Social Comparison and Prosocial Behavior

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Resumo

Given the increasing inequality rates worldwide, social comparisons become more evident. In three experiments, we examine consumers? judgments about how much they and others should donate for charity when making socioeconomic comparisons. Individuals who make upward comparison think that others in a superior socioeconomic position should donate more money and time for charity, whereas individuals who make downward comparison think that they should donate more time, but not more money, for charity than those in an inferior socioeconomic position. Archival data from the World Values Survey shows that consumers with low socioeconomic status attribute to the government the responsibility of providing for everyone, while those with high socioeconomic status are more favorable to inequality. People who make upward social comparisons attribute the responsibility of donations to wealthier others, but people who make downward social comparisons do not show heightened monetary donation intentions. This differential pattern of donation attributions and donation amount among individuals who make upward and downward social comparisons could exacerbate economic inequality in society.

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Abstract
Given the increasing inequality rates worldwide, social comparisons become more evident. In three experiments, we examine consumers' judgments about how much they and others should donate for charity when making socioeconomic comparisons. Individuals who make upward comparison think that others in a superior socioeconomic position should donate more money and time for charity, whereas individuals who make downward comparison think that they should donate more time, but not more money, for charity than those in an inferior socioeconomic position. Archival data from the World Values Survey shows that consumers with low socioeconomic status attribute to the government the responsibility of providing for everyone, while those with high socioeconomic status are more favorable to inequality. People who make upward social comparisons attribute the responsibility of donations to wealthier others, but people who make downward social comparisons do not show heightened monetary donation intentions. This differential pattern of donation attributions and donation amount among individuals who make upward and downward social comparisons could exacerbate economic inequality in society.
Keywords: social comparison; prosocial behavior; self-other evaluative perspective.

Introduction

Inequality of wealth in the US and worldwide has soared to unprecedented levels (Atkinson, Piketty, and Saez 2011; Newman, Johnston, and Lown 2015; Lakner and Milanovic 2016). Therefore, it is important to understand how people will respond to socioeconomic comparisons. Social comparison, the human activity to compare self-information with relevant target information (Locke 2003; Locke 2007) allows researchers to comprehend when different social classes are willing to donate for charity. We propose that economic' social comparison influences how people make assumptions about self and others virtuous obligations. Thereby, we investigate how vertical comparison, referred as downward (when the target is inferior to the self) and upward social comparison (when the target is superior to the self; Locke 2007) will influence the self and the target of comparison inferences about prosocial behavior.

We argue that consumers in a superior socioeconomic position are under the scrutiny of others and are frequently viewed with higher social responsibility to act prosocially by those who make upward social comparison. This judgment made by lower-class individuals reduces their own liability for virtuous actions. We show that these inferences are made both for monetary and nonmonetary donations. However, who make downward social comparison do not assign differences in how much money they and others should donate; they only judge they should donate more nonmonetary resources than those in an inferior socioeconomic situation.

This research adds to the existing literature that investigates the relation between social class and prosocial behavior by demonstrating how socioeconomic comparison makes people infer their and others' charitable donations' obligations. We are all allocated to a specific socioeconomic class, but social comparisons make social position more salient, which impacts attributions of how much oneself and others should donate. When people compare themselves to those in a superior socioeconomic position, they expect wealthier others to donate more for charity. However, those under downward comparison do not engender heightened donations.

While inequality has increased in recent decades making social comparisons more evident (Starmans, Sheskin, and Bloom 2017), economic and social policies that aim to help the poor have not gained much support (Ashok, Kuziemko, and Washington 2015). We show that people attribute donations' responsibility to others when making upward social comparison, but do not show heightened monetary donations when making downward social comparison. This differential pattern of attributions and intentions among individuals could

exacerbate economic inequality in society. Poorer individuals may delegate to wealthier others the responsibility to donate for charity, while richer individuals may not actually donate more.

Social Comparison, Self-Other Inferences, and Pro-social Behavior

Social comparisons are characterized by using deemed relevant information about others to facilitate accurate self-evaluation (Locke 2005); an evaluative process related to one or more people that provide a comparison with the self (Locke 2005; Schlosser and Levy 2016; Gong and Sanfey 2017). Social comparisons are essential for individuals' interactions and assessment about their relative position (Gong and Sanfey 2017).

Comparisons can occur in horizontal and vertical directions (Locke 2003). The horizontal comparison arises when individuals analyze whether others are similar or different from themselves. Vertical comparison, also called status comparison, occurs when individuals compare their relative position in a certain domain (e.g., wealth, physical appearance, or income; Locke 2003; Locke 2005). Thus, social comparison is based on individual's perceptions of being better-off or worst-off when compared to a benchmark (Buunk and Gibbons 2007; Yip and Kelly 2013). Specifically, a downward social comparison occurs when a person compares oneself to others in a disadvantaged position than one's own. Oppositely, an upward social comparison is characterized by a comparison with a target person that performs better than oneself (a benchmark in a superior condition; Locke 2003; Locke 2005). Essential to this research, a common comparison that individuals make involves socioeconomic attributes such as income, revenues, possessions, and educational attainment (Stellar et al. 2012; Belmi and Laurin 2016; Gong and Sanfey 2017).

Past research has accessed social class with subjective measures about individuals' position on a rank (Piff et al. 2010; Piff et al. 2012; Dubois, Rucker, and Galinsky 2015; Dietze and Knowles 2016), as well as employing persons' income, educational level, and job status as proxies of social classes (Kraus and Keltner 2009; Kraus, Piff, and Keltner 2011; Kraus et al. 2012; Belmi and Laurin 2016). In both subjective and objective socioeconomic assessments, consumers are aware about their position in a social rank. However, social comparisons highlight disparities in society, triggering different judgments about how the self and others should behave. Accordingly, individuals in an inferior socioeconomic position, when exposed to social comparison, will have a salient perception about income inequality (Leigh, Jencks, and Smeeding 2009; Rucker, Galisnky, and Magee 2018). This perception will increase their support for wealth redistribution (Fong 2001; Ordabayeva and Fernandes 2017; Roth and Wohlfart 2018) and lead them to think that their gains were more effortful to obtain (Piff and Robinson 2017). Therefore, individuals who make upward social comparison will expect from others in a superior socioeconomic condition a higher donation amount. More formally:

H1: *Individuals who make upward social comparison believe that others in a superior socioeconomic condition are supposed to (a) give more monetary and (b) give more nonmonetary resources to charity when compared to the self.*

Previous studies show that social class can shape behavioral and emotional responses about prosociality and redistribution (Piff et al. 2010; Van Doesum, Tybur, and Van Lange 2017). Higher socioeconomic status fosters an orientation toward agency over communion (Kraus and Keltner 2009; Piff et al. 2010; Dubois, Rucker, and Galinski 2015; Han, Lalwani, and Duhachek 2017), which lead higher-class individuals to believe they are more responsible for the overall monetary resources' generation in society (Choshen-Hillel and Yaniv 2011; Kraus et al. 2012). But although the rich have more money, they may perceive a lower obligation for monetary donation due to the higher taxes they already pay or by improving employment due their consumption rates (Auten, Clotfelter, and Schmalbeck 2000). The rich

may also infer that those in an inferior condition will not wisely use the earned donation or they will not be able to control how the money will be spent (Jones 2006). Therefore, consumers under downward social comparison may not feel responsible for doing more monetary donations when contrasted to persons in an inferior socioeconomic position.

In addition, because the upper-class have high levels of personal agency and sense of control, they may prefer directly prosocial actions such as giving time to help a stranger or by donating food or clothing (Kraus et al. 2012). Greater visibility and immediacy of time donations may make people behave more prosocially on this domain (Ariely, Bracha, and Meier 2009). Previous research shows that monetary donations are strictly related to the compensation of individuals' investments (Leclerc, Schmitt, and Dubé 1995; Ellingsen and Johannesson 2009), whereas nonmonetary donations can be viewed as the result of donors doing moral actions (Liu and Aaker 2008; Macdonnell and White 2015). Therefore, individuals who make downward social comparison will donate more time, but not more money for charity. Formally:

H2: *Individuals under downward social comparison believe that (a) they do not need to give more monetary, but (b) they are willing to give more nonmonetary resources when compared to others in an inferior socioeconomic condition.*

The Mediating Role of Donation Attribution Responsibility

People in a superior socioeconomic position are under higher scrutiny of others when contrasted to those in a lower social condition (Trautmann, Kuilen, and Zeckhauser 2013; Kraus and Callaghan 2016). Lower-income individuals expect higher-income ones to redistribute their resources (Newman, Johnston, and Lown 2015). Indeed, people under lack of resources seek to preserve or improve their states (Levontin, Ein-Gar, and Lee 2015; Roux, Goldsmith, and Bonezzi 2015), which will increase the attribution responsibility to others such as the government (Okten and Weisbrod 2000) or wealthier individuals (Van Doesum, Tybur, and Van Lange 2017). Therefore, those under upward social comparison attribute to others in a wealthier situation a higher responsibility for giving resources.

The downward social comparison gives the perspective of being in a superior situation, where individuals fell that they have enough resources, while others are not able to provide for their own needs. This hierarchy evaluation raises the inequality perception among social classes and increases the sense of power of those in higher socioeconomic status over those under unprivileged situations (Dubois, Rucker, and Galinski 2015; Han, Lalwani, and Duhachek 2017). This empowerment of being in a superior socioeconomic position increases the downward self-responsibility to do more for others. Therefore, we propose that:

H3: *Donation attribution responsibility among individuals who make upward (vs. downward) social comparison will be higher for others (vs. to the self) both for (a) monetary and (b) nonmonetary donations.*

Despite attributing a higher responsibility to themselves, consumers who make downward social comparison may not donate more money for charity. These individuals strongly overestimate social mobility (Kraus and Tan 2015) and tend to consider that those in an inferior socioeconomic condition will not be able to manage monetary resources effectively (Jones 2006). In addition, consumers in downward social comparison believe that they already contribute with a higher amount of money by paying more taxes or by consuming more goods that will improve employment rates (Auten, Clotfelter, and Schmalbeck 2000). Past research shows that in economically unequal regions, the prosocial behavior of those in upper-class conditions is lower (Côté, House, and Willer 2015) and that exposure to inequality reduces

support for redistribution among the wealthy (Sands 2017). Therefore, who make downward social comparison may not feel the need to donate more money to restore distributive justice.

However, high-class individuals may be more likely to engage in nonmonetary prosocial activities when compared to their lower-class counterparts (Musick and Wilson 1998; Korndörfer, Egloff, and Schmukle 2015). Social comparison also exacerbates the inequality and the differences in resources access; the wealthier may believe they have more power to provide nonmonetary resources given their access due to their socioeconomic position. Thus, attributions of responsibility to donate among those who make downward social comparison will increase their nonmonetary donations, but not their monetary donations. More formally:

H4*: Donation attribution responsibility for the self-perspective among individuals who make downward social comparison (a) does not increase monetary donations, but (b) it increases nonmonetary donations.*

Studies Overview

We adapted the procedure of Kraus, Piff, and Keltner (2009) to manipulate social comparison. In Study 1 respondents' annual household income was used as a proxy to allocate participants to the social comparison manipulating conditions, instead in Studies 2 and 3 respondents were randomly allocated to the manipulating conditions, regardless of their household income. Thus, in all studies, after a random designation (Studies 2 and 3) or an allocation based on respondents' household income (Study 1), those in the upward comparison condition were allocated to a lower-social class reference in the social ladder and compared themselves to upper-class individuals. Participants in the downward comparison were allocated to a higher-social class reference in the social ladder and compared themselves to lower-class individuals. In the control condition, respondents were allocated to the middle-social class reference in the social ladder and compared themselves to others in the same socioeconomic group. Participants were then allocated to the self-other evaluative perspective conditions. In the self-perspective, they were asked to report how much they should donate for a charity advisement. In the other-perspective, they were asked how much others in a superior, an inferior, or the same condition should donate depending on their social comparison condition.

Study 1 shows the interaction between social comparison and evaluative perspective on monetary donations. Whereas those in upward social comparison (i.e., upwards) assign higher monetary donations to others in a wealthier position (H1a), respondents in downward social comparison (i.e., downwards) assign no-differences on monetary donations between self-other evaluative perspective (H2a). Study 2 shows the mediating impact of donation attribution responsibility. Upwards (vs. downwards) attribute to others (vs. themselves) a higher responsibility to donate money to charity (H3a). Although downwards attribute to themselves a higher responsibility, they do not give a higher monetary donation amount (H4a). Study 3 tests the interaction between social comparison and evaluative perspective on nonmonetary requests. Upwards (vs. downwards) assign to others (vs. to themselves) a higher nonmonetary donation amount (H1b and H2b). This interaction is also driven by donation attribution responsibility, in which upwards (vs. downwards) attribute donation responsibility as higher to others (vs. to themselves; H3b and H4b). Finally, Study 4 shows field evidence of our previous findings. We show that lower-class respondents attribute to the government the obligation to provide for everyone, whereas higher-class individuals are more favorable to income inequality.

Study 1 – Social Comparison and Monetary Donations

We test the prediction when the context highlights an upward (vs. downward) social comparison, individuals will be more likely to assign monetary donations as higher for others

in a wealthier position than to themselves (H1a). We also predict that downwards will realize no-differences of evaluative perspective on monetary donations (H2a).

Participants and design. This study employed a 3 (social comparison: upward vs. downward vs. control) by 2 (evaluative perspective: self vs. other) between-subjects experimental design. The sample was composed by two hundred and four participants from Amazon Mechanical Turk (MTurk; M_{age}=34.91, SD=10.87; 50% female). Participants were assigned to one of the three social comparison conditions based on their annual household income. They were also randomly allocated to one of the two evaluative perspective conditions.

Procedure. Social comparison manipulation was adapted from Piff et al. (2010) and Piff et al. (2012). Respondents read: "Think in a ladder representing people distribution in your country. As presented in the figure below you are in an inferior (vs. in a superior vs. in the same) position than others in your social circle. Specifically, you are in a worst-off (vs. the best off vs. the same-off) position compared to those who have the most (vs. least vs. same) money, most (vs. least vs. same) education, and the most (vs. least vs. same) respected jobs. In particular, we'd like you to think about YOUR POSITION regarding THESE PEOPLE. Precisely, think about how these people are different from you in relation to income, educational background, and employment status, as the figure shows." The allocation in each condition was based on participants' annual household income to categorize them as lower-class (income inferior to $48,000), middle-class (income between $48,000 and $72,000), or upper-class (income superior to $72,000)[i]. Therefore, lower-income individuals were allocated to the upward comparison, middle-income individuals were allocated to the control condition, and upper-income individuals were allocated to the downward comparison. In the same page, participants were exposed to a figure representing the condition they just had read. Finally, as manipulation reinforcement, on a separate screen, respondents were asked to write down a vivid description of their lives in the provided condition in a 10-lines text.

Monetary donation. As an unrelated study, participants were exposed to an appeal from Habitat for Humanity, a non-profit institution that provides residence for poor people (adapted from Han, Lalwani, and Duhachek 2017). Precisely, we asked participants how much to donate to Habitat for Humanity from the self-perspective ("How much would you donate for this cause?") versus from the other-perspective ("How much do you think others in (a superior/an inferior/the same) condition than you would donate for this cause?"), using a slider scale ranging from $0 to $100.

Measured Variables. Social comparison manipulation check was adapted from Locke (2005). Respondents were asked "With regard to your social position**,** to what extent others in your social circle were:" in a 7-point semantic scale varying from 1="Worse off than you" to 7="Better off than you." Finally, we collected respondents' demographic data.

Results

Manipulation check. To check for the impact of social comparison manipulation, we conducted an ANOVA with the social comparison and evaluative perspective as the two factors and the social position as the dependent variable. As expected, there was only a main effect of social comparison (F(2,198)=21.505; p<.001; η_p^2=.178). Upwards perceived others in a higher social position (M=5.29, SD=1.44) compared both for downwards (M=3.86, SD=1.48) and control conditions (M = 4.58, SD = .82). Specifically, there was difference between upward and control conditions (F(1,137) =10.085; p=.002; η_p^2=.069), between downward and control conditions (F(1,111) =10.069; p=.002; η_p^2=.083), and between upward and downward comparisons (F(1,148) =35.365; p<.001; η_p^2=.193). Similar results were found with a main effect of social comparison on household income (F(2,198)=282.327; p<.001; η_p^2=.655). Downwards reported higher income (M=109,603.82; SD=3,238.30) when contrasted both with upward (M=30,226.05; SD=2,728.40) and control conditions (M=59,464.77; SD=3,587.91).

Monetary Donation. We conducted a two-way ANOVA with the three social comparison and the two evaluative perspective conditions as predictors of monetary donation. The results showed no main effect of social comparison ($F(2,198)=2.032$; $p=.134$) and a main effect of evaluative perspective ($F(1,198)=13.603$; $p<.001$; $\eta p^2=.064$). The expected interaction term was significant ($F(2,198)=8.033$; $p<.001$; $\eta p^2=.075$). Upwards assign higher monetary donation to others ($M=60.55$, SD=28.90) than to themselves ($M=24.62$, SD=29.53; $F(1,198)=35.680$; $p<.001$; $\eta p^2=.153$). Within both downwards ($M_{self}=35.77$, SD=31.53; $M_{other}=36.84$, SD=30.56; $F(1,198)=.22$; $p=.881$) and control condition ($M_{self}=29.04$, SD=23.18; $M_{other}=37.17$, SD=22.50; $F(1,198)=1.056$; $p=.305$), there were no differences between self-other perspectives. An analysis within self-other perspectives show that, within self-perspective, there were no-differences in monetary donation between social comparison conditions ($F(2,198)=1.384$; $p=.253$). Within other-perspective, monetary donation was higher for upwards than downwards or control condition ($F(2,198)=9.174$; $p<.001$, $\eta_p^2=.085$). Furthermore, to other-perspective, results show significant differences between upwards and downwards ($p=.001$) and between upwards and control condition ($p=.002$); but not between downwards and control condition ($p=1$).

Discussion

Study 1 provides support to hypothesis H1a and H2a. Upwards judge that their upper-class counterparts should donate more money to charity than themselves. However, downwards realize no-differences between self-other perspectives on monetary donations. Besides these results, since social comparison manipulation was based on respondents' income by using an objective socioeconomic allocation, it is an open empirical question whether a strictly subjective status would provide similar results. Second, it is necessary to explain why social comparison differently impacts self-other monetary donation. Our prediction is that donation attribution responsibility explains this effect. We address these issues in the next study.

Study 2 – The Mediating Role of Donation Attribution Responsibility

We replicate hypothesis H1a and H2a by using a subjective socioeconomic status with participants' randomly allocation to social comparison conditions. We also test the mediating impact of donation attribution responsibility predicting that upwards (vs. downwards) will attribute monetary donations as higher to others (vs. to themselves; H3a). Although downwards attribute higher donation to the self, they will not increase their monetary donation (H4a).

Participants and design. This study employed a 3 (social comparison: upward vs. downward vs. control) by 2 (evaluative perspective: self vs. other) between-subjects experimental design. The sample was composed by one hundred eighty-five undergraduate students ($M_{age}=21.51$, SD=4.89; 54.1%male).

Procedure. Social comparison manipulation was adapted from Piff et al. (2010) and Piff et al. (2012), but instead of asking for respondents' annual household income to allocate them under social comparison conditions, participants were directly and randomly assigned to one of the six experimental conditions, regardless of their household income.

Monetary Donation. As an unrelated study and to measure our dependent variable, participants were exposed to an appeal from UNICEF, a fictitious charity advertisement collecting money for humanitarian causes (adapted from Duclos and Barasch 2014). Based on the evaluative perspective conditions, participants were asked how much to donate from the self-perspective ("How much should you donate for this cause today?") versus from the other-perspective ("How much do you think others in (a superior/an inferior/the same) condition than you should donate for this cause today?"), using a slider scale ranging from $0 to $100.

Measured Variables. We applied a manipulation check from Locke (2005) as Study 1. We also measured donation attribution responsibility from the self-perspective ("Please, point

out how much you attribute as being yours the responsibility to donate money for this cause:") versus from the other-perspective ("Please, point out how much you attribute as being to a person who is in (a superior/an inferior/the same) condition than you the responsibility to donate money for this cause:") using a 7-point scale, ranging from 1(not at all) to 7(very much). Finally, participants informed their demographic data.

Results

Manipulation check. We conducted an ANOVA with social comparison and evaluative perspective as the two factors and the social position as the dependent variable. As expected, there was only a main effect of social comparison ($F(2,179)=31.33$; $p<.001$; $\eta_p^2=.26$). Upwards perceived others in a higher social position ($M=4.80$, SD=1.0) when compared to downwards ($M=3.55$, SD=.94) and control condition ($M=3.95$, SD=.69). Specifically, upwards differ from control condition ($F(1,117)=29.002$; $p<.001$; $\eta_p^2=.199$), downwards differ from control condition ($F(1,121)=7.362$; $p=.008$; $\eta_p^2=.057$), and upwards differ from downwards ($F(1, 120)=50.628$; $p<.001$; $\eta_p^2=.297$).

Monetary Donation. We conducted a two-way ANOVA with the three social comparison and the two evaluative perspective conditions as predictors of monetary donation. The results showed a significant main effect both for social comparison ($F(2,179)=4.99$; $p=.008$; $\eta_p^2=.053$) and evaluative perspective ($F(1,179)=8.05$; $p=.005$; $\eta_p^2=.043$). The expected interaction was significant ($F(2,179)=11.51$; $p<.001$; $\eta_p^2=.114$). Upwards assign to others a higher monetary donation ($M=61.52$, SD=23.27) than to themselves ($M=26.24$, SD=21.27; $F(1,179)=29.44$; $p<.001$). However, within downwards ($M_{self}=32.62$, SD=29.12; $M_{other}=26.53$, SD=22.51; $F(1,179)=.93$; $p=.336$) and control condition ($M_{self}=35$, SD=26.49; $M_{other}=37.35$, SD=25.28; $F(1,179)=.13$; $p=.715$) there were no-differences between self-other perspective conditions. An analysis within self-other conditions shows that, within the self- perspective, there were no-differences in monetary donation between social comparison conditions ($F(2,179)=.956$; $p=.386$). Within other-perspective, monetary donation was higher for upwards than downwards or control condition ($F(2,179)=15.52$; $p<.001$, $\eta_p^2=.148$). Furthermore, the results were significant to other- perspective when contrasted upwards and downwards ($p<.001$) and when contrasted upwards and control condition ($p=.001$); but not between downwards and control condition ($p=.285$). Overall, these results confirm our hypothesis H1a and H2a.

Donation Attribution Responsibility. We conducted a two-way ANOVA to test the impact of social comparison and evaluative perspective on donation attribution responsibility. The results showed no main effect of social comparison ($F(2,179)=.569$; $p=.567$) neither for evaluative perspective ($F(1,179)=.067$; $p=.796$). The interaction was significant ($F(2,179)=5.08$; $p=.007$; $\eta_p^2=.05$). Upwards attribute donations responsibility as higher to others ($M=3.84$, SD=1.80) than to themselves ($M=2.86$, SD=.84; $F(1,179)=4.552$; $p=.034$; $\eta_p^2=.025$). Oppositely, downwards attribute donations responsibility as higher to themselves ($M=3.56$, SD=1.93) than to others ($M=2.53$, SD=1.55; $F(1,179)=5.34$; $p=.022$; $\eta_p^2=.029$). As expected, there were no-differences under evaluative perspective within the control condition ($M_{self}=3.20$, SD=1.63; $M_{other}=3.45$, SD=1.82; $F(1,179)=.307$; $p=.580$). An analysis within self-other conditions shows that within self-perspective, there were no-differences in donation attribution responsibility under upwards ($M=2.86$, SD=1.84), downwards ($M = 3.56$, SD = 1.93), or control condition ($M=3.20$, SD=1.63; $F(2,179)=1.215$; $p=.299$). Within other-perspective, upwards attribute higher donations responsibility ($M=3.84$, SD=1.80) than downwards ($M=2.53$, SD=1.54) or control condition ($M=3.45$, SD=1.82; $F(2,179)=4.350$; $p=.014$, $\eta_p^2=.046$). Specifically, when analyzed other-perspective, there is only a significant difference between upwards and downwards ($p = .014$). These results show that even though downwards attribute to the self a higher donation attribution responsibility, in fact, their monetary donation is not statistically different from the amount they assign for others in a worst position to donate.

To further investigate the mediating impact of donation attribution responsibility on monetary donation, we use the PROCESS macro on SPSS (model 8; 10,000 samples; Hayes 2018). Social comparison was coded as 0=downward and 1=upward. Evaluative perspective was coded as 0=other and 1=self. Given no-differences for evaluative perspective within the control condition, it was removed from the analysis. The results show a significant interaction of social comparison and evaluative perspective on donation attribution (β=-2.002, CI=-3.27 to -.72), and that donation attribution is significantly associated with monetary donation (β=3.80, CI=1.45 to 6.14). Additionally, there is a significant interaction between social comparison and evaluative perspective on monetary donation (β=-33.74, CI=-50.94 to -16.55). The expected indirect effect of donation attribution on donation amount was negative (β=-7.61, CI=-16.30 to -2.34). For the conditional indirect effect of social comparison on monetary donation, the results show that within upward comparison there was a positive conditional indirect effect of donation attribution responsibility on monetary donation amount within other-perspective (β=4.96, CI=1.49 to 10.74), but there was a no-significant indirect effect for self-perspective (β=-2.64, CI=-8.21 to .39). Within downward comparison, a negative conditional indirect effect of donation attribution responsibility on monetary donation amount for other-perspective was found (β=-4.96, CI=-9.77 to -1.14) and no-significant indirect effect was observed for the self-perspective (β=2.64, CI=-1.001 to 7.28).

These findings show that those in an inferior socioeconomic position will delegate to others in a wealthier position a higher attribution responsibility for monetary donations. Otherwise, in the self-perspective, even though downwards attribute a higher donation attribution responsibility to the self, there is no impact on their monetary donation. These results corroborate our hypothesis H3a and H4a.

Discussion

In Study 2 we corroborate hypotheses H1a and H2a by randomly allocating participants to the social comparison manipulating conditions. We also demonstrate the mediating impact of donation attribution responsibility on monetary donations. Specifically, we show that upwards will attribute both donations responsibility and monetary donations as higher to others in a superior socioeconomic position. However, downwards attribute higher responsibility to the self, but it does not increase their monetary donation when compared to other-perspective condition. These results support our hypothesis H3a and H4a. Next study investigates these predictions under nonmonetary requests. We suggest that while upwards will infer that others in a superior socioeconomic condition have a higher responsibility to do more by even donating more nonmonetary resources, downwards will materialize the donation responsibility only into nonmonetary donation as being higher to themselves.

Study 3 – Social Comparison and Nonmonetary Donations

In this study, we test the prediction that downwards will donate more time to charity (H1b), instead upwards will judge that others in a superior socioeconomic condition should make higher nonmonetary donations (H2b). We also show the mediating impact of donation attribution responsibility in this relation. Those making upward comparison will attribute nonmonetary donations as higher to others in a wealthier position (H3b), while those under downward comparison will increase self-attribution for nonmonetary donations (H4b).

Method

Participants and Design. This study employed a 3 (social comparison: upward vs. downward vs. control) by 2 (evaluative perspective: self vs. other) between-subjects experimental design. Data was composed by two hundred and eight undergraduate students

(M_{age}=23.31, SD=5.8; 51.4% female), randomly allocated to one of the six experimental conditions.

Procedure. Social comparison manipulation followed the same procedure as Study 2.

Time Donation. As an unrelated study and to measure our dependent variable, participants were exposed to an appeal from UNICEF, a philanthropic charity advertisement requesting donations to help children with disabilities. Precisely, participants were instructed as follow "Next you will see an advertisement from UNICEF, a non-profit institution that promotes the defense of children's right. UNICEF is launching its campaign for the second half of this year." Following, individuals saw an advisement from UNICEF and they were inquired in a subsequent screen about the propensity to help UNICEF from the self-perspective ("How much time should you weekly donate for this cause?") versus from the other-perspective ("How much time do you think others in (a superior/an inferior/the same) condition than you should weekly donate for this cause?"), using a slider scale ranging from 0 to 150 minutes per week.

Measured Variables. Following the procedure of the previous studies, participants responded to the social comparison manipulation check from Locke (2005). We also measured the impact of donation attribution responsibility from the self-perspective ("Please, point out how much you attribute as being yours the responsibility to donate for this cause:") versus from the other-perspective ("Please, point out how much you attribute as being to a person who is in (a superior/an inferior/the same) condition than you the responsibility to donate for this cause:"), using a 7-point scale, ranging from 1(not at all) to 7(very much). Finally, participants informed their age and gender.

Results

Manipulation check. We conducted an ANOVA with social comparison and evaluative perspective as the two factors and the social position as the dependent variable. As expected, there was only a main effect of social comparison (F(2,202)=7.079; p=.001; η_p^2=.065). Upwards perceived others in a higher social position (M=4.12, SD=1.10) when compared both to downwards (M=3.42, SD=1.05) and control condition (M=3.77, SD=1.06). Specifically, there was a statistical difference between upwards and control condition (F(1,133)=3.822; p=.05; η_p^2=.028), a marginal difference between downwards and control condition (F (1, 136) = 3.659; p = .073; η_p^2 = .024), and a significant difference between upwards and downwards (F(1,135)=14.080; p<.000; η_p^2=.094).

Time Donation. We conducted a two-way ANOVA with three social comparison and the two evaluative perspective conditions as predictors of time donation to test hypothesis H1b and H2b. The results showed a non-significant main effect of social comparison (F(2,202)= 1.952; p=.145), nor for evaluative perspective (F(1,202)=.802; p=.372). The interaction term was significant (F(2,202)=8.579; p<.001; η_p^2=.078). Upwards point out time donation as higher to others (M=76.6, SD=40.47) when contrasted to themselves (M=55.97, SD=34.48; F(1, 202)= 5.113; p=.025; η_p^2=.025). Downwards point-out time donation as higher to themselves (M=79.87, SD=44.55) than to others (M=54.03, SD=31.69; F(1,202)=8.256; p=.004; η_p^2=.039). Within the control condition, time donation was higher to others (M=65.3, SD=43.76) than to themselves (M=46.03, SD=30.75; F(1,202)=4.514; p=.035; η_p^2=.022). An analysis within self-other conditions shows that, within self-perspective there were differences in time donation between social comparison conditions (F(2,202)=7.011; p=.001; η_p^2=.065). Downwards consider a higher time donation, which differs from both upwards (p=.030) and control condition (p=.001). Additionally, there were no-differences when contrasted upwards and control condition (p=.793). Within other-perspective, time donation was higher for upwards than downwards or control condition (F(2,202)=3.225; p=.042, η_p^2=.031). Result shows a significant difference between upwards and downwards (p=.036). There were no-differences when contrasted upwards (p=.679) or downwards (p=.611) with control condition. More

important and different from the previous findings for monetary requests, upwards evaluate that others in a superior socioeconomic position should donate more time ($M_{upward*other}$=76.60, SD=40.47), judgment that is not statistically different from the self-perceptions of downwards about their time donation obligations ($M_{downward*self}$=79.87, SD=44.55; F(1,61)=.092; p=.763).

Together, these results confirm hypothesis H1b and H2b. Upwards judge that others in a wealthier condition should donate more time, findings that replicate those found for monetary donation (Studies 1 and 2). However, downwards do not perceive they should donate more money compared to others in an inferior social position. Differently from monetary requests, we found that downwards perceive that they should donate more time compared to others in an inferior socioeconomic position. We further explore this relation by analyzing the role of donation attribution responsibility.

Time Donation Attribution Responsibility. We conducted a two-way ANOVA to test the impact of social comparison and evaluative perspective on time donation attribution responsibility. The results showed no main effect of social comparison (F(2,202)=.068; p=.935) neither for evaluative perspective conditions (F(1,202 =.047; p=.829). The expected interaction was significant (F(2,202)=5.423; p=.005; η_p^2=.051). Upwards attribute donation responsibility as higher to others (M=4.41, SD=1.75) than to themselves (M =3.47, SD=1.40; F(1,202)=5.580; p=.019; η_p^2=.027). The opposite pattern is observed within downwards attributing donation responsibility as higher to themselves (M=4.29, SD=1.66) than to others (M=3.40, SD=1.60; F(1,202)=5.227; p=.023; η_p^2=.025). There were no-differences within control condition between self-perspective (M=3.81, SD=1.60) and other-perspective (M=3.91, SD=.76; F(1,202)=.070; p=.792). An analysis within self-other conditions shows that within other-perspective there were differences in attribution responsibility for upwards (M=4.41, SD=1.76), downwards (M=3.40, SD=1.60), and control condition (M=3.91, SD=1.75; F(2,202)=3.314; p=.035, η_p^2=.033). Contrasts show a significant difference only between upwards and downwards (p=.029). Within self-perspective, there were no-differences between donation attributions responsibility for upwards (M=3.47, SD=1.40), downwards (M=4.29, SD=1.66), and control condition (M=3.81, SD=1.60; F(2,202)=2.113; p=.123). These results demonstrate that upwards will attribute higher nonmonetary donations responsibility for others in a superior socioeconomic position. According, downwards will attribute higher time donations responsibility to themselves instead to others in an inferior position.

To further investigate the mediating impact of donation attribution responsibility on time donation, we used the PROCESS macro on SPSS (model 8; 10,000 samples; Hayes 2018). Social comparison was coded as 0=downward and 1=upward. Evaluative perspective was coded as 0=other and 1=self. The interaction between social comparison and evaluative perspective significantly influences donation attribution responsibility (β=-1.8244, CI=-2.91 to -.74), and donation attribution responsibility is significantly associated with a time donation (β=11.844, CI=8.38 to 15.31). Additionally, there is a significant interaction between social comparison and evaluative perspective on time donation (β=-24.89, CI=-47.77 to -2.01). Most importantly, we found a negative indirect effect of donation attribution responsibility on time donation amount (β=-21.6079, CI=-37.69 to -9.24). For the conditional indirect effect of social comparison on time donation, under upward comparison, results show a positive conditional indirect effect of donation attribution responsibility on time donation amount for other-perspective (β=11.9182, CI=3.24 to 23.55) and a negative conditional indirect effect for self-perspective (β=-9.6897, CI=-19.82 to -1.35). This result shows that upwards attribute time donation as higher to others than to themselves. However, the conditional indirect effect under downward comparison shows a positive effect of self- perspective on time donation (β=9.6897, CI=.95 to 19.02) and a negative effect of other- perspective on time donation (β=-11.9182, CI=-22.82 to -2.45). These results support hypothesis H3b and H4b.

Discussion

Study 3 makes the following contributions. First, it supports hypotheses H1b and H2b and adds to the results of previous studies by showing that individuals in an inferior socioeconomic position judge that others in a wealthier condition should donate not only more money, but also more nonmonetary resources, such as time. However, those in a superior condition do not think they should donate more money compared to others in an inferior position (Studies 1 and 2), but they are willing to donate more time. Second, it shows the consistency and provides further evidence of the underlying role of donation attribution responsibility under nonmonetary requests, corroborating hypothesis H3b and H4b. Within upwards, the attribution responsibility increases the amount of time that others should donate. Within downwards, the attribution responsibility increases the amount of time that themselves should donate. This result is different from Studies 1 and 2 for the downward group, where more responsibility does not increase self-monetary donations. Study 4 explores a broad data to further demonstrate how socioeconomic class influences individuals' perceptions about how they ought to act and how they expect that others (i.e., the government) are supposed to act.

Study 4 – World Values Survey Data

We analyzed data from the World Values Survey to verify how individuals from different socioeconomic status think about prosocial actions, here understood as the responsibility to provide for everyone, and opinions about income inequality. This study allows us to further investigate the main prediction using data from the general population instead of undergraduate students and M-Turk workers (Studies 1 through 3), controlling factors that could potentially be confounded with our variables of interest. Following our predictions, we expected that individuals with lower socioeconomic status would agree with the notion that the government should provide for everyone, and that those in a higher socioeconomic status would be more favorable to income inequality. We also predict that these patterns will remain when controlling for other individual characteristics that could covariate with our variables of interest.

Method

Data and Participants. We used data from the World Values Survey, a face-to-face interview conducted between 1981 and 2016, collected from 348,530 participants of 100 countries. We run analysis using both Worldwide Data (M_{age}=40.59; 50.37% female), as well as selecting United States of America Data (USA Data; n=8,548; M_{age}=44.54; 52.3% female).

Variables of interest. The independent variable was an item asking respondents about their socioeconomic status (1="Lower class" to 5="Upper class"). As dependent variable, we analyzed the perception about the responsibility to provide (1="People should take more responsibility to provide for themselves" to 10="The government should take more responsibility to ensure that everyone is provided for") and the agreement with income inequality (1="Incomes should be more equal" to 10="We need larger income differences as incentives"). We also included a set of control variables that could influence our predictors, which were gender (1="Male", 2="Female"), age in an opened question, marital status (1="Married" to 7="Divorced, Separated or Widow"), individual's highest educational level (recoded: 1="Incomplete elementary education" to 6="University with degree"), and employment status (1="Full time to Unemployed" to 7="Other"). All analysis was run first without the inclusion of any control variables and then repeated including all control variables.

Results

Following our predictions, we expected that: (1) individuals under low socioeconomic status (i.e., upwards) would attribute to the government a higher responsibility to provide for everyone; and (2) consumers under high socioeconomic status (i.e., downwards) would be more

favorable to income inequality. Consistent with our predictions, individuals under lower socioeconomic status believe that the government has a higher obligation to provide for everyone (β=-.301; *r*=-.101; *p*<.05). The results also show that individuals under a higher socioeconomic status are more favorable to income inequality (β=.255: *r*=.083 *p*<.01). We conducted the same analyses using only United States of America respondents, replicating the previous findings. Individuals under lower socioeconomic status attribute to the government a higher obligation to provide for everyone (β=-.409; *r*=-.138; *p*<.01). Also, those under a higher socioeconomic status were also more favorable to income inequality (β=.276; *r*=.103; *p*<.01). We performed all analysis including control variables as covariates and found the same results.

Discussion

Using data from the World Values Survey, we provide further explanations to the influence of individuals' socioeconomic status on donation inferences. While hypothesis H1a predicts that upwards infer that others in a superior socioeconomic status should donate more money; in Study 4 we found that consumers under lower socioeconomic position attribute to the government a higher obligation to provide for everyone. Furthermore, while hypothesis H2a suggests that downwards realize no-differences on monetary donations when contrasted to their counterparts, here we found that high-income individuals are more favorable to income inequality. Overall, these findings give additional support to data from Studies 1 through 3 by providing an analysis of a broader population.

General Discussion

This research shows that social hierarchy perspective provided by social comparison affects consumers' prosocial behavior and their judgments about how themselves and others should prosocially act. Consumers in an inferior socioeconomic position (i.e., upward social comparison) judge that others with higher socioeconomic status are supposed to donate more money to charity. Contrary, who are under downward social comparison infer no-differences on self-other monetary donations (Studies 1 and 2). However, for nonmonetary requests, those under downward social comparison perceive themselves as being supposed to donate more time to charity (Study 3). These effects are driven by donation attribution responsibility, by which those under upward social comparison attribute monetary donations as being higher to others in a superior socioeconomic position while those under downward social comparison attribute nonmonetary donations as being higher to the self (Studies 2 and 3). Finally, by using data from the Word Values Survey, this study demonstrates that low-income consumers attribute to the government the obligation to provide for everyone, and that upper-class individuals are more favorable to inequality (Study 4).

Given these findings and to our knowledge, this research is the first to (a) show how upward and downward social comparison impact self-other obligations inferences regarding monetary and nonmonetary prosocial actions; (b) demonstrate that attribution responsibility mediates how social comparison influences individuals' judgments about self-other prosocial actions, and; (c) corroborate low-income individuals predictions about third part obligations and high-income individuals beliefs about inequality by using a general population data from World Values Survey.

Theoretical Implications

Our findings have important implications for research on prosocial behavior, social comparison, and hierarchy inequality perception. First, our findings theoretically contribute to studies on the impact of social class on prosocial behaviors. Previous research shows that low-income individuals are more generous, trustful to others' behavior and tend to give more support both for charity and third-part strangers (Piff et al. 2010; Kraus et al. 2012; Dietze and

Knowles 2016; Gong and Sanfey 2017; Van Doesum, Tybur, and Van Lange 2017). Other studies show some circumstances where high-income individuals are more prosocial (Korndörfer, Egloff, and Schmukle 2015). Although literature argues about a mixed effect of social class on altruism, we demonstrate that under the socioeconomic comparison spectrum, when individuals feel in a lower social position, they decrease the self-responsibility and self-prosocial action, attributing the responsibility of pro-social behavior to others in a wealthier social position. Interesting, this effect is observed both for monetary and nonmonetary resources. For those in a higher social class, there is a judgment that they should donate more nonmonetary resources, but not more money.

Given that inequality has raised remarkable levels (Atkinson, Piketty, and Saez 2011; Lakner and Milanovic 2015; Newman, Johnston, and Lown 2015), social comparison will be more common and more relevant, presenting consequences for donations requests. While social comparison makes inequality perceptions more salient for those under upward social comparison, increasing their inferences about donation attribution responsibility, for those in downward condition social comparison will only increase nonmonetary donation, making them attribute no-differences between self-other evaluative perspective for monetary donations.

Managerial Implications

This research also makes substantive contributions for charitable and non-profit organizations. Although low-income people usually are more benevolent, the social hierarchy reduces their altruism responsibility perception both for monetary and nonmonetary resources. Thus, managers, charities, and non-profit organizations should be aware about these differences when doing marketing and fundraising efforts. Therefore, under requests, managers should avoid to directly expose consumers with low socioeconomic status to social comparisons, which will reduce their prosocial behavior. Also, being in a superior socioeconomic condition may not increase monetary donations, but they are more likely to work for nonmonetary requests. Consequently, non-governmental organizations could focus on nonmonetary requests for those in the superior socioeconomic condition.

This research measured prosocial behavior with time and money donations. However, prosocial actions include a variety of behaviors, such as pro-environmental actions (recycling, reusing, consumption reductions, choosing green products), helping a stranger, donating food, clothing or other material resources. For instance, one of the biggest problems' humanity faces is climate change. How can we induce wealthy individuals to adopt green technologies and to protect the environment? People oftentimes buy green products because of status concerns (Griskevicius, Tybur, and Van den Bergh 2010). The rich also oftentimes display altruism for self-enhancement and impression management (Piff and Robinson 2017). The rich are typically aspired in society. They are viewed as role models. They also have more resources and opportunities to help others. Policy makers may appeal to those motivations of rich individuals to help others to maximize the welfare of all.

Limitation and Future Research

Although we found differences under downward and upward social comparison for monetary and nonmonetary requests, we could not directly measure objective monetary donations to other-evaluative perspective. Therefore, future studies could try to manipulate the other-perspective donations better. Another limitation refers to our nonmonetary request. Here we measured only time-donation as the dependent variable. Future studies could include other requests, such as blood donations, helping others, food or clothing donations, to test the consistency of the results we have found for nonmonetary donations.

Finally, future studies can explore how consumers in upward social comparison could increase donations both for monetary and nonmonetary requests. Previous researchers have

demonstrated that individuals in low-socioeconomic status tend to be other-focused as a way to express welfare with their counterparts, even if donations are costlier to the self (Piff et al., 2010; Kraus et al., 2012; Van Doesum, Tybur, and Van Lange, 2017), which will increase their propensity to act prosocially. Contrary, we found that under social comparison, individuals in an inferior socioeconomic position will attribute donations as being higher to others, also reducing their self-obligation to monetary and nonmonetary requests. Therefore, exploring donations in-group for those in upward social comparison may increase their monetary and nonmonetary donations. This relation presents a broad avenue for future research.

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[i] Based on the World Inequality Database 2018, considering the USA Income Inequality from 2018 using the values of top 10% to downward social comparison, middle 40% to control condition, and the bottom 50% to upward social comparison. The values were rounded. To further details: <https://wid.world/world/#aptinc_p50p90_z/WO/last/us/k/p/yearly/a/false/13282.26/25000/curve/false/country>