

## **The Role of Envy on Perception and Decision Making**

**Lillian Brink**

lhb5567@truman.edu  
Truman State University

**Sarah Finley**

skf3454@truman.edu  
Truman State University

**Jennis Biser**

biserj@apsu.edu  
Austin Peay State University

**David Gillette**

gillette@truman.edu  
Truman State University

### **Abstract**

Envy functions both as a motivator and deterrent in most dimensions of life including sociology, psychology, politics, economics, and business. Prior research has explored how envy motivates people's perceptions of themselves and others; we contribute to the existing body of work by investigating how envy affects people's actions. Using ordered logit analysis of survey data, we explore how envy influences the emotions and reactions of respondents towards unequal compensation in professional, societal, and personal relationships.

Key Words: Envy; Jealousy; Sociocultural; Wage Differentials; Economics

JEL Classification Codes: A13; B55; D91; M52; Z13

## Introduction

The impact of envy is ubiquitous in our culture. Envy has long been studied with findings that illustrate what a large role it plays in people's happiness (Ishida et al. 2014), cooperation (Cobo-Reyes and Jimenez 2012), and views of a fair society (Sznycer et al. 2017). However, the effects of envy in the decisions of younger generations has not been thoroughly researched. Brink et al. (2021) suggests that envy plays a prominent role in the decisions and motivations of college students; this study further explores how envy affects attitudes in inequitable situations.

## Literature Review

The definition of envy varies widely across the literature. Colloquially, it is often used as synonymous with jealousy. Brink et al. found that 30% of college students equate envy with jealousy. However, while no universally acknowledged definition exists, common themes appear in the literature. Smith and Kim (2007) and Vecchio (2000) argue that envy and jealousy differ in persons involved and the object of desire; while jealousy involves three people, two people that desire the attention of the third, envy only involves two, where one desires the possessions or the situation of the other. Smith and Kim further posit that jealousy is born of fear over losing someone or something. Jealousy is the desire to retain possession while envy is the desire for something that may never actually be obtained. Schoeck (1987) agrees, arguing that jealous people believe they have a right to, or ownership of, the possession whereas an envious person will desire an object even if they have no claim to it or it is completely out of reach. Vecchio further argues that jealousy is a more satiable and socially acceptable feeling. Envy, on the contrary, is met with condemning attitudes. Brink et al. found that 62% of respondents viewed envy as a negative emotion associated with words like, "malicious," "hate," and "sin." The results of Pfister and Bohm's (2012) ultimatum game experiment confirm the negative view of envy. Anger was deemed a socially acceptable reason for action, but envy was not.

Kets de Vries' (1988) definition informed our working definition of envy. He described envy as having four main components: a desire for emulation because of perceived excellence, a sense of lacking something followed by injured self-esteem, a longing for the desired possession, and a feeling of anger at the possessor (p. 11-12). Envious people attribute the successes of others to possessions or situations and believe that, given the same possessions or situations, they would be successful as well. Brink et al. corroborate the statement and find that people attribute not just the success, but the happiness of others to the possessions or situation they have. Kets de Vries' definition highlights the inherent comparative nature of envy.

When considering the modern political climate, support for redistribution in policy positions exemplifies the effects of envy as a behavioral motivator. Sznycer et al. (2017) studied support for redistributive policies across political parties in the U.S., U.K., and India. They gave respondents two scenarios differentiated by how much tax the rich pay and how much money the poor receive. In the first scenario, the wealthy pay an additional 10% in taxes and the poor

receive an additional amount of money. In the second scenario, the wealthy pay an additional 50% in taxes and the poor receive money, but only half of what they received in the first scenario. The authors found dispositional envy to be the strongest indicator for respondents to choose the wealth-harming second scenario over the first. Sznycer et al. concluded that envy of the rich, not compassion for the poor, predicts the desire for redistributive policies. Pfister and Bohm further argued that, “a concern for fairness might be stronger in some circumstances than pure self-interest” after finding that respondents would make decisions that harmed others with comparable wealth, even if it hindered their own advancement (p. 21-22).

Relative deprivation theory explains that people determine their satisfaction and happiness by comparing themselves to other subsets of society rather than society as a whole. The findings of Sznycer et al. and Pfister and Bohm suggest relative deprivation can incite envy. The feelings of inferiority that relative deprivation produces often evolve into envy. Cobo-Reyes and Jimenez (2012) found that pairs of strangers playing a coordination game reach more efficient outcomes than pairs of friends, highlighting the role of relative deprivation even in close relationships. People are more likely to be envious of others when they are more like the person.

Gee et al. (2017) found that the source of income affects attitudes towards redistribution. When income was based on performance rather than luck, an increase in inequality was less likely to affect redistribution choices. In this instance, individuals likely use the income differences as a heuristic for deservingness. The belief that income resulted from luck, however, increased the desire for redistribution. In a similar vein, Bethwaite and Tompkinson (1995) conducted a study to determine the motivation of players in an ultimatum game. They find that over half the participants in the study were concerned with a sense of fairness, making fairness, rather than envy or altruism, the main motivator.

Brink et al. found a correlation between social comparison and political positions. Fifty-four percent of respondents who identified as liberal were often troubled by feelings of their own inadequacy and 69% considered themselves the type of person who compared themselves with others in contrast to 41% and 53% respectively of those who identified as conservative. To study how social comparison affects policy preferences, Yitzhaki (1979) used Gini coefficients and relative deprivation theory. He concluded that societies with slight levels of inequality induce more envy than societies with high degrees of inequality. Ishida et al. (2014) also applied relative deprivation theory when analyzing the China puzzle, the ironic simultaneous increase in unhappiness levels and economic growth in China. Ishida et al. use Yitzhaki's calculations to determine that higher incomes do tend to have higher amounts of satisfaction, however individual marginal satisfaction does not increase with income. Relative deprivation and envy's emphasis on relational comparison help explain why the China puzzle exhibits diminishing marginal satisfaction.

Millennials and Generation Z continue to play a larger role in defining the values and priorities of society. Fry's (2018) report in Pew Research Center states that Millennials have now become the largest generation in the workforce. Establishing the presence of envy in their

lives and how it manifests itself is critical to understanding and anticipating the shifts in expectations in the workforce and in politics.

The classification of Millennials varies widely, from 1981-1996 (Dimock 2019), 1982-2004 (Hobbes 2017), or 1988-1994 (Jones et al. 2012). Although the years vary, common themes surface that characterize the generation's values and beliefs. According to Jones et al., characteristics include: a concern for job security and unemployment, higher rates of religious affiliation than previous generations, a concern about the gap between the rich and the poor (and consequently a desire for economic reform), and a loss of faith in the American Dream that hard work pays off (Jones et al. 2012, p. 2). Pew's Social Trends Survey (2010) reflects pessimism among Millennials, reporting that Millennials tend to be unhappier with their earnings compared to past generations and less trustful in people than past generations. Yet despite their dissatisfaction with the present, Millennials tend to be optimistic towards the future and share many characteristics with their Generation Z counterparts.

Generation Z (those born since 1997) are characterized by their diversity, open-mindedness, and technological immersion (Dimock 2019). Fry and Parker (2018) observe that not only is Generation Z likely to be the most diverse generation yet, the data also suggest that they will be more educated and slower to join the workforce than their predecessors. The Deloitte Global Millennial Survey (2020) found that close to half of both generations are stressed all or most of the time and that long-term finances are a top cause of stress. Additionally, job loyalty is increasing, with more millennials responding that they would like to stay at their employers for five years rather than two. Parker et al. (2019) argue that both Millennials and Generation Z hold similar political and social values, however they note evidence of a few discrepancies between the two generations. Specifically, they point out that 70% of Generation Z believe the government should resolve more issues, while only 64% of Millennials agree. These differing values aid in explaining the variation in political preferences (such as redistribution) as well as social comparisons (how and what people envy).

## Methodology

We conducted a situation-based survey exploring how envy affected people in their dealings with others and their attitudes toward inequality.

The survey consisted of several types of questions. Some presented situations in which the respondent has two or three options for how to respond, others compared the salary of the respondents with the higher salary of people with varying degrees of familiarity and asked the respondents how they felt. The questions used a Likert scale design with anchors of Frustrated (1) and Happy (5). All questions were followed by branching questions asking why the respondents answered that way. We coded 902 anonymous responses which provided further insight into the motivations and ideologies of the students. Inter-rater reliability practices allowed us to control for coding error throughout the process. We also asked eleven demographic questions. Given integer valued variables, we performed our analysis using ordered logit regressions.

Previous research was conducted at a midsize liberal arts university. To increase application through broader representation, we conducted the survey at a second university as well. We received over 900 responses, split roughly equally between the two schools. The second university has twice the student population as the first and significantly greater diversity across several metrics. Non-traditional students, over 25 years old, make up 31% of the student population at the second university compared to 4% at the first university. College Factual’s diversity rankings place the second school above average for racial diversity, as 40% of the population identifies as an ethnicity other than white; in the first university’s student population, however, only 20% identified as other than white. The second university’s geographic location influences the student population as well. The school is close to a military base with nearly 30% of its student population comprised of military-connected students. While not enough students connected with the military responded for us to draw conclusions about the demographic, 44% of the second university’s respondents were over 25 and 18% identified as other than white. Six percent of respondents at the first university were over 25 and six percent identified as other than white. The increased demographic variety from sampling two universities created large enough sample sizes for demographic analysis of their differences.

### Discussion

Envy may play a role in employment decisions. In choosing how best to respond to recession conditions in the workplace, respondents’ fiscal ideology and level of religiosity were significant at the liberal arts university. We gave respondents the following scenario:

*In a few years, an economic recession hits the country increasing the unemployment rate to over 10%. The 100 workers at your place of full-time employment must decide whether to all take a 10% pay cut or fire 10 workers. You may or may not be one of the 10 workers. Which choice would you make?*

More fiscally conservative students were more likely to argue that 10 workers should be fired. The more religious respondents, however, were more likely to opt for the personal 10% pay cut. From the qualitative coding, one of the most prominent reasons for choosing the personal pay cut is the belief in a more moral option showing a support for the community (42% of respondents included this theme in their responses). This moral reasoning aligns with the correlation found with those who are more religious.

**Table 1: Pay Cut Regressions (First University)**

	Coef.	St. Err.	T-value	P-value	Sig.
<i>Fiscal</i>	0.377	0.192	1.96	0.050	*
<i>Religious</i>	-0.273	0.165	-1.65	0.099	*

\*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < .1$ ; Pseudo  $r$ -squared, 0.0663; Chi-square, 19.83

In a related scenario about employment, we asked respondents how they would respond to the following:

*You are offered a \$2,000 raise at your job but discover this is only because your boss' salary has increased by \$10,000. How do you react?*

0. *You take the raise no questions asked.*
1. *You attempt to negotiate for a higher raise.*
2. *You refuse the raise and begin seeking alternative employment.*

Interestingly, those on both ends of the fiscal spectrum responded to the prompt similarly. At both universities, those with a more libertarian-leaning view on authority were more likely to refuse the raise and seek other employment. Additionally, results from the first university suggest that the more fiscally liberal are also more likely to refuse the raise and begin seeking other employment.

**Table 2A: Raise Regressions (First University)**

	Coef.	St. Err.	T-value	P-value	Sig.
<i>Born</i>	-1.435	0.807	-1.78	0.075	*
<i>Fiscal</i>	-0.352	0.155	-2.27	0.023	**
<i>Authority</i>	0.368	0.166	2.22	0.026	**
<i>Religious</i>	0.226	0.132	1.71	0.087	*
*** $p < .01$ , ** $p < .05$ , * $p < .1$ ; Pseudo r-squared, 0.0535.; Chi-square, 24.00					

**Table 2B: Raise Regressions (Second University)**

	Coef.	St. Err.	T-value	P-value	Sig.
<i>Authority</i>	0.325	0.179	1.82	0.069	*
*** $p < .01$ , ** $p < .05$ , * $p < .1$ ; Pseudo r-squared, 0.0674; Chi-square, 21.17					

We also asked respondents to consider wage comparisons. Five questions on the survey asked the participants to imagine making \$60,000 a year and rate their responses to the following scenarios on a scale from 1 to 5:

- *Your new coworker with an identical background (same degree, experience, gender, etc.) recently revealed signing on for \$120,000 a year.*
- *Your new coworker with an identical background (same degree, experience, gender, etc.) recently revealed signing on for \$75,000 a year.*
- *Someone you just met at the coffee shop reveals having a \$75,000 salary at a new job in your field.*
- *Your best friend from college recently reveals having a \$75,000 salary at their new job in your field.*
- *Your sibling recently reveals having a \$75,000 salary at a new job in your field.*

The most common reason for expressing frustration at the differences in pay was the belief that, if the two people were doing the same job, they should be earning the same amount, though people were much less frustrated as the pay gap decreased or familiarity with the person increased. The majority of the “Frustrated” responses for all the situations discussed the fairness of the situation, which many concluded were unfair because of the pay discrepancy. The best friend scenario prompted the smallest percentage of students to respond, “Frustrated” with only three percent, while seven percent of respondents said “Frustrated” to the sibling scenario and the majority cited sibling rivalry as the reason.

Some of the responses demonstrated the potential positive side of envy as a motivator. A few of the most common themes of “Indifferent” or “Mildly Happy” responses were to acknowledge the missed opportunity and focus on the future.

The gender of the respondent was negative and significant at both universities for the two situations involving a coworker’s salary, meaning women were more likely to be frustrated by the differences between their salary and their coworkers.<sup>1</sup> Further, at the first university, where women make up 60% of the student population, gender was negative and significant for all the scenarios.

**Table 3A: Coworker Makes \$120,000 Regressions (First University)**

	Coef.	St. Err.	T-value	P-value	Sig.
Gender	-0.972	0.243	-4.00	0.000	***
*** $p < .01$ , ** $p < .05$ , * $p < .1$ ; Pseudo $r$ -squared, 0.0498.; Chi-square, 33.66					

**Table 3B: Coworker Makes \$120,000 Regressions (Second University)**

	Coef.	St. Err.	T-value	P-value	Sig.
Gender	-0.876	0.262	-3.34	0.001	***
*** $p < .01$ , ** $p < .05$ , * $p < .1$ ; Pseudo $r$ -squared, 0.0430; Chi-square, 24.75					

**Table 4A: Coworker Makes \$75,000 Regressions (First University)**

	Coef.	St. Err.	T-value	P-value	Sig.
Gender	-0.897	0.223	-4.02	0.000	***
Domestic	1.755	0.702	2.50	0.012	**
*** $p < .01$ , ** $p < .05$ , * $p < .1$ ; Pseudo $r$ -squared, 0.0358; Chi-square, 32.54					

<sup>1</sup> Note that we did not indicate the coworker's gender in the survey scenario.



**Table 4B: Coworker Makes \$75,000 Regressions (Second University)**

	Coef.	St. Err.	T-value	P-value	Sig.
<i>Gender</i>	-0.721	0.246	-2.94	0.003	***
<i>Socioeconomic background</i>	0.146	0.065	2.25	0.025	**
<i>Domestic</i>	1.033	0.603	1.71	0.087	*
*** $p < .01$ , ** $p < .05$ , * $p < .1$ ; Pseudo $r$ -squared, 0.0439; Chi-square, 31.07					

In the sibling scenario, whether the respondents were religious or not influenced their frustrations. Respondents who identified as religious were less likely to feel frustrated by their sibling earning more than they did. The strong importance of family in most religions may explain some of this finding. For the first, a liberal arts university, the religious variable is also significant and positive in both the scenarios involving making less than a coworker, but interestingly not significant in the coffee shop or friend scenarios.

**Table 5A: Sibling Makes \$75,000 Regressions (First University)**

	Coef.	St. Err.	T-value	P-value	Sig.
<i>Major</i>	-0.122	0.060	-2.03	0.043	**
<i>Gender</i>	-0.715	0.221	-3.24	0.001	***
<i>Religious</i>	0.260	0.109	2.39	0.017	**
*** $p < .01$ , ** $p < .05$ , * $p < .1$ ; Pseudo $r$ -squared, 0.0281; Chi-square, 27.60					

**Table 5B: Sibling Makes \$75,000 Regressions (Second University)**

	Coef.	St. Err.	T-value	P-value	Sig.
<i>Age</i>	-0.431	0.190	-2.27	0.023	**
*** $p < .01$ , ** $p < .05$ , * $p < .1$ ; Pseudo $r$ -squared, 0.0146; Chi-square, 10.42					

We also explored income inequality and wealth distribution. When told that “In 2016, the top 20 percent of households owned 77 percent of total household wealth in America” and asked if they considered it a problem, the key difference between those who responded yes and those who responded no was their view of the system. Respondents who saw wealth inequality as a problem discussed the brokenness of the system in which the rich get richer and the poor get poorer. Those who did not see a problem believed the system was fair and rewarded hard work.

Gender, fiscal ideology, and social ideology all exhibited significant correlations at both universities. Women were consistently more likely to agree that the distribution of wealth is a problem. More fiscally and socially liberal respondents, unsurprisingly, were also more likely to agree that wealth inequality is a problem.

**Table 6A: Wealth Distribution Regressions (First University)**

	Coef.	St. Err.	T-value	P-value	Sig.
<i>Year in School</i>	0.223	0.128	1.75	0.081	*
<i>Gender</i>	0.753	0.307	2.45	0.014	***
<i>Socioeconomic status</i>	-0.180	0.086	-2.08	0.037	**
<i>Fiscal</i>	-0.796	0.190	-4.17	0.000	***
<i>Social</i>	-0.623	0.150	-4.15	0.000	***
<i>Authority</i>	-0.486	0.188	-2.58	0.010	**

\*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < .1$ ; Pseudo  $r$ -squared, 0.2992; Chi-square, 124.29

**Table 6B: Wealth Distribution Regressions (Second University)**

	Coef.	St. Err.	T-value	P-value	Sig.
<i>Gender</i>	0.891	0.322	2.77	0.006	***
<i>Fiscal</i>	-0.812	0.181	-4.48	0.000	***
<i>Social</i>	-0.467	0.163	-2.87	0.004	***

\*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < .1$ ; Pseudo  $r$ -squared, 0.2496; Chi-square, 86.46

When asked if the government should do more to alleviate income inequality through government programs, 72% of respondents said yes. However, 15% of those who said yes responded that they were unwilling to pay a higher income tax, citing that the tax on the rich should be increased and that the government had enough money, it just needed to be better at allocating what it had. Those who responded that the government should not provide more programs argued that the government was in so much debt already and that government programs take the responsibility off individuals.

Unsurprisingly, socioeconomic status, fiscal views, and social views were significant and negative in both universities, meaning respondents in higher quintiles or with more conservative views were less likely to support the government providing more programs. Even those who supported increased government programs at the first school but indicated more fiscally conservative views or libertarian leanings were less likely to be willing to pay higher taxes.

### Limitations and Future Research

Our research provides insights into how envy permeates college-aged students' decisions, however this age range does constrain the applications of our findings. Our responses came primarily from Millennials and Generation Z. Future research could survey other generations with the same questions, thus allowing for a more cross-sectional analysis.

In addition to expanding participant demographics, a subsequent survey could also incorporate questions that reverse the roles of each subject in every scenario. For example, for any scenario asking participants to rate their feelings towards a coworker making more money than them, there would be a complementary question asking them to rate their feelings if the respondent made more money than the coworker. This approach could provide insight into participants' perception of fairness versus worth in certain circumstances.

### **Conclusion**

Envy plays a prominent role in the desires and opinions of college students, from their work preferences to relationships to political ideals. Consistent with the literature, envy can act as a motivator, though it largely has a negative effect on the respondents. Envy is often driven by a strong sense of fairness and a desire to not be taken advantage of by others. However, close relationships can overcome feelings of envy.

This research contributes to the literature by continuing the study of envy's effect on the lives of the younger generations, commonly referred to as Millennials and Generation Z. The results of this study are in line with the literature about previous generations, demonstrating that envy plays a similar role in the lives of the young as in the lives of older generations.

## References

- Bethwaite, Judy, and Paul Tompkinson. 1996. "The Ultimatum Game and Non-Selfish Utility Functions." *Journal of Economic Psychology*, 17(2): 259-271.
- Brink, Lillian, Sarah Finley, David Gillette, and Datha Damron-Martinez. 2021. "The Potency of Envy." *Journal for Economic Educators*, 21(2).  
<https://libjournals.mtsu.edu/index.php/jfee/article/view/2121> . Accessed 6 March 2022.
- Cobo-Reyes, Ramón, and Natalia Jiménez. 2012. "The Dark Side of Friendship: 'Envy'." *Experimental Economics*, 15(4): 547-570. <https://doi.org/10.1007/s10683-012-9313-0> .
- Dimock, Michael. 2019. "Defining generations: Where Millennials End and Generation Z Begins." *Pew Research Center*. <https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/> . Accessed 6 March 2022.
- The Deloitte Global Millennial Survey 2020*. Deloitte.  
<https://www2.deloitte.com/global/en/pages/about-deloitte/articles/millennialsurvey.html> . Accessed 6 March 2022.
- Fry, Richard. 2018. "Millennials are the Largest Generation in the U.S. Labor Force." *Pew Research Center*. <https://www.pewresearch.org/fact-tank/2018/04/11/millennials-largest-generation-us-labor-force/> . Accessed 6 March 2022.
- Fry, Richard, and Kim Parker. 2018. "Early Benchmarks Show 'Post-Millennials' on Track to Be Most Diverse, Best-Educated Generation Yet." *Pew Research Center: Social & Demographic Trends*. <https://www.pewsocialtrends.org/2018/11/15/early-benchmarks-show-post-millennials-on-track-to-be-most-diverse-best-educated-generation-yet/> . Accessed 6 March 2022.
- Gee, Laura, Marco Migueis, and Sahar Parsa. 2017. "Redistributive Choices and Increasing Income Inequality: Experimental Evidence for Income as a Signal of Deservingness." *Experimental Economics*, 20(4): 894-923.
- Ishida, Atsushi, Kenji Kosaka, and Hiroshi Hamada. 2014. "A Paradox of Economic Growth and Relative Deprivation." *Journal of Mathematical Sociology*, 38(4): 269-284.

- Jones, Robert, Daniel Cox, and Thomas Banchoff. 2012. "A Generation in Transition: Religion, Values, and Politics among College-Age Millennials." *Public Religion Research Institute, Inc. and Georgetown University's Berkley Center for Religion, Peace, and World Affairs*, <https://berkeleycenter.georgetown.edu/publications/millennial-values-survey-report> . Accessed 6 March 2022.
- Kets De Vries, Manfred F.R. 1992. "The Motivating Role of Envy: A Forgotten Factor in Management Theory." *Administration & Society*, 24(1): 41+. [http://bi.gale.com.ezproxy.lib.apsu.edu/essentials/article/GALE%7CA12401257/62651a6d6cd714fe4c6c4ee203e813b4?u=tel\\_a\\_apsu](http://bi.gale.com.ezproxy.lib.apsu.edu/essentials/article/GALE%7CA12401257/62651a6d6cd714fe4c6c4ee203e813b4?u=tel_a_apsu) . Accessed 6 March 2022.
- Parker, Kim, Nikki Graf, and Ruth Igielnik. 2019. "Generation Z Looks a Lot Like Millennials on Key Social and Political Issues." *Pew Research Center: Social & Demographic Trends* <https://www.pewsocialtrends.org/2019/01/17/generation-z-looks-a-lot-like-millennials-on-key-social-and-political-issues/> . Accessed 6 March 2022.
- Pew Research Center. 2010. "Millennials: A Portrait of Generation Next. Confident. Connected. Open to Change." <https://www.pewresearch.org/wp-content/uploads/sites/3/2010/10/millennials-confident-connected-open-to-change.pdf> . Accessed 6 March 2022.
- Pfister, Hans-Rüdiger, and Gisela Böhm. 2012. "Responder Feelings in a Three-Player Three-Option Ultimatum Game: Affective Determinants of Rejection Behavior." *Games*, 3(1): 1-29.
- Schoeck, Helmut. 1987. *Envy: A Theory of Social Behaviour*. Indianapolis: Liberty Fund.
- Smith, Richard H., and Sung Hee Kim. 2007. "Comprehending Envy." *Psychological Bulletin*, 133(1): 46-64. <https://psycnet.apa.org/doiLanding?doi=10.1037%2F0033-2909.133.1.46> . Accessed 6 March 2022.
- Sznycer, Daniel, Maria Florencia Lopez Seal, Aaron Sell, Julian Lim, Roni Porat, Shaul Shalvi, Eran Halperin, Leda Cosmides, and John Tooby. 2017. "Support for Redistribution is Shaped by Compassion, Envy, and Self-Interest, But Not a Taste for Fairness." *Proceedings of the National Academy of Sciences of the United States of America*, 114(31): 8420-8425. <https://www.pnas.org/doi/pdf/10.1073/pnas.1703801114> . Accessed 6 March 2022.
- Vecchio, Robert. 2000. "Negative Emotion in the Workplace: Employee Jealousy and Envy." *International Journal of Stress Management*, 7(3): 161-179. <https://link.springer.com/article/10.1023/A:1009592430712> . Accessed 6 March 2022.

Yitzhaki, Shlomo. 1979. "Deprivation and the Gini Coefficient." *The Quarterly Journal of Economics*, 93(2): 321-324.

## Appendix – Survey Questions<sup>23</sup>

### PayCut

In a few years, an economic recession hits the country increasing the unemployment rate to over 10%. The 100 workers at your place of full-time employment must decide whether to all take a 10% pay cut or fire 10 workers. You may or may not be one of the 10 workers. Which choice would you make?

0. Take the 10% pay cut.
1. Argue that 10 workers should be fired.

Why would you decide that way?

### ExtraCredit

You are in a semester-long group project with three other members. Your professor praises your group's excellent work and consequently decides to offer extra credit, but only to one person of the group. This person is determined by independent group evaluations, whoever has the highest group evaluation receives the extra credit. You are offered this option or no extra credit at all. How do you react?

0. You agree to the extra credit and fill out the group evaluation.
1. You refuse the extra credit.

Why would you decide that way?

### Splurged

Have you ever splurged on an item or experience because it was popular with your peers?

0. No
1. Yes

Why?

What are the reasons you splurge (if at all)?

### Raise

You are offered a \$2,000 raise at your job but discover this is only because your boss' salary has increased by \$10,000. How do you react?

0. You take the raise no questions asked.
1. You attempt to negotiate for a higher raise.
2. You refuse the raise and begin seeking alternative employment.

### Sixty120Coworker

---

<sup>2</sup> The survey was open from November of 2019 to January of 2020.

<sup>3</sup> Note: our survey results suggest that in future research tightening up a couple of the questions would improve the results. For example, in the *Raise* question, untying causality from the bosses raise; and, in the political orientation section, including definitions of authoritarian and libertarian would better aid student self-ratings.

You recently landed a new job making \$60,000 a year. Your new coworker with an identical background (same degree, experience, gender, etc.) recently revealed signing on for \$120,000 a year. How does this make you feel (on a scale of 1 to 5)?

1. Frustrated
2. Mildly frustrated
3. Indifferent
4. Mildly happy
5. Happy for your coworker

Why do you feel that way?

### **Sixty75Coworker**

You recently landed a new job making \$60,000 a year. Your new coworker with an identical background (same degree, experience, gender, etc.) recently revealed signing on for \$75,000 a year. How does this make you feel (on a scale of 1 to 5)?

1. Frustrated
2. Mildly frustrated
3. Indifferent
4. Mildly happy
5. Happy for your coworker

Why do you feel that way?

### **Sixty75Coffee**

You recently landed a new job with a \$60,000 a year salary. Someone you just met at the coffee shop reveals having a \$75,000 salary at a new job in your field. How does this make you feel (on a scale of 1 to 5)?

1. Frustrated
2. Mildly frustrated
3. Indifferent
4. Mildly happy
5. Happy for your coworker

Why do you feel that way?

### **Sixty75Friend**

You recently landed a new job with a \$60,000 a year salary. Your best friend from college recently reveals having a \$75,000 salary at their new job in your field. How does this make you feel (on a scale of 1 to 5)?

1. Frustrated
2. Mildly frustrated
3. Indifferent
4. Mildly happy
5. Happy for your coworker

Why do you feel that way?



### **Sixty75Sibling**

You recently landed a new job with a \$60,000 a year salary. Your sibling recently reveals having a \$75,000 salary at a new job in your field. How does this make you feel (on a scale of 1 to 5)?

1. Frustrated
2. Mildly frustrated
3. Indifferent
4. Mildly happy
5. Happy for your coworker

Why do you feel that way?

### **WealthProblem**

In 2016, the top 20 percent of households owned 77 percent of total household wealth in America. Do you think this is a problem?

0. No
1. Yes

Please explain why you made the choice you did.

### **GovtFixProb**

Do you think the government needs to do more to alleviate the income inequality through government programs (ex. Medicare, college debt forgiveness, etc)?

0. No
1. Yes

### **HigherTaxesToFix**

Would you be willing to pay a higher income tax to support these programs?

0. No
1. Yes

Why?

### **YearInSchool**

Year in school/class:

- (1) First Year (2) Sophomore (3) Junior (4) Senior (5) Graduate Student (6) Non-traditional

If non-traditional, How many years have you been in school?

### **Major**

Major(s):

- (0) Undeclared (1) Fine Arts (2) Humanities (3) Social Sciences (4) Sciences  
(5) Mathematics (6) Computer Science (7) Business (8) Engineering

### Age

When were you born?

(1) 1997-2001 (2) 1981-1996 (3) Before 1981

### Gender

Gender: I identify as:

(0) Male (1) Female  
(2) Transgender<sup>4</sup> (3) Gender variant/non-conforming  
(4) Prefer not to answer

### SocioEcon

Family's approximate socioeconomic background:

(1) Lower-lower (4) Middle-lower (7) Upper-lower  
(2) Lower-middle (5) Middle-middle (8) Upper-middle  
(3) Lower-upper (6) Middle-upper (9) Upper-upper

### Domestic

International vs domestic:

(0) Domestic/US (1) International

Race:

(0) Non-Hispanic White or Euro-American  
(1) Black or African-American  
(2) East Asian or Asian American  
(3) Latino or Hispanic  
(4) Middle Eastern or Arab American  
(5) Native American or Alaskan Native  
(6) South Asian or Indian American

*Political Orientation:*

### Fiscal

Fiscally Liberal 1 2 3 4 5 Fiscally Conservative

### Social

Socially Liberal 1 2 3 4 5 Socially Conservative

### Authority

Authoritarian 1 2 3 4 5 Libertarian

---

<sup>4</sup> In our regressions, we coded options 2-4 as missing since there were an insignificant number of responses

**Religious**

To what level do you consider yourself to be religious?

- (0) Not Religious
- (1) Slightly Religious
- (2) Moderately Religious
- (3) Very Religious
- (4) Don't Know<sup>5</sup>

**Religion**

What is your religion?

- (0) Christian (1) Jewish (2) Muslim (3) Hindu (4) Agnostic (5) No religion
- (6) Other

**Military**

Are you in the military?

- 0. No
- 1. Yes

---

<sup>5</sup> Coded (4) "Don't Know" as missing to have linear scaling of variables