

**What Makes You Think You're So Popular? Self-Evaluation Maintenance and the Subjective Side of the "Friendship Paradox"**

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This semester Kenyon has experienced a social phenomenon. It is not unlike most social networks found in colleges and universities, but it has reached a whole new level. It is the facebook phenomenon. For those who are unfamiliar with Kenyon's facebook, heaven forbid, it is an internet system where students in addition to posting all sorts of personal information and interests can connect to other Kenyon students by either accepting or inviting Facebook friends. This social network is very similar to that which research was conducted on by Ezra Zuckerman and John Jost at the University of Chicago published in the article, *What makes you think you're so popular? Self-evaluation maintenance and the subjective side of the friendship paradox.*

Zuckerman and Jost designed an evaluation given to six-hundred and thirty-six students who responded after taking part in a larger Quality of Life Survey in 1995 composed of 1,005 students (SRS) out of the total student population of 3430. The purpose of the evaluation was to attempt to better understand how objective patterns of "interpersonal contact" interact with "cognitive and motivational tendencies to shape perceptions of one's location in the social world (Zuckerman 207)."

Three main social theories were used to formulate and evaluate survey data: the Lake Wobegon Effect, Tesser's "self evaluation maintenance model," and Feld's "friendship paradox." Very briefly, the Lake Wobegon Effect, named for Garrison Keillor's fictional town where (like Gambier) "the women are strong, the men are good-

looking, and all the children are above average,” describes the tendency of an “overwhelming majority” who perceive themselves as “better than average” regardless of whether or not they actually are (Zuckerman 207). According to the Lake Wobegon effect, students evaluated would perceive themselves as more popular than they actually are. Tesser’s “self-evaluation maintenance model explains the tendency for people to feel more threatened by the success of friends than of strangers (Zuckerman 207). It could be observed in the data as a higher perception of personal popularity when compared to friends than when compared with strangers. Finally, Feld’s “friendship paradox” states that most people have fewer friends than their own friends have and that this is a mathematical consequence of popular people participating in more social circles than less popular people (Zuckerman 210). Zuckerman and Jost evaluated the actual objective popularity of the students (which is mostly less than their friends) to see if the student’s actual popularity in relation to friends influenced their perspective of their own popularity.

Personal interviews with each of the 636 respondents took place over three months and each respondent was asked four questions. To determine the student’s “actual popularity” data from the first two questions was used to create a social network data matrix (Question 1: List up to seven undergraduate students with whom you currently spend the most time. These should be people with whom you choose to spend time although the time itself may be spent doing anything, Question 2: Please think of an undergraduate you know personally whom you guess has more friends than anyone else you know). Respondents could nominate students who were non-respondents. An estimation of actual friend count was made by multiplying the number of friends

(nominations received) by an inverse sample proportion (population size / sample size).

The second set of questions was used to determine perceived popularity by comparing self with friends and with “typical other” (Question 3: On average, do you think you have many more, more, as many, fewer, or many fewer friends than the people you listed [in response to question 2], Question 4: Do you think that you have many more, more as many, fewer, or many fewer friends than the typical University of Chicago student?).

The first data analysis tested whether the theory of the “friendship paradox,” that the number of friends a person has is less than the mean number of friends’ friends, can be confirmed. Zuckerman and Jost used a sign-rank test, or Wilcoxon test. They found that 54% of respondents had fewer friends than their friends whereas 39% of the respondents had more friends than their friends ( $z=3.86$ ,  $p<.001$ ). Similarly, testing the same theory but comparing respondents with their friends and the mean number of “most friends” nominations received, 68% of respondents had fewer nominations than their friends’ mean nominations and only 17% of respondents had more ( $z=9.98$ ,  $p<.001$ ). Feld’s “friendship paradox,” Zuckerman and Jost concluded, is applicable to the data.

In questions three and four students ranked their relative popularity in terms of comparative number of friends with others and with one’s own friends. Zuckerman and Jost compared the differences in perception using two separate t-tests. The test comparing perceived numbers of friends between self and others replicated the Lake Wobegon effect where people tend to perceive themselves better than others, in this case in terms of numbers of friends ( $t=4.48$ ,  $df=629$ ,  $p<.001$ ). The difference in the perception of relative number of friends using friends as the point of comparison was also significant

( $t=8.87$ ,  $df=623$ ,  $p\leq.001$ ). Student respondents evaluated their personal popularity higher than their friends' popularity.

Next a comparison between the likelihood of reporting more friends than others and the likelihood of reporting more friends than one's own friends was made using a paired t-test. The differences between comparisons were statistically significant and are consistent with Tesser's model that students tend to report a higher friendship count than others, but that the reported friendship count is even higher when the respondent's friends are the point of comparison ( $t=4.135$ ,  $df=622$ ,  $p<.001$ ).

Zuckerman and Jost found the respondent population to be slightly more popular than nonrespondents where the mean number of friendship nominations received for respondents is 1.15 and for nonrespondents is .92. The difference is significant (Mann-Whitney  $Z=3.421$ ,  $p<.001$ ). Having a "more popular" population explains why respondents may see themselves as more popular than the typical student, but it does not explain why students' tended to report more friendship nominations than one's own friends. Zuckerman explained that this reinforces their conclusions. Zuckerman also noted that ambiguous wording in question 4 in terms of whether a student interpreted "typical" as mean or median could effect students' descriptions of themselves. The ambiguity was noted but was not a point of concern.

After Zuckerman and Jost showed that social-cognitive biases influence self versus other comparisons using perceptions of relative popularity they looked at the relationship between variables that influence actual popularity with the respondent's perceptions of relative popularity.

Descriptive statistics were applied to five variables for analysis: 1) number of friendship nominations made, 2) number of friendship nominations received, 3) number of “most friends” nominations received, 4) mean number of friendship nominations received by friendship nominees and 5) mean number of friendship nominations received by “most friends” nominees. The variables are not regarded as unbiased but are considered useful nonetheless. Finally, three different repeated-measures regression models (including self versus friends and self versus “typical other” comparisons regressed with the five factors analyzed with descriptive statistics) were used to determine the influence of actual popularity on perceived popularity. Model one was based on friendship nominations variables, model two was based on “most friends” nominations variables, and model three was based on both friendship and “most friends” variables.

The regressions revealed that several factors may contribute to self perception of high popularity. Using Model one a correlation is found between the number of nominations made and a high popularity perception between self and “typical others” ( $R^2 = .217$ ). It is more difficult to make a similar comparison between self and friends ( $R^2 = .084$ ). Additionally, one would expect a negative effect of self perception when one’s friendship nominees received high numbers of nominations, but no negative effect was found or any effect at all ( $R^2_{\text{others}} = .092$ ,  $R^2_{\text{friends}} = .151$ ). Note that all of the regressions listed in Table 3 and in this text were adjusted using an F-test.

Model two found that the more “most friends” nominations a respondent made and received, the more likely that person was to have a high self perception of popularity ( $R^2_{\text{nominations made}} = .292$ ,  $R^2_{\text{nominations received}} = .359$ ), but like Model one this was true

between self and “typical others” comparisons only and not for self versus friends

( $R^2_{\text{made}} = .151$ ,  $R^2_{\text{received}} = .052$ ).

Model three, a combination of friendship and “most friends” nominations, continues the pattern of the first two models where a stronger comparison exists between perceived popularity with “typical others” than with self versus friends. Also, using Model three one can see that students are significantly more likely to say they have more friends than the “typical other” when their “most friends” nominations are popular ( $R^2 = .342$ ). The self versus friend comparisons have no significant effect ( $t = 1.50$ , NS). This supports BIRG (bask in reflected glory) or “reflection” theory that people have a tendency to subjectively take on the attributes of others with whom he or she identifies (Zuckerman 209).

This experiment is an attempt to understand the seemingly contradictory patterns of popularity self perception supports three distinct social network theories: “friendship paradox,” the Lake Wobegon Effect, and Tesser’s model. Zuckerman and Jost concluded that they clarified how both objective and subjective motivations shape one’s perception of his or her location in the social world. I think that the results can be applied to Kenyon’s facebook phenomenon. Students seem to list as many friends as possible (even when they admit to only being acquaintances), and the tendency to invite many friends is reinforced with the ability to view anyone else’s “friends list” with a simple mouse click. It seems that Tesser’s model plays into this significantly, but this is only a hunch. A carefully planned experiment would have to be carried out to know with more confidence.

In terms of the article, I have few criticisms. I think the experiment was run as accurately as possible, although an increased sample size would yield increasingly accurate results. Zuckman and Jost were very aware of the limitations within their experiment and noted them along the way including potential biases within in the respondent population and in the wording of the interview questions. They also factored the limitations into their interpretation of the results. My primary concern with the paper is two separate labeling mistakes. One is the comparison labels are switched in Table 1. The second is the inconsistency in the numeric labels of responses to questions three and four. Otherwise, the paper was a thorough and fascinating evaluation of the self perception of popularity.