

# Effects of Social Networks on Leader Behavior Preference

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## Abstract:

In its widest interpretation, leadership is recognized as influence of behavior towards a desired end. A large stream of research is devoted to making a distinction between leader's focus on building their relationships with followers and their focus on organizing task details to help their followers to get things done. The behaviors that support each of these approaches are labeled "consideration" and "initiating task structure", respectively (Littrell, 2008).

There have been extensive studies (Judge et al., 2004 for a meta-analysis) on the consequences of either leadership behavior cluster. However, the intersection between network structure and leadership behavior preferences is relatively unexplored (Dally and Molenaar, in press). This study aims to answer the primary research question whether the followers' network parameters affects their preference for consideration versus initiation of tasks.

Several characteristics of an individual's network can be expected to affect their leadership preferences. These characteristics are degree centrality (i.e. number of close ties they have within their network), density (i.e. ratio of actual connections in a network to all possible connections) and structural holes (i.e. an individual's level of access to connections with unique information). In brief, I hypothesize that:

Hypothesis 1: Higher degree centrality correlates with a preference for consideration;

Hypothesis 2: Higher density correlates with a preference for consideration, whereas

Hypothesis 3: Higher structural holes correlates with a preference for initiating task structure.

Data collected from 437 white collar professionals, using Leader Behavior Description Questionnaire (LBDQ-XII) and ego-network surveys, are used to test these hypotheses and discuss the consequences.

## Introduction

Leadership is a topic that captured much interest from researchers and business practitioners alike. Yet to date the topic remains elusive. In terms of defining the concept, there have been numerous attempts without a unifying end (Cyert, 2006). However, there seems to be several common themes in all definitions: determinance of a goal and influence of others towards the goal (Bass and Stogdill, 1990). Based on these commonalities, leadership can be defined as

“...one or more people who selects, equips, trains, and influences one or more follower(s) ... and focuses the follower(s) to the organization’s mission and objectives causing the follower(s) to willingly and enthusiastically expend spiritual, emotional, and physical energy in a concerted coordinated effort to achieve the organizational mission and objectives. (Winston and Patterson, 2006:pp.6)”

One of the dominant schools of thought in leadership focuses on the behavior of leaders in their dyadic relationship with their followers (Mann, 2013). The behaviors that are of particular concern to the effectiveness of the leader are task oriented (organizing) and relationship oriented (interpersonal) behaviors (Stogdill and Coons, 1957). These two dimensions were pronounced within a series of research studies done by Ohio School of Management in mid-50s. In the following decades, there were numerous studies searching for ways to measure and classify leaders’ behavior.

In the widely accepted and used version of the relevant measurement instrument, Leader Behavior Description Questionnaire XII, there are twelve categories of behaviors that are measured. These can be listed as follows:

1. Representation – speaks and acts on behalf of the followers.
2. Demand Reconciliation – acts to settle conflicts and arrangement of resources.
3. Tolerance of Uncertainty tolerates uncertainty without anxiety.
4. Persuasiveness – uses arguments effectively
5. Initiation of Structure –defines relevant roles and clarifies expectations
6. Tolerance and Freedom –encourages initiative
7. Role Assumption – actively assumes the leadership role
8. Consideration – looks out for the well being of followers
9. Production Emphasis – stresses production
10. Predictive Accuracy – displays foresight
11. Integration – maintains a closely knit organization
12. Superior Orientation – maintains effective relations with superiors

There has been a host of studies that look at the relationship between these behavior clusters and other concepts. For instance, Mermon (2012), considers leadership behaviors’ effects on employee performance. Fisher and Edwards (1988) look at the same relationship with a meta-analysis and discover combining high levels of consideration with high levels of initiating structure results into higher employee performance and higher employee satisfaction. To date, LBDQ remains one of the most widely used conceptualization and operationalization of leadership concept (Derue et al., 2011).

Some setting related variables also caught interest of researchers looking into leader behavior. Cann and Sigfried (1990), analyzed gender effects on perceptions of leader behaviors. Litrell (2002) analyzes if cultural values of followers affect their preference in terms of an ideal leader.

One such issue to consider is the network structures. In a person's network, structure is the pattern of relationships between the "actors" (i.e. individual persons) (Phelps, 2010). Ego-network is composed of a focal person, their direct connections and the connections (if any) among them. Every person's connections form a unique network with unique qualities.

Social networks literature considers relationship between these qualities and various phenomena. There is considerable work done on the association between leadership and social networks (Hoppe and Reinhelt, 2010). However, most of these studies focus on the structure and characteristics of the leaders' networks (Balkundi and Kilduff, 2006).

In this study, we look at the structural characteristics of the followers' networks and analyze the effects of these on expectations from their leaders.

### **Model**

Several characteristics of an individual's network can be expected to affect their leadership preferences. These characteristics are degree centrality (i.e. number of close ties they have within their network), density (i.e. ratio of actual connections in a network to all possible connections) and structural holes (i.e. an individual's level of access to connections with unique information).

Centrality is a construct that indicates the extent to which the individual occupies an important and central position in a network. Degree centrality is the raw measure of total number of direct relationships that the individual builds. People with high degree centrality are active members of their network. As such, their number of relationships that they maintain in the network is high. Individuals that occupy these positions tend to be more relationship oriented. Hence our first hypothesis follows:

*Hypothesis 1: Higher degree centrality positively correlates with a preference for consideration.*

Density of a network indicates the proportion of actual ties to all possible ties (Burt, 2005). As such, the higher an individuals' network density, the more connections there are in their network (i.e. most of the people they know have ties to each other independent of the focal individual). Networks with high density suggest there are information redundancies in a network. Preference for such a network signals a preference for close-knit organization and a leader that emphasizes consideration above all. Thus,

*Hypothesis 2: Higher network density positively correlates with a preference for consideration.*

Structural holes are opportunities for people to broker connections between two separate parts of their network (Burt, 2005). Having a network rich in structural holes signifies a tendency to have internal locus of control and high need for affiliation (Northouse, 2006). As such, initiating and focusing on the task structure is not a preference for these individuals. Hypothesis 3 follows:

*Hypothesis 3: Higher structural holes negatively correlates with a preference for initiating task structure.*

## **Methods and Results**

Data was collected through surveys of professionals working full time in medium to large organizations in a large metropolitan area. After signing an information and consent form, the participants were given a survey, which included Leader Behavior Description Questionnaire (LBDQ) XII (Littrell and Valentin, 2005) and ego network survey.

UCINET software was used to calculate network measures. Degree centralization is the number of connections that an individual has. Density was operationalized as the number of connections in the ego network divided by the number of all possible connections (i.e. # of alters \* (# of alters – 1)/2) (Wasserman and Faust, 1994). Structural Holes, on the other hand, was calculated as Burt (1992)'s effective size (i.e. the number of alters minus the average degree of alters within the ego network, not counting ties to ego).

Regression analysis was used to test the hypotheses (utilizing SPSS) in a preliminary sample of 56 participants. Hypotheses 1 and 2 is supported ( $p < 0.01$ ). Hypothesis 3 failed to yield significant results, though the direction of the relationship was as expected.

## **Discussion and Future Studies**

Ohio Leadership studies describe leadership as a combination of distinct set of behaviors. Two main dimensions are seen as initiation of structure (task focused behavior) and consideration (relationship focused behavior). When we take these two dimensions, we see in this study that followers' networking style affects their evaluation of their leader.

Specifically, individuals with higher number of connections and denser networks prefer a leader that prioritizes relationship focused behaviors. As the networking style of individuals can be determined beforehand, this could be used as a tool for applying appropriate influence behavior for leaders.

As a next step, LBDQ should be taken as a 12 dimension leadership behavior model and association between network measures and these distinct dimensions should be analyzed.

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