

The Jones Effect: Quantifying the Effect of Social Norms on Satisfaction

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Practicing marketers have long known that the consumption patterns of one person can influence the consumption patterns of his neighbors. This behavior is so well established in the popular culture it even has an idiom, "Keeping up with the Joneses." However, little research has been conducted to determine the impact of other's behavior on one's satisfaction. In an empirical study of citizen satisfaction with the Missouri Department of Transportation, the "Jones Effect" was shown to explain 15.2% of citizen satisfaction. Other elements of satisfaction were also identified in this research. This research sheds new light on elements of satisfaction and provides general recommendations for managing satisfaction.

Field of Research: Satisfaction, Social Norms, Transportation

1. Introduction

The goal of this research was to determine if the theoretical impact of social influence, known in this paper as the Jones Effect, on consumer satisfaction truly existed. If so, a secondary goal of this research was to quantify the Jones Effect in a particular situation. Satisfaction with the performance of a state department of transportation was analyzed to test the existence and magnitude of the Jones Effect in one situation. General recommendations for managing satisfaction are also provided based upon the findings of this research.

The paper is organized by first reviewing the etymology of *Keeping up with the Joneses* and summarizing the theoretical background of social influence and evoked sets. Then the methodology is discussed along with the findings of this study. The document concludes with a summary of the research and suggests directions for future research.

2. Literature Review

2.1 Etymology

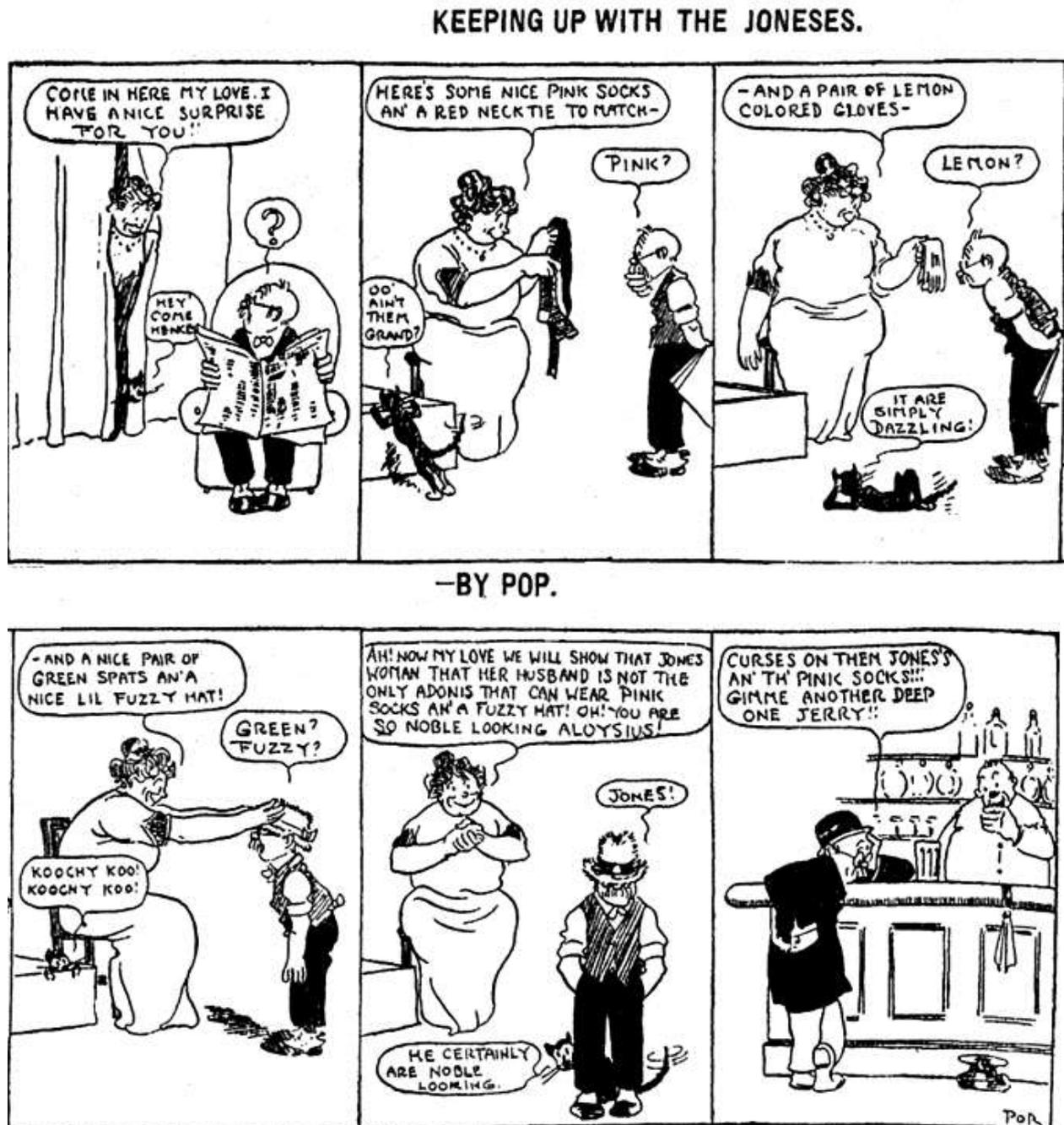
The etymology of the idiomatical expression *Keeping up with the Joneses* is unclear. William Safire (1998) thought the phrase originated in E.J. Simmons' 1879 *Memoirs of a Station Master*, a book about the author's experience on the Great Western Railway in the 1850s. It is known that the idiom became widely used after the publication of an early twentieth-century American comic strip with the same name.

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Comic strip historians Allan Holtz and Alex Jay (2011) record that Arthur Ragland "Pop" Momand published the first strip of the *Keeping Up with the Joneses* newspaper comic in March or April 1913 in papers such as the *New York Globe* and the *World-Herald*. The strip revolves around the McGinnis family. The wife is obsessed with high society and consumer fashion and constantly buys consumer items for her husband to keep up with their neighbors, the Jones family.

Figure 1: Early Example of *Keeping Up with the Joneses* Newspaper Strip



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2.2 Theoretical Background: Social Influence and Evoked Sets

Decades after Pop's comic strip, researchers started measuring the power of social influence. Crutchfield's experiments (1955) indicated that individuals *may be led to accept the superiority of the group judgment on matters where there is an objective frame of reference against which a group can be checked. But he does not, thereby, automatically accept the authority of the group on matters of a less objective sort.* However, exactly how does social influence affect consumption and satisfaction?

Financial and economic researchers have developed models to quantify the impact of envy, idiomatically known as *keeping up with the Joneses*, on consumption. Abel (1990, 1999) modeled this impact by theorizing that the personal utility of consumption depended on the consumer's personal consumption along with previous per capita consumption, thus assuming that the average purchases of society (the Joneses) set expectations that influenced the value individual consumers place on consumption. Gali (1994) built upon Abel's 1990 theory, but advocated that the contemporaneous per capita consumption provided a better fitting model than utilizing lagged per capita purchases. In other words, Abel's theory was that consumers were motivated to catch up to the Joneses while Gali's theory modeled the more traditional keeping up with the Joneses. Economists have even used the catching/keeping up with the Joneses concept to recommend tax policy (Ljungqvist and Uhlig, 2000; Guo, 2003).

More recently, marketing researchers have determined that the food consumption of others influence the consumption choices of individuals, although this anchoring influence is moderated by the body type of the other (McFerran et al, 2010). Croson et al (2009) developed and tested several models that measured the impact of perceived descriptive social norms on giving. Respondents who believed the average donation to be high were more likely to give more money than those who believed the average donation to be low. In two different experiments, Croson et al determined that the desire to donate as much as the Joneses explained between 7% and 9% of their contribution (another experiment did not do so well, but the authors believed that was due to inherent methodology problems). In related research, Shang and Croson (2009) found that social information increased average contributions between 10 and 30 percent.

Gentry and Kalliny's conceptual definition of loyalty (2008) may also help us determine how the hypothetical Jones Effect would work in practice. *Loyalty is a dynamic, favorable bias for a construct, **which is always evoked for a relevant selection** by a decision-maker; and a preferred construct will usually be selected over non-preferred alternatives in ceteris paribus situations* [bold emphasis added]. As others have pointed out (c.f., Gentry and Kalliny, 2008; Howard and Sheth, 1969), considering alternatives has a great influence upon consumer behavior. It is likely that the elements within the evoked set also influences attitudes toward each item in the evoked set.

Marketing researchers have defined satisfaction as meeting or exceeding expectations (Rust and Oliver, 1994). Since social norms (Crutchfield, 1955; Fishbein & Ajzen, 1975; McFerran et al, 2010) and evoked sets (Gentry and Kalliny, 2008; Howard and Sheth, 1969) are known to influence behavior, and economic theory shows consumers are motivated to keep up with the Joneses (Abel, 1990;

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Gali, 1994), it is reasonable to assume that social beliefs about goods and services available to others will influence consumer satisfaction with local products.

Thus, the general research hypothesis for this study is:

If the Jones Effect exists, then beliefs about goods and services available to others will influence consumer satisfaction with locally available goods and services.

Specifically, if people believe their local goods and services are superior to those available to others, then they will be more satisfied with them. Likewise, if people believe that their local goods and services are inferior to those available to others, then they will be less satisfied with them.

3. Methodology and Data

The author became aware that a particular district within the state of Missouri had satisfaction scores that ranged between 10% and 20% lower than the other districts in surveys conducted by the Missouri Department of Transportation (MoDOT). Since this Missouri district bordered Kansas, which was widely perceived as having superior roads, the author thought that the Jones Effect may have been partially responsible for relatively lower satisfaction scores.

The author proposed a research study to investigate why this district had lower satisfaction scores. The primary study hypothesis was that citizen beliefs about the quality of Kansas bridges and roads will influence their satisfaction with the work MoDOT was doing in their local district.

H1: *If the Jones Effect exists, citizen beliefs about the quality of Kansas bridges and roads will influence their satisfaction with the work MoDOT was doing in their local district. This effect will have an inverse relationship. If citizens believe that the quality of Kansas bridges and roads are superior to those in their district, their satisfaction with the work MoDOT was doing in their local district will be negatively influenced.*

MoDOT agreed with the study and also wanted to test two additional hypotheses of their own.

H2: *Citizens' satisfaction with how MoDOT selects which projects get built will affect citizens' overall satisfaction with the work MoDOT was doing in their local district.*

H3: *Citizens' satisfaction with the total time it takes to finish a construction project will affect citizens' overall satisfaction with the work MoDOT was doing in their local district.*

With the help of the Missouri Department of Transportation a survey instrument was designed. As part of the design and validation process, five focus groups were conducted in various settings (two rural groups, one suburban group, two urban groups – one of which was an Inner City group).

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While the personalities of the five groups were quite distinct from each other excepting a great similarity between the two rural groups, two points were almost universal among all five focus groups.

- Almost every person thought Kansas roads were better than Missouri roads. The few who did not hold this opinion did not disagree with it, they just were not familiar with Kansas roads.
- Very few people understood which roads were the responsibility of MoDOT and which roads were not. Many people thought MoDOT was responsible for all roads in Missouri.

This research also identified other factors that potentially affected how satisfied Kansas City area district residents were with MoDOT. These factors include a perception that MoDOT initiated too many simultaneous projects in close proximity, changes in area road quality, and how the media portrayed MoDOT. In addition, the inner city group had some unique factors that could be influencing how satisfied they were with MoDOT.

Once the survey questions were finalized, the use of mailed surveys was determined to be the best method for obtaining representative results from the Kansas City area district. At the time, neither online surveys nor telephone surveys were representative of the general population. While Kansas City was one of the most connected cities in America, at best two-thirds of their households had internet access and this may have been below half of households in the district's rural communities. With the growing popularity of both the national Do Not Call list and the cell-phone only households, telephone surveys grow less representative every year (at that time over 2.5 million Missouri phone numbers were on the DNC list and approximately 13% of American households were cell-phone only and thus much less likely to participate in phone surveys). Mailed surveys do not have any of these problems, although they share the common problem of requiring a representative list of possible respondents.

When conducting similar research in other states, a common practice is to purchase a mailing list of State IDs (e.g., driver licenses and other ID) from the appropriate state agency. While this is permitted under federal law, Missouri law prohibited this practice, even for use by another state department. The author then investigated commissioning list brokers. While these businesses could provide a representative sample for each county, or large metropolitan area, they had major gaps in their zip code coverage, especially among rural communities.

The author then contacted the State of Missouri's election office. The laws regarding the list of registered voters are protective, but not as much as those protecting that of driver licenses. The author discussed the project with one of their agents and the agent agreed that this project met the letter and spirit of the restrictions so long as the researcher did not put any contact information in any report nor share the contents of the list in any way. The list of registered voters was purchased and it was, by far, the most representative list that could have obtained. At that time, there were approximately 4.45 million adults in Missouri. Slightly over 88% of these adults were in the purchased list of registered voters.

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For most zip codes, a random selection of 150 names was selected for the surveys after cleaning up the list by eliminating those names that did not have complete mailing addresses. When there were multiple cities per zip code, a sample of 150 names was selected for each city. Sometimes 150 names were not available (for example, some of the towns had populations of less than 150 people); in these cases everyone listed from the town was sent a survey.

20,129 questionnaires were mailed. The gross response rate of completed questionnaires was 13.5%. The overall margin of error for this survey was below 2% (1.92% for the 2,715 responses).

Researchers vary on whether or not “no opinion” answers should be explicitly included in surveys (c.f., Fenichel et al, 2009; Kronsnick et al, 2002) and further disagree on how to handle such responses (Wang, 1997). The author agreed with the reasoning that including a no opinion option reduced the pressure on respondents who had no true opinions on the issue and a “no opinion” option was included. Results are presented both with and without the “no opinion” option.

How satisfied are you with the job that the Missouri Department of Transportation is doing? Would you say you are very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied with MoDOT?

	Including Responses with “No Opinion”	Excluding Responses with “No Opinion”
Very Satisfied	12.6%	14.5%
Somewhat Satisfied	41.6%	47.9%
Somewhat Dissatisfied	18.2%	20.9%
Very Dissatisfied	14.5%	16.7%
No Opinion	13.1%	n/a

How do you think Missouri’s roads and bridges compare with those in Kansas? Would you say Missouri’s roads and bridges are much better, somewhat better, the same, somewhat worse, or much worse than the roads and bridges in Kansas?

	Including Responses with “No Opinion”	Excluding Responses with “No Opinion”
Much Better	2.5%	3.6%
Somewhat Better	4.7%	6.7%
The Same	10.0%	14.3%
Somewhat Worse	27.1%	38.8%
Much Worse	25.6%	36.7%
No Opinion	30.2%	n/a

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How satisfied are you with how MoDOT selects which projects get built? Would you say you are very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied with MoDOT?

	Including Responses with "No Opinion"	Excluding Responses with "No Opinion"
Very Satisfied	1.6%	2.3%
Somewhat Satisfied	28.7%	41.3%
Somewhat Dissatisfied	26.3%	37.9%
Very Dissatisfied	12.8%	18.4%
No Opinion	30.7%	n/a

How satisfied are you with the total time it takes to finish a construction project? Would you say you are very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied with MoDOT?

	Including Responses with "No Opinion"	Excluding Responses with "No Opinion"
Very Satisfied	4.8%	5.0%
Somewhat Satisfied	50.0%	52.1%
Somewhat Dissatisfied	30.3%	31.5%
Very Dissatisfied	10.9%	11.3%
No Opinion	4.1%	n/a

4. Quantitative Findings/Discussion

Many correlations were found between these factors and overall satisfaction. Evidence was found to support all three hypotheses. A regression analysis was performed and the three factors were found to explain 30.4% of the respondents overall satisfaction (or dissatisfaction) with the work MoDOT was doing in the Kansas City area district. This research shows that these factors have an enormous influence over citizen satisfaction. The Jones Effect alone, which explains 15.2% of citizen satisfaction with MoDOT in this district, could account for much or all of the historical difference between the Kansas City area district and the other MoDOT districts, assuming most or all of the other districts do not also have a state comparison problem. Another 15.2% of the variance in citizen satisfaction was explained by respondents' satisfaction with how MoDOT selects which projects get built (10.2%) and satisfaction with the total time it takes to finish a construction project (5.0%).

Table 1: Summary of Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
(H1) Jones Effect	.390(a)	.152	.152	.449
(H2) Satisfaction with how MoDOT selects which projects get built	.504(b)	.254	.254	.421
(H3) Satisfaction with total time to finish a construction project	.552(c)	.305	.304	.407

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- a Predictors: (Constant), Jones Effect
- b Predictors: (Constant), Jones Effect, Project Selection
- c Predictors: (Constant), Jones Effect, Project Selection, Completion Time

In accordance with theoretical expectations, these findings show that the Jones Effect is a significant issue in local satisfaction. In addition to providing a quality product, marketers must be aware of consumer expectations and manage these expectations. In this particular case, the majority of citizens in MoDOT's Kansas City area district believed that Kansas bridges and roads were better than those in Missouri and this influenced their satisfaction with MoDOT. If MoDOT wishes to raise citizen satisfaction with MoDOT, they will need to either persuade people that Missouri roads and bridges are equal or superior to those in Kansas or otherwise make Missourians happy even if they perceive their roads to be of lower quality to those in Kansas (for example, if it turned out that Missourians paid much less for their highway infrastructure, that might compensate for the perceived quality gap).

5. Conclusions/Limitations

It is probable that the size of the Jones Effect varies greatly with the situation. The theoretical underpinnings of the Jones Effect are that the more people's expectations are raised by others (i.e., the social norm), the greater the potential effect. This effect should go in both directions. For example, let us hypothetically say that the highways in Illinois are perceived to be worse than those in Missouri (just as Kansas is on Missouri's western border, Illinois is on Missouri's eastern border). In this theoretical case, we would assume that Missouri residents near St. Louis (a Missouri City bordering Illinois) would have higher satisfaction with MoDOT so long as they believed Missouri roads were better than those in Illinois just as the Kansas City area residents have lower satisfaction with MoDOT because they believe Missouri roads are poorer than those in Kansas.

This research supports the importance of managing expectations as this will influence overall satisfaction. In competitive situations, managers should strive to set expectations high enough that consumers will purchase their products, but not so high that the consumption experience falls short of the expectations as this gap will result in overall dissatisfaction.

A limitation of this finding is that the Jones Effect has just been quantified in one specific case. The impact of social norms on satisfaction should be measured in multiple locations in multiple industries to start understanding the importance of social influence on satisfaction in various contexts.

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