotionally mature managers. Strong trait and behavioral differences, gender-related or not, are filtered out along the way. Evidence of this leveling process is seen in the differences in role strengths found at the different levels of management discussed in Belasen (1998), and by Xie and Whyte (1997), where gender differences decreased as managerial levels increased. Indeed, Xie and Whyte (1997) found that gender differences in personality and needs were stronger than differences in managerial attributes, indicating that, although men and women might start from different dispositions and tendencies, only those individuals who adapt to (and allow themselves to be molded by) the requirements of the next level in the managerial progression will increase their chances to climb the corporate ladder. It is worth noting that these findings are also consistent with previous research finding that personality traits precede managerial roles behaviors. In other words, managerial roles strengths are based, in part, on fundamental personality traits (Frank & Belasen, 2008b).

Implications for Leadership Development

Ibarra and Obodaru (2008) describe an international survey of over 1,000 executives who were asked to rate men and women as leaders. While men outscored women in some areas, and women outscored men in other areas; not surprisingly, men were seen as being more effective leaders overall. Most relevant to the results of our current study, however, were two subsequent findings. First, the most significant quality in contributing to leadership effectiveness was a perception that the leader excels at inspiring others--a clear emphasis on the importance of the CVF *vision* quadrant (upper right). Secondly, responding to a question about areas where men saw women as being strongest, women's strengths were seen as being in their skills in helping others, ironically, the very quality ranked lowest of all qualities contributing to leadership effectiveness!

Again, as mentioned earlier, women with more effective relational skills than men were not more effective than men as leaders, although women who were noted as being innovative proved to be more promotable (Post, DiTomaso, Lowe, Farris, & Cordero; 2009) and, according to Belasen (1998), managers' roles will change in emphasis as they move upward or downward through the administrative hierarchy. Here, too, we see evidence of vision at the higher levels, with practical and monitoring roles at the lower levels.

Research has shown that women possess both advantages and disadvantages as leaders, with the disadvantages arising primarily in roles that are men-dominated or otherwise defined in masculine ways. Many of the difficulties and challenges that women face arise from the incongruity of the traditional women's role and many leader roles. Prime, Carter, and Welbourne (2009), on the other hand, confirmed that gender is a reliable indicator of perceived differences in women's and men's leadership performance. In other words, men and women are expected to behave differently from one another, rendering gender a dichotomous variable. This incongruity creates vulnerability whereby women encounter prejudicial reactions that restrict their access to leadership roles and negatively bias judgments of their performance as leaders. Women encounter resistance when their behaviors go against prevailing gender expectations. For example, their vision might not be recognized if it manifests itself differently than in men.

Women have less human capital invested in education and work experience than men (Eagly & Carli, 2004), although new studies have shown a shift in the number of graduating

women across many academic and professional fields in business and management (Jenner & Ferguson, 2009). Women choose not to pursue top leadership positions for socio-cultural reasons, which can also explain the results of our study that was based on a sample of well educated women (see also Hoyt, 2007). It is a no win situation: women succeed in areas where culture allows, but they do not promote themselves as much as men do (Babcock & Laschever, 2003; Eagly & Carli, 2007); yet that very success undermines their chances for advancement. The filtering-out may take place at far lower levels than we thought, and that is why women in our sample scored high in conscientiousness.

Easing this dilemma of role incongruity requires that women leaders behave extremely competently while reassuring others that they conform to expectations concerning appropriate behavior for women. This double-standard requirement, observed or expected, to display extra competence around the CVF roles, makes it especially difficult for women to gain recognition for high ability and outstanding achievement. Therefore, successful women leaders generally work hard and seek leadership styles that do not unnecessarily elicit resistance to their authority by challenging norms dictating that women be egalitarian and supportive of others (Eagly, et al., 2003: 825). Already playing the CVF roles effectively, the women in our sample seemed to shift their energy from personal, non-value-maximizing behaviors to compliance-enhancing activities in areas we could best describe as diligence (Frank & Belasen, 2008b). Vision is a critical quality for top-level leadership, yet our research findings point to their strengths in the opposite quadrant, that of compliance. Of course, strength in an opposite quadrant doesn't preclude strengths in both, but whether it reflects reality or not, female managers are viewed as having lower skills in one of the most essential qualities for top-level management.

Based on evidence that women have to "earn" advancement, whereas men are simply assumed to be managerial material, we know that women have to have stronger skills to achieve the same level of management. If we assume that women with less desirable strengths do not advance, those who survive do so for a reason.

Assuming that to be true, we should consider just which CVF areas would be the most advantageous for women to exhibit without running the risk of being perceived as going over into the negative zone of overemphasizing certain roles to the expense of other roles (Quinn, 1988). Conceivably, of the four quadrants, the *compliance* quadrant might arguably be considered as the safest for women if they must have very strong skills in at least one other area. High collaboration competencies would be playing right into gender stereotypes, just as high scores in the *vision* quadrant wouldn't be taken seriously. For competition competencies, very high strengths could be seen as going head-to-head with men and thus behaving in a non-traditional way, which might also be perceived as tipping toward the negative zone for women. *Compliance* roles, however, as long as they are well balanced, are the only ones left where strong skills are highly valued and are not inconsistent with traditional gender role perceptions.

Women are expected to be friendly, supportive, and skilled in socialization processes, yet agreeableness is a handicap in career advancement (Mueller & Plug, 2006); on the other hand, men who are not friendly (agonistic) are more likely to receive promotions. Women are more conscientious and analytical, are both people- and task-oriented, and are more flexible than men. Yet, men are granted power automatically, whereas women have to earn it. Women can earn authority by being better in areas where they aren't competing head-on with traditional male

stereotypes. However, of the eight CVF roles, of the four quadrants, is there one particular area, or situational contingency, in which women should excel? Or must they excel in all?

Implications for Research

Vilkinas (2000) found no differences in perceived leadership effectiveness between genders. But, do we know whether these women had to demonstrate higher skill levels than men to be seen as equally effective? Parker (2004) found women to be ranked higher in performing the *producer* role (*competition* quadrant), but the sample was comprised of IT managers whose requisite skills also fit well into the lower CVF quadrants. One could argue that the nature of IT work requires higher levels of monitoring and coordination in conducting *producer* role skills. In the retail field (Kim & Shim, 2003), women saw themselves as higher in *mentor* and *broker*; but the retail field is a very different environment, so we wouldn't necessarily expect these results to apply to all situations. A plausible answer lies in the need for women to demonstrate value-maximizing behaviors in areas that have been traditionally dominated by men (Irby, et al., 2002). In a study of senior managers' stereotypic perceptions of leadership behaviors, for example, Prime, Carter, and Welbourne (2009) found that, with the exception of "networking," female respondents perceived that more women than men leaders were effective at all of the behaviors classified as feminine including "supporting," "rewarding," "mentoring," "networking," "consulting," "team-building," and "inspiring." Male respondents, on the other hand, attributed significantly higher effectiveness to women (i. e., women are better than men) that act out the roles of "supporting others" and "rewarding subordinates." Furthermore, male respondents perceived male managers as more effective than women in "inspiring others." In terms of "problem solving," "upward influence," and "delegation," male respondents rated male managers as more effective than women on all three variables, while women rated male managers higher on all three except for "problem solving." A follow-up post hoc study conducted by the same researchers revealed mixed results with male respondents designating inspiring, consulting, and rewarding behaviors as gender neutral.

These findings suggest that gender is a reliable indicator of perceived differences in women's and men's leadership performance. In other words, men and women are expected to behave differently from one another, rendering gender a dichotomous variable. These findings also have implications for women moving through the corporate ladder and who are evaluated strictly on performance-based criteria such as critical thinking and identifying innovative solutions to problems.

Longitudinal studies, based on skill assessments for both men and women at fixed time intervals, would help us obtain baseline or benchmark skill level for men and woman and allow us to track which skill sets among both men and women eventually lead to career advancement. Unfortunately, limitations in the type of demographic information collected from our sample prohibit drawing firm conclusions regarding gender and managerial level. If, as it seems, men tended to be slightly older and held higher positions than women, does this indicate that the women are hyper effective, or are they just true to their level of management (Frank & Belasen, 2008a). Such data might actually be found in archival sources of organizations that maintain records of previous skill assessments.

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