Dear Readers,

We are proud to present the inaugural volume of the Western Sierra Journal of Psychology.

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Submissions to Volume 1 of the Journal were all provided by students from Western Sierra Collegiate Academy. All works are subject to an anonymous peer review process, and the views expressed within them are representative of the views of the authors, not Western Sierra Collegiate Academy or the collective staff of the Journal.

This volume of the Journal is our alumni issue, as the majority of its submissions were authored by Western Sierra alumni.

We would like to thank our teacher and advisor, Ms. Kelly Samuelson, for her support in launching this project.

Sincerely,
Staff of the Western Sierra Journal of Psychology

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# Table of Contents

**The Effect of Menstrual Cycles on Teenage Girl’s Perception of Men’s Facial Hair**

*By Leenah Bassouni*  
*Pg. 4*

**The Effect of Gender on the Number of Individuals Found Grocery Shopping**

*By Olivia Brophy*  
*Pg. 8*

**Do Males or Females Have More of a Tendency to Obey Rules?**

*By Samantha Nicolas*  
*Pg. 13*

**The Effect of Age on Door-Holding Etiquette**

*By Leila Doty*  
*Pg. 17*

**Male v. Female Speech Dominance**

*By Sean Nadeau*  
*Pg. 21*

**Group Influence on Positive Social Behavior**

*By Diana Terrin Spray*  
*Pg. 25*
The Effect of Menstrual Cycles on Teenage Girl's Perception of Men’s Facial Hair
Leenah Bassouni

The human race’s perception of one another is at times completely engrossed with initial judgements ranging from attractiveness to trustworthiness. In the specific category of a female’s perception regarding her attraction to males, often times facial hair can be a key characteristic that determines a male’s socio-sexual status to the female sex. Attraction and the search for an ideal mate is influenced by a range of factors including a woman’s fertility phase, as well as societal standards. A multitude of studies have been conducted in an effort to understand the complexities of female attraction and its relation to our animalistic desires of reproduction. Concerning the female perception of males and their varying facial hair, studies have been conducted in order to assess the influence of a woman’s fertility and their impression of the attractiveness of men.

During ovulation, women are more likely to desire masculine traits of men. (Barnaby, 2012, p. 1), (Penton-Voak & Perrett, 2000; Johnston et al., 2001). Facial hair is considered masculine, thereby an increase in perceived attractiveness is predicted in comparison to a man with no facial hair. In contrast, while a woman is during an infertile phase of her menstrual cycle she is more likely to find a clean-shaven face more attractive as it is less linked to the aggression of a beard. Although masculine traits are often associated with good health and better genes, these traits are also associated with lower commitment to long term relationships and lower relationship investment (Fink & Penton- Voak, 2002; Thornhill & Gangestad, 2006). Men who have lower facial masculinity are associated with higher relationship investment. These factors heavily
influence perceived attractiveness. On average, women tend to prefer men with lower masculine features, but when judging attractiveness in regards to short term relationships, or when they are in the most fertile part of their menstrual cycle they do prefer men with more masculine features (Barnaby & Brooks, 2013).

Methods
The participants for this study were N= 50 teenage girls ranging from 13-19 years old, all located on the Western Sierra Collegiate Academy campus. Participants were recruited randomly, and signed a written consent form. They were not initially given any information on the experimental purpose. In order to participate the teenagers’ sexuality must include attraction to men and they must have started their menstrual cycle.

Data was collected anonymously. 26% of participants were on their period, the other 74% were not. 54% identified as solely white; 12% as Asian; 10% Hispanic/Latino; 4% White and Asian; 6% Hispanic/Latino and White; 4% Hispanic/Latino and Asian; 4% Black or African American; and 2% identified as Other.

Materials by utilizing a survey with basic factual questions we gathered information regarding the participant’s age, race, cycle phase, and sexuality.

Following the basic questions, researchers had the participants rate a series of 34 pictures based on the their perceived attractiveness. There were a total of 17 pictured men with two photos of them; one with a beard and without. None of the paired pictures of the same individual were placed back to back. Many of the beards were of varying level. The girls were asked to rate the men from a scale of 0-5 (0 being unattractive and 5 extremely attractive). The questions and rating system were based off a similar study in which women were asked to rate a variety of men in an effort to determine the effects of beard on the perception of said person’s characteristics.

Design
The study utilized correlation through the analysis of variables. The predictor variables being menstrual cycle (on period vs. off period) and the dependent variable was the change in perceived attractiveness of the men shown to the female teenagers. After running several T-tests, the experimenter attempted to find a statistical relationship between being on or off your period and how it affected an individual’s perceived attractiveness of bearded or un-bearded men.

In addition to the phase in the participant’s menstrual cycle, other factors including race, age, and sexual orientation were analyzed. Participants answered a basic factual questionnaire followed by rating the perceived attractiveness of 34 pictures of men. Each man was pictured with and without a beard (only 17 men were used). Data was collected during a two week period of willingly participating female teenagers at Western Sierra Collegiate Academy during different times of the day. All data collected was facilitated through female researchers.

Results
The study hypothesized that women who were on their period would give men with no facial hair higher scores compared to men with facial hair, while women off their period would find men with facial hair more attractive than without. The data collected illustrated no significance in the average change (up or down) between both groups. After utilizing a Two Tailed T-Test (two sample, unequal) to compare the averages in changes between the attractiveness ratings, the T value came to approximately .6183, which approximated to a P Value of 0.539241 at N=50; thereby the result is not significant at p < 0.05. In the process of analyzing the data collected within each group of girls, we found within there is no significant change in their perception of bearded men against men without beards (The P-Value is 0.349144. The result is not significant at p < 0.05, N=50).
However, when the ratings for bearded men in each group were compared (i.e. On Period Bearded Men Ratings vs. Off Period Bearded Men Ratings) a T Value of .031 was found illustrating a significant difference. This review was repeated with a comparison between the ratings of men without beards from both groups (On Period vs. Off Period); in this comparison, a significance was illustrated (T Value of .021, P Value below .05). The changes in averages is significant illustrating that teenagers off their period on average rated men (regardless of beardedness) more favorably, than while they were on their period.

Discussion
The study examined the perception teenage girls have of men’s beardedness while on and off their periods. After analyzing the data, there was significance illustrated in the difference between the ratings of bearded men from teenage girls on and off their periods and with the rating of non-bearded men from teenage girls on and off their periods; overall the significance demonstrated that teenage girls not on their period were more likely to rate men in general as more attractive than if they were on their period.

If examining only the rudimentary averages of the teenagers ratings of men with beards and without, the averages in both groups (on or off period) showed a higher preference for bearded men, although it was not significant. There was no significant difference in the individual groups rating of the men with and without beards. The data, thereby, does not confirm our hypothesis but rather illustrates a teenage girl’s tendency to perceive men as more attractive, regardless of their beardedness, while off their period— and possibly ovulating.

If the study were to be further extrapolated upon, a review of the dates the participant’s periods ended and started would be useful to fully identify the time in their menstrual cycle (i.e. ovulating, etc) Because most studies revolving around the perception of the attractiveness of beardedness receive detailed information in regards to the exact point in a woman’s menstrual cycle more detailed data can be extracted—if the same was done in this experiment a more in depth comparison could be performed.

Although the data is interesting in regards to understanding the teenage female perspective on changing trends in attraction, there are many limitations to this study. Because the demographic of Western Sierra Collegiate Academy (site of study) is composed of a white majority (62.2%, 86.3% in Placer County), our study was not diverse in participant background. An additional limitation includes the different environments, times of day, and influencers present during the completion of the surveys. Some participants may have been influenced by their peers, previous knowledge, or conceptions of the men in the pictures. Differing image quality and other uncontrolled variables could have also swayed the data.

In developing a further understanding of the teenage female perception, further analysis could be performed concerning the participants own background (socioeconomic/racial) and previous perceptions of men in their life (fathers, brothers, boyfriends, etc); data could also be collected on how the characteristics (trustworthiness, paternal instincts, health) they perceive the men to have impact their perception of attractiveness. Another interesting variable to consider is the participant’s own relationship desires as a factor in their perception of attractiveness of men and their beardedness. Overall, this experiment provides insight into the teenage perspective and also shows the lack of understanding we have of our primal instincts in regards to attraction and masculinity. The data collected and observed showcases the undiscovered psyche of the teenage female, and its ever-changing viewpoint of the world and their surroundings.
Beard vs. No Beard Average Ratings

Works Cited


The Effect of Gender on the Number of Individuals Found Grocery Shopping

Olivia Brophy

The purpose of this study is to observe whether men or women in a western, industrialized setting will be more likely to procure food for their families through grocery shopping. As other studies have shown, the relationship between women and the provision of food is a long and involved one with varied consequences. However, the modern era has seen the obligations of many women shift to include those outside the home and jobs independent from their husbands.

In 2008, Okotie conducted a study in Nigeria that detailed their differences in gender roles. The study makes the case that because land rights are given almost exclusively to men, “...the responsibility of food security...” and “...the provision of food...” are in turn, the man’s burden. However, he also concedes that women play an invaluable role in the food and farming cycle of Nigerian society, though he notes that “Women are not faced by economic pressure...”. His work notes that the worth of a man rests on “…such criteria as the ability to keep and maintain a home...to contribute to social growth and development...and so on...” Although Okotie notes that these goals are to be met through economic security, this still shows a clear deviation from the traditional male standards and gender roles of western societies and provides a possible variation for today’s roles.

The 1993 review by Parr catalogs the development of women’s roles in Canada from the late-19th to mid-20th centuries. The review notes that the female inhabitants of Canadian farms performed food-related duties in large
part because “...the length of men’s work days left them little time for...cooking, and shopping...” (Parr, 1993). Her review states that women’s abilities to perform these duties were crucial not only to saving money in times of hardship, but that “local exchange” jobs such as the selling of excess eggs and milk allowed women to contribute monetarily to their families as well. Parr’s review mentions that it wasn’t until these areas of informal employment became economically viable that “…men made them their domain.” This paints a distinctly different picture of the role of men, and seems to suggest that men are more apt to take over a traditionally female role when there appears to be a profit to be made.

The traditional western association between women and food is perfectly evidenced in Penny’s article (2001). In this article, Penny details a study involving stories written by American children that “…analyzed [the stories’] food symbolism.” The results of the study showed that the symbolism in the stories varied; girls had a tendency to include “food tasks and feeding” while boys focused on “aggression and violence.” However, the article also mentions another study involving Italian women, which noted that while men continued in their traditional roles, women had “a declining role in food provisioning” over two generations. Though different, both of these studies provide insight into the extent of the change in gender roles in recent years. Similarly, Avakian’s article (2001) mentions that Florentine women have long been tied to their roles as the providers of sustenance for their families. However, Avakian notes in the article that women’s roles as cooks have fallen by the way-side, particularly in familial situations in which women need to or choose to work formal jobs. She states, “Women who work outside the home do not have the time to cook, and ready-made food is more available than it was in the past.” The fact that the article mentions that there are “households where men often determine who eats what and when” as a result of their higher societal status cannot be ignored, although no evidence is offered to support the claim, nor is there any mention of its prevalence. Although this article acknowledges the fact that women’s roles in regards to food have changed, it only offers the increased use of processed or prepared food over homemade as a method of coping. Additionally, the article provides insight into men’s roles with food that is unique among the studies examined here.

Standish’s 2006 review states that food companies have exploited and supported the traditional role of women as providers of food by focusing their attention on marketing towards them. However, Standish acknowledges that this has been done “…despite evidence that men as well as women shop for food and prepare it.” This final statement serves as evidence that gender roles have evolved, although it is possible that it could be referring to men without wives, female cooks, or housekeepers who do shopping for them.

The 2013 study conducted by Velloso Missagia, et. al., examined how men and women varied in their food choices. Prior research done for the study had found that while there was variance between the two genders, developed countries tended to show less pronounced differences, and that men tended to purchase food considered less healthy by modern, well-known, Western health standards, while women tended to purchase more healthy food, because of the historical importance of diet and nutrition in women’s roles. Although the study did not document gender roles, its focus on the variation in food items chosen and the differences in importance of diet for men and women raise an interesting question to be considered. If marketing is and has been directed at women as Standish’s review contends, then will women be more likely to shop because their food tendencies are more encouraged?

Despite the information proffered by the previous studies, none of them have a specific
focus on whether or not women or men operating under the culture of a western nation in current times are more apt to purchase food for their families. It is hypothesized that despite the developments that western, specifically American, society has undergone, women will still be more likely to fulfill the gender role of providing foodstuffs for their family due to the special focus of marketing campaigns and the influence of the importance of health on women.

**Method**

**Participants:** The participants in this study were married individuals observed shopping in one of seven grocery stores in the Granite Bay-Roseville-Rocklin area between 1:30 and 6:15 in the afternoon on two separate days. Any individual adult shopper found inside WinCo Foods (Roseville/Rocklin), Safeway (Roseville), Whole Foods (Roseville), Trader Joe’s (Roseville), Raley’s (Roseville), Safeway (Granite Bay/Roseville), or Raley’s (Granite Bay) wearing a ring on their left hand was included in the study. 217 subjects were observed. Contingent upon their meeting the requirement of appearing over 18, being alone (or only with children or elderly parents), and having a ring on their left hand, the only data recorded about the participants was their gender.

**Materials:** Due to the observational nature of this study, the only materials needed are those with which to record data. In order to be the most inconspicuous, the researcher chose to use a smartphone rather than pen and paper to record results.

**Procedure:** Data was collected by observing individuals found in seven local supermarkets. Before being included as participants, these individuals had to meet several visually determined requirements. First, they had to appear to be at least eighteen years old. Second, they had to have been shopping without the company of another adult - but could be accompanied by children. Finally, individuals had to have appeared to be married through the presence of a ring on their left hand. Individuals were observed on Saturday, March 28th, 2015 between 1:30 and 4:00 pm and Friday, April 3rd, 2015 between 4:15 and 6:30 pm. The independent variable in this study is the perceived gender of participants, while the dependent variable is whether or not the individual is found shopping. The seven grocery stores chosen to conduct the research were chosen purely because of their location, but conveniently spanned different socio-economic levels - with WinCo on the lower end and Whole Foods on the higher end. Following collection, the data was compiled and organized into a spreadsheet.

**Results**

The hypothesis of this study was that despite the changes that gender roles have seen in recent times, women would still be more likely to be found buying food for their families. The data that was collected - and subsequent chi-square goodness-of-fit tests run on that data - have provided evidence that supports this hypothesis.

The observations yielded a total of 217 participants, 63 of whom were men, and 154 of whom were women. The difference between the actual values was obviously evident upon compilation of all the data. Furthermore, a chi square goodness-of-fit test run on the data resulted in a p-value of < .001. This p-value is extremely low, and therefore statistically significant. Randomly obtaining results such as these is something that will only occur in less than one out of every 100,000,000 studies done, if the true distribution of shoppers of both genders was 51.2/48.8. This value can be seen in Figure 1.

A chi-square test was chosen so that the actual values observed could be compared with the expected values. The expected percentages were that 48.8% of those observed shopping would have been men, and 51.2% would have been women, based on the distribution of men and women in the general population of Placer County, California (United States Census
Bureau). When accounting for the total number of participants (217), these percentages produce expected values of 105.896 for men and 111.104 for women. The actual distributions of men and women were 63/217, or approximately 29%, and 154/217, or approximately 71%, respectively, as can be seen in Figures 2 and 3.

**Discussion**

There has been a long and involved historical relationship between women and the gathering of foodstuffs, especially with regards to families units or groups. The developments that the world has seen in recent times, however, have challenged many of the more traditional gender roles of women, especially in Western societies.

The purpose of this study was to observe whether men or women in a western, industrialized nation would be more likely to procure food for their families through grocery shopping. The observed differences in distribution between the two genders seen during the study, as well as the low p-value of .00000000123, provide evidence that supports the hypothesis that women were more likely to be found grocery shopping than men.

The results of this study can be generalized to represent the distribution of men and women found shopping in the greater Rocklin-Roseville-Granite Bay area. This is due in part to the fairly uniform socio-economic and socio-cultural population distribution of the area. However, this conclusion does have its limitations. There are several possible confounding variables that could have affected the outcomes of this study. Included among these are married individuals not wearing rings, widows or widowers wearing rings or divorced individuals who may still wear rings.

Additionally, it is quite possible that an unmarried or unengaged individual counted as married could have been wearing a ring on their left hand that was misinterpreted as a wedding or engagement ring. On top of this, there are various cultural differences in regards to displaying matrimonial status that, despite being in the United States, could still be adhered to with certain individuals. Finally, the amount of people, both men and women, who are found grocery shopping could also depend on the time of day. The schedule adhered to for this study may not be the most representative time. All of these possibilities may have affected the true distribution of married or engaged men and women who were found shopping. There are no clear methods to rectify these possibilities without employing interviews or surveys, which fundamentally change the nature of the study.

An interesting observation made during the course of this study was that during the hours data was collected, a large number of shoppers excluded from the population of interest were shopping together. This may indicate that rather than being the responsibility of one gender group, the task of providing food is a collaborative effort in the modern world. Future research may include changing the population of interest to include all shoppers, who could then be categorized as individual-male, individual-female, or partnered shoppers. Further research could be done on a variety of different populations, including those in different geographic locations and those in different socio-economic and cultural groups.

Overall, strict adherence to the procedures outlined above resulted in a study that was conducted without any noticeable presence of bias. Any extraneous variables that affected the study were outside of researcher control. The findings of the study support the hypothesis that in an industrialized western nation, women are still more likely to be found providing food for their families than men.
Works Cited


<table>
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<tr>
<th>Figure 1</th>
<th>Men</th>
<th>Women</th>
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<tr>
<td>Actual values (# of shoppers)</td>
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<td>154</td>
</tr>
<tr>
<td>Expected values (# of shoppers)</td>
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<td>Chi Test. (df = 1)</td>
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Figure 2

Figure 3

**Actual %**

- Men
- Women
Do Males or Females Have More of a Tendency to Obey Rules?
Samantha Nicolas

Gender differences have always been a long-speculated debate. Truth be told, boys and girls do vary in a handful of ways, but these divergences – both in their number and in their extremities – tend to be largely exaggerated. For the most part, both sexes are actually very much alike in general qualities (such as general intelligence), though they may differ from each other in specific strengths (for example, beginning from age fourteen, girls tend to be stronger in language-based abilities while boys tend to be stronger in visual-spatial abilities). Does this slight difference, however, include obedience? When it comes to driving insurance, boys have higher insurance rates than girls do due to the fact that boys have a greater chance of getting into accidents than do girls; is this discrepancy a result of bad habits when it comes to obeying rules? History is also characterized by the ingrained principle of women’s subordination and submission to others, whereas men – historically – were bound by fewer constraints due to patriarchal beliefs that the male sex was dominant. This is what led to the research question: “Do males or females have more of a tendency to obey rules?”

There are two types of obedience to rules: rule-conformity and rule-following. In his report “The metaphysics of rule-following,” Markus E. Schlosser distinguished what makes the two types of rule-obedience different, as well as delved into two subtypes of each. Although he didn’t conduct a study or an experiment to investigate the subject, he did follow a previous analysis of it, which served as the foundation upon which he built his own analysis. From his
own research, Schlosser concluded that in terms of rule-conformity, one can conform either “accidentally” or purposefully; Schlosser writes, “… we can conform to rules without following them. This can come about in two rather different ways. Firstly, we may conform to rules without following them consciously…. Secondly, we may conform to rules without following them at all.” (Schlosser, 2010). The two scenarios discussed in the article propose how rule-conformity may be seen as “accidental,” although even when not necessarily intentional, the reason for such “accidental” actions can be traced back to “either… appeal to learning [learning to conform to that rule] or adaptation (and innateness), or… appeal to learning and adaptation (and innateness),” which, interestingly enough, is the exact same reason behind the actions of one who purposefully conforms to rules. As for rule-following, there exists either explicit or implicit rule-following; Schlosser continues on to say, “In general, S follows a rule only if S’s thought process or behavior is governed by the rule (as explained in the previous section). S follows a rule explicitly only if S acts with the intention to conform to the rule. And S follows a rule implicitly only if S’s rule-conforming activity is intentional, and only if S has the ability to follow the rule explicitly. Explicit rule-following entails implicit rule-following, but not vice versa.” (Schlosser, 2010).

Rule-following, by nature, is perfectly rational to human beings. In the report “Following the Rules: Practical Reasoning and Deontic Constraint,” a man named Joseph Heath argued “that rule following, or obeying ‘deontic constraint,’ is rational even if its consequences are suboptimal for the agent” (Striblen, 2009). Although no indication is given to any studies or experiments that Heath may or may not have conducted in the research of this concept, it is evident that Heath performed a vast amount of analyses and applications in the proving of his argument, and his conclusion – the idea that “rule following” is eminently rational – stands.

There is a disparity between females and males in terms of their responses to obedience. In the report “The Routes of Moral Development and the Impact of Exposure to the Milgram Obedience Study,” the authors Jerry Paul Sheppard and Marnie Young conducted an experiment on two groups of business students. Both groups were given half of Rest’s Defining Issues Test during one week, and the second half two weeks later; however, only one group watched a film on Milgram’s obedience study in the time period between the two tests (Sheppard, Young, 2007). What Sheppard and Young discovered was that “females showed a greater consistent significant response to viewing Milgram while male subjects varied their response contingent upon their functional area of study” (Sheppard, Young, 2007).

This study is needed because according to Sheppard and Young’s experiment, males have slightly different responses from females in regards to the concept of obedience. However, their experiment and analysis never addressed whether males’ varying responses to the concept of obedience would affect whether or not they would be more or less inclined to actually perform obedience.

Therefore, the purpose of this study is to find out if males or females have more of a tendency to obey rules. If the gender of a driver influences whether or not that driver tends to obey traffic laws, then males will have a slightly lower tendency to obey rules because their responses to the concept of obedience varied compared to the “greater consistent significant response” of their female counterparts.

**Method**
The naturalistic observational method was used in order to conduct the study. The independent variable was “male or female drivers,” whereas the dependent variable was “obedience of rules.”
Procedure
This researcher parked at a Walgreens that stood on the corner of a large intersection, in a parking space that was located directly beside a right-turn lane. This spot usually has plenty of traffic due to the many lanes that each side of the intersection contains. Fifty random drivers that used the right turn lane – twenty-five males and twenty-five females – were observed. Whether an individual driver was male or female, and whether the driver was “obedient” or “disobedient” was recorded (cars that made a full stop before turning on a red traffic light were designated as “obedient”; cars that did not make a full stop or otherwise disobeyed other traffic laws such as performing actions in the wrong lanes were marked as “disobedient”).

Results
In the sample of fifty random drivers, twenty-five were male and twenty-five were female. There is a 4% disparity between obedient male drivers and obedient female drivers, with 28% of male drivers in the sample having obeyed traffic laws and 32% of female drivers in the sample having obeyed traffic laws. Although there is a slight difference in percentages, the two data sets are incredibly similar. There is only a slight disparity in the quantitative difference between male and female drivers.

Inferential Statistics
In order to determine if the 4% disparity between male and female drivers was significant, a 2-sample T-test was conducted. The result of the T-test was as follows: p = .618. An analysis of the p-value indicated that the percentage difference between male and female drivers was not significant, at p > .05.

Discussion
According to Joseph Heath, “rule following,” by nature, is perfectly rational to human beings (Striblen, 2009). However, there is a disparity between females and males in terms of their responses to obedience, as proven in Sheppard and Young’s experiment (Sheppard, Young, 2007). Sheppard and Young discovered that “females showed a greater consistent significant response to viewing Milgram while male subjects varied their response contingent upon their functional area of study” (Sheppard, Young, 2007), but what was left unanswered was whether males’ varying responses to the concept of obedience would affect whether or not they would be more or less inclined to actually perform obedience. The purpose of this study was to find out if males or females have more of a tendency to obey rules, and the hypothesis was that if the gender of a driver influences whether or not that driver tends to obey traffic laws, then males will have a slightly lower tendency to obey rules because their responses to the concept of obedience varied compared to the “greater consistent significant response” of their female counterparts. The data gathered does not support this hypothesis. In analyzing the percentages, tables, and graphs of the results, the data for both males and females was not only incredibly similar (if not identical), but also consistently incredibly similar, no matter which form the data was presented in. There was not enough evidence to suggest that males and females are not equally obedient to rules.

A possible reason why tendencies to obey rules turned out to be essentially equal in both sexes is because obedience to rules is not a clear-cut, set concept; as Markus E. Schlosser explained in his report, there are many different circumstances under which a person may end up obeying a rule, and for the most part, it seems to be a highly individual and personal thing (as it can be a habit or an “accident”) (Schlosser, 2010).

Further experimentation should consider using larger sample of drivers, as the original random sample size of fifty drivers was relatively small. This alteration in my methodology would lend me a lot more data to work with, and consequently, my results would be more accurate. Future research regarding this topic could focus on whether males or females...
would have more of a tendency to obey orders given from an authority figure. Research for this would need to include the difference in how males and females interact in social situations, because the researcher would have to interpret how the participants behave towards the authority figure, and why.

After conducting an observational study for this research project and analyzing collected data, it can be concluded that gender does not influence whether or not a driver tends to obey traffic laws, and that the tendency to obey rules is essentially equal in both males and females.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number of Obedient Drivers</th>
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<th>Number of Disobedient Drivers</th>
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<td>Male</td>
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Works Cited


The Effect of Age on Door-Holding Etiquette
Leila Doty

When observing human behavior, one may quickly see that there are many intricacies in regards to how people interact with each other. Amongst these many intricacies lies a facet of particular interest: etiquette. Etiquette may be defined as the code of polite behavior in society and is perhaps a prime motivator of human actions. It sets the norm for interpersonal interaction and determines the “appropriate” course of action in certain situations. However, are there perhaps certain factors that influence the display of etiquette? If so, what are they and what exactly is the effect they have on human behavior? This study researches how a particular human quality, specifically age, affects the etiquette displayed by members of varying relative ages in the situation of door-holding.

A study conducted by a group of researchers at Pennsylvania State University (2011) investigated the biological influences of etiquette and the collective social benefit of lending a helping hand to others. Its findings suggested that people engaged in polite exchanges to reduce the total amount of physical energy exerted to complete a task. However, there was a distinct lack of data in regards to what objective human qualities affected the display of etiquette, and instead research was focused on situational factors, such as the distance between two people and the probability of door-holding.

Chivalry has also been an area of extensive interest and subsequent research in regards to etiquette and door-holding. A 2003 report claims that a recent attitude shift towards
chivalry has been afoot, as some contemporaries have come to view it as “sexist.” Some women have interpreted basic acts of chivalry (such as men holding doors open for women) to represent men exercising their “dominant” position in society in making women feel inferior to them. This has apparently caused a noticeable decline in chivalry, and it has thus become less-practiced by many males. There is still, however, a lack of investigation of chivalry in regards to the effects of age and its respect to door-etiquette.

This study researches the relationship between age and door-holding etiquette, as the related studies above clearly outline the deficit of research on this particular topic. This study hypothesized that as age increased, subjects would be more likely to hold the door open for others. This prediction was formulated based on the reasoning that since older members of society have likely been exposed to more social situations, they would have a better knowledge of how to politely behave in the example situation of holding a door open. The purpose of this study is to provide the basis for further research in the field of human etiquette.

Methods
The population for this project is people who hold doors open for others. The sample population will be people of all ages that enter Chipotle with another party also entering behind them on April 19th, 2015 from 5:00-6:00pm. Only people that are entering Chipotle will be observed, not people who leave the building. This is to ensure that data is not collected on people multiple times, as this would skew later analysis. Chipotle was the chosen establishment because people of all ages can be found here and it is a fairly busy restaurant. Data will be recorded on people of different ages and whether or not they hold the door open for other people. The independent variable (IV) for this study is the age of the subject. Age will be defined by four different groups; these groups are youth (15 yrs. and younger), young adult (16-35 yrs.), middle adult (25-45 yrs.), and late adult (46 yrs. and older). The dependent variable (DV) for this study is whether or not they hold the door open for the party behind them. The DV will be a binary result; the person either will or will not hold the door open for others. No informed consent is required to conduct this study.

*Observer must use their own discretion when assigning an age group to each subject (this will factor into sources of error during data analysis).

Results
This study hypothesized that as age increased, subjects would be more likely to hold the door open for others. This was based on the assumption that older members of society would have the most experience on how to behave politely in social situations. The collected data shows that the majority of people within each age group held the door open for people walking into the restaurant behind them. The percentage of people overall who did not hold the door open was 6.5%. All of the youth held the door open, 93.8% of both the young adults and middle adults held the door open, and 88.9% of the late adults held the door open. This does not support the hypothesis which predicted that more late adults would hold the door open because what was actually recorded was that more youth held the door for others.

After running a chi square test to check the statistical significance of the data, it was found that the p-value for the likeliness of people not holding the door open was 24.8%. This is clearly greater than an ideal p-value, which would be less than or equal to a 5% margin of error. The generated p-value means that 24.8% of the results of people who did not hold the door open are due to random factors, so no statistically significant conclusions may be accurately drawn from this data. The p-value is too large for any definite correlations to be made, likely due to random factors that could not be controlled during this observational study.
Discussion
This study investigated the relationship between people’s age and their door-holding etiquette at a local Chipotle establishment. It expanded beyond research previously conducted at Pennsylvania State University (2011) that analyzed possible cognitive and social effects on etiquette. This study did not repeat any preceding investigations that attempted to determine the relationship between gender and etiquette, but instead took a brief look at human age.

The data does not support the hypothesis that etiquette improved with age, but rather if the data had generated an acceptable p-value and the trend in the graph was the same, the results would have directly contradicted the original hypothesis. However, the data did show that the majority of people, regardless of their age, held the door open for others entering behind them. Yet, this still does not mean that any relationships can be drawn from the data due to the high p-value of 24.8%. Much more research would be required to argue that a consistent correlation between the two variables exists.

Variables in this study that likely affected the outcome of the results include the population sample, meaning that the number of people in each age group was not consistent so percentages had to be taken in order for groups to be compared to each other. This sacrificed the accuracy of the graphs because there was more room for errors in inaccuracy in groups with smaller sample sizes. Another source of error in this experiment was due to the fact that the observers were arbitrarily assigning age groups to people based on their appearance without being able to verify if the group was accurate or not. This clearly has the potential to have a huge effect on the data, because if a large amount of people were assigned to the wrong age group then the data would be completely false and not be representative of even the sample population. It is also possible that gender played a role in whether or not subjects held the door for people entering behind them. One observation recorded during the study suggested that men almost always hold the door open for women, but may be more hesitant to do so for other males. Perhaps this was due to prevailing gender roles and schemas. This is somewhat relevant to the above-mentioned 2003 report on chivalry. More investigation in this field is obviously necessary to draw any reliable conclusions.

In the interest of gathering more reliable data, if this study were to be replicated, the number of the people in the sample groups would need to be uniform throughout, so that the percentages could be based off of the same total subject pool number and compared more accurately. Also, many more people would need to be observed. Conducting the same experiment at different locations would also help to make the data more generalizable to a bigger population, instead of only being able to accurately apply the conclusions to people who eat at Chipotle. This study established a relatively good starting point for future research. Although no accurate conclusions were able to be drawn due to the statistical insignificance of the data, this occurrence provided valuable insight into changes that should be made to the study and variables that need to be controlled if this study were to be conducted again. More research regarding the effect of gender and door-holding etiquette would be helpful and could also potentially be interwoven into a conclusion with the effect of age on door-holding etiquette. However, in order for any of these relationships to be proposed extensive data would need to be collected.
<table>
<thead>
<tr>
<th>Age Group</th>
<th>Total Participants</th>
<th># of Door-Holders</th>
<th># of Non Door-Holders</th>
<th>Percentage of Door-Holders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youth</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td>100.0%</td>
</tr>
<tr>
<td>Young Adult</td>
<td>16</td>
<td>15</td>
<td>1</td>
<td>93.8%</td>
</tr>
<tr>
<td>Middle Adult</td>
<td>32</td>
<td>30</td>
<td>2</td>
<td>93.8%</td>
</tr>
<tr>
<td>Late Adult</td>
<td>9</td>
<td>8</td>
<td>1</td>
<td>88.9%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>62</strong></td>
<td><strong>58</strong></td>
<td><strong>4</strong></td>
<td></td>
</tr>
</tbody>
</table>

![Age and Door-holding Etiquette](chart.png)

**Works Cited**


Traditionally, schools and families teach girls to be more reserved and polite during conversations, and excuse boys when they impolite or rude in a conversation. It does not seem meaningful when young, but older men still have the tendency to interrupt people in conversations and talk over people. This study will be comparing the amount of interruptions in men only conversations, women only conversations, as well as conversations between men and women.

The first article that inspired this study was "10 Words Every Girl Should Know" by Soraya Chemaly on male speech dominance. Chemaly presented in the article was that men were constantly interrupting her without regard. Chemaly states that "Parents interrupt girls twice as often and hold them to stricter politeness norms. Teachers engage boys, who correctly see disruptive speech as a marker of dominant masculinity, more often and more dynamically than girls." (Chemaly, 2014). It is a serious issue that men are encouraged to be more dominant and girls are oppressed into being submissive speakers. "Socialized male speech dominance is a significant issue, not just in school, but everywhere. If you doubt me, sit quietly and keep track of speech dynamics at your own dinner table, workplace, classroom. In the school bus, the sidelines of fields, in places of worship. It's significant and consequential." (Chemaly, 2014). In order to overcome sexist ideals, Chemaly encourages women to stand up for themselves and speak up when they are being talked over or interrupted. The hole in this study is the lack of data presented in the article. In order for the
article to be reputable, it must include numerical data proving the claim made by the author.

The second article, written by Marc F. Luxen called "Gender Differences in Dominance and Affiliation During a Demanding Interaction", studied the actions and body language of men and women in conversations. The study tests the validity of the evolution theory, and hypothesizes that men will be more dominant in social situations than women. This was proven to be true by the observations made that "Men showed more dominance, especially head shaking, sitting in a closed posture, and using closed questions and directive remarks. Women showed more affiliation, especially in frequency of laughing, sitting in an open posture, and posing open questions." (Luxen, 2005). In order to prevent bias, the researcher developed a list of minuscule behavioral observations that could be demonstrated by the participants. The researcher observed the actions of 10 men and 10 women and recorded the number of actions according to the aforementioned list and discovered that men mostly demonstrated dominant behavior and women showed affiliate behavior. The deficiency in this study was the size and background of the population. The experiment consisted of only 20 participants and all of them were executive job applicants. A larger sample size and a more diverse population would reveal if social dominance is a trait of all males or if it is just a characteristic of a specific culture.

A third article, written by Michael T. Schmitt and Nyla R. Branscombe called "Attitudes towards group-based inequality: Social dominance or social identity?", discussed the theory of social inequality in group settings. The research consisted of 5 studies displaying a correlation between social dominance orientation scores and social inequality characteristics. This can be explained with the social dominance theory. "Social dominance theory (SDT) builds on the perspective that cultures of structural inequality tend to reproduce and reinforce the inequality that exists within them by proposing a psychological mechanism through which inequality is maintained. This mechanism, 'social dominance orientation' (SDO), is defined as 'a very general individual differences orientation expressing the value that people place on non-egalitarian and hierarchically structured relationships among social groups' (Sidanius & Pratto, 1999, p. 61)." Deeper in the article, the author begins to explain how gender plays a role in these SDOs and how they affect certain behaviors. The study showed that men received higher SDO scores than women consistently. The explanation for this is that "According to SDT, being oriented toward social dominance increases the chances of reproductive success for men, but not for women." (Schmitt, & Branscombe, 2003). This means that social dominance could be an instinctual behavior, not a learned behavior.

The fourth and final article utilized for background research for this project is "Deviance, Rule-Breaking and Male Dominance in Conversation" by James D. Orcutt and Lynn Kenneth Harvey. This was a study on the characteristics of cross-sex conversations. In the study, the researchers found that men caused the majority of interruptions made during the conversations. After the experiment, the researchers surveyed the participants and discovered that the behavior in the conversations weren't out of the ordinary for casual social encounters. The problem presented by the observations was that people lack an understanding when it comes to rule-breaking and acceptable behaviors in normal conversations. A fault of this study was that there was no data provided and no examples of the surveys taken by the participants. These are necessary for creating a valid research publication. After conducting research on the topic, it has become apparent that socialized male speech dominance is a common characteristic among men and has become an acceptable or normal trait to have in society. The explanation for this is that it
could be possible that this behavior is instinctual rather than resulting from bad parenting and manners. This presents the question: "Is socialized male speech dominance exclusive to cross-sex conversations?" The hypothesis for this study is that if male speech dominance is only displayed in cross-sex conversations, then the number of interruptions made by males in cross-sex conversations will be higher than interruptions in same-sex conversations.

Method
Population: The participant population of my research project were the members of a family party with a total population of approximately 45 people.
Sample: The sample of participants in the study included men and women ranging from 14 years old to 73 years old. The data will be the amount of interruptions each gender group makes while conversing.
Procedure: First, the people attending the party were informed of the observation and given the option of being exempt from the study. The data table was set up to record the amount of interruptions as they happened. Third, the conversations with the demographic that matched the categories (male only, female only, male & female) were observed and recorded. Finally, at the end of the party everyone was debriefed on the research and the data recorded.

Discussion
In the background research, there were theories such as the social dominance theory, social dominance orientation scores, and instinctual influences for socially dominant behavior. The background research explained the theory that socialized male speech dominance could be an instinctual behavior. This led to the research question: "Is socialized male speech dominance exclusive to cross-sex conversations?" It was hypothesized in this study that if male speech dominance is displayed only in cross-sex conversations, then the number of interruptions made by males in cross-sex conversations will be higher than the number of interruptions in same-sex conversations. The research was conducted on family and friends at a recent party. The population consisted of around 45 people and the ages ranged from 14-73 years old. Male only conversations, female only conversations, as well as male and female conversations were all observed. During the male only conversations there were 19 interruptions, during the female only conversations there were only 3 interruptions, and during the male and female conversations there were 38 male interruptions and 2 female interruptions.

Although the males were disruptive in a conversation with themselves, when females joined the conversation the number of interruptions caused by the males increased. This could mean that men naturally compete with each other for social domination and this instinct is amplified when there are females. In my background research, Schmitt and Branscombe said: "According to SDT, being oriented toward social dominance increases the chances of reproductive success for men, but not for women." (Schmitt, & Branscombe, 2003). This data explains the increase in male interruptions during the cross-sex conversations. If socialized male speech dominance is a biological instinct, then it is logical that men interrupt more when talking to females. This evidence supports the hypothesis that if male speech dominance is displayed only in cross-sex conversations, then the number of interruptions made by males in cross-sex conversations will be higher than the number of interruptions in same-sex conversations.
This data table shows the number of interruptions made by each gender in the 3 groups over the course of the party.

<table>
<thead>
<tr>
<th>GROUP POPULATION</th>
<th>MALE INTERRUPTIONS</th>
<th>FEMALE INTERRUPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male only conversation</td>
<td>19</td>
<td>N/A</td>
</tr>
<tr>
<td>Female only conversation</td>
<td>N/A</td>
<td>3</td>
</tr>
<tr>
<td>Male and female conversation</td>
<td>38</td>
<td>2</td>
</tr>
</tbody>
</table>

Works Cited


Group Influence on Positive Social Behavior
Diana Terrin Spray

Normative social influence is defined as a social influence that leads to conformity. Many studies have been done focusing on the negative effects and causes of normative social influence. However, very few are focused on the benefits of this group pressure that causes conformity. To what extent can group influence have a positive effect on society in one’s everyday life? This study looks at the benefits of social conformity that is a result of group influence.

A study by Pool, Ding, and Schwegler (2001) at the University of Texas at Arlington found that individuals will conform to a group’s norms regardless of a person’s identification or inclusion within the group. A person will comply to a group’s behavior when a favorable outcome from the group seems attainable or realistic. The research concentrates on a group’s social behavior but does not compare it to an individual under the same circumstances.

Ledgerwood and Callahan (2012) researched whether an abstract thinker would be more likely to conform to social norms. They found that those who think differently and are psychologically distanced from a group conform more than those who are closer to the group’s own mindset. This study shows the importance of an individual’s mindset and its relationship to conformity but it does not focus on whether an individual will conform to social norms when alone as well as when they are a member of a group.

A study by Klucharev, Hytönen, Rijpkema, Smidts, and Fernández (2009) found that when an individual disagrees with a group, the same parts of the brain are activated when an error signal is created by the brain in reinforcement training. The research provides vital information on the neurological response of an individual with the choice of conformity but it does not address what happens when one
does not conform to the group norm while in the absence of a group. This study focused on the difference of an individual's conformity to social normative influence when they are alone and when they are a member of a group. It is hypothesized that individuals will conform to social norms when they are a member of a group more often than when they are alone.

**Design**
This study used observational research methods to collect data on individuals dining at fast food restaurants alone and those dining at fast food restaurants as a member of a group. The independent variable was whether the individual was alone or a member of the group. The dependent variable was whether or not the individual picked up their tray. The operation definition for positive social norms was the act of clearing one's tray after completing their meal. The research was conducted at a variety of fast food restaurants over a three week time period. The researcher then analyzed these findings to determine if there was a significant statistical relationship.

**Procedure**
Data was collected with a tally sheet using observational research methods at fast food restaurants that included In n Out, Taco Bell, Arby's, and Wendy's. The environment was not manipulated in any way. Participants were all customers who ordered food at restaurants in the vicinity of Roseville, California during observations. For one to two hour periods, researchers would observe and record whether individuals picked up their trays and put them on the trash can or left them on the table. It was also recorded whether the person sat alone or with a group of people. Every person within a group was counted separately. A total of 249 individuals were observed with 88 being single and 161 being a member of a group. The study hypothesized that people alone would pick up their trays less than those in groups. The results gathered supported this hypothesis.

The researchers used a Chi Square Goodness of Fit test to determine the significance of the findings. The study found that a hugely significant percent of singles dining at fast food did not clean up their trays (P<0.001). The study also found that a significantly high percentage of individuals in a group clean up their plates when dining at the same restaurants (P<0.005). This supports the hypothesis that those in groups conform to social normative pressure more often than those who are on their own.

**Discussion**
The results support the hypothesis that an individual is more likely to conform to social norms when they are within a group than when they are alone. The results concluded that single individuals who put away their trays when finished dining were extremely significant (P= 0.00000000000000000783). This implies that when alone, people ignore and rebel against social norms. However, while in a group, an individual was significantly more likely to comply to the social norms than expected. This shows that although unnoticed, one will alter their behavior to conform to widely accepted positive social norms. This is explained by the neurological response to non-conformity that was researched by Klucharev, Hytönen, Rijpkema, Smidts, and Fernández. In an attempt to solve neurological cognitive dissonance, people adjust their behavior to conform in order to end dissonance. The pressure of the social normative influence is almost nonexistent when alone. However, when one is a member of a group, the pressure is increased which adds to the dissonance. It can be concluded that conformity increases because of the proximity of the group. Much like how obedience increased in Milgram's study on obedience (1974) when the authority figure was in the same room as the participant versus the absence of authority.

The findings of this study also support the deviance-regulation theory as founded by Blanton, Stuart, and Vanden Eijnden (2001). The theory states that conformity is based on
the consequences of not following social norms. The participants in a group acted subconsciously because of their fear of group alienation or isolation if they did not clear their trays. However, when alone, there is no fear of group retaliation and the trays are not cleared even though the consequences of doing so are all positive.

<table>
<thead>
<tr>
<th></th>
<th>Not picked up</th>
<th>Picked up</th>
<th>Percent picked up</th>
<th>Chi Square Goodness of Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
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<td>42</td>
<td>39.25%</td>
<td>0.0000000000000000783</td>
</tr>
<tr>
<td>Group</td>
<td>23</td>
<td>119</td>
<td>83.80%</td>
<td>0.0394271857366000000</td>
</tr>
<tr>
<td>Total</td>
<td>88</td>
<td>161</td>
<td>249</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>35.34%</td>
<td>64.66%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected Value</td>
<td>31.10</td>
<td>104.10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Works Cited


Content

The Western Sierra Journal of Psychology serves as a means through which students may share their work in the area of psychology. Submissions at this time are limited to research projects which may be conducted on any topic subject to the ethical guidelines put forth by the American Psychology Association.

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