Sex Differences in Power: The Role of Network Centrality and Value Systems

Gina Lewis and Venkat R. Krishnan

Abstract. This study looked at perceived power of men and women and how it is affected by their value systems and network centrality, using a sample of 84 customer service executives (42 men & 42 women) from two organizations in India. Results show that centrality is positively related to power for men but not for women. Analysis of variance reveals that women have less power than men have, and analysis of covariance shows that this difference in power between the sexes continues to exist even after controlling for centrality. While value systems of men and women differ, sex differences in value systems do not affect centrality or power. Suggestion is made that women should tap personal sources to increase their power.

Men and women are socialized differently, which results in their acquiring different personality and behavior patterns. Women are socialized to be passive, accommodative, and intuitive, while men are socialized to be aggressive, active, and dominating. Differences in socialization would lead to men and women having different sets of values. Sex is thus, a variable whose effects cannot be ignored. Demonstrably, women and men differ in their exercise of power. The relationship between sex and power is however not simple and straightforward, but could have several variables moderating it. Network centrality results in greater amount of power, and it could therefore be one such moderating variable. However, this area has not been adequately explored. We report here a study that we conducted to look at the impact of sex on network centrality, power, and value systems, and how sex affects the relationship between value systems, network centrality, and amount of power.

Theory and Hypotheses

Successful managers are perceived as being more similar to men than to women in terms of emotional stability, aggressiveness, leadership ability, self-reliance, certainty, vigor, desiring responsibility, seriousness, objectivity, knowledge, and straightforwardness. The developmental experiences of women include more of non-authority relationships as compared to men (Lyness & Thompson, 2000). It would therefore be worth investigating if women have less network centrality and if they are perceived as having less power as compared to men.
Power

Pfeffer (1992: 30) described power as the “ability to influence behavior, to change the course of events, to overcome resistance, and to get people to do things that they would not otherwise do.” Power is the capacity to influence others. Many definitions of power involve the ability of one actor to overcome the resistance in achieving a desired result (House, 1988; Pfeffer, 1981), or, simply, the ability to affect the outcomes or get things done (Mintzberg, 1983; Salancik & Pfeffer, 1974). Power is a manifestation of an asymmetry in the relationship between two people. French and Raven (1959) identified five types or bases of power—coercive power, reward power, legitimate power, expert power, and referent power. All the five bases involve the ability to administer tangible or intangible outcomes (Hinkin & Schriesheim, 1989). Coercive power is the ability to administer to another things he or she does not desire or remove or decrease things he or she does desire. Coercive power implies the ability to impose penalties for non-compliance. Similarly, reward power is the power-holder’s ability to administer outcomes that are rewarding, legitimate power is the ability to administer to another feelings of obligation or responsibility, while the source of referent power is the person’s perceived attractiveness. Authority or position power was defined as legitimate power by French and Raven (1959). Power derived from one’s position requires the consent or acceptance of the power recipients (Pfeffer, 1992). The acceptance of hierarchy or the chain of command could be due to several reasons like believing that the power-holder knows better, preventing ambiguity, or simply because it is inconceivable not to obey authority.

Influence is the exercise of power. Brass and Burkhardt (1993) found that power as measured by formal hierarchical level in the organization was positively related to the influence strategies of assertiveness and exchange. Yukl, Kim, and Falbe (1996) found that referent power, which is based on personal attraction, was negatively related to pressure tactics. People also resort to greater use of influence strategies when existing sources of power become unavailable (Westphal, 1998). Power, besides directly affecting the use of influence strategies, might also affect the relationship between personality traits and use of influence strategies. Greene and Podsakoff (1981) demonstrated that leaders were more inclined to use coercive power when they were under pressure to maintain high-productivity deadlines, and had lost their power to reward good performance. When an influencing agent has coercive power and uses it, then the agent would tend to diminish and distrust the target. This results in part from the fact that coercive power requires surveillance, due to which the target is judged as unworthy (Raven, 1993).

Power is an important variable since one needs power to get things done in an organization (Pfeffer, 1992). Kurland and Pelled (2000) argued that power as a dependent variable is worth studying for its own sake. Having more power means having more resources under one’s control, and one having more resources will generally be more successful than one having less resources. Power has been shown to affect various outcomes in an organization. For example, Welbourne and Trevor (2000) studied the role of power in job evaluation outcomes in a university setting. They found that position power of resource recipients enhanced the main effects of departmental power on new positions and position upgrades.

Sources of power could be grouped into two broad categories—behavioral and structural. Personal attributes and strategies constitute the behavioral sources of power. According to Brass (1984: 518), “While personal attributes and strategies may have an important effect on power acquisition, structure imposes the ultimate constraints on the individual.” Pfeffer (1981) argued that power is primarily a structural phenomenon. Structural
sources of power reflect the properties of a social system rather than the particular attributes or behaviors of any particular individual or interaction (Astley & Sachdeva, 1984). The two kinds of structural positions that serve as a basis for the exercise of power are formal hierarchical level and informal network position (Brass & Burkhardt, 1993). The power associated with hierarchical level in an organization, often referred to as authority or legitimate power, represents the legitimated, institutionalized privilege of incumbency. Position in the informal network is the second type of structural power.

Even when women and men occupy positions at similar hierarchical levels, women might have less power than men because of their not being part of informal networks. Thus, centrality in informal network and sex differences in centrality would be worth studying.

**Network Centrality**

The social network perspective looks at informal structure as including the patterned, repeated interactions among individuals (James & Jones, 1976; Mintzberg, 1979). These social interactions emerge over time, become relatively stable, and take on an institutionalized, although informal, quality. They may shadow formally prescribed workflow and authority relationships, and they provide an observable objectivity compatible with traditional measures of formal structure (Krackhardt, 1990). As stable persistent patterns, they represent a constraint on behavior. Networks could be of different types. Sparrowe, Liden, Wayne, and Kraimer (2001) found that individuals who were central in their work groups’ advice networks had higher levels of in-role and extra-role performance than did individuals who were not central players in such a network.

The social network approach to structural power is often associated with a resource dependency framework (Emerson, 1962) where power is viewed as the inverse of dependence. People in central network positions have greater access to, and potential control over, relevant resources such as information. People who are able to control relevant resources and thereby increase others’ dependence on them are in a position to acquire power. In addition to increasing others’ dependence on them, actors could also decrease their dependence on others, by having access to relevant resources that are not controlled or mediated by others. Studies have found that an employee's centrality in an intraorganizational network is related to power (Brass, 1984, 1985; Burkhardt & Brass, 1990; Fombrun, 1983; Krackhardt, 1990).

There is a multitude of measures of centrality, each slightly different from the rest (Brass & Burkhardt, 1993). From a resource dependence perspective (Emerson, 1962), increasing one's alternatives increases one's power. Available alternatives may be tapped by the in-degree measure of centrality, or the number of others who choose a focal person. In-degree centrality is sometimes used as a measure of prestige on the assumption that relations are often asymmetric and that powerful actors are more frequently objects, rather than sources of communication. Asymmetric measures of centrality and, in particular, in-degree centrality, were related to power in studies of the diffusion of innovation (Burkhardt & Brass, 1990).

**Hypothesis 1.** Network centrality would be positively related to perceived power.

The sources of power available to women are fewer than those available to men. Foster (1999) argued that most of the sources of power pose problems for women, since tradition and custom have consistently placed authority in the hands of men. Management as an activity is frequently associated with male stereotypical attributes like competitiveness, aggression, and rationality, making it difficult for women to acquire managerial power in
organizations. Lyness and Thompson (1997) found that women’s jobs had less authority than those of men as measured by the number of subordinates they managed. Women also received fewer stock options, which was viewed as long-term incentive for retaining managers, suggesting that women were viewed as less valuable than men were. Women generally have less power in an organization as compared to men. There is not much consensus among authors on the causes of this, but findings of studies do suggest that having less power affects several outcomes that are of consequence to women. We therefore had:

**Hypothesis 2.** Women would be perceived to have less power than men do.

Network centrality depends on characteristics of individuals to some extent. Mehra, Kilduff, and Brass (2001) found that high self-monitors occupied central positions in social networks, though network centrality predicted individuals’ workplace performance independent of self-monitoring. Researchers have examined gender differences in formation of networks and in the consequences that follow. Hultin and Szulkin (1999) found that gender-differentiated access to organizational power structures explained women’s relatively low wages. Women tend to be less likely to find that professional activity and rank translate into central network positions and advancement (Ibarra, 1992). Alongside the differences in how much men and women benefit from workplace networks, there are qualitative differences in network structures. Men draw primarily on other men for both instrumental and expressive support, but women’s networks tend to cross gender lines, including more men than women for instrumental resources and drawing on both men and women for expressive resources (Ibarra, 1992).

Women often find themselves excluded from most of the important informal networks. This could be partly attributed to homophily (people's predilection to interact with like others) and partly to women's lower opportunity to interact with high-status, same-gender others (Ibarra, 1992). Women are being considered as being different culturally and this causes their exclusion from many informal relationships and social events that provide significant opportunities for building up networks and developing sources of informal power. Young men going into management are soon made members of an exclusive club termed the old boy network that provides contacts, opportunities, social support, and policy information. The old boy network is an informal male social system that stretches within and across organizations, and excludes less powerful men and all women from membership (Oakley, 2000).

Networking is used by employees to fill gaps in formal corporate communications, to do one another favors that can be collected later, to enhance one's morale and to advance their careers. Women experience low power that results from a lack of entry to male-dominated key groups and networks, and a lack of familiarity with implicit norms and power coalitions (Mann, 1995). Women are not deemed to have much power in organizations and this further prevents their inclusion into networks and associations. Besides, women are not able to create a network of powerful supporters due to a perception that women are unable to sponsor others in the organization (Arroba & James, 1987). Hence:

**Hypothesis 3.** Network centrality of women would be lower than that of men.

Debate exists about whether sex differences in power are dispositional (due to socialized or inherent gender differences) or structural (due to men's and women's differential access to opportunity) (Gersick, Bartunek, & Dutton, 2000). Rajan and Krishnan (2002) showed that gender might moderate the impact of authoritarianism on influence and power. Ibarra (1997) offered a strong structural argument with her evidence from a study set in four Fortune 500 service firms. Women overall did not differ from men in their network-building
strategies, but high-potential (fast-tracked) women employed unique strategies. She found high-potential women sought especially close instrumental ties with others inside their organizations, to increase men's comfort and decrease gender bias; in addition, they sought extraorganizational relationships with other women, with the intent of learning "strategies for overcoming gender-related obstacles" (1997: 94). Women however, are less effective in tapping both the categories of power sources—behavioral and structural (Foster, 1999). Therefore, women would have less power than men would, even if their structural power is same as that of men. Hence:

**Hypothesis 4.** Perceived power of women would be lower than that of men even after adjusting for the relationship between network centrality and perceived power.

The sex differences in perceived power and network centrality could be because of the different ways in which women and men are socialized. Gender socialization theory proposes that males and females tend to regard their work environments with different attitudes and expectations. The assumption is that the important, lasting socialization takes place during the childhood years. Based on this theory, males tend to be more concerned with achievement, advancement, and power. By contrast, females tend to value harmonious relationships and nurturing attitudes (Smith & Rogers, 2000). It would therefore be worth investigating whether women and men have different value systems and if value systems have any relationship with perceived power and network centrality.

**Value System**

The term "values" has been used variously to refer to interests, pleasures, likes, preferences, duties, moral obligations, desires, wants, goals, needs, and many other types of selective orientations (Rokeach, 1973). To avoid such looseness of definition it is important to remember that values are criteria or standards for preference. The beginning point or substrate is preference. Values merge affect and concept. Persons are not detached or indifferent to the world; they are continually regarding things as good or bad. Values serve as criteria for selection in action. When most explicit and fully conceptualized, they become criteria for judgment, preference, and choice. As such, Rokeach (1973: 5) defined value as an enduring belief that a specific mode of conduct or end state of existence is personally or socially preferable to an opposite or converse mode of conduct or end state of existence. If a person values freedom as an end-state of existence, it means that he or she believes that freedom is preferable to slavery. Rokeach distinguished between two types of values: terminal or end values, and instrumental or means values. The former refer to beliefs or conceptions about ultimate goals or desirable end states of existence that are worth striving for; the latter refer to beliefs and conceptions about desirable modes of behavior that are instrumental to the attainment of desirable end states. He listed down 36 values in all. Value is a hypothetical construct assigned to that class of constructs known as individual's phenomenology—the way people view the world and themselves in relation to it. It provides more than a concrete goal of action; it provides the criterion by which the goals are chosen (Williams, 1951).

Rokeach (1973: 5) defined a value system as an enduring organization of beliefs concerning preferable modes of conduct or end states of existence along a continuum of relative importance. A value system is an arrangement of the values of a person in a hierarchy of importance to that person. Values are heavily intertwined and therefore looking at a person’s values separately and independently of one another cannot meaningfully explain attitudes and behaviors. That a person values happiness does not say much that is unique about that person, for most human beings value happiness. What matters is how much a
person values happiness in comparison with the other things that he or she values. If one knows that a person values happiness more than self-respect, one is able to have a more accurate idea of that person. Only the rank ordering of values or the value system can capture the unique value configuration of an individual. It is not the values by themselves that matter, but it is the hierarchical value system that matters (Rokeach & Ball-Rokeach, 1989). A value system would be peculiar to the individual with reference to whom it is being discussed. A value system is a generalized knowledge structure or framework about what is good or desirable, that develops over time through an individual's involvement with the world.

Values are the most abstract of the social cognitions, and hence they serve as prototypes from which attitudes and behaviors are manufactured. Cognitions, and therefore values, also guide individuals about which situations to enter and about what they should do in those situations. Within a given situation, the influence flows from abstract values to midrange attitudes to specific behaviors. This sequence is called value-attitude-behavior hierarchy (Homer & Kahle, 1988). In specific situations, only a subset of values is made active, those that are seen as relevant to the salient alternative actions. For example, valuing equality might favor donating to charity and oppose purchasing a luxury item, whereas valuing a comfortable life might have the reverse influence. Not all activated values have equally strong impacts on behavior. The strength of impact depends on importance of the value in the person’s hierarchy. The choice of a behavior alternative is guided by the interplay of the influences of the activated values. It is the relative importance for a person of the values favorable to and opposed to a behavior that guides action (Schwartz & Inbar-Saban, 1988).

Value systems have been found to predict several outcomes including shopping selections (Homer & Kahle, 1988) and weight losses (Schwartz & Inbar-Saban, 1988). Values influence job choice decisions, job satisfaction, and commitment (Judge & Bretz, 1992). Blickle (2000) found that work values predicted the frequency of use of influence strategies measured one year later. The values of achievement, associates (defined as “work in which you are one of the gang”), creativity, intellectual stimulation, and variety were positively related to rational persuasion. In addition, career and management (defined as “have authority over others”) were positively related to pressure strategy; prestige was positively related to ingratiation; and career and prestige were positively related to upward appeal. Since management is essentially an influencing activity, values would predict managerial choices.

Several studies have demonstrated empirically how values affect leadership and organizational effectiveness (Krishnan, 2001; Meglino & Ravlin, 1998; O’Reilly, Chatman & Caldwell, 1991). Perceptual organization plays a role in linking values to choice behavior (Ravlin & Meglino, 1987). Values influence the selection and interpretation of external stimuli, and thus affect one’s perceptual process. Value systems tend to form early in life and are very stable. Major longitudinal studies of values have in general showed their remarkable stability (Rokeach & Ball-Rokeach, 1989). Lubinski, Schmidt, and Benbow (1996) observed that in a sample of gifted adolescents, values were remarkably stable over a 20-year period. Dominant value orientation remained either unchanged, or moved to an adjacent value. Oliver (1999) found that the overall personal value structure of the American manager did not change in three decades. However, value systems do change because of significant events or interventions. Krishnan (2003) found that business education enhanced the relative importance given to self-oriented values.

The terminal and instrumental value systems of individuals would determine their behavior in their social interactions. For example, those who give relatively more importance
within their value systems to the terminal value of social recognition and the instrumental value of ambition are likely to have a high propensity for building informal networks in the organization. Both the terminal values and the instrumental values held by individuals would affect their power in the organization and the extent to which they are central in informal communication network. Women having less centrality and power could actually be a result of their value systems being different from those of men. It is possible that relative importance to certain values enhances centrality and power, but women give less importance to those values. Value systems could therefore be an explanation for the low centrality and power of women. Hence:

**Hypothesis 5.** Relative importance given by women would be less than those given by men for those values whose relative importance is positively related to network centrality and perceived power, and relative importance given by women would be more than those given by men for those values whose relative importance is negatively related to network centrality and perceived power.

**Methodology**

We collected data for the study from 84 customer service executives (42 men & 42 women) from two organizations in India. Taking customer calls and queries is the primary job of these executives, and traditionally, these jobs employ more women than men. The instrument used to measure the ranking of values was the Rokeach’s (1973) Value Survey that asks respondents to arrange 18 terminal and 18 instrumental values in order of importance.

To measure the amount of network centrality possessed by an individual in the organization, we provided the respondents with a roster of employees in the organization, and asked them to circle the names of people with whom they communicated as part of their daily job. For each of the persons that they circled, the respondents were also asked to indicate how much influence that person had in the everyday activities of the organization. The responses were recorded using the following 5-point scale: 1 = very little influence; 2 = little influence; 3 = fair amount of influence; 4 = much influence; 5 = very much influence. Perceived power was thus measured using a single item following Brass and Burkhard (1993).

**Results**

Table I presents the descriptive statistics for and correlations between network centrality and perceived power, for the overall sample and for women and men separately. Results of analysis of variance across women and men, and analysis of covariance of power after adjusting for centrality are also included in the table. Perceived power was not significantly related to network centrality in the overall sample. Hypothesis 1 was therefore not supported. There was however a moderately significant (p < .10) positive relationship between power and centrality in the case of men.
Table I  
Network Centrality, Perceived Power, and Sex Differences  
Means, standard deviations, and correlation coefficients

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>Overall</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centrality</td>
<td>17.60</td>
<td>5.99</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power</td>
<td>2.57</td>
<td>0.50</td>
<td>.18</td>
<td>.12</td>
<td>†.27</td>
</tr>
</tbody>
</table>

Analysis of variance across the sexes

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th>SD</th>
<th>Men</th>
<th>SD</th>
<th>F value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centrality</td>
<td>18.43</td>
<td>5.30</td>
<td>16.76</td>
<td>6.56</td>
<td>1.64</td>
</tr>
<tr>
<td>Power</td>
<td>2.45</td>
<td>0.42</td>
<td>2.68</td>
<td>0.55</td>
<td>*4.45</td>
</tr>
</tbody>
</table>

Analysis of covariance of power across the sexes adjusting for centrality

<table>
<thead>
<tr>
<th></th>
<th>Least squares means</th>
<th>Mean square</th>
<th>F value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Women</td>
<td>Men</td>
<td></td>
</tr>
<tr>
<td>Power</td>
<td>2.44</td>
<td>2.69</td>
<td>1.34</td>
</tr>
</tbody>
</table>

N=42 for either sex.  
†=p<0.10. *=p<0.05.

The analysis of variance showed that the perceived power of men was significantly higher than that of women. Hypothesis 2 was hence supported. Hypothesis 3 was however not supported since there was no significant difference between men and women in network centrality. We did an analysis of covariance to test Hypothesis 4. Analysis of covariance assumes that the slope of the covariate by independent variable is the same for all levels of the independent variable (Scheffe, 1959). We tested for heterogeneity of slope by modeling perceived power against the covariate (network centrality), sex, and the product of sex and covariate. There was no significant difference in the centrality by sex relationship as a function of sex. We therefore proceeded with the analysis of covariance. The least squares mean of perceived power was significantly lower for women than for men, after adjusting for its common variance with network centrality. Thus, our Hypothesis 4 was supported.

To look at the relationship between value rankings and the other three variables (sex, centrality, and power), we used nonparametric tests since value system was measured using the ipsative (rank order) design (Siegel, 1956). We used the median score on network centrality (median = 19) as the basis to split the sample of respondents into two groups—those who were low on centrality, and those who were high on centrality. Similarly, we used the median score on perceived power (median = 2.5) as the basis to split the sample of respondents into two groups—those who were low on power, and those who were high on power. We thus had three pairs of groups—women and men, low and high network centrality, and low and high power. The differences in value rankings between the respondents in each pair of groups were analyzed. For each of the three pairs of groups, we looked at each value separately, and used the nonparametric Wilcoxon rank sum test (with normal approximation and continuity correction) to test for a statistically significant difference in value rankings between the two groups in a pair.

Table II reports the results of Wilcoxon tests for differences in terminal value rankings between (a) women and men, (b) individuals with low and high network centrality, and (c) individuals with low and high perceived power. Only those value rankings are
reported for which differences were significant at .10 level at least for one of the three comparison groups (sex, centrality, and power). Women gave relatively more importance to a world at peace than men did, and those who gave relatively more importance to a world at peace had high network centrality. Men gave more importance to social recognition than women did, and those who gave more importance to social recognition had low centrality. Similarly, women gave more importance to happiness than men did, and those who gave more importance to happiness were perceived to have less power. Hypothesis 5 obtained very little support in the case of terminal values since only one value (happiness) that was ranked high by women predicted perceived power negatively.

Table II
**Median Terminal Value Rankings and Wilcoxon Scores for Differences across the Sexes, Network Centrality, and Perceived Power**

<table>
<thead>
<tr>
<th>Value</th>
<th>Women</th>
<th>Men</th>
<th>Wilcoxon Z</th>
<th>Sex</th>
<th>Low</th>
<th>Centrality</th>
<th>Wilcoxon Z</th>
<th>High</th>
<th>Power</th>
<th>Wilcoxon Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>A comfortable life</td>
<td>7.0</td>
<td>8.5</td>
<td>-0.70</td>
<td>7.0</td>
<td>9.5</td>
<td>-2.12</td>
<td>7.0</td>
<td>9.0</td>
<td>-1.33</td>
<td></td>
</tr>
<tr>
<td>An exciting life</td>
<td>12.0</td>
<td>8.5</td>
<td>1.85†</td>
<td>9.0</td>
<td>10.5</td>
<td>-1.32</td>
<td>11.0</td>
<td>9.0</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>A sense of accomplishment</td>
<td>7.0</td>
<td>5.5</td>
<td>1.49</td>
<td>5.0</td>
<td>7.0</td>
<td>-1.96†</td>
<td>7.0</td>
<td>5.0</td>
<td>1.92</td>
<td></td>
</tr>
<tr>
<td>A world at peace</td>
<td>11.0</td>
<td>13.0</td>
<td>-1.85†</td>
<td>13.0</td>
<td>11.0</td>
<td>1.99*</td>
<td>12.0</td>
<td>13.0</td>
<td>-0.42</td>
<td></td>
</tr>
<tr>
<td>Family security</td>
<td>4.5</td>
<td>7.0</td>
<td>-2.40</td>
<td>6.0</td>
<td>5.0</td>
<td>1.55</td>
<td>5.0</td>
<td>6.0</td>
<td>-0.28</td>
<td></td>
</tr>
<tr>
<td>Freedom</td>
<td>6.5</td>
<td>5.0</td>
<td>0.84</td>
<td>5.0</td>
<td>6.0</td>
<td>-0.36</td>
<td>7.0</td>
<td>5.0</td>
<td>* 2.01</td>
<td></td>
</tr>
<tr>
<td>Happiness</td>
<td>4.0</td>
<td>7.5</td>
<td>-2.18</td>
<td>5.0</td>
<td>6.0</td>
<td>0.43</td>
<td>5.0</td>
<td>7.0</td>
<td>†1.74</td>
<td></td>
</tr>
<tr>
<td>Pleasure</td>
<td>13.0</td>
<td>12.5</td>
<td>-0.07†</td>
<td>11.0</td>
<td>14.5</td>
<td>-2.16†</td>
<td>14.0</td>
<td>12.0</td>
<td>0.92</td>
<td></td>
</tr>
<tr>
<td>Social recognition</td>
<td>11.0</td>
<td>8.0</td>
<td>2.10*</td>
<td>8.5</td>
<td>10.0</td>
<td>-2.07†</td>
<td>9.0</td>
<td>10.0</td>
<td>-1.09</td>
<td></td>
</tr>
<tr>
<td>True friendship</td>
<td>8.5</td>
<td>8.5</td>
<td>0.07</td>
<td>9.5</td>
<td>8.0</td>
<td>1.68†</td>
<td>8.0</td>
<td>9.0</td>
<td>-0.08</td>
<td></td>
</tr>
</tbody>
</table>

†=p<0.10. *=p<0.05.

Table III reports the results of Wilcoxon tests for differences in instrumental value rankings between (a) women and men, (b) individuals with low and high network centrality, and (c) individuals with low and high perceived power. Only those value rankings are reported for which differences were significant at .10 level at least for one of the three comparison groups (sex, centrality, and power). Women gave relatively more importance to being broadminded and loving than men did, and those who gave relatively more importance to being broadminded and loving had high network centrality. Similarly, men gave more importance to being imaginative than women did, and those who gave more importance to being imaginative were perceived to have more power. Hypothesis 5 did not obtain any support in the case of instrumental values.
Table III

<table>
<thead>
<tr>
<th>Value</th>
<th>Women</th>
<th>Sex</th>
<th>Wilcoxon</th>
<th>Low</th>
<th>High</th>
<th>Wilcoxon</th>
<th>Low</th>
<th>High</th>
<th>Wilcoxon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambitious</td>
<td>7.5</td>
<td>4.0</td>
<td>*2.47</td>
<td>5.5</td>
<td>6.0</td>
<td>-0.77</td>
<td>6.0</td>
<td>6.0</td>
<td>0.30</td>
</tr>
<tr>
<td>Broadminded</td>
<td>6.5</td>
<td>9.5</td>
<td>*-2.37</td>
<td>9.5</td>
<td>7.0</td>
<td>*2.06</td>
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<td>9.0</td>
<td>-1.44</td>
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<td>7.5</td>
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<td>14.5</td>
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<td>-0.32</td>
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<td>8.0</td>
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<td>**-3.12</td>
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<tr>
<td>Imaginative</td>
<td>14.0</td>
<td>10.0</td>
<td>†1.92</td>
<td>10.0</td>
<td>12.0</td>
<td>-0.98</td>
<td>14.0</td>
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<tr>
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<td>*2.52</td>
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<td>**2.60</td>
<td>12.0</td>
<td>11.0</td>
<td>-0.36</td>
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†=p<0.10. *=p<0.05. **=p<0.01.

Discussion

Network centrality is positively related to perceived power in the case of men, but there seems to be no such relationship in the case of women. There is also no difference in centrality between men and women. It is possible that while women may be central or focal in the communication network due to the nature of their job and the manner of work design, they will still lack power. Men have more power than women do, even though they are not higher on centrality than women are. Thus, power can stem from a number of structural and personal sources. It is possible to be low on one set of criteria and yet have power that is provided by another set of factors. Women who wish to increase their power should try to tap sources other than those based on informal communication network. The two kinds of structural positions that serve as a basis for the exercise of power are formal hierarchical level and informal network position (Brass & Burkhardt, 1993). The power associated with hierarchical level resides in the position, and not in the incumbent. Both superiors and subordinates recognize and accept the power of the position (Madison, Allen, Porter, Renwick, & Mayes, 1980). Because of the socially shared institutionalized nature of hierarchical position, it is one of the strongest sources of potential power and one of the most immutable structural constraints on power (Brass & Burkhardt, 1993). Women should therefore give more attention to acquiring more positional power. Pfeffer (1992: 125) cited the case of a female neurosurgeon who joined as an assistant professor and immediately ran for a place on the elected faculty senate. Besides trying to tap formal positions as a source of power, women could also build on their personal resources. For example, they could focus on enhancing their expert power.

Results suggest that value systems might have no effect on network centrality or perceived power. Value systems do not appear to mediate the relationship between sex and centrality or power. Further, while men give value rankings that are different from those given by women, any differences that exist do not account for women having less power than men do. In other words, value systems of men and women do not explain their predisposition or the lack of it to use power in organizations. This would mean that adherence to particular values does not determine the extent to which an individual will occupy a central position in the informal communication network. Centrality might be more dependent on factors like the nature of the job done and the opportunities that it provides for working with and controlling
resources that are needed by others in the organization. This would have greater bearing than value systems on the degree of centrality possessed by an individual.

**Limitations and Suggestions for Future**

The sample group consisted of customer service executives from two organizations. Traditionally, these jobs employ more women, especially for taking customer calls and queries. As such, the women working in these organizations interact much more with their female counterparts than they do with the male ones, who are invariably in senior, managerial or supervisor positions. Even the few men who are employed in such departments would interact more with women than with men as part of their job. The generalizability of the findings of this study could therefore be limited. The study may be replicated in an organization where the nature of the job does not favor the hiring of more female than male employees. The study has indicated that women do have less power than their male counterparts. However, it has not shown that the reason for this lack of power can be ascribed to value systems. Future research could look at other causes of power in addition to gender, value systems, and centrality. A single-item measure was used in this study for capturing perceived power. When assessing a person’s power in the organization, it is preferable to study a host of indicators rather than focusing on just a few factors. Limiting one’s scope could result in missing the larger picture. Pfeffer (1992) recommended the use of multiple indicators to assess the amount of power of an individual.

**Conclusion**

This study provides preliminary evidence for women having less power than men have in organizations, even though this cannot be attributed to their differing value systems or differences in network centrality. Women may have values that are different from men, but this does not determine the degree to which they would be perceived as having power. Moreover, centrality is positively related to power only in the case of men. Thus, the study establishes that while women do have less power than men do in organizations, they must not concentrate too much on their network centrality as this might or might not lead to their having more power. Attempts to enhance power of women need to focus less on network centrality and more on formal hierarchical level and some personal aspects of power.
References


