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What's Wrong with Being Single: Lowered Relational Value Bias Toward Single People

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LOYOLA UNIVERSITY CHICAGO

WHAT'S WRONG WITH BEING SINGLE:
LOWERED RELATIONAL VALUE BIAS TOWARD
SINGLE PEOPLE

A THESIS SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
MASTER OF ARTS
PROGRAM IN APPLIED SOCIAL PSYCHOLOGY

BY

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CHICAGO, IL

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ABSTRACT

This study examined the perceived relational value of single individuals (compared to that of coupled individuals). I hypothesized that, participants would be more likely to make the conjunction fallacy in the single condition vs. the coupled condition, when asked whether or not it was more likely that the target person from the condition was a single teacher vs. teacher. The data supported my hypothesis: participants in the single condition were significantly more likely to make the conjunction fallacy than participants in the coupled condition. My study also tested whether or not the need to belong acted as a moderator for the findings in my first hypothesis. I expected to find that participants who had a high (versus low) need to belong would be more likely to make the conjunction fallacy in the single condition. The data did not support my hypothesis: whether or not participants made the conjunction fallacy did not significantly differ based on their need to belong scores.

CHAPTER ONE

REVIEW OF RELEVANT LITERATURE

Thirty-eight million Americans (18 years and older) were single in the year 1970 aka 28% of the population (DePaulo, 2014). That same year 70% of households included married people. More than 40% of adults were legally single, that included people who were divorced, widowed and those who had never married according to the 2006 US Census Bureau (DePaulo & Morris, 2006). In 2011, only 49% of households included married people. As of 2012, 103 million Americans aka 44% of the population were unmarried (DePaulo, 2014). Since 1970, the number of single men and women has significantly increased to two and three times their recorded amount (Slonim, Gur-Yaish & Katz, 2015) *Singlism*, a new line of research pioneered by Bella DePaulo, is the stigmatization of single adults. The number of single adults has steadily increased over the last few decades. People are staying single longer and yet they are still held socially to 60 and 70-year-old standards of getting married and settling down (DePaulo, 2014). The singles perspective is significant because with each new generation, more and more people are choosing to remain single or are staying single longer. Could it be that people who are coupled are believed to have higher relational value (the extent to which a person is valued by others) than that of single people, therefore they are discriminated against? If this is the case, does the need to belong act as a moderator for this phenomenon (with high need to belong leading to greater discrimination against singles vs. that of people with low need to belong).

Singlism

Singlism is defined as the stigmatization of adults who are single. When adults were asked to list any groups they belonged to that might face discrimination, only 4% mentioned marital status (i.e. singlism) (DePaulo and Morris, 2006). When explicitly asked only 30% of singles said they felt discriminated against compare to the 100% of gays, 90% of obese, 85% of black and 72% of women (Morris, 2005). Singles do not consciously recognize that singlism is a valid form of discrimination even though there is evidence to support this idea. In the work force, married people received certain perks over that of single people. Married men are paid more than that of single men (of a similar age and have comparable work experience). Married people receive tax breaks, social security benefits, and have greater opportunities for quality health care (DePaulo, 2014). Antidotal evidence has shown that employers often expect their single employees to work longer hours without pay solely due to the fact that they're single and it is assumed they have fewer obligations outside of work (Morris, Sinclair, DePaulo, 2007). Finally, singles are even presumed to be more sexually promiscuous than married people even though evidence has shown that to be untrue. Singles were perceived to be most likely to contract an STI but married individuals were more likely to participate in unprotected sex (with partners outside of their marriage) therefore they were more likely to contract an STI (Misovich, Fisher & Fisher, 1997).

So why is it that singlism goes unrecognized as a form of discrimination, even though there is evidence supporting this idea? Major, Quinton & McCoy (2002) believe that the way people are treated is only considered “discriminatory” if the person is being treated in an unfair manner or because of their group affiliations. Meaning, the general public are more accepting of

singlism (discrimination against singles) than other forms of discrimination against different groups because marital status is perceived to be a “controllable circumstance” whereas race and gender are perceived as uncontrollable circumstances.

Relationship Status and Stigma

There is a social stigma surrounding the characteristics and daily interactions of single people. Research has shown that single people (compared to that of married people) are more likely to be perceived using traits typically associated with having low relational value (i.e. lonely, insecure, immature). Meanwhile married people are more likely to be perceived using traits typically associated with having high relational value (i.e. mature, loving, kind) (Etaugh & Malstrom, 1981; Greitemeyer, 2009; Morris, DePaulo, Hertel & Ritter, 2004). Now, it could be that people who are married are all around more mature, loving and kinder individuals (than that of single people) but I don't expect that this is entirely true. While a lot of the singlism research has focused on establishing the bias against single people, few studies have looked into why it is that we as a society discriminate against singles. Is it that single people are considered to have less relational value than that of coupled individuals?

Research has shown that marital status can be a major factor in the way individuals are perceived. For example, society often assumes that single people remain single because they are more introverted than married individuals making them more selfish, unhappy and unhealthy than that of their married counterparts (Greitemeyer, 2009; Marks, 1996). Yet research has shown that single people, while they may not be involved in a romantic relationship, are more connected to relationships between family members, friends and neighbors than married individuals (DePaulo, 2014; Klinenberg, 2012). Single people who have never married are also

usually just as healthy or only slightly less healthy than those who get married (DePaulo, 2014; Finkel, Hui, Carswell & Larson, 2014).

In a preliminary study conducted by DePaulo and Morris (2006) 1,000 undergrads listed the characteristics that came to mind when they thought about people who were married vs. single. Participants were more likely to pair married people with positive attributes (i.e. mature, stable, honest, happy, kind and loving). Meanwhile participants were more likely to pair single people with negative attributes (i.e. immature, self-centered, unhappy, ugly and lonely). Overall, people who were married were also described as caring and giving 50% of the time compared to the 2% of the time for singles. The discrimination toward single people was even greater when the targets were described as over the age of 40. Research has also shown that singles are presumed to be irresponsible, immature and less well-adjusted in comparison to that of married individuals (Etaugh & Birdoes, 1991, Morris, Sinclair, & DePaulo, 2007). In fact, married people are perceived more favorable than all groups of unmarried persons including: single, divorced and widowed (Etaugh & Malstrom, 1981).

Singles are perceived as less sociable, less reliable and less attractive compared to that of married individuals (Etaugh & Malstrom, 1981). The Etaugh & Malstrom study also looked at gender as a moderator for the results but found that males and females were perceived similarly. Meaning that when it came to their results, marital status was a much greater determinant of the way individuals were perceived than their gender. In a study conducted in 2015, researchers recruited 480 participants and gave them 1 out of 12 different scenarios that described a target figure: 8 focused on singles, 4 on couples. All of the information provided in the scenario remained the same (i.e. name and sex, favorite color and leisure activity) except for age which

differ between conditions (i.e. 25 or 40) and whether or not the person from the scenario chose to remain single or not to remain single. Stereotyped levels were measured using Hertel (2007) questionnaire, broken into three factors (warmth and sociability, success and potency, loneliness and misery). Single people were perceived as low in warmth and sociability and high in loneliness and misery compared to that of coupled individuals (Slonim, Gur-Yaish & Katz, 2015).

In a qualitative study focused on the perception of single women, conducted by Simpson (2016), it was found that women were given stigmatized social identities when they remained unmarried. Women reported that they were often assumed to be “gay” “frigid” or “man haters” when they were single. They even reported getting warning from their friends about being “too picky and independent”. One woman even went so far as to report much of her time spent alone as being “forced” upon due in large part to “suspicious wives” and not reaping the financial benefits of having a partner. Her coupled friends’ attitudes toward her hanging out with them and their husbands had grown “territorial”. Two women in the study wanted to live together (for financial reasons) but their fear of being perceived as lesbians was too large a barrier to overcome. Whereas partnered men and women are rarely called upon to explain the status of their relationship a single person is “expected” to have a reason for their “condition” (Reynolds & Wetherell, 2003).

Society also makes a large assumption that everyone *wants* to be married. Research has examined how being married and having a family is the ultimate goal, a universal indicator of a successful life (Morris, Sinclair & DePaulo, 2007). People who do not reach these goals are outcast and fall prey to harmful economic disadvantages, stereotyping, interpersonal rejection

and discrimination (Budgeon, 2016). Society assumes three things: 1) that most people seek to be in a committed relationship, 2) that this relationship takes precedent over other relationships (i.e. friends & family) and 3) that those who have a significant other are more “worthy” and “important” than those who do not (DePaulo & Morris, 2005). Social norms linked with the idea of marriage and family life render singles increasingly visible and yet invisible because they are deemed as “outsider” who don’t fit into the social norm. For example: at a wedding, the bouquet and garter toss render single men and women more visible while situations that focus on couples (like dancing at the wedding) render singles invisible (Budgeon, 2016).

The glorification of marriage and coupling has made it socially unacceptable to remain single (DePaulo & Morris, 2006). It is often believed that men and women who enter the age of late adulthood and are still single have abused their freedom and as a result are living in a state of “failure”. Marriage is regarded as a “developmental milestone” that people generally want and are expected to achieve (DePaulo and Morris, 2005). These beliefs about the “perceived value and accessibility” of marriage advocates that anyone who is not married should be questioned or looked at with a fine-tooth comb. Singles are expected to juggle school, a successful career, a social life and various relationships (i.e. friendships, family ties and romantic relationships) all at once. Yet at a certain age, it is expected that singles cross the threshold from single to coupled. If that age passes then singles are deemed “too choosy” or “over selective” (Budgeon, 2016).

The reality of today is that not everyone *wants* to be married. In a study conducted by Rainie & Madden (2006), 55% of a group of participants indicated that they were single and were not looking for a partner. Theories behind this change of heart lie at the intersection of three reasons: value orientation, life experience and developmental change (Poortman & Liefbroer,

2010). Thornton & Young – DeMarco (2001) suggest that a shift has occurred, instead of today's generations putting an emphasis on family attitudes and values, today's generation has a stronger emphasis on freedom and individualization (Poortman & Liefbroer, 2010, DePaulo, 2014). It could also be that life experience is the case. The experience of divorce could also lead to an increase in favorable attitudes toward singlehood for both the parents and the children involved (Cunningham & Thornton, 2005). Education is also more important today than ever before. Single people currently in school are more positive about being single and less positive toward commitment than singles who are employed (Blossfeld & Huinink, 1991). Finally, people hold certain ideals about what age range is appropriate to be single. Adolescents believe they'll get married at 25 and live happily ever after while older adults understand that this isn't always the case (Poortman & Liefbroer, 2010).

Consequences of Singlism

Studies have shown that prejudiced behavior of any kind (good or bad) can impact a person's self-esteem (Cook, Arrow & Malle, 2011). Being targeted as different and having to explain oneself can be an incredibly stigmatizing and frustrating event especially when the event happens repeatedly (i.e. being single vs. being married) (Brückmuller, 2012). Brückmuller found that participants had lower private collective self-esteem when their in-group deviated from the implicit norm. As people, we are very concerned about how we are viewed by others, thus we internalize negative stereotypes (including the stereotypes that come along with being single) creating added pressure to change their relationship status (Hancock, 2017). Recent research has shown that overall the negative effects of singlism (i.e. negative affect toward the self and other singles, lowered self-esteem, antisocial/avoidant and or withdrawn behavior) are prevalent

whether singles realize they're being discriminate against or not (Benson, 2013; Hancock 2017; Hertel, Schutz, DePaulo, Morris & Stucke, 2013; Spielmann et. al, 2013).

What about being single? Because singles are assumed to be sad, lonely, depressed individuals, does this mean their mental/ physical health suffers due to these assumptions? An article by Finkel, Hui, Carswell & Larson (2014), points out that there really are no health difference between married and single people. Research has shown that married people are no happier than single people overall. Married people receive a slight increase in happiness the year they get married but other than that they go back to their baseline level of happiness (DePaulo & Morris, 2006). A longitudinal study was conducted where Americans were followed and assed within three years of marrying and after four to six years of marriage. Results showed that people who were married for 4 years reported virtually the same levels of health, happiness, self-esteem and depression has they did the 4 years before they got married. Dykstra (1995) found that loneliness was associated, not with marital status (single vs. married), but to lack of social support. So again, why is it that singlism exists? Even though, research has shown that married people are no happier or healthier than single people overall. Could it be the general public doesn't count what is happening to singles as discrimination because they feel justified in their actions? After all, singles aren't adhering to the status quo. It could also be that the general public believes that singles lack relational value?

Relational Value & Intuitive Bias

Relational value is the degree to which a person values their relationship with someone else (Leary, 2005). According to Leary, relational value is the very foundation that guides our relationship interactions. Because social connection (i.e. the need to belong) is so pertinent, we

over time have developed an internal system for assessing relational value (i.e. “sociometer”). In a group context, the higher a group perceives someone as valuable or important, the more likely they are to support, defend or even include the person into their group. In the context of my study, it could be that the “ingroup” i.e. (the general public) doesn’t believe that singles have high relational value. Therefore, instead of supporting and or defending singles, they deem them as “outgroup” members who should be undermined. I plan to test this idea using the conjunction fallacy from a previous study regarding prejudice against atheists.

A study done by Gervais et al (2017), looked at evidence of prejudice against atheists. The study looked at whether or not morality was dependent upon religious beliefs. Gervais and his associates created an experiment to test whether or not people are intuitively biased toward atheists based solely on their lack of religious beliefs. In the study, participants read about a man who tortured animals as a child and participated in violent behavior throughout adolescence leading up to murder in adulthood. Participants were then asked to judge whether it was more likely that the man from the scenario was a teacher or (depending on the manipulation) a teacher who was or was not a believer in God. The researchers use the conjunction fallacy (the choice between A and B, b being a logically incorrect answer) to indirectly measure, between conditions, how likely it is that people believe these immoral acts committed by the man in the scene are due to whether or not the man is a religious believer.

The results showed evidence of extreme intuitive prejudice against atheists. All in all, participants were almost twice as likely to believe that the man described in the scenario was an atheist relative to a believer. These effects were evident across multiple cultures. Even people who identified as atheists were predicted to intuitively associate immoral acts with being an

atheist (vs. a believer). Three additional tests were conducted in order to account for any study confounds and or alternative explanations for the study's findings. Across all three of the studies the wording of the experimental manipulation was changed from "atheists vs. nonbeliever" to "does not believe in god(s) vs. religious believer", "disbeliever in gods(s) vs. religious believer" and "disbelieves in God vs. disbelieves in evolution" The immoral acts were also changed across all three studies, varying in degree from minor moral violation (i.e. not paying for dinner in a restaurant) to more large scale moral violations (i.e. child molestation). In all cases, participants intuitively assumed that violators of immoral acts were most likely atheists. Due to the success of the Gervais et al study I plan to base my study design with the same experimental manipulation format in mind.

Need to Belong & Singlism

According to Baumeister and Leary (1995) we feel an innate need to belong. This Need to Belong is a motivational theory, believed to explain our desire for social connection and overall acceptance. The fundamental idea of this theory is that people have a strong inner motivation to create and maintain deep interpersonal relationships (Baumeister, 2012). In society today, the most "important" interpersonal relationship is the relationship between an individual and their husband/wife/partner. From an evolutionary perspective, social belonging was key to survival. In the early stages of life on Earth, living amongst groups and with a partner allowed for the sharing of resources, protection from elements and the fulfillment of belonging to a community (DeWall & Bushman, 2011).

"Matrimania" is the notion that marriage is the most beneficial relationship status for both individuals and society (DePaulo & Morris, 2005). Within our society, marriage and family

are engrained into our way of life. The general assumption is that love/marriage is attainable for all and should be sought after. The path of getting married, having a family and settling down creates a checklist for adulthood, one that should be adhered to. In following this path for so long, society has created a norm of living. It could be that singlism exists because the need to belong is so strong that when someone tries to defy the status quo (i.e. remain unmarried) they are met with resistance in the form of prejudice. The prejudice single people face today is a newfound form of punishment because singles are perceived as “threats” to this innate need to belong (DeWall & Bushman, 2011). For those who don’t seek to attain this new level of status, society believes you should be ashamed or pitied or judged and treated differently because you’ve “failed”. The more we as a society buy into the idea that marriage is the ultimate status level, the more acceptable it is to discriminate against singles for not adhering to this preconceived notion (DePaulo & Morris, 2005).

Although everyone has a need to belong, there are individual differences in how strong this need is in individuals (Leary, Kelly, Cottrell, & Schreindorfer, 2012). If other people’s opinions or reactions to an individual’s social behavior/status are important to them, then they are more so inclined to be affected by those outside opinions/reactions. This insinuates that the degree to which one desires social belonging and acceptance, can be an important factor to take into account when examining social conduct such as singlism.

Across social research, the degree to which people feel the need to belong has been shown to impact various topics including discrimination and alcohol consumption. Carvallo & Pelham (2006) found that need to belong could individually influence perceptions of discrimination. Across three studies, researchers found that people with a higher need to belong

reported experiencing less personal discrimination (and more group discrimination) than people with a low need to belong. Hamilton & DeHart (under review) found that the need to belong moderated the effects of alcohol consumption and negative interpersonal interactions. Results showed that when students with a high need to belong (vs. low), experienced more negative interpersonal interactions during the day, they engaged in greater alcohol consumption if they believed that was the way to achieve greater social approval. This was not the case for students with a low need to belong, as their alcohol consumption was unrelated to their interpersonal interactions throughout the day.

Finally, research has shown that people with higher need to belong are more likely to construe social situations in order to hold on to their sense of belonging (Hancock, 2013). Since, people with a higher need to belong have a stronger desire to get society's seal of approval and because society devalues the existence of "living single", people with a higher need to belong should be more likely to make the conjunction fallacy and assume that someone who meets the stereotypical qualities associated with being single is in fact "single".

Summary of Hypothesis

In my current study, I will examine the perceived relational value of single individuals (compared to that of coupled individuals). Adapting my methods from the Gervais et al. (2017) paper on prejudice against atheists, I plan to utilize a similar conjunction fallacy to target the intuitive biases people have regarding singles. Much like the salient beliefs people have toward atheists, the beliefs people have toward singles are based on bias. In my study, participants will read a description of a person who possesses traits typically associated with having low relational value (i.e. selfish, insecure, judgmental). From there, the participants will judge, whether it is

more probable that the person described in the vignette is a teacher or a teacher who is either single or coupled (depending on the condition).

Hypothesis 1: I hypothesize that, like that of the Gervais article, participants will most likely assume that someone who possess traits typically associated with having low relational value is most likely single. More specifically that, participants will be more likely to make the conjunction fallacy (thinking that it is more likely that the target person is a single teacher versus just a teacher) in the single condition vs. the coupled condition.

Hypothesis 2: My study will also test whether or not the need to belong acts as a moderator for the findings in my first hypothesis. I expect to find that participants who have high (versus low) need to belong will be more likely to make the conjunction fallacy (think that the vignette describes a single teacher) in the single condition. However, I do not expect to find any differences in the likelihood of making the conjunction fallacy between people high versus low in the need to belong in the coupled condition (that the vignette describes a coupled person).

CHAPTER TWO

METHODS

Participants

The present study recruited 200 Loyola University Chicago undergraduates (64% female; ages ranged from 19 to 31 ($M_{\text{age}} = 20.04$; $SD_{\text{age}} = 1.317$); 51% White/Caucasian, 20.5% Asian American, 18% Hispanic American, 3.5% Biracial and 2.0% Other Races) all of which were recruited through the participant pool. Each participant was randomly assigned to one of two conditions (single vs. dating). The students received a single credit for their participation in the study.

Overview of Procedure

The experimental portion of this study took place online. Using a computer-based survey, participants answered questions that were measures of their need to belong, the relationship response manipulation, three other logic puzzles that acted as a smokescreen, a suspicion probe and finally a few demographic questions.

Measures

Need to Belong. Need to belong was assessed through the Need to Belong (2012) 10-item measure (e.g., “I want other people to accept me” and “I do not like being alone”). Participants indicated to which they agree with each item on a 7-point scale (1=*strongly disagree*, 7=*strongly agree*). Need to belong ($M = 4.46$; $SD = .931$; $\alpha = .77$) was calculated by

averaging the participant's scores for these 10 items. Higher values then equated to higher levels of need to belong.

Relationship Response Manipulation. Upon beginning the quasi-experiment participants were randomly assigned to one of two response conditions, dating (N = 105) or single (N = 95). From there they were asked to read a vignette about a target person. Participants read about a woman who possessed traits typically associated with having low relational value (i.e. selfish, insecure, judgmental) and was career oriented. Participants were then asked to judge, whether it was more probable that the woman described in the vignette was a teacher or a teacher who was either single or dating (depending on the response condition).

Distractor Items. In order to distract the participants from the true basis of the analyses they were asked three mathematical questions that they need to answer to move forward. Participants were not judged on the correctness of their responses.

Suspicion Probe. In order to determine whether or not participants were suspicious of the manipulation or were aware of the purpose of this study, participants were asked to answer one open ended question ("What do you think this study was about?"). No participants responses/suspicions were close enough to interfere with the data, therefore no participants were excluded from this study.

Demographic information. The demographic information collected included age, gender, ethnicity, year in school, whether or not they were currently in a relationship and their stance on whether or not they believed everyone should be married. At the time of the study, 58.5 % of participants were not currently in a relationship.

CHAPTER THREE

RESULTS

In order to test my hypotheses, I conducted a logistic regression analysis in which the percentage of people who made the conjunction fallacy (vs. those who did not) was predicted by Relationship Response Condition (0 = dating, 1 = single), Need to Belong (continuous), and the 2-way Relationship Response Condition x Need to Belong interaction. The percentage of people who met the conjunction fallacy was my categorical dependent variable. Age and gender were also entered into the model as covariates.

The result presented in Table 1 showed that while gender had no significant effect, age had a marginal effect on whether or not people made the conjunction fallacy; with older participants being marginally less likely to make the conjunction fallacy¹. There was no significant effect of Need to Belong, that is participants Need to Belong scores did not influence the likelihood that they committed the conjunction fallacy.

The data supported my first hypothesis that there was a main effect of condition in predicting the likelihood of committing the conjunction fallacy. That is, participants in the single condition were significantly more likely than participants in the coupled condition to make the conjunction fallacy. A look at the condition means in Table 2 confirms that because the adjectives used to describe the person in the scenario aligned with participants intuitive biases

¹ I ran additional analysis where I controlled for participants relationship status at the time of the study. The effects shown in Table 1 hold for both single and coupled participants. This means that even people who considered themselves to be single were biased against singles.

regarding singles, participants from the single condition were more likely to label the woman as single. In contrast, participants in the coupled condition were less likely to make the conjunction fallacy (labeling the person as a teacher who was in a romantic relationship) because adjectives used to describe the person in the scenario didn't align with their intuitive beliefs regarding coupled people. The magnitude of this effect can be seen in Figure 1.

Finally, I expected to find that participants who had a high (versus low) need to belong would be more likely to make the conjunction fallacy in the single condition. However, the hypothesis was not supported by the data. The Condition x Need to Belong (NBS) interaction was not significant (see Table 1). That is, effect of condition does not depend upon participants' level of NBS. Contrary to predictions, it appears that whether or not participants had high or low desire for social acceptance, this had no significant impact on their decision making when it came to labeling the target person from the scenario as either a "teacher" or a "single/coupled teacher".

	<i>B</i>	<i>S.E.</i>	<i>Wald</i>	<i>df</i>	<i>Sig.</i>	<i>Exp(B)</i>
Constant	2.327	4.481	.270	1	.604	10.250
Gender	.653	.562	1.348	1	.246	1.920
Age	-.363	.197	3.419	1	.064	.695
NBS	.590	.985	.358	1	.550	1.803
Condition	5.435	2.729	3.966	1	.046	229.332
Condition(x)NBS	-.137	.578	.056	1	.813	.872

Table 1. Logistic Regression of Condition x Need to Belong predicting singlism bias

	Single Condition	Coupled Condition
No Fallacy	11	98
Fallacy	84	7

Table 2. Participants decision making responses between conditions

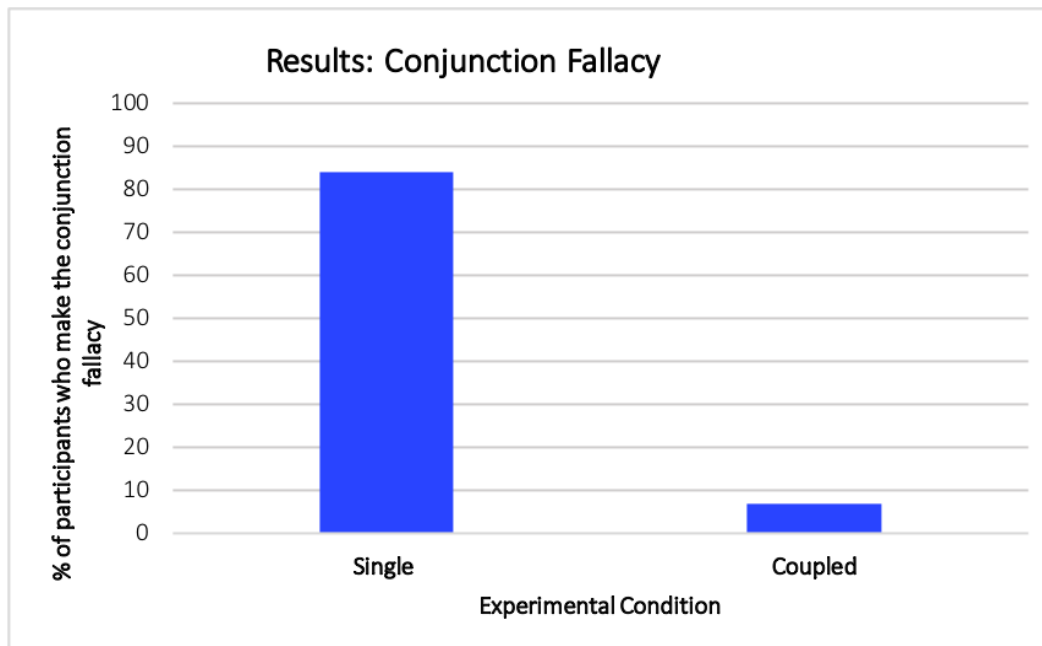


Figure 1. Percentage of participants who made the conjunction fallacy between conditions.

CHAPTER FOUR

DISCUSSION

This thesis project began with one question: Do people perceive singles to have less relational value than that of their coupled counterparts? My first hypothesis was that participants in the single condition would be more likely to label the person from the vignette as a single teacher (versus just a teacher) compared to participants saying the person is a coupled teacher in the relationship condition. The data supported this hypothesis, participants who were placed in the single response condition were significantly more likely to make the conjunction fallacy (i.e. label the woman from the description as a single teacher vs. simply a teacher) compared to participants who were placed in the coupled response condition. This supports my original theory that people believe single individuals to have less relational value than that of coupled individuals. Because the person from the scenario was described using stereotypical descriptors often associated with being single, participants in the single condition bias was activated. They assumed that the woman from the scenario was single because she “fit” what they believed to be characteristics held by a single person. This was not the case for participants in the coupled condition, because coupled people aren’t assumed to be “lonely” or “insecure”, the bias was never activated for them and therefore they were less likely to make the conjunction fallacy.

My second hypothesis was that need to belong would act as a moderator for my findings. Specifically, I expected to find that people with high need to belong would be more likely than

those with a low need to belong to label the person from the vignette as a “single teacher” even though it is the less general answer. For the dating condition, I did not expect to find any significant differences in how participants label the person from the vignette based on their level of need to belong. The data did not support this hypothesis, there was no significant difference in participants need to belong scores and whether or not they made the conjunction fallacy. More specifically, whether or not participants had high or low need to belong, it had no significant effect on their decision to label the woman from the scenario as “teacher” or “single/coupled teacher” (depending on the condition).

These findings are in line with previous theories that singlism exists (DePaulo & Morris, 2005; DePaulo & Morris, 2006). Both studies found that participants were more likely to use negative characteristics (i.e. selfish, lonely, insecure) to describe single people than married people. By having participants read about a person who had these same negative characteristics and then asking them to label the person as either coupled or single, this study was able to provide significant scientific evidence of the singlism bias. This adds to the area of singlism research by providing future researchers with significant psychological evidence that the general public does have a predisposed bias toward singles, believing them to lack in relational value. However, inconsistent with previous results (Hamilton & DeHart, under review) need to belong did not act as a moderator for these findings. Results revealed that whether or not participants had low or high need to belong did not factor into their decision making when it came to labeling the woman from the scenario.

This is contrary to my prediction based off of previous research. Hamilton & DeHart (under review) found that when students with a high need to belong (vs. low), experienced more

negative interpersonal interactions during the day, they engaged in greater alcohol consumption if they believed that was the way to achieve greater social approval. I believed that within my study participants who had a high need to belong would be more likely to label the woman from the scenario as a teacher because they would have a greater desire to align their beliefs to match the status quo. The status quo being that people who are “insecure”, “sad”, “lonely”, and “unlovable” must be single. However, this was not the case. It could be that need to belong did not end up acting as a moderator because participants didn’t feel that their need to belong was being threatened. Hamilton & DeHart (under review) were able to find their effects after their participants experienced a negative interpersonal event. Perhaps, in the future, if the study was reconstructed to make participants feel that their belongingness needs were being threatened or that they faced social rejection, then participants need to belong might act as a moderator, influencing whether or not they would engage in singlism bias.

All in all, the data supported my original hypothesis that participants would be more likely to make the conjunction fallacy in the single condition vs. the coupled condition, when asked whether or not it was more likely that the target person from the condition is a single teacher vs. teacher. Future research should further examine predictors of this effect. This study was able to find marginal significance with age as a predictor of the bias (with older people being less likely to make the conjunction fallacy). However, there could be an unknown factor (i.e. family beliefs, environmental background) that biases people against singles.

Strengths, Limitations and Future Directions

This study’s primary strength is that it is able to use a scientific measure, the conjunction fallacy, to help provide scientific, psychological (and not just anecdotal) evidence of a bias

against single people. The fact that people in the single response condition automatically assumed that the woman being described in the study was single based off of the description but that this automatic association didn't occur for participants in the coupled response condition just goes to show how biased we are as a society against single people. The bias is so strong we make it without even realizing it.

An additional strength of this study is that it was able to find marginal significance of age being a predictor of the bias. Other studies, (Hertel, Schutz, DePaulo, Morris & Stucke, 2007) have looked at the role age plays in singlism but at the age of the target person. For example, Hertel and associates found that a scenario that described a young person (25) a single was perceived much less negatively than a scenario that described an older person (40) as single. This study's results differ in that it found marginal significance in the age of person making the judgement. The results found the older the participant was the less likely they were to label the person from the scenario as a "single teacher" (i.e. making a biased judgment). This might be the case because as people get older they understand that there are other factors that can contribute to having a full and meaningful life besides being married or in a romantic relationship therefore they choose to stay single (Slonim, Gur-Yaish & Katz, 2015). Perhaps this is why we see this marginal effect of age.

One limitation of this study is that its sample consisted solely of Loyola University undergraduate students. Future studies should seek to recruit a sample size that ranges in age and education level. This change could create vastly different results and help provide a better explanation of why the singlism bias exists. It could be that the more education a person receives the less likely they are to make this bias since studies have shown that the more education a

person receives the more liberal they become (Weakliem, 2002). Regarding age, a wider age group of participants could mimic the marginally significant results this study found, that the older a participant is the less likely they are to engage in singlism bias. The current study had an age range of 19-31 but the mean age was only 20 years old. A greater age range and a higher mean range could result in a more significant effect of age.

Singlism is still a fairly new line of research, therefore there is a lot of research left to be done. Future studies should look into age specifically as a predictor of singlism to help understand why it might be that the younger you are the more likely you are to have a singlism bias. I believe age predicts this effect because the older you get, the more you understand how hard it is to find a romantic partner who meets your needs, therefore you either grow more inclined to the idea of staying single or you settle out of fear of forever being alone (Spielmann et al., 2013).

Future research should also look into changing the gender of the person from the scenario. In my particular study, the target person was a woman, it could be that if the target person is a male, the results could show a weaker effect. This could be the case because it is more socially acceptable for men to stay single, longer than it is for women. Men who stay single are “bachelors” whereas women who stay single are “Old Maids” who wasted their youth (DePaulo & Morris, 2005; Etaugh & Malstrom, 1981; Hancock, 2017). Therefore, if the target person were male, participants may be less inclined by singlism bias to label the person as single. More extensive research should be done to look into whether or not the gender of the target person has any effect on singlism bias.

Finally, future research should also look into where this bias stems from. My theory was that singlism stems from our prior need to belong. The status quo is that people should meet, get married and live happily ever after, if people aren't doing this then they aren't meeting the status quo. For people with high need to belong, they would strive to maintain the status quo therefore they would be more likely to judge a single person and associate negative characteristics with being single. However, this study showed that that was not the case. Future research should look into why this is.

Conclusion

Overall, studying why singlism exists is important because of its social influence globally and among individuals. Understanding the stigma surrounding single people is the first step to changing how individuals interact with single people, motivating them to no longer judge a person based on their relationship status. Genuine attachments are not limited to romantic partners. Simply being in a relationship doesn't automatically mean that a person's life is fulfilled and that they are this overwhelmingly warm and nurturing person. Just like being single doesn't automatically mean that a person is a sad, selfish and or lonely. The specific findings in this study could help develop real-world applications to show society that being single does not have to automatically trigger a negative connotation.

APPENDIX A
NEED TO BELONG SCALE

Need to Belong Scale

Instructions: For each of the statements below, indicate the degree to which you agree or disagree with the statement by writing a number in the space beside the question using the scale below:

1 = Strongly disagree

2 = Moderately disagree

3 = Disagree

4 = Neither agree nor disagree

5 = Agree

6 = Moderately agree

7 = Strongly agree

- _____ 1. If other people don't seem to accept me, I don't let it bother me.
- _____ 2. I try hard not to do things that will make other people avoid or reject me.
- _____ 3. I seldom worry about whether other people care about me.
- _____ 4. I need to feel that there are people I can turn to in times of need.
- _____ 5. I want other people to accept me.
- _____ 6. I do not like being alone.
- _____ 7. Being apart from my friends for long periods of time does not bother me.
- _____ 8. I have a strong need to belong.
- _____ 9. It bothers me a great deal when I am not included in other people's plans.
- _____ 10. My feelings are easily hurt when I feel that others do not accept me.

APPENDIX B
SINGLISM BIAS QUESTIONNAIRE

Representativeness Heuristic task (MULTIPLE CHOICE)

Participants began with a single representativeness heuristic task with a description of an person who expresses cold characteristics. Between subjects, we manipulated the contents of Option #2:

When a woman was young, she dreamed of having a successful career. She was selfish when it came to sharing her toys and her family always commented on how independent she was.

As an adult, she is very successful in her career but sometimes finds herself feeling insecure. She is very judgmental of her coworkers and is even more selfish in her adult life than she was in childhood. She is proud of all she has accomplished but often feels lonely and a little isolated.

Which is more probable?

1. The woman is a teacher
2. The woman is a teacher and [is single. / is coupled.

Distractor Items

A bat and a ball cost \$1.10 in total. The bat costs \$1.00 more than the ball. How much does the ball cost? ____cents

If it takes 5 machines 5 minutes to make 5 widgets, how long would it take 100 machines to make 100 widgets? _____minutes

In a lake, there is a patch of lily pads. Every day, the patch doubles in size.

If it takes 48 days for the patch to cover the entire lake, how long would it take for the patch to cover half of the lake? _____days.

Suspicion check

What do you think this study is mainly about so far?

Demographics

1. What is your LUC email address? _____

2. Month, Day and Year of Birth? _____

3. On a scale of 1-7 how much do you believe everyone should aspire to marry?

1 – completely disagree

2 – moderately disagree

3 – disagree

4 – neither agree nor disagree

5 – agree

6 – moderately agree

7 – completely agree

3. Are you currently in a romantic relationship?

a. Yes

b. No

4. What is your gender?

a. Male

b. Female

c. Prefer to Self-Describe _____

5. What is your religious affiliation?

a. Christian (Catholic)

b. Christian (Baptist)

c. Christian (Other)

d. Hindu

e. Buddhist

f. Muslim

g. Jewish

h. Sikh

i. None

j. Atheist

k. Agnostic

l. Other (Please specify)

6. How would you describe your race/ethnicity?

- a. White/Caucasian
- b. Hispanic/Latino
- c. Black/African American
- d. American Indian/Alaskan Native
- e. Asian
- f. Native Hawaiian/Pacific Islander
- g. Mixed
- h. Other: _____

7. We are interested in your political beliefs. Would you consider yourself more liberal or conservative? Select an option below:

- 1 - Very liberal
- 2 - Liberal
- 3 - Slightly liberal
- 4 - Moderate
- 5 - Slightly conservative
- 6 - Conservative
- 7 - Very conservative

8. What year are you in school?

- a. Freshman
- b. Sophomore

c. Junior

d. Senior

e. 5th Year

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VITA

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