

Who Counts What as Sexual Coercion?  
A New Approach to Understanding Sexual Assault Prevalence  
Estimates

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August 27, 2018

## 1 Introduction

Recently, popular feminist movements have been protesting rape culture in many countries. In 2016 tens of thousands protested in Mexico and across Latin America in response to acts of sexual violence against women. In October 2017 the United States, the “#MeToo” movement erupted in the United States following reports of sexual misconduct by Hollywood mogul Harvey Weinstein. The movement focused on methods of sexual coercion that extended beyond physical force, specifically the use of power and intimidation. These movements have focused both on the prevalence of sexual acts involving physical force as well as raising awareness about types of sexual harassment and coercion beyond physically violent acts.

Official statistics tell us little about prevalence of these types of coercion, or characteristics of victims or perpetrators. We know that even rape by strangers using physical force is underreported when lack of consent is clear. We assume that cases where lack of consent is less absolute are more underreported. Surveys which attempt to measure the prevalence of sexual assault are therefore unlikely to adequately estimate the true prevalence of such acts. Additionally most surveys focus on the number of women who report sexual abuse rather than the number of perpetrators. We also have little information about whether people perceive other types of threats or pressures as coercive. We don't know if the interpretation of these incidents as assault is dependent on characteristics such as the gender or race of the victim and perpetrator or the type of relationship the individuals have.

The objectives of the study are to better understand the extent to which people perceive various economic and reputational threats as consensual or coercive, and what characteristics of the respondent, or the individuals depicted in the scenario, are associated with higher ratings of a scenario as: 1) coercive (on a scale of 1-10), 2) as a crime (yes or no), and 3) as something that should be reported to authorities (yes or no). This study elucidates some of the decisions individuals make when reporting incidents of sexual coercion. If we understand these decisions, we can get a better idea of the extent to which different types of sexual assault are underreported, and how demographic characteristics such as gender, education, race are associated with underreporting due to different perceptions of consent/coercion. Additionally, it can identify which demographic characteristics are associated with higher risk for perpetrating or being a victim of sexual assault. A further advantage to our survey design is it allows sampling from the general population as opposed to pre-screening for specific subsamples as is common among other crime-victim surveys. Furthermore our sample includes men which means we can obtain

information about men as perpetrators as well as victims whereas many sexual assault surveys sample only women.

In this paper we present findings from our pilot study which surveyed respondents using Amazon’s Mechanical Turk. Since we believe this sample pool is not diverse enough to draw conclusions at the national level, we are pursuing a nationally representative sample for further research. These methods could readily be applied to survey data from any country in order to better understand reporting behaviors as well as to improve estimates of prevalence.

## **2 Motivation**

Individuals may view a situation that leads to a sexual encounter as more or less consensual based on contextual attributes. Large surveys which aim to get estimates of sexual assault or coercion, may not present nuanced questions to capture the range of possible scenarios which fall under the umbrella of illegal sexual coercion. In the United States, for example, the National Crime Victim Survey simply asks a binary question about whether respondents have ever experienced sexual assault, “Have you been forced or coerced to engage in unwanted sexual activity”. Due to the use of the word “force” as well as the binary nature of the question, may result in respondents using a threshold to determine whether any experience is sufficient to qualify for an affirmative answer to this question.

Individual respondents may rely on their knowledge of sexual assault as a category in order to determine whether their experience qualifies. Respondents may begin with a prototype of coerced sexual activity - e.g. a male stranger using physical force - in order to assess their own experience. Large contextual deviations from this prototype may lead individuals to believe that certain acts are not sexually coercive. Put more simply, scenarios such as close friends or professional contacts using social or financial leverage in order to coerce sexual acts may not register as valid for reporting purposes even if they fit the legal standards of sexual assault.

## **3 Methods**

For this study we employ a conjoint survey design in which respondents read a variety of vignettes that vary attributes of the victim and perpetrator according to predetermined probabilities (Hainmueller et al. 2015). The vignettes vary the race and gender of the victim and perpetrator as well as the tactic used and the relationship between the victim and perpetrator. Each respondent sees each combination of vignette attributes with a predetermined set of prob-

abilities. These predetermined probabilities allow us to estimate the marginal influence of each attribute in determining whether respondents view the scenario as sexual assault or a crime and whether they view it as worthy of reporting. In order to avoid any bias as a result of the length or structure of vignettes, all scenarios follow the same brief pattern:

[Perpetrator] is [victim's] [relationship in tactic].

They have a [rocky/okay/good] relationship.

[Perpetrator] wants to have sex but [victim] does not.

Then, [perpetrator] [threat in tactic] [victim] unless [victim] and [perpetrator] have sex.

[Victim] and [perpetrator] have sex.

### 3.1 Tactic

We use six different tactics with physical force used as a baseline. In order to provide tactics that were realistic, we conducted interviews and focus groups. We conducted three focus groups, two groups with Princeton undergraduates and one with a diverse group of women aged 18-34 from Trenton, New Jersey. These focus groups provided a variety of relationship types and tactics suitable for the survey. The focus groups also suggested two sources of variation in responses to whether or not the respondent experienced forced or coerced sexual acts. The first source of variation is the type of scenario - or the prototype - that the question prompts. Then conditional on evaluating the same scenario, variation in respondent's judgement of the event constitutes the second source of variation. In order to address this, the study fixes the vignettes so that each respondent is constrained to thinking of the same scenario. We then measure variations in the scenario attributes (such as the race, gender, and relationship of the victim and perpetrator) as well as demographic information on the respondent. This allows us to control the first source of variation (the scenario being evaluated) and examine the second (the relationship between respondent and vignette characteristics and whether scenarios are considered coercive).

Below are the tactics used in the survey.

1. *Baseline category*: "Perpetrator...threatens to use physical force."
2. Landlord: "Landlord...says [he/she] will evict"
3. Hourly/shift work: "Boss...threatens to cut back the shifts"
4. White-collar work: "Boss...threatens to block the promotion"
5. Humiliation: "Ex...threatens to post naked photos"

6. Humiliation: “Neighbor...threatens to out [victim], who is not heterosexual but has only come out to a few close friends”

### **3.2 Victim and Perpetrator Attributes**

In order to test which attributes of victim and perpetrator are likely to impact reporting behaviors we vary the race, gender, and quality of relationship of each vignette subject. Relationships are equally randomized to one of three levels: “rocky”, “okay”, or “good.” The gender of the victim and perpetrator are randomized unequally across four possible combinations: male perpetrator-female victim (85%), male perpetrator-male victim (5%), female perpetrator-male victim (5%), female perpetrator-female victim (5%). Race and gender were signaled via the victim and perpetrators names. Names were selected from a database of children born in New York City between 2011 and 2014. The data included the child’s name and mother’s ethnicity. Names were separated into male and female and subsequently chosen based on their relative frequency to whites compared to non-whites. This enables us to choose names which are common among either race while eliminating names that are common to both.

### **3.3 Response to Vignettes**

After reading the randomized vignettes, the respondents answer a series of questions pertaining to the tactic. First, respondents provide a rating of the victim’s consent, on a continuous scale from 1 (No freedom to refuse) to 10 (A lot of freedom to refuse). Subsequently respondents answer a series of binary (“yes/no”) questions. The first is a standardized question used in the National Crime Victims Survey for reporting sexual assault, “Did [perpetrator] force or coerce [victim] into unwanted sexual intercourse?” The respondents must then answer whether they thought the perpetrator committed a crime and whether they thought the victim should report the perpetrator. This allows us to capture whether a typical respondent would have reported such an act on a national crime survey, whether they believed the act to be illegal and separately, if they thought the act should be reported. We therefore capture variation in an individual’s willingness to report conditional on whether or not they considered the act a crime. It also allows us to uncover what attributes of sexually coercive acts are more or less likely to be considered criminal and worthy of reporting. In short, these binary questions allow us to measure 1) whether a typical national survey question would capture a particular type of assault; 2) whether a particular type of assault is viewed as criminal; and 3) whether individuals believe the act should be reported. It is worth noting that individuals may avoid reporting even

if an act was considered criminal for a number of reasons including distrust in authorities or fear of repercussions.

Asking both continuous and binary questions allows us to isolate the measure of consent from the decision to report. This will allow us to see whether the relationship between how forced an act is and worthy of being reported an act is varies by vignette and respondent characteristics. Of particular concern is whether respondents at higher risk for certain scenarios are less likely to report those acts even if they do believe the acts to be coercive.

### **3.4 Demographic and Attitudinal Measures**

We collect data on respondent's attitudes regarding sex using the Adversarial Sex Beliefs scale (Burt 1980) as well as their political ideology, as well as their views on same sex marriage. The Adversarial Sex Beliefs scale measures how much respondents consider sex to be an adversarial act, a sentiment like, "sex is like a game where one person wins and the other person loses." This will help us assess whether adversarial beliefs about sex inhibit reporting behavior. We use attitudes about same sex marriage in order to evaluate whether sympathy or advocacy for this cause impacts the respondents ability to judge the outing tactic.

Additionally we collect demographic details such as age, race, and gender. Finally we also gather socioeconomic and professional indicators such as personal control over work hours and scheduling, and reliance on public benefits. We expect that more familiarity with the challenges of underprivileged status will correlate with better understanding of the ability of authority figures to leverage social or financial pressure. This may impact their opinions of the work shifts or landlord vignettes. Furthermore, it is possible that the likelihood of knowing of an event first hand will impact the likelihood an event will be viewed as coercive. There are two possible directions of this impact, if these acts are considered commonplace, they may be less likely to view the acts as transgressive, illegal or worthy of reporting. However, personal knowledge of such events may increase the awareness of their damaging nature and thus increase the likelihood of reporting. The most problematic for survey purposes would be if populations which are at highest risk for certain scenarios are less likely to report them. This would increase the likelihood of underreporting for certain groups. Group-level underestimates for prevalence of sexual coercion may result in suboptimal policies to address these issues.

## 4 Preliminary Results and Discussion

### 4.1 Respondent Demographics

In order to conduct preliminary analysis and test the survey, we piloted the project using Amazon Mechanical Turk. The sample was comprised of approximately 180 men and women aged 18-34 living in the United States. The sample was predominantly male (73%) and white (48%) with a modal income bracket of \$50,000-74,999. The sample also included Asian (29%), African American (7%), and Hispanic (3%) respondents. The majority (69%) supported same sex marriage and the plurality (36%) self-identified as liberal (followed by moderate (17%), conservative (13%), slightly conservative (12%), slightly liberal (12%), extremely liberal (10%), very conservative (2%)).

We used respondent zip codes to determine geographic variability. Figure 1 shows the respondents came from a variety of locations.

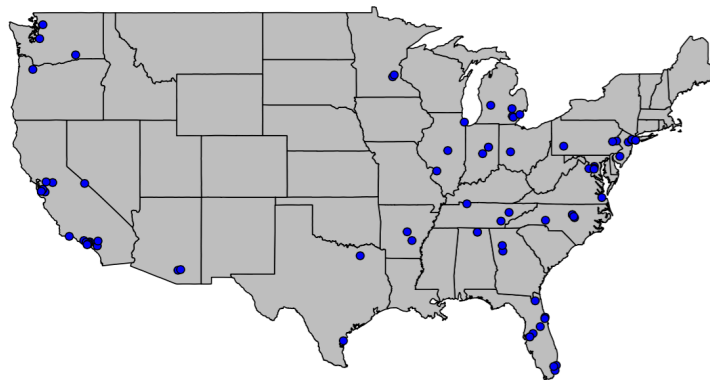


Figure 1: Map of pilot respondents' zip codes.

Our pilot sample was predominantly male and liberal. Force was, as expected, consistently ranked as the most coercive (or least freedom to refuse), with “outing” ranked as the least coercive (most freedom to refuse). Approximately 60% of the sample viewed physical force as forceful or coercive while between 85% and 95% of the sample found the other tactics to be forceful or coercive. We expect that these numbers will decrease slightly as the sample gets more diverse. It is worth noting, however, that no tactic was viewed as forceful by every member of the pilot sample.

tactic	mean	median	sd
force	4.20	3.00	3.09
post naked photos of	4.38	4.00	2.47
cut back the shifts of	5.26	5.00	3.09
evict	5.35	5.00	2.91
block the promotion of	5.44	5.50	2.71
out	6.14	6.00	2.75

Respondents were asked how many of their five closest same-gender friends had experienced each tactic. With the exception of the “post naked photos” tactic, approximately half of the respondents reported knowing at least one friend, with between one fifth and one third reporting having two or more of their five friends experience each tactic. This implies a fairly high prevalence of sexual coercion through power and intimidation.

tactic	% with zero friends experienced	% with 1 friend experienced	% with 2+ friends experienced
post naked photos of	0.84	0.03	0.12
evict	0.63	0.15	0.21
cut back the shifts of	0.60	0.14	0.26
block the promotion of	0.57	0.13	0.30
out	0.57	0.16	0.27
force	0.56	0.16	0.28



## 4.2 Vignette Rating

For the most part, when respondents were asked whether a tactic was “forced or coerced”, most said the tactics were coercive (Figure 2). The tactic, “break up with” was rated as coercive the least often (only 63 % of respondents said this was coercive). While all the acts are coercive in nature, this is the only tactic which does not fit the legal definition of assault. Even though most respondents rated each act as coercive, their ratings were not consistent across whether or not the act was a crime, and whether or not the act should be reported. In addition to asking whether each scenario is coercive, the respondents had to answer whether they believed the tactic was a crime (yes/no) and whether the victim should report the perpetrator (yes/no). Figure 3 shows the frequency of respondents who answered “yes” to all three binary questions, as well as those that responded with “no” to all three, those that said “yes” to crime and coercion but “no” to reporting, and those that said “yes” to coercive and “no” to crime and reporting.

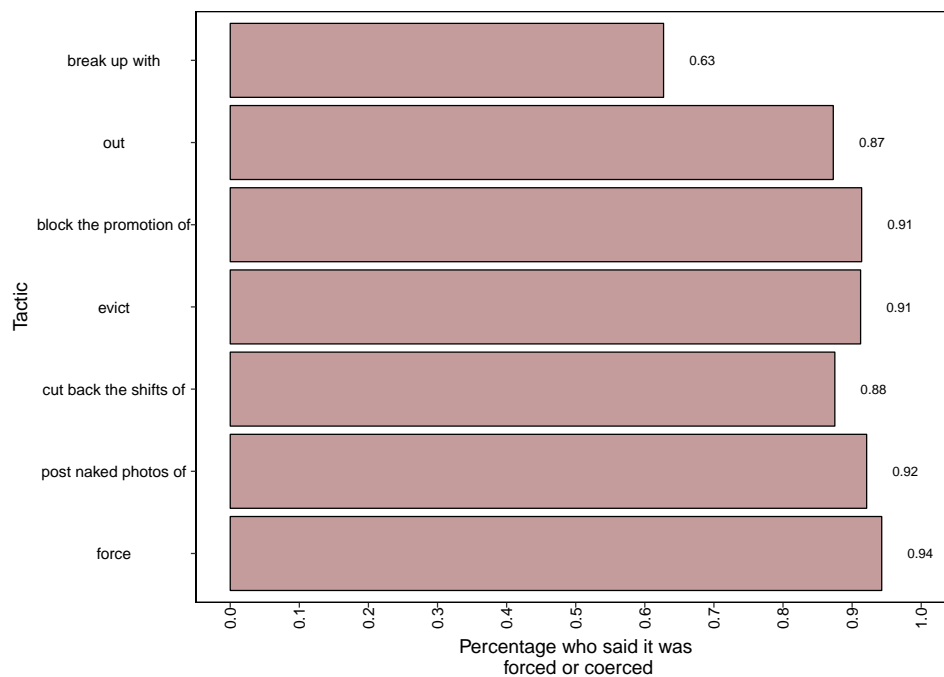


Figure 2: Percent of respondents who rated each tactic as forced or coerced. With the exception of the break up with, all tactics were rated as coercive the overwhelming majority of the time regardless of other scenario attributes.

“Physical force” was most likely to receive “yes” responses for all three questions “while break up with” was least likely. “Physical force” was followed by (in order of consistency in affirmative responses): “post naked photos of”, “evict”, “cut back the shifts”, “block the promo-

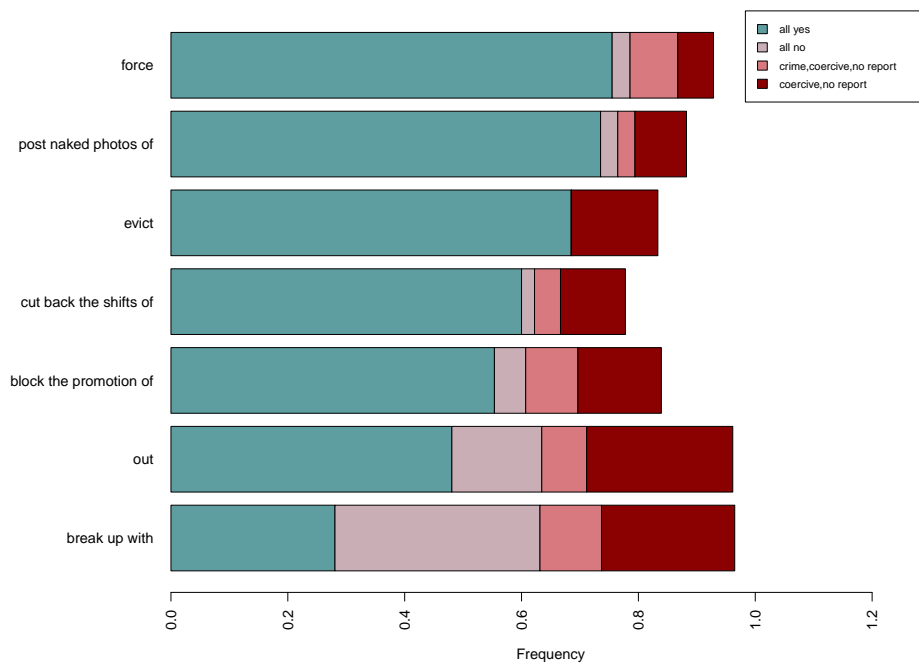


Figure 3: Ratings of vignettes across crime, coercion, and reporting. Blue bars indicate the proportion of respondents who answered yes to all of the binary questions (coercive, crime, reporting). The next rectangle indicates those that answered no to all three questions. The next indicates those that answered yes to coercion and crime but said the victim should not report the act. The last segment represents those that answered yes to coercive but no to crime and reporting.

tion of”, and “out”. It is surprising that “post naked photos” was rated as second while “out” was second to last as they are both socially damaging and personally invasive. The rest of the tactics involve leveraging a professional relationship in order to coerce sexual acts. There were still a substantial number of respondents that did not believe these acts were criminal and/or that they should be reported.

### 4.3 Marginal Effects

Unfortunately due to the small sample size of the pilot survey, we are not able to obtain statistical significance on many of our respondent or scenario attributes. While all the scenarios were rated as less coercive than physical force, they were not rated statistically different from each other. We see some small effects of race of the victim, with having a black victim more likely to be rated as less freedom to say no. Additionally, we see that while changing the gender of the perpetrator and victim does not have statistically significant marginal effects, both cases with female perpetrators, regardless of victims gender, were rated as less coercive. We expect these results to become more pronounced with increasing survey size. We also see that tactics where the victim and perpetrator have a good relationship are rated as less coercive than those when the relationship was only okay or rocky. This indicates that when relationships are good, respondents interpreted the victim to have more freedom to say no.

Figure 6 demonstrates that women were more likely to rate tactics as less coercive than men. Men and women were equally likely to see a scenario as a crime (about 42 % and 48% respectively). Surprisingly, women were less likely to believe an incident should be reported. Only 36 % of women said an act should be reported, compared to 52 % of men. These opposite affects are especially revealing of the societal pressure on women to stay quiet. In spite of being much more likely to rate acts as more coercive, women were also less likely to suggest that an act should be reported. This indicates that while women are more than capable of recognizing coercive acts when they occur, they are less likely to report them. These numbers cannot serve as precise estimates because the small sample size precludes us from asserting that the pool of scenarios were identical for all male and female respondents. Even though the probability of each scenario is equal, the sample size was small enough it is possible women saw tactics that were generally less coercive. So while the marginal effects control for the scenarios, the gross percentages do not. Regardless, the numbers are interesting and only a larger sample size will

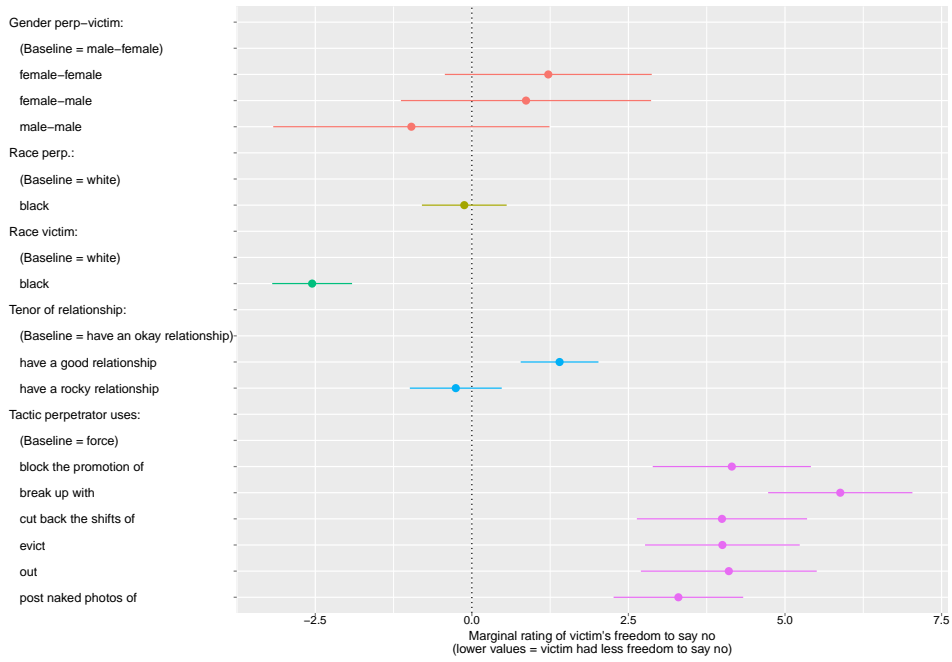


Figure 4: Marginal ratings of victim's freedom to say no using physical force as the baseline. Positive values indicate more freedom to refuse. We see all the tactics are rated as less coercive (more freedom to refuse) than physical force with threatening a break up the least coercive.

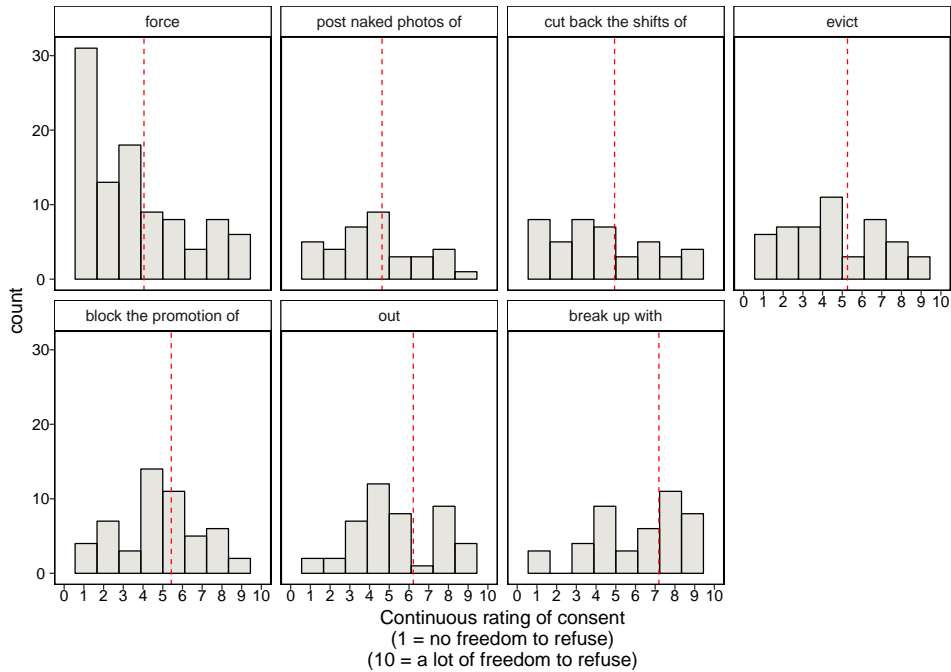


Figure 5: The distribution of continuous ratings of freedom to refuse.

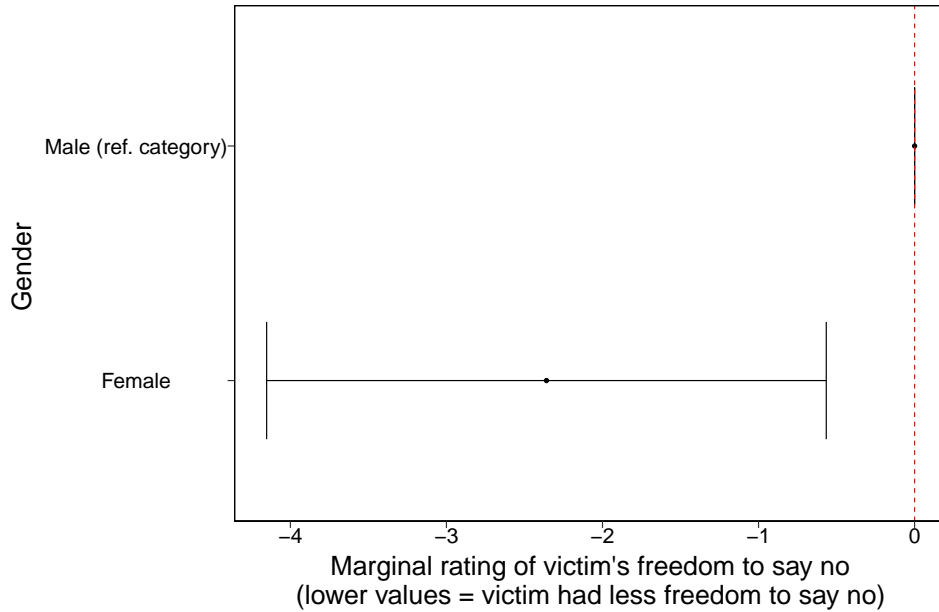


Figure 6: The marginal effect of gender.

allow us to determine if the pattern is a true pattern or a small sample anomaly.

## 5 Further Research

Future research will necessitate a larger sample size so statistically significant estimates can be obtained. We are currently applying for a nationally representative sample in the United States and exploring expanding surveys to other countries. Future research will include more detailed investigation of how demographic variables are associated with rankings as well as binary responses, as well as if and how vignette attributes interact with respondent demographics to produce patterns in responses. We then plan to repeat the survey and analysis with a nationally representative sample. We assume that Brazil and other Latin American countries also have high levels of these types of sexual coercion that are not measured in official statistics or most surveys. Though the most relevant tactics would vary by setting, we believe our survey design is flexible and could be applied in Brazil to better understand how women and men perceive coercive tactics other than physical violence, as well as respondent characteristics likely to be associated with underreporting of sexual aggression.

We plan to add an additional question which records the number of same gender friends the respondent knows who have *perpetrated* the tactic in question. This will allow us to compare estimates of victimization with estimates of perpetration. Further, we are in the process of applying for nationally representative samples so we can generalize our findings to the national

level. This will also help us better estimate the impact of social vulnerability (via race and socioeconomic status) on perceptions and incidence of sexually coercive acts.

## **6 References**

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Hainmueller, J., Hangartner, D., Yamamoto, T. (2015). Validating vignette and conjoint survey experiments against real-world behavior. *Proceedings of the National Academy of Sciences*, 112(8), 2395-2400.