

Who Counts What as Consent?
A New Approach to Understanding Estimates of the Prevalence
of Sexual Victimization

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Abstract

Many prevalence estimates of sexual victimization ask respondents to report on whether they have experienced abstract events like “forced or coerced” intercourse. Research shows that these methods underestimate victimization’s prevalence, raising two questions. First, which coercive tactics do questions about forced or coerced intercourse miss? Second, is there demographic variation in this under-classification? This study uses a novel conjoint experiment to examine how respondent characteristics (race, gender, political views, educational attainment) interact with attributes of a sexual interaction (tactic perpetrator uses; race and gender of perpetrator and victim) to affect individuals’: (1) continuous ratings of the degree of consent and (2) binary categorizations of the event as forced or coerced. Our pilot with 980 MTurk participants finds that interactions deviating from prototypical sexual assault (female victim; male perpetrator; physical force) are categorized as less coercive. Meanwhile, across tactics, respondents with lower educational attainment rate the same events as less coercive.

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1 Introduction

How can researchers estimate the prevalence of rape and other forms of sexual victimization? Increasing public awareness of the different forms that sexual victimization can take makes this question timely. The “#MeToo” movement that erupted in the United States in 2017 in particular has focused on methods of sexual coercion that extend beyond the use of physical force—specifically, the perpetrator offering promises of career advancement or threatening career problems if the victim does not have sex.

Many victims of abuse report that the absence of physical force creates ambiguity in how to categorize the event (Chira and Einhorn, 2018). Qualitative research reveals three decisions that this ambiguity may affect: the decision to label an interaction as rape; the decision to tell friends or confidantes; and the decision to report to official adjudicatory channels (Khan et al., 2018).¹ Past experimental research has largely focused on decisions about reporting. For instance, Baum (2017) presents respondents with an interaction already labeled as rape and asks whether the victim should report the incident to police. These measures conflate judgments about labeling—“was what happened rape?”—with judgments that victims should report a rape so that it can be adjudicated through official channels.²

“#MeToo” initially focused on a specific type of perpetrator, victim, and tactic: men in positions of power in white-collar organizations (perpetrator) victimizing other white-collar professionals (victims) using tactics of either promising or threatening to block career advancement in those occupations (tactic). The movement then expanded to shed light on similar dynamics outside of white-collar settings. For instance, data from the U.S. Equal Employment Opportunities Commission (EEOC) show that industries that predominantly employ service or other lower-wage workers (accommodation/food services; retail/trade, and manufacturing) have the

¹The authors focus on both tactics that involve physical force and those that do not. But we argue on the basis of our focus group research that individuals may struggle more with labeling and reporting decisions for non-force tactics than when the assault involves physical force.

²Some factors may influence decisions about whether an event ought to be reported—for instance, the relative credibility of the victim versus perpetrator—but may play less of a role in decisions about whether an event ought to be labeled as rape. Indeed, we find that, once we condition on demographic differences in who *labels* which events as rape, we do not find differences by socioeconomic status in judgments about reporting.

highest worker-submitted counts of complaints (Frye, 2017).³ Mass media articles interviewing workers in these industries show how the same general tactic—i.e. a perpetrator making inappropriate use of his or her authority and/or discretion—manifests as different concrete interactions depending on whether the perpetrator has control over promotions, over work hours, or over other important goods like public benefits or rent (Chira and Einhorn, 2018).

While these cultural movements raised awareness about how perpetrators use tactics other than physical force to undermine consent, academic research lags behind in investigating whether our current tools for measuring sexual assault capture these forms of coercion. In addition, the diversity of coercion that involves reputational or economic threats, and the specificity of these tactics to particular settings—for instance, supervisors using different tactics for salaried versus hourly workers—raises questions about how individuals from different socioeconomic backgrounds perceive coercion differently.

The present project thus focuses on two questions. First, how well does the dominant approach to measuring sexual victimization (a question in the National Crime Victimization Survey (NCVS) that asks respondents, “Have you been forced or coerced to engage in unwanted sexual activity?”) perform at capturing forms of coercion other than physical force? Second, do individuals from different demographic backgrounds differ in the degree to which they perceive the same tactic as coercive? The first question is important for understanding *absolute* estimates of sexual victimization prevalence. The second is important for understanding *comparative* estimates of prevalence: for instance, sexual victimization is higher or lower in college-educated women than in similar age women who lack a college education.⁴

The remainder of the introduction proceeds as follows. First, we review two approaches to measuring sexual victimization: approaches that ask about *abstract concepts* like “forced” or “coerced” intercourse and approaches that ask about *concrete behaviors* by a perpetrator. Previous research shows that the two approaches generate very different estimates of the prevalence of sexual victimization, with *concrete behavior* approaches leading to estimates of prevalence that are over ten times as high as those of *abstract concept* approaches. However, no research of which we are aware investigates two questions: *which forms of coercion* do abstract concept

³The report was based on an analysis of EEOC data by the *Center for American Progress* (CAP) think tank. Future research, rather than analyzing the *counts* of complaints across different industries, which is sensitive to variations in the number of women employed in different sectors, should analyze prevalence measures that adjust each count by the relative population workers in each industry “at risk” of submitting a complaint.

⁴As an example, Sinozich and Langton (2014), using data from the National Crime Victimization Survey (NCVS) that we discuss later, compare the prevalence of sexual victimization between two populations: college-age women (18-24) enrolled as students versus college-age women not enrolled as students. The veracity of their finding—female *non-students* face a 1.2 times higher rate of rape and sexual assault than female *students* (7.6 per 1,000 versus 6.1 per 1,000)—rests on the assumption that females enrolled in college and females not enrolled in college, two groups that differ along many dimensions, respond similarly to the questions the NCVS uses to measure sexual victimization.

approaches miss? And do they miss these forms of coercion *differentially* for different socioeconomic groups?

Drawing on models of how individuals reason about which concrete events fall into abstract categories like “rape” or “sexual assault,” we then preview our method—a conjoint design that systematically varies features of an interaction that precedes sex and then investigates how respondents categorize the interaction. This method helps us understand which forms of victimization, and for whom, abstract category approaches miss.

1.1 Approaches to measuring sexual victimization

Methods to measure sexual victimization fall into two general buckets. We review each in turn, and discuss how our study aims to investigate (1) gaps in the prevalence estimates that each generates and (2) how those gaps vary by the demographic status of the respondent answering the question.

1.1.1 Abstract concept

The first type of method, and the one that remains common in attempts by large-scale organizations like the Department of Justice’s Bureau of Justice Statistics and private universities, asks about experiences that respondents have with abstract concepts like “forced,” “coerced,” or “unwilling” sex acts. Table A1 highlights examples. The most prominent approach, and the one that we focus on in the present paper, is the National Crime Victimization Survey (NCVS).⁵

The NCVS asks respondents where they have experienced “forced or coerced sexual intercourse.” Only respondents replying “yes” to this question are asked follow-up questions that survey administrators then use to determine whether to classify the incident as sexual assault. Thus, it is important to understand false negatives—that is, who answers “no” despite experiencing a coercive tactic—as they are filtered out.

1.1.2 Concrete behaviors

Abstract concepts, researchers have argued, likely underestimate the prevalence of rape because they require individuals to first think of concrete behaviors and then construe these behaviors

⁵Another example of an abstract concept approach is a recent population-based survey in the United Kingdom that asked respondents: “Has anyone tried to make you have sex with them against your will?” and, if respondents replied yes, “Has anyone actually made you have sex with them, against your will?” Macdowall et al. (2013) While this approach avoids the labels of rape or sexual assault, the approach still leaves room for variability in how different respondents interpret “against your will.” As a result, the study’s findings about significant differences between demographic subgroups in the age-adjusted prevalence of sexual victimization—for instance, that those with more than a high school education have a significantly higher age-adjusted prevalence of victimization—could be an artifact of these subgroups interpreting what counts as sex against one’s will.

as rape (Koss, 1996; Fisher, 2009; Cook et al., 2011; Mellins et al., 2017; Khan et al., 2018). The second approach to measuring sexual victimization—*concrete behaviors*—is motivated by this problem. These approaches instead ask respondents whether they have experienced specific behaviors (Cook et al., 2011). Most prominent among these is the Sexual Experiences Survey, developed by Koss and co-authors and refined in subsequent research (e.g., Koss et al., 2007; Abbey et al., 2005; Rueff and Gross, 2017).⁶ Population-level surveys like the National College Women Sexual Victimization Study (NCWSVS) have also incorporated “behaviorally specific sexual victimization screen questions” (Fisher, 2009). Focusing on the Sexual Experiences Survey, Table A1 describes the sexual *acts* the survey inquires about, but more relevant for the present project are the *types of force* or *coercion* about which the survey inquires. Focusing on the Sexual Experiences Survey–Short Form Victimization survey (SES-SFV), for each sexual act, the survey asks: “A man [*insert sexual act*] without my consent by...”.⁷

1. *Coercion through deception*: “Telling lies... making promises I knew were untrue”
2. *Coercion through threats to relationship*: “Threatening to end the relationship”
3. *Coercion through threats of reputational harm*: “Threatening to spread rumors about me”
4. *Coercion through verbal persistence*: “Continually verbally pressuring me after I said I didn’t want to”
5. *Coercion through anger or criticism*: “Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn’t want to.”
6. *Coercion (or lack of consent) through intoxication*: “Taking advantage of me when I was too drunk or out of it to stop what was happening”
7. *Coercion through threat of physical harm*: “Threatening to physically harm me or someone close to me.”
8. *Coercion through physical force*: “Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.”

⁶These refinements include finding that depicting the tactic used to undermine consent first rather than the sex act in which consent was undermined first leads to a significantly higher reported rate of victimization (Abbey et al., 2005) and that asking respondents whether the sexual act was “wanted” contributes to a higher estimated prevalence based on victim reports than based on perpetrator reports (Rueff and Gross, 2017).

⁷This wording refers to completed acts rather than attempted acts. Some of the items containing multiple forms of coercion separated by a comma are separated in the below list. In addition, all labels for what form of coercion it is were added by the present study’s authors, rather than being part of the original instrument

Providing respondents with these “behaviorally specific” prompts is thought to cue concrete instances more accurately than asking respondents about “forced,” “unwanted,” or “nonconsensual” sexual acts. And doing so generates substantially different estimates of the prevalence of sexual victimization. Fisher (2009) finds that behavior-based measurement of victimization in the form of the NCWSVS (Table A1 and Figure A1) leads to almost 10 times the estimated prevalence of completed and attempted rape than the *abstract category* measurement in the form of the National Violence Against College Women Study (e.g., for completed rape, 19.34 per 1,000 female students using the behavior-based measure versus 2.0 per 1,000 female students using an abstract category measure).⁸ Thus, while *concrete behavior* methods capture the forms of coercion that “#MeToo” brought to light—for instance, threats to the victim’s professional reputation—*abstract concept* approaches likely miss some of these methods. In doing so, they underestimate prevalence of sexual victimization.

1.2 What contributes to the gap in prevalence estimates between approaches that ask about abstract concepts and approaches that ask about concrete behaviors?

Despite the benefits of *concrete behavior* approaches like the Sexual Experiences Survey, *abstract concept* approaches are still widely utilized to estimate the prevalence of sexual victimization, primarily because they reduce the number of questions in the survey. In addition, laws and policies define sexual assault in abstract terms. For instance, the Federal Bureau of Investigation (FBI’s) Uniform Crime Reporting (UCR) Summary Reporting System (SRS) uses the following definition:⁹

The penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim.

While the FBI updated this definition beginning in 2013 to remove an explicit reference to force,¹⁰ sex “without the consent of the victim” remains an abstract concept. The continued use of *abstract concept*-based measurements, and research showing that these measurements generate substantially lower prevalence estimates than behavior-based ones, raises the question: which behaviors are the abstract concepts missing? Put differently, when individuals answer an *abstract concept* question such as one about “forced” or “unwanted” sexual intercourse, which

⁸The two surveys had a similar target population/sampling frame.

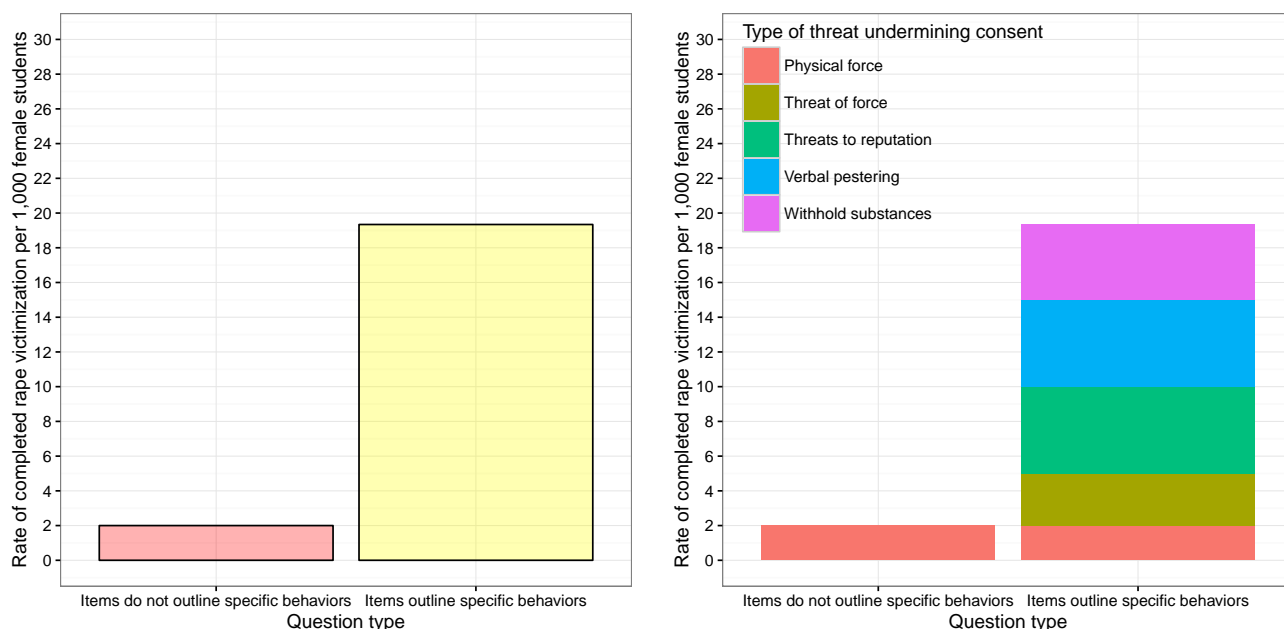
⁹<https://www.justice.gov/archives/opa/blog/updated-definition-rape>

¹⁰The previous definition, which has been in use since 1927, defined rape as: “the carnal knowledge of a female, forcibly and against her will.”

events does the "yes" category incorrectly exclude?

Figure 1 illustrates the question. The left panel shows the empirical gap in the estimated prevalence of victimization when the survey enumerates specific behaviors (about 20 per 1000 female students) versus when a broad category is used (about 2 per 1000 female students). The right panel shows *one hypothetical way* that perceptions about which tactics ought to be categorized as rape or sexual assault may contribute to this gap. For instance, if the use of physical force is the only tactic that respondents feel belongs in the category of rape or sexual assault (red bar), the *abstract concept* approach would only capture the prevalence of this sort of tactic.

Figure 1: The left panel illustrates the empirical discrepancy between the two question methods from Fisher (2009). The right panel presents a *hypothetical* illustration of how not viewing certain behaviors as falling under the label of rape or sexual assault might contribute to that gap



1.2.1 Prototypes and the categorization of sexual victimization

One way to understand the gap that Figure 1 depicts is that the NCVS and other approaches present respondents with a superordinate category: forced or coerced sexual intercourse (formally); rape or sexual assault (less formally). Respondents then need to judge which concrete events—what cognitive scientists call *exemplars* (Hampton, 2016)—fall into this category. What Hampton (2016) calls the *classical view* assumes that in doing so, individuals have a set of features that define the category of rape; for instance, physical force; a female victim. Individuals then compare concrete events to this definition and arrive at a “yes” or “no” decision about

category membership based on whether the event exhibits all necessary features.¹¹ Unsurprisingly, the classical view does not stand up to empirical scrutiny; individuals do not formally define a category’s features when reasoning about what falls within a category like “rape.”

Prototype theory posits a different process (Rosch and Mervis, 1975; Hampton, 2016). Individuals have concrete exemplars of abstract categories like “rape” that vary in two ways. First, exemplars vary in their *degree of typicality* of the category. For instance, for the category of rape, a certain exemplar—the proverbial “stranger in the dark alley” using physical force against a female victim—may have high typicality. Other exemplars—e.g. a romantic partner using physical force—may have lower typicality. The highest-typicality exemplar is a category’s prototype.¹² Second, individuals vary in judgments about which exemplars fall within the category. For lower-typicality exemplars, individuals asked to make a “yes” or “no” decision about category membership reach different conclusions; or as Hampton (2016) summarizes: “there are a significant number of activities which are borderline cases where people cannot agree about the categorization” (Hampton, 2016).

The present study thus investigates how individuals from a range of different backgrounds decide which behaviors fall within the abstract category of “forced or coerced” intercourse that the National Crime Victimization Survey uses. Figure 2 models how individuals might decide which events belong in this abstract category. Informed by theories of categorization (e.g., Rosch and Mervis, 1975; Hampton, 2016; Levari et al., 2018), the model posits that respondents begin with a prototype of rape (red circle): a stranger, sometimes thought to be psychologically disturbed, using physical force out in the open against a female victim (Krah, 1991; Abrams et al., 2003; Anderson, 2007; Angelone et al., 2015; Bell et al., 1994; Sommer et al., 2016). This prototype has attributes—the tactic used (physical force); the perpetrator’s relationship to the victim (stranger)—that implicitly shape how individuals judge other examples.¹³

If we assume that the U.S. respondents widely share the prototype of sexual assault that Figure 2 depicts in red,¹⁴ Figure 2 shows two potential sources of variation. These potential

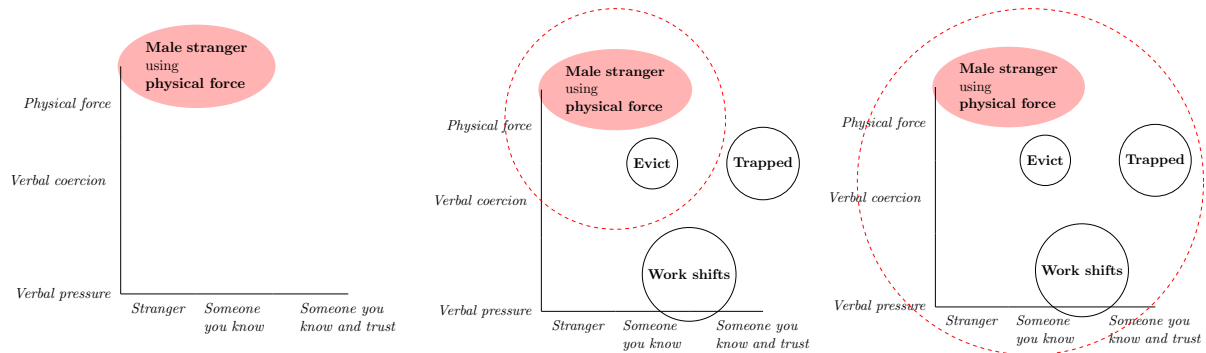
¹¹More precisely, and as formulated by Smith et al. (1974), this involves a three-step process. Individuals first picture features of a category—for instance, a bird has feathers, flies, etc. Then, when comparing an object—say, a robin—to this category, they make a quick heuristic judgment. If the new object shows either very high (or very low) similarity with the category, the individuals classify it as a “yes” (or no) member. For objects where the similarity is inconclusive, individuals then perform a more exhaustive comparison where they evaluate the object feature-by-feature.

¹²Hampton (2016) reviews how there is some debate over whether there is a single prototype for each category, or whether there can be several prototypes composed of generally high-typicality exemplars.

¹³The fact that the features of a prototype *implicitly* shape further judgments, rather than serving as a set of *explicit rules* about category membership, is one distinction between prototype theory and the classical view of categorization, which falsely theorized that individuals explicitly outline a set of necessary and sufficient conditions for category membership, check exemplars against those criteria, and categorize.

¹⁴Investigating whether this prototype has changed over time—for instance, if on-campus trainings or cultural movements lead to a shift away from the prototype towards a different one—is beyond the scope of the present paper.

Figure 2: **Exemplars and attributes of forced or coerced intercourse** The *left panel* shows the prototype of rape that past research has found and depicts two dimensions of this prototype: the perpetrator as a stranger (as opposed to acquaintance or intimate partner) and the perpetrator using physical force. The *middle panel* shows how tactics that focus group participants discussed deviate from this prototype in various ways—for instance, the perpetrator being a close friend (not a stranger); the perpetrator using the tactic of promising desirable work shifts (not physical force). The *right panel* versus *middle panel* show how even when individuals think about the same events, they might have different radii/thresholds for judging what belongs in the category of rape.



sources of variation mean that two individuals who have experienced the same set of events might provide different answers to the question of whether they have experienced “forced or coerced” sexual intercourse, which complicates estimates of prevalence.

1.2.2 Source of variation one: which events come to mind when asked about forced or coerced intercourse

The first source of variation is which events come to mind at all when an individual thinks about the category. The *middle* and *right* panels of Figure 2 show different events, derived from the focus groups described in Section 2.1, that may meet formal definitions of coercion but that deviate from the prototype of a stranger using physical force:

Bureaucrat: perpetrator (a child protective services case worker) uses his or her authority inappropriately

[Referring to a child abuse investigator with New Jersey’s Department of Youth and Family Services (DYFS)] A guidance worker, like, make a child abuse case go away if you give him or her a favor...If you have a case with them or if they got a call about you. “I’m gonna talk to my supervisor” or “I can close your case.”¹⁵

Work shifts: perpetrator (a supervisor at work) using his or her discretion over work shifts inappropriately

Somebody like a manager. “There’s overtime next week, how much would you

¹⁵Focus group. Trenton, NJ. July 24th, 2017.

like to have it? How bad do you want those hours? I want to take care of it, I'll slide you some hours.”¹⁶

Trapped: perpetrator (a friend) refuses to leave

Refusing to leave until a sexual act has happened. I feel like that's much more common than people talk about, like individuals who will not exit or will just continue to be in your presence in an isolated scenario and won't leave until a sexual act has occurred.¹⁷

Two individuals who each experience, for instance, the *trapped* event, may vary in whether the event comes to mind at all when asked about “forced or coerced intercourse.” As we describe in greater depth in Section 2, the method we use—a conjoint experiment—presents respondents with descriptions of the same set of events to control for this form of variation.

1.2.3 Source of variation two: categorization of the same events as forced or coerced intercourse

Even if respondents are thinking of the same events, the second source of variation is how individuals categorize events that deviate from the prototype. Figure 2 shows two aspects of an event's deviation from the rape prototype. First, an event's distance from the prototype is continuous rather than binary. For example, an event like one's landlord threatening eviction might be *closer* to the prototype than an event like one's boss threatening to cut work shifts, with eviction having a stronger connotation of physical force than scheduling does. But this is a difference in degree rather than a binary separation. Second is that this distance is multi-dimensional: one event might be closer to the prototype along the dimension of which tactic the perpetrator uses but further along the dimension of whether the perpetrator is a stranger or is a trusted partner.¹⁸

This process affects *absolute* measurements of sexual assault prevalence if, when asked about *forced or coerced* sexual intercourse, many individuals' ellipses adhere too closely to the prototype of a stranger using physical force to encapsulate other events. The process affects *comparative* measures of sexual assault prevalence—for instance, claims that forced or coerced sexual intercourse is higher in Group A than Group B—if there is systematic between-group variation in the size of individuals' ellipses (Appendix Figure A2 and Appendix Figure A3).

¹⁶Focus group. Trenton, NJ. July 24th, 2017.

¹⁷Focus group. Princeton, NJ. April 3rd, 2017.

¹⁸For instance, in qualitative work by Khan et al. (2018), college respondents reported reluctance to label non-consensual sex as assault because they would “insist that their friends or partners are respectful, good human beings; these sentiments appeared to be sincerely felt. The assault was an aberration” (p. 444). Thus, perceptions that the person is a trusted partner rather than an unknown stranger may make individuals less likely to label an act as non-consensual, regardless of which tactic the perpetrator uses.

1.2.4 Why examine demographic variation in this process?

Differential underestimation is important because research and policy often seek to measure the *comparative prevalence* of rape across subgroups. For instance, Reynolds (2016) finds a significantly higher rate of Title IX harassment complaints at selective private universities relative to less selective institutions—institutions with a very different socioeconomic composition of students. If socioeconomic status (SES) is correlated with categorization, as our pilot data suggest, part of the difference may stem from different tendencies to label the same victimization events as rape.¹⁹

Demographic variation in categorizing events as rape, in addition to being important for understanding claims about comparative prevalence, also has plausible mechanisms. Mellins et al. (2017), using a *concrete behaviors* approach and focusing on demographic variation *within* undergraduates at two private universities, show that those who face difficulty paying for basic necessities face significantly higher odds of penetrative assault. Paradoxically, research on categorization (Levari et al., 2018) shows that the higher prevalence of *prototypical* assault among lower socioeconomic status individuals may lead these individuals to have a higher threshold for classifying more ambiguous events as rape.

The importance of understanding between-person variation, and our rationales for why observed characteristics of an individual might predict this variation, leads us to our method for investigating the process of categorizing events as forced or coerced intercourse that Figure 2 depicts, and to specific research questions.

1.3 Method for capturing variation in how individuals use the category of forced or coerced intercourse

The present project investigates which tactics the most widely-utilized *abstract category* approach (the NCVS) captures when it asks respondents about whether they have experienced “forced or coerced” sexual intercourse, and how the tactics it captures vary by demographic group. The model of how individuals reason about what falls into the category of “forced or coerced” sex that we depict in Figure 2 leads us to two study design choices.

First is that the NCVS asks respondents to provide a binary response of “yes” they have experienced forced or coerced intercourse or “no” they have not. But as discussed, prototype theory argues that different events exhibit different *degrees* of typicality for a category. Therefore, and as we discuss in greater detail in Section 2.3, we compare responses on this widely-utilized binary question to respondents’ ratings of the *degree* to which a tactic under-

¹⁹Differences likely also stem from different institutional capacity in support of Title IX reporting.

mines the victim’s consent.

While this first design choice reflects the continuous nature of judgments about category resemblance, the second design choice reflects the fact that prototypes are composed of many dimensions. In particular, if the prototype that individuals hold when thinking about “forced or coerced” sexual intercourse only has two or three dimensions (for instance, whether force is used; whether the person is a stranger or not) we could use a traditional between-subjects factorial design to present respondents with four vignettes to rate: 2 (physical force versus other tactic) \times 2 (stranger versus non-stranger). However, more dimensions seem to be at stake in how people categorize events as rape—for instance, male versus female perpetrator. And these dimensions may interact in difficult-to-predict ways—for instance, is it worse for a female perpetrator to abuse her authority than for a male perpetrator to abuse his?

Therefore, we use a conjoint design (Hainmueller et al., 2014), described in greater detail in Section 2. This design allows us to simultaneously vary many different dimensions of interactions leading to unwanted sexual intercourse and in doing so, can help us disentangle both *which* dimensions matter for whether the respondent classifies the event as “forced or coerced” intercourse and whether this process *varies* for different demographic groups.

We systematically vary four different dimensions²⁰ of a vignette that features unwanted sex: 1) the tactic the perpetrator uses (our main focus; comparing threats of eviction, work hour cuts, blocked promotion, and posting of naked photos to the reference categories of force and threatening break-up), 2) and 3) the gender and race combinations of the victim and perpetrator, and 4) the tenor of the relationship prior to the threat (Appendix B Table 2).²¹ In addition, at the survey level, we randomize participants into two conditions: 1) the threat is explicit (e.g., landlord *says he will* evict unless victim submits to sex) versus 2) the threat is implicit (e.g., landlord *implies he will* evict victim unless victim submits to sex)(Figure 3, Table 3).

We use these vignettes to fix between-respondent variation in which events come to mind when asked about rape in order to investigate the questions Table 1 outlines: 1) Which events do respondents categorize as rape? 2) How does categorization vary based on whom is doing the categorizing? 3) Are respondent characteristics associated with thinking that forced or coerced sex is a crime and, separately, that it should be reported? While the first two questions investigate who *labels* which events as rape, the third question investigates variation between individuals who label an event as rape in two further judgments: that the perpetrator commit-

²⁰Terminologically, Hainmueller et al. (2014) and others who use conjoint designs refer to features of the vignette that vary as *attributes* (e.g., tactic used). In turn, each attribute can take on multiple values.

²¹We include dimensions beyond the tactic the perpetrator uses to enhance the realism of the vignettes and because there may be tactic \times other attribute interactions—for instance, a threat from a male boss perceived as undermining consent more than a threat from a female boss. A male victim may be perceived as more responsible for resisting an economic threat than a female one.

ted a crime and that the victim ought to report the perpetrator. We outline further questions, such as covariate \times attribute interactions, in Section 4.

All results in the present paper are preliminary since we present the findings from a non-representative pilot sample (n=980). In Section 4 we discuss how the experiment will be fielded in a nationally-representative sample.

Table 1: **Research questions and hypotheses**

Question	Hypothesis	Pilot results
Q1: Across demographic groups, which events do respondents categorize as rape?	Across demographic groups, respondents will be significantly <i>less likely</i> to categorize events featuring non-force tactics as rape and will rate these tactics as giving the victim significantly <i>more freedom</i> to say no	Confirm (Figures 7 and A7)
Q2: Across events, are there demographic differences in categorizing an event as rape?	<i>Main hypothesis:</i> Lower SES respondents will rate the same events as giving victims <i>more freedom</i> to say no and will have a <i>higher threshold</i> for translating this continuous judgment into categorizing the event as rape. <i>Alternate hypothesis:</i> Lower SES respondents will rate the same events as giving victims <i>less freedom</i> to say no and will have a <i>lower threshold</i> because they are more familiar with the precariousness of rental housing, work shifts allocations, and other economic threats	Mixed (Figures 8, and 9)
Q3: Across events, and among those who categorize an event as rape, are there demographic differences in two further decisions: judgments that the event is a crime and judgments that it should be reported?	Among those who label an event as rape, there will be demographic differences in two further judgments: thinking the perpetrator committed a crime and thinking the victim should report the perpetrator	Confirm (Table 5 and Figure 13)

2 Methods

We employ a conjoint survey experiment in which respondents read a variety of vignettes that vary features of the interaction that precedes sexual intercourse.

Figure 3 outlines the survey flow.²² After consent and eligibility screening, we randomize participants to one of two conditions: perpetrator makes threat explicit (says he or she will engage in the tactic) or perpetrator implies threat (implies he or she will engage in the tactic).²³

²²Gender—female; male; other—was asked separately from the other demographic categories because responses were utilized to ask about same-gender friends in the question asking about the prevalence of the tactic among their five closest friends that we describe later in the present section.

²³This contrast is based on our focus group research. Participants noted that perpetrators were more likely to imply that a bad thing would happen rather than to state the threat starkly (e.g., a boss implying that he would be less likely to grant someone’s request for overtime; a child protective services casework implying that he might drop a case).

Within these conditions, respondents read three successive vignettes that randomly vary four attributes: the tactic, the race and gender combinations of the victim and perpetrator, and the tenor of the relationship pre-threat.

Each respondent sees each combination of vignette attributes with a predetermined set of probabilities. Table 2 summarizes levels in each attribute and the probabilities. These predetermined probabilities allow us to estimate the marginal influence of each attribute in whether respondents categorize the events as forced or coerced sex. Varying gender, race, relationship and tactics results in $N = 288$ possible combinations. Since the large number of combinations makes writing out each vignette nearly impossible, the survey was programmed in `html` with a `javascript` back-end to randomly place each attribute into the italicized parts of the vignette structure we provide below.²⁴

Figure 4 shows the wording of the vignettes. In order to avoid any bias as a result of the length or structure of vignettes, all scenarios follow the same brief pattern, with the varying parts **[bolded]** and the constant parts *italicized*.

On a separate page following each vignette, respondents are provided with a manipulation check question where the respondent has to choose the correct tactic from a set of three, where two are tactics similar in nature to the actual one depicted in the vignette. Respondents can reread the vignette but are not allowed to progress until they correctly answer the question.

2.1 Tactic

The tactic the perpetrator uses is the main attribute of interest. As summarized in Figure 3, all respondents read about a prototypical tactic of a male perpetrator using physical force against a female victim. Since we predicted that respondents would perceive the force vignette as significantly more coercive than the others, and that it might have anchoring effects that influenced judgments about other vignettes, we randomized participants in the first wave of the pilot ($n=180$) to either read this vignette first or read this vignette last in order to test this possibility. Preliminary analyses revealed no significant ordering effects. Therefore, for pilot wave 2 ($n=800$), all participants read the physical force vignette first.

The remaining tactics fall into two categories. First are tactics that would likely meet the legal definition of sexual assault, either under criminal law or in civil sexual harassment claims for the ones like *cut shifts* and *block promotion* that take place in workplaces.²⁵ To make these

²⁴For details, see: https://github.com/rebeccajohnson88/research_examples/blob/master/sexvic_conjoint_code.js

²⁵The vignettes, designed to be sparse to ensure consistency across the different attribute combinations, do not contain sufficient details for a real determination of the legal status of each of the acts. Our understanding

Figure 3: **Survey flow: pilot wave 2** Red boxes indicate ways that respondents are excluded from the survey (respondents who did not complete all required questions are also excluded). See Tables 3 and 4 for specific wording. Pilot wave 1 just included the explicit arm of this survey flow and also randomized the order of the force vignette.

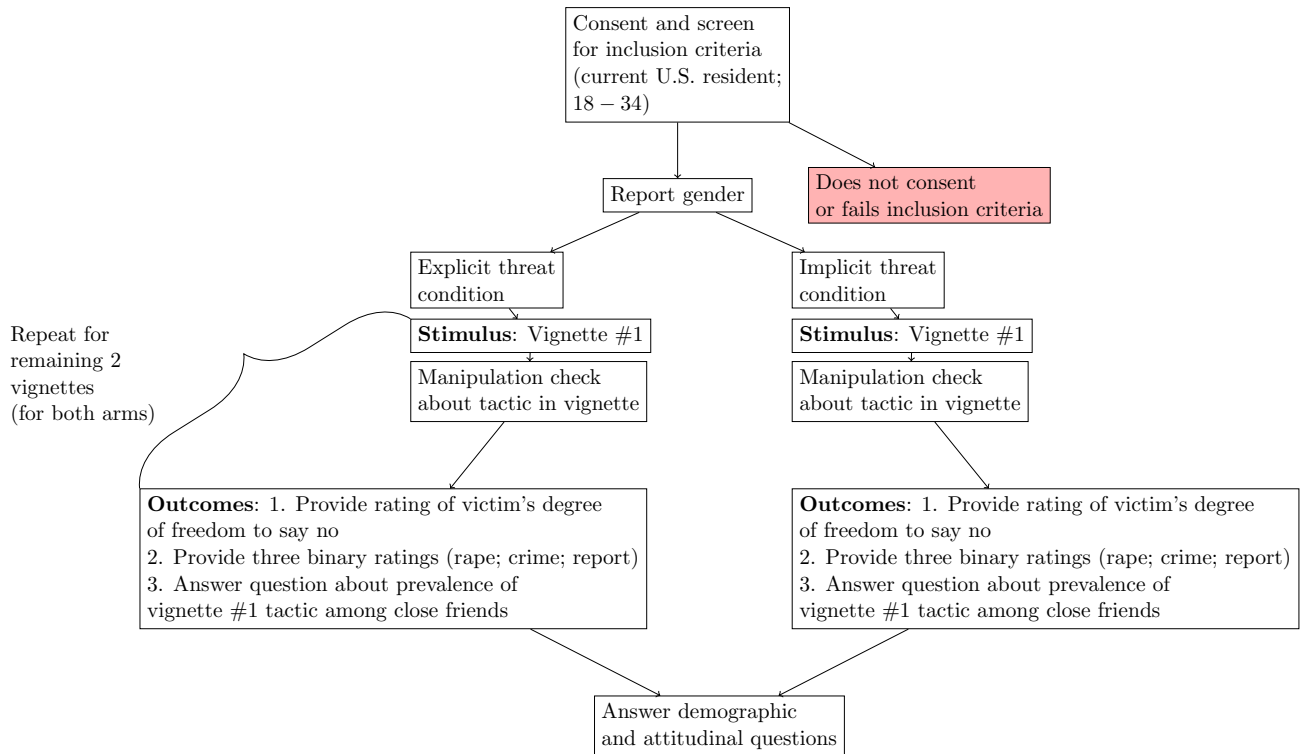


Figure 4: The *left* panel shows the wording of the explicit threat condition; the *right* panel shows the wording of the implicit threat condition (added in second wave of pilot)

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

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

[Perpetrator name] wants to have sex but [victim name] does not. Then, [perpetrator name] says [he or she] will [tactic] [victim name] unless [victim pronoun] has sex with [perpetrator pronoun].

[Victim name] and [perpetrator name] have sex.

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

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

[Perpetrator name] wants to have sex but [victim name] does not. Then, [perpetrator name] implies [perpetrator pronoun] will [tactic] [victim name] unless [victim pronoun] has sex with [perpetrator pronoun].

[Victim name] and [perpetrator name] have sex.

tactics more realistic, we conducted interviews and focus groups. We conducted three focus groups, two with Princeton undergraduates and one with a diverse group of women aged 18-34

that these tactics are *likely* to be illegal is based on feedback on the pilot study design from an administrator within Princeton's Sexual Harassment/Assault Resources and Education (SHARE) office.

from Trenton, New Jersey. We use three general categories of non-force tactics that participants brought up in these focus groups:

1. *A supervisor at work using his or her authority inappropriately.* *Cut shifts* and *block promotion* each depict a boss at a workplace using his or her authority and discretion inappropriately. However, the *object* of discretion differs in ways that may elicit different responses by different demographic groups. *Cut shifts* involves discretion over work hours, which largely applies to non-salaried workers who may have lower educational attainment. *Block promotion* is more ambiguous, but may have connotations of a white-collar workplace.
2. *A landlord engaging in illegal harassment of a tenant.* While the first set of tactics involve a supervisor using authority and discretion inappropriately, this tactic is not related to employment but nevertheless has economic implications. It also may elicit different responses from different subgroups, since there are racial and income gaps in who is able to own rather than rent his or her residence (Hilber and Liu, 2008).
3. *A former partner threatening humiliation.* *Naked photos* is a threat to humiliate the victim if he or she does not consent to sex, which contrasts with other tactics that involve the perpetrator threatening to take away more tangible goods (work hours; promotion; housing). *Naked photos* is a form of humiliation that, based on focus group discussions, may elicit lower judgments of coercion if the respondent blames the victim for the decision to send the photographs, so we specify that photos were taken without the victim's consent.

The final tactic (*break-up*) is one that is not a legally actionable form of coercion. The purpose of including this tactic was to include a situation where the tactic is possibly immoral but would not meet any organization's standards for sexual assault.

2.2 Victim and Perpetrator Attributes

While the tactic the perpetrator uses is the primary attribute of interest, other features of the interaction surrounding the tactic may affect respondents' judgments. Therefore, we also 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%).

Table 2: **Attributes for sexual victimization events in conjoint experiment** The table shows the attributes, values of each attribute, and randomization probabilities. For the tactics, we show the alternate wording between the explicit condition (perpetrator threatens to tactic) and implicit condition (perpetrator implies [he/she] will tactic), showing “he” in the table for simplicity. In the pilot survey, we investigated whether the order of force has any effect on subsequent ratings and it did not.

Attributes	Values	Randomization probability
Tactic (abbreviation) <i>Force</i> <i>Evict</i> <i>Cut shifts</i> <i>Block the promotion of</i> <i>Naked photos</i> <i>Break-up</i>	Acquaintance...[says/implies] he will seriously injure, putting [<i>victim</i>] in the hospital Landlord...[says/implies] he will evict Boss...[says/implies] he will cut back the shifts of Boss...[says/implies] he will block the promotion of Ex...[says/implies] he will post naked photos of [<i>victim name</i>], taken without [<i>victim pronoun</i>]'s consent Romantic partner...[says/implies] he will break up with	Equal except force = 1
Gender combinations for perpetrator-victim	Male-female Male-male Female-male Female-female	0.85 0.05 0.05 0.05
Race combinations for perpetrator-victim	White-White White-Black Black-Black Black-White	Equal
Tenor of perpetrator and victim's relationship prior to event	Good Okay Rocky	Equal

We signal race and gender 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 race/ethnicity. Names were separated into male and female and subsequently chosen based on their relative frequency for whites compared to non-whites. More precisely, we used a three-step procedure:

1. We chose names, by gender, with highest relative frequency among whites (w) compared to non-whites (w'):

$$\frac{name_w}{N_w} \div \frac{name_{w'}}{N_{w'}}$$

2. In order to deal with names whose high relatively frequency was inflated as a result of having near zero-frequency for non-whites without a high frequency for whites, we dropped

names that had below average frequency for whites:

$$\frac{name_w}{N_w} < \frac{1}{N_w} \sum_{i=1}^{N_w} name_i$$

3. In order to increase the specificity of the name as an indicator of race, we dropped any name which was common for both races. In particular, we dropped names for which:

$$\frac{name_{w'}}{N_{w'}} > \frac{1}{N_{w'}} \sum_{i=1}^{N_{w'}} name_i$$

We then selected names from the remaining top twenty names, choosing names which did not signal a particular ethnic identity.²⁶ This enables us to choose names which are common among either race while eliminating names that are common to both.²⁷

2.3 Response to Vignettes

After passing the manipulation check, the respondents answer a series of questions pertaining to the interaction. Table 3 provides the wording.

2.3.1 Continuous rating of degree to which the victim could have said no

Figure 2 shows how events that result in sex deviate from the prototype of rape along continuous dimensions rather than in a discrete or “bumpy” way (Kolber, 2014). Therefore, we ask respondents to rate the degree to which the victim has the freedom to refuse to have sex with the perpetrator. For pilot wave 1, we had respondents rate this on a 10-point Likert-type scale ranging from 1 (No freedom to refuse) to 10 (A lot of freedom to refuse). For the second wave of the pilot and for the final design, we have changed this to 1 (No freedom to refuse) to 5 (A lot of freedom to refuse) to better reflect a reasonable degree of variation.

2.3.2 Binary categorization of the event using the NCVS wording

To explore how respondents use the *abstract category* question posed by the widely-utilized and cited National Crime Victimization Survey (NCVS), we next ask respondents to provide a *yes or no* answer to the following question adapted from that survey:

²⁶In particular, given the source of our data, several of our top ranking white names indicated Orthodox Jewish heritage. In order to avoid introducing a possible source of bias in responses, these names were dropped.

²⁷As a caveat, it is well-documented that indicators of race are often conflated with socioeconomic class as well (Gaddis, 2017). This design cannot separate these two attributes. However to the extent that race and social class are correlated in the United States we believe that disentangling this relationship is beyond the scope of what this project aims to ascertain. Still, findings regarding race should be interpreted with the appropriate limitation that social class is an omitted and likely respondent-inferred variable.

Did [*perpetrator name*] force or coerce [*victim name*] into unwanted sexual intercourse?

Posing this question allows us to explore which events the NCVS category captures versus misses, and how this may vary by demographic group.

2.3.3 Escalation from perceiving the event as coerced to taking action

Finally, to explore variation *among* those who agree that an event should be labeled as rape, we ask whether the perpetrator committed a crime and whether the victim should report the perpetrator.²⁸

In addition to surveys that measure sexual victimization and make claims about comparative prevalence, organizations also measure sexual victimization through counts of reports made to official agencies—for instance, Title IX or EEOC complaints. The respondents who perceive an event as forced or coerced intercourse may nevertheless vary on two further categorizations that precede reporting and that we measure. First, we ask respondents whether they think the perpetrator committed a crime—what Felstiner et al. (1980) call the *blaming* step in the dispute pyramid. Then, respondents answer whether they think the victim should report the perpetrator—what Felstiner et al. (1980) call the *claiming* step in the dispute pyramid.²⁹

These additional questions allow us to capture not only whether a typical respondent would have reported such an act on a national crime survey, but also whether they believed the act to be illegal and separately, if they think reporting the act is an appropriate solution. In turn, Figure 5 highlights hypothetical attrition at each phase.

We therefore capture variation in an individual’s (hypothetical) willingness to report conditional on whether or not they considered the act a crime. It is worth noting that individuals may avoid reporting even if they considered an act to be criminal for a number of reasons including distrust in authorities or fear of repercussions.

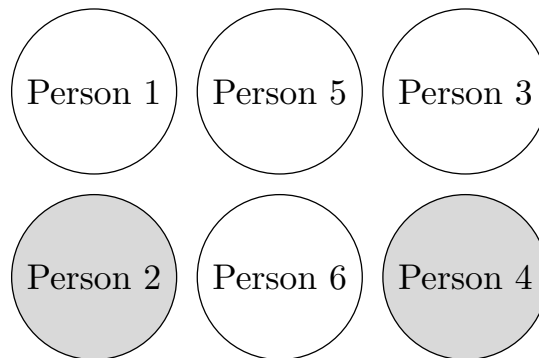
Combined, the three sets of ratings—1) the continuous judgments; 2) the binary categorization as forced or coerced; 3) further judgments about the act’s criminality and the appropriateness of reporting—provide a nuanced window into sexual victimization estimates, which often include the types of rating in #2 but not #1 or #3. For the binary versus continuous ratings, two respondents who provide the same binary answer—for instance, a judgment of the event

²⁸The latter is the focus of Baum (2017).

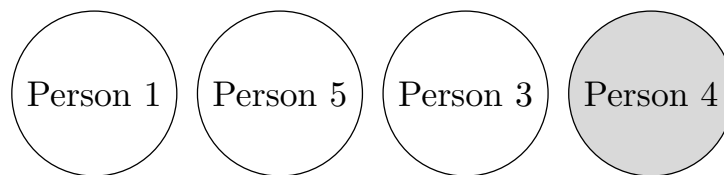
²⁹We left *who* the report would be made to ambiguous. This is because we are more interested in measuring *general* judgments about how “report-worthy” a tactic is, rather than more specific judgments about reporting to specific channels—for instance, to the police versus to a workplace human resources department. The ambiguity also allows for flexibility across vignettes. For instance, respondents might report workplace incidents to the company’s human resources department; they might report *naked photos* to the local police; etc.

Figure 5: **Example of non-random attrition from labeling to perceptions of crime and reporting** The white and gray circles represent members of different demographic subgroups.

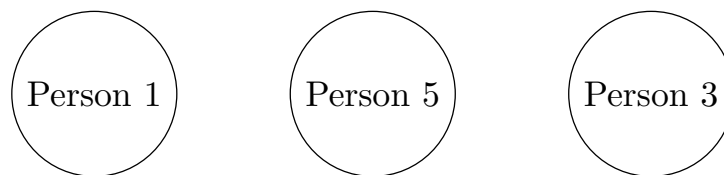
Victim of sexual assault



Labels act as sexual assault



Perceives it as a crime/reports



as “not” forced or coerced—may nevertheless rate the tactic differently on a more continuous scale. For example, one respondent may be closer to the threshold between “no” and “yes”, and another further away. For the binary ratings of coercion versus ratings about the act’s criminality and reporting, different attributes might affect these categorizations differently, such as a lower willingness to report when the act would require a police report rather than a workplace complaint.

Table 3: Survey wording for stimulus and outcome measures The vignette shows an example explicit threat vignette where the tactic is threaten to cut shifts, the tenor of the relationship prior to the threat is good, and the gender/race is white male perpetrator-white female victim. The order of appearance is randomized for all non-Likert scale choice options. For vignette linebreaks, see Figure 4

Section	Question wording	Answer choices
Stimulus		
Vignette (example)	Colin is Julie’s boss. They have a good relationship. Colin wants to have sex but Julie does not. Then, Colin says he will cut back the shifts of Julie unless she has sex with him. Julie and Colin have sex.	NA
Manipulation check	What does Colin say to Julie before they have sex?	Colin says he will take a larger cut of Julie’s tips; Colin says he will cut back the shifts of Julie; Colin says he will write up Julie for being 10 minutes late
Outcomes		
Continuous rating	On a scale from: 1 = Julie had NO freedom to refuse sex...5 = Julie had A LOT of freedom to refuse sex How would you rate Julie’s freedom to refuse to have sexual intercourse with Colin? As a reminder, before Julie has sex, Colin says he will cut back the shifts of Julie	Endpoints labeled 1 (NO Freedom to Refuse), 2, 3, 4, 5 (A LOT of freedom to refuse)
Binary categories	Did Colin force or coerce Julie into unwanted sexual intercourse? Did Colin commit a crime? Should Julie report Colin?	No, Yes No, Yes No, Yes
Prevalence among close friends <i>First vignette only</i>	Think of your five closest [female/male/same-gender] friends and list their initials here:	
<i>All vignettes</i>	How many of those five friends do you think have had someone successfully use similar tactics as Colin used with Julie to get them to have sex?	0, 1, 2, 3, 4, 5

2.4 Demographic and Attitudinal Measures

At the end of the survey, 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, control over scheduling, and degree of reliance on public benefits.

We have competing hypotheses about how greater familiarity with these challenges of lower socioeconomic status will affect judgments about tactics like *work shifts* and *eviction*. Greater personal familiarity might lead respondents to rate the vignettes as *more* coercive relative to respondents who are less familiar if familiarity increases awareness about the tactics' damaging nature. However, greater personal familiarity might lead respondents to rate the vignettes as *less* coercive if these acts are considered commonplace and as such, less transgressive, illegal, or worthy of reporting. This second possibility is most troublesome for estimates of sexual victimization, since it would mean that the subgroups at highest risk of experiencing certain tactics are the least likely to think the tactics constitute sexual assault.

Table 4: **Survey wording for additional demographics**

Section	Question wording	Answer choices
Sexual orientation	Do you consider yourself to be:	Heterosexual or straight, gay or lesbian, Bisexual, Other (blank)
Exposure to discretion over scheduling	How far in advance do you usually know what days and hours you will need to work?	One week or less; between 1 and 2 weeks; between 3 and 4 weeks; 4 weeks or more
Exposure to discretion over hours	Which of the following statements best describes how your working hours are decided? By working hours, we mean the time you start and finish work, and not the total hours you work per week or month.	Starting and finishing times are decided by my employer and I cannot change them on my own.; Starting and finishing times are decided by my employer but with my input.; I can decide the time I start and finish work, within certain limits.; I am entirely free to decide when I start and finish work.; When I start and finish work depends on things outside of my control and outside of my employer's control.
Economic struggle	At the end of the month, do you usually have . . .	Some money left over; Just enough to make ends meet; Not enough to make ends meet
Benefits receipt	In the last 12 months, have you had income from any of the following sources? (select all that apply)	Earnings; Public assistance, welfare, or food stamps; Unemployment insurance, workmens compensation, disability, or social security benefits; Public assistance or welfare, e.g. food stamps, SNAP, housing, TANF; Family and friends; None
Zip code (if permitted)		

2.5 Analytic approach

Randomizing respondents to different combinations of attributes—for instance, a respondent reading about a white male landlord threatening to evict a black female tenant, with the two having an *okay* relationship beforehand—allows us to identify the effect of each attribute on binary and continuous judgments of coercion: the perpetrator’s gender (male), his race (white), the tactic he uses (his role as a landlord and threatening to evict), the victim’s gender (female), the victim’s race (black), and the nature of their prior relationship (okay). More formally, we estimate what [Hainmueller et al. \(2014\)](#) define as the *average marginal component effect* (AMCE).

Suppose we focus on one attribute—the effect of the perpetrator threatening to evict the victim relative to the perpetrator threatening to break up with the victim—and the continuous rating. The AMCE compares the difference in continuous ratings between these two tactics—*evict* versus *break up with*—while taking a weighted average over the remaining attributes (victim and perpetrator’s race and gender; nature of relationship). The weights are determined by the randomization probabilities outlined in [Table 2](#).

[Hainmueller et al. \(2014\)](#) show how the AMCE can be estimated and for the results that follow. We use their `cjoint` package in R where they implement this estimation strategy. More formally, the AMCE is estimated as follows, where l refers to a general attribute (e.g., tactic the perpetrator uses), t_1 refers to a level of that attribute (e.g., *eviction*), t_0 refers to the reference level of that attribute (e.g., *break up*), $-l$ refers to the other attributes (e.g., gender of the perpetrator; victim race), i indexes a respondent, j indexes a particular vignette and $-j$ indexes the other vignettes, Y refers to the outcome (e.g., a rating of the degree of consent), and \tilde{T} refers to the intersection of other attributes for t_1 and t_0 .³⁰

$$\begin{aligned} AMCE(t_1, t_0, p(t)) = & \sum_{\tilde{T}} [E[Y_{ij}|T_{ijl} = t_1, T_{ij-l} = t, T_{i-j} = t] - \\ & E[Y_{ij}|T_{ijl} = t_0, T_{ij-l} = t, T_{i-j} = t]] \\ & \times p(T_{ij-l} = t, T_{i-j} = t|\tilde{T}) \end{aligned}$$

Substantively, the AMCE helps us isolate the effects of particular levels of attributes (for instance, the perpetrator’s gender being male versus female) controlling for a weighted average

³⁰This term applies to designs where certain combinations are blocked from appearing—for instance, if we gave the education level and profession of the perpetrator and did not want to combine a high school education with a white-collar profession. All combinations in the present design had non-zero probabilities

of everything else that changes across vignettes.

3 Results and Discussion

3.1 Respondent Demographics and Exposure to Sexual Victimization

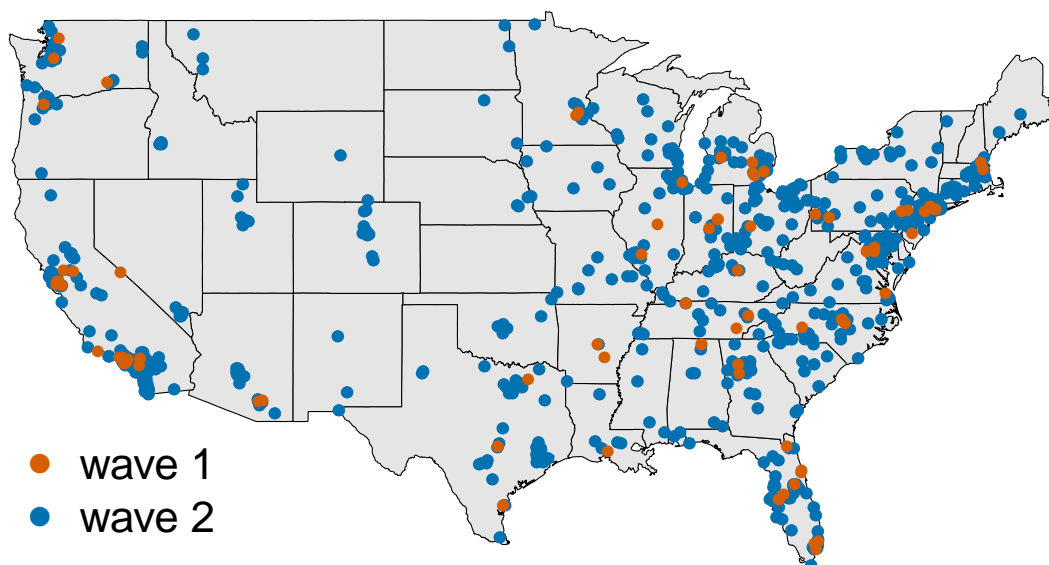
In order to conduct preliminary analysis and test the survey, we piloted the project using Amazon Mechanical Turk. We completed two waves of sampling. The first (Wave 1) was a sample of 180 respondents surveyed in February 2018. We fielded a second pilot (Wave 2) of 800 in March 2019. We presented the study as one about “relationships” as not to attract a sample with a particular interest in sexual victimization. As a full year passed between the pilot waves, we don’t anticipate the results to be comparable. In fact, though we suspect there will be consistent trends among certain demographic characteristics of respondents as well as scenario attributes, we cannot separate either sample from their cultural environment. As forms of sexual coercion which leverage personal or professional relationships garner news coverage and notoriety, we expect the results to shift. In the last year, the media coverage and public discussion of these issues has grown, and undoubtedly opinions are evolving. Therefore, our pilot waves, in addition to being non-probability samples of vastly different scales, come from different social and political times. Ideally, this type of survey should be fielded repeatedly in order to capture temporal trends in opinion gradients within a dynamic social and political landscape.

Wave 1 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%)). The educational breakdown was composed of 67% of respondents with college or more, 24% with some college, and 9% with a high school education or less. We used respondent zip codes to determine geographic diversity and Figure 6 shows the respondents came from a variety of locations.

Wave 2 demographics were similar though we had a more balanced gender distribution. In Wave 2 we had 403 female respondents and 400 males. We sampled a larger age bracket (18-45) with about half of the total sample between ages 25 and 35. The majority of respondents were white (68%), followed by Asian (11%), Black (10%), and Hispanic/Latino (5.6%) with other

groups making up the remaining 13%. Wave 2 was again predominantly politically left leaning. About 40% of respondents identified as liberal or extremely liberal, with an additional 17% identifying as slightly liberal. In contrast only 16% identified as conservative or very conservative with 7% identifying as slightly conservative. Finally about 16% identified themselves as middle of the road or moderate. Finally, the majority of respondents were employed either full time (66%) or part time (13%), some were working without a regular paycheck (10%); the smallest groups were unemployed but *not* seeking work (5%) or unemployed and *seeking* work (5%).

Figure 6: **Map of respondents' zip codes.** In wave 1, there is some concentration of respondents in majority-liberal cities on the east and west coasts. In wave 2 we obtained a much more geographically diverse sample though respondents are still concentrated in major metropolitan areas.



Wave 1 was predominantly male and liberal. In Wave 2 we sought to increase diversity by oversampling women. While our second wave was larger and nominally more diverse than our first wave, it is still far from nationally representative. In particular we still lack political or socioeconomic diversity which may lead to attenuation bias in our estimates of demographic variation because of the homogeneity of the sample.

3.1.1 Comparing results across pilot waves

The results of the two waves were predominantly consistent. In some cases (such as tactic) we find larger effect sizes and in some cases we find an attenuation of effect size (educational attainment of respondents) in our second wave. Still, both samples were convenience samples and we expect more variation when we field a representative sample.

In addition to demographic and attitudinal attributes, another factor that may shape respondents' categorization of sexual victimization is the prevalence of this victimization in the respondent's social network, which can vary on the basis of observed and unobserved characteristics. After reading about each tactic, respondents were asked how many of their five closest same-gender friends had experienced each tactic. Table A2 presents the results. With the exception of the "post naked photos" tactic, approximately half of the respondents reported knowing at least one friend who had experienced the other tactics, with between one fifth and one third reporting having two or more of their five friends experience each tactic. This implies a fairly high degree of second-degree exposure to the physical and non-physical forms of coercion the vignette depicts.

3.2 Question one: how do respondents categorize events that deviate from the prototype of sexual assault?

3.2.1 Force versus non-force coercion versus non-coercive

First, we investigated how respondents *across all demographic groups* categorize events that deviate from the prototypical tactic of a perpetrator using physical force. Figure 7 shows the marginal effect (AMCE) of tactic on respondent's continuous ratings of the degree to which the victim is free to say no, with the dot representing the point estimate and the bars 95% confidence intervals. The *top panel* of each figure compares the tactic to the reference category of *physical force* (prototypical coercion); the *bottom panel* of each figure compares the tactic to the reference category of *break up* (a non-coercive tactic). Figure A7 presents the results for the binary rating, which are consistent with but slightly less large in magnitude than those for the continuous ratings.

The figures highlight three preliminary findings that the nationally-representative sample can either confirm or invalidate. First, as tactics move away from the prototypical tactic of physical force, respondents judge these tactics as giving the victim significantly *more* freedom to say no than force and the act as having a significantly *lower likelihood* of being forced or coerced.

Second, some worry that expanding definitions of *force or coercion* to include tactics other

than force will lead to *overly broad categorizations*—for instance, the categorization of acts that are immoral but not illegal as “rape.” However, the bottom panels of Figure 7 and Figure A7 show that one such immoral but not illegal act—the perpetrator threatening to break up with the victim if he or she does not have sex—is rated as significantly *less* coercive than the non-force tactics like *eviction* and *naked photos*.

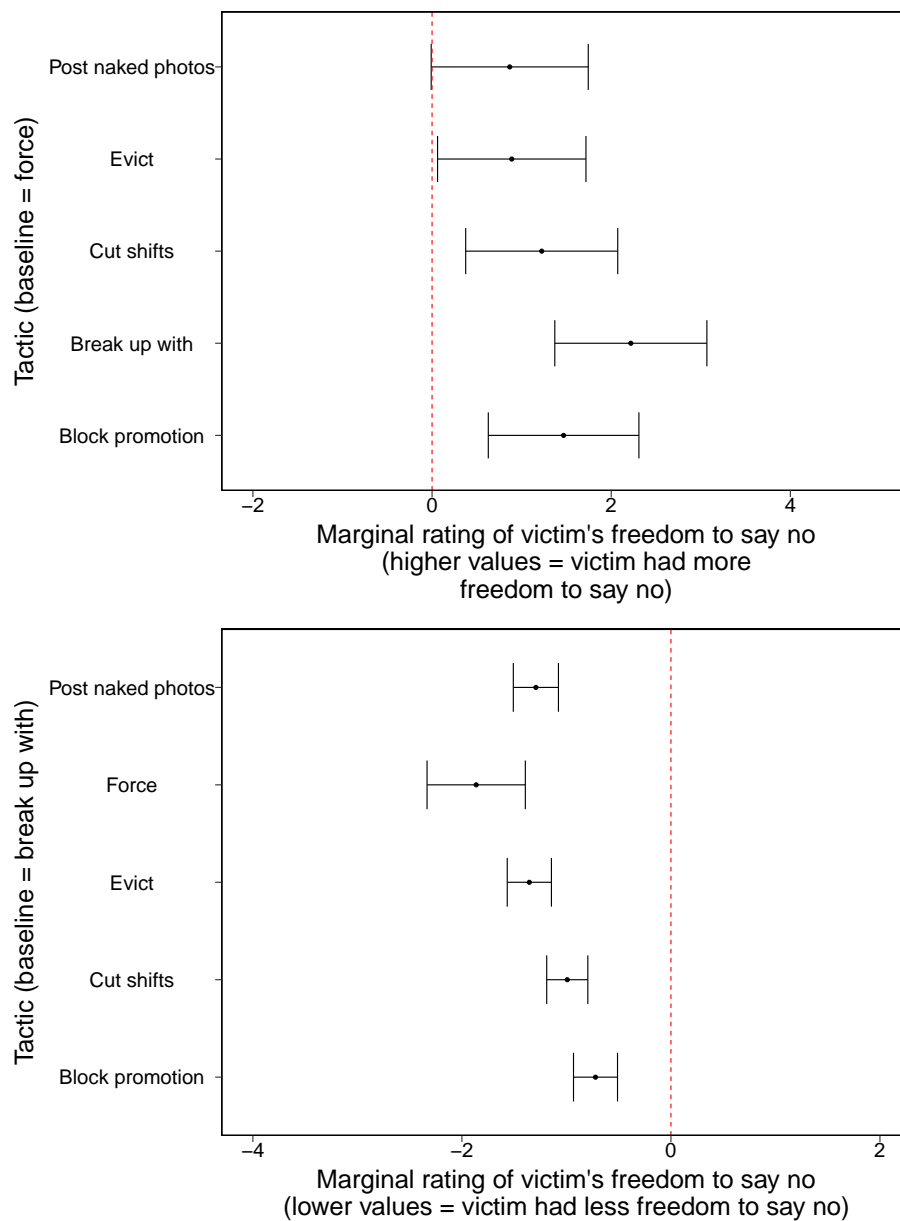
The third preliminary finding is that while the non-force coercive tactics differ from each reference category—they are rated as more coercive than *break-up* and less coercive than *force*—respondents do not rate them differently from each other along these two dimensions. These results may change in a better-powered national sample. However, and as we discuss in Section 4 (*Next Steps*), the lack of *average* differences in ratings may conceal *between-group* variation in how respondents rate these tactics—for instance, variation in ratings of the *work shifts* tactic based on the respondent’s own degree of control over his or her work hours.

Figure A8 and Figure A9 present the raw distributions of binary and continuous ratings, lending more context to the *marginal effects*.³¹

Figure A10 shows results for all attributes: the gender combination of perpetrator and victim, the race of each, and the tenor of relationship. Unlike tactics, which showed a strong effect relative to either the *physical force* or *break-up* baselines, the effect of other attributes was more mixed. We see some small effects of race of the victim; since most vignettes featured female victims, respondents rate black female victims as having less freedom to say no than white female victims. This was true across both waves of the pilot. Furthermore, the victim is rated to have less freedom to refuse if the perpetrator is black rather than white, though the effect is again quite modest. While changing the gender of the perpetrator and victim does not have a statistically significant marginal effect, both cases with female perpetrators, regardless of victims gender, were rated as less coercive in Wave 1. In Wave 2, we observe the same pattern but the effect sizes remain modest and not statistically significant from zero. In Wave 1 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. In Wave 2 we don’t observe any effect of relationship quality.

³¹The marginal effects differ from the raw ratings in two ways. First is the presence of a reference category—for instance, eviction versus force and eviction versus break-up generate two different estimates of the ‘effect’ of the eviction tactic on ratings. Second is the weighting over other attributes in the vignettes—the marginal ratings average over these attributes according to their randomization probabilities in expectation; the raw ratings do not involve any form of averaging over other attributes.

Figure 7: **Marginal effect of each tactic on continuous ratings of the victim's freedom to say no (Wave 2)**. The *top panel* compares each tactic to the reference category of physical force, and shows that all tactics are rated as giving the victim more freedom to say no than when the perpetrator threatens the victim with force. The *bottom panel* compares each tactic to the reference category of the perpetrator threatening to break up with the victim. It shows that all tactics, with the exception of outing, are rated as giving the victim *less* freedom to say no than the tactic of threatening to break up with the victim. These results were very consistent across waves, so we show only Wave 2 here, for Wave 1 results, see [A7](#)



3.3 Questions two and three: across all tactics, do respondents from different demographic groups have different perceptions of coercion and consent?

The previous section averages ratings across all demographic groups. But one of the primary motivations for understanding how individuals categorize events as coerced/forced sex is to make better sense of comparative estimates of prevalence—are higher rates of an event in group A than group B potentially an artifact of the two groups categorizing the same event as exhibiting different degrees of coercion? In the present results, we explore two forms of variation: variation by educational attainment (one marker of socioeconomic status) and variation by gender.

3.3.1 Variation by educational attainment

Figure 8, which presents the results for the binary ratings for Waves 1 and 2, and Figure 9, which presents the results for the continuous ratings for Waves 1 and 2, suggest a consistent pattern: respondents with lower levels of educational attainment rate the same events as less coercive than respondents with higher levels of educational attainment. The results, if confirmed in the nationally-representative sample, arguably have troubling implications for the measurement of sexual victimization—disadvantaged groups who may benefit the most from assistance aimed at alleviating the negative effects of victimization may be the least likely to perceive certain victimization experiences as assault. The effect sizes are attenuated in the second wave.

There are at least three possible reasons for variation in findings across waves. First, it is possible we are picking up on a true trend of increased awareness and homogeneity among individuals across educational attainment levels. Another possibility is the oversampling of women for our Wave 2 pilot produced a sample that was qualitatively different. Women tend to uniformly rate events as more coercive so including more may attenuate the effect of educational attainment in our analysis. Finally, as both samples are convenience samples it is difficult to know whether we are picking up on true demographic trends, sociotemporal trends, or spurious noise. Furthermore in both cases we have small samples of respondents falling into the high school or less educational attainment bin, this relatively small sample size makes for a statistically limiting reference group.

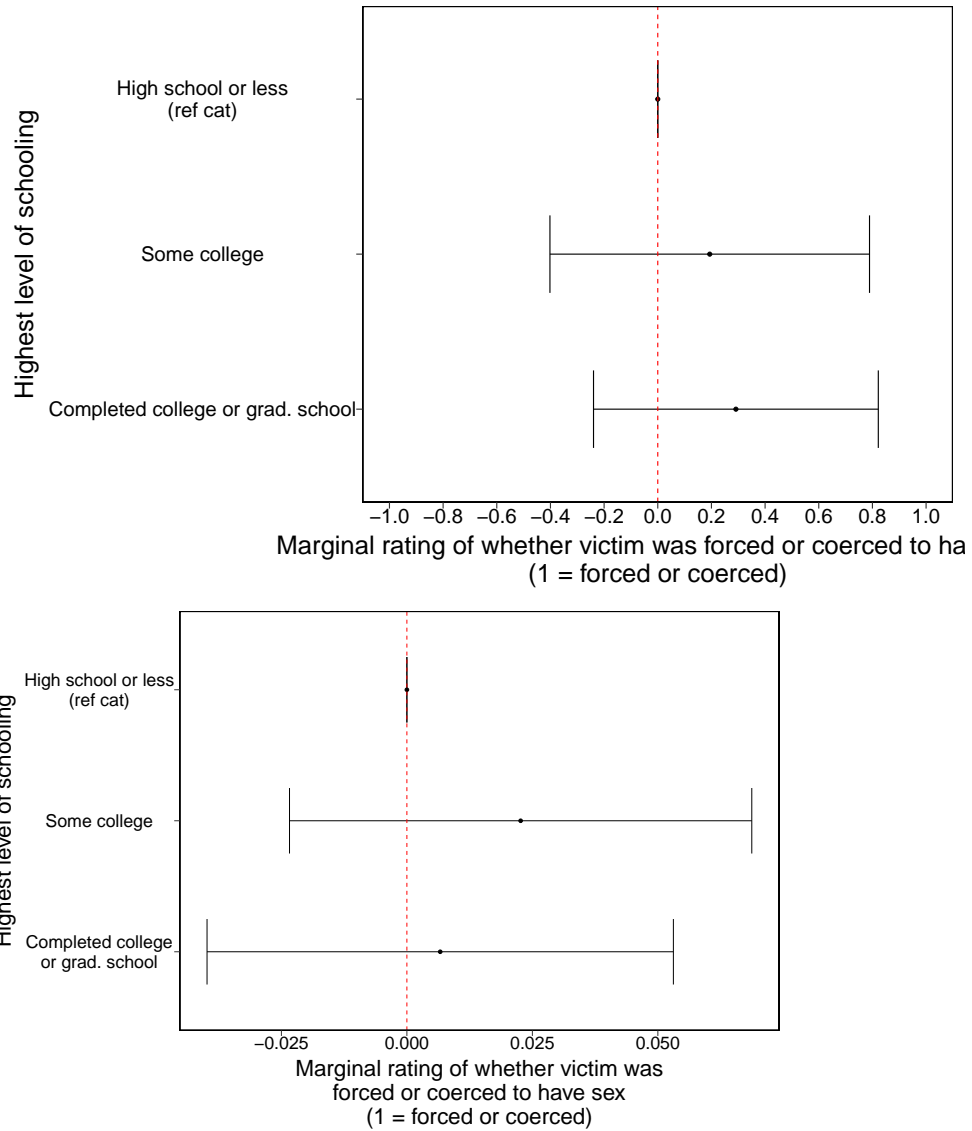


Figure 8: **Waves 1 and 2: Relationship between respondent’s educational attainment and binary judgment about whether the intercourse was forced or coerced** The right panel of the figure shows a trend towards respondents with *higher* educational attainment—either some college or completed college/more; respondents with a high school education or less as the reference category—rating the victim in the vignette as *more* likely to have experienced forced or coerced sexual intercourse in Wave 1. We see this trend attenuated in Wave 2. In spite of sampling more individuals, our statistical precision has not improved likely due to homogeneity in the sample population.

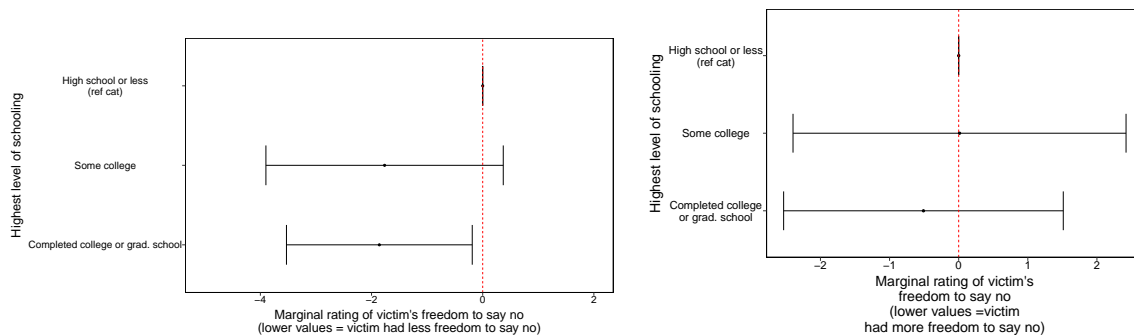


Figure 9: **Waves 1 and 2: Relationship between respondent’s educational attainment and continuous rating of degree to which tactics undermine consent** The left panel of the figure shows that respondents with *higher* educational attainment rate the victim in the vignette as having *less* freedom to say no in Wave 1. Again, we see these associations attenuated in our second wave (right panel).

The previous results from Wave 1 show that those with lower educational attainment both perceive the same act as *less coercive* on a continuous scale and are *less likely* to apply the label of “forced or coerced” to act than respondents with higher educational attainment. Wave 2 shows a similar though attenuated trend. One potential source of these inequalities is different thresholds for counting the same act as coercive. For instance, respondents with higher educational attainment might require the same event to be *less coercive* before they apply a “yes label” of sexual assault. Figure 10 and 11 explore this possibility. Figure 10 shows that for higher SES respondents (completed college), the likelihood of perceiving the act as sexual assault fairly linearly decreases as the victim is perceived as having *more freedom* to say no. In contrast, those with a high school education or less exhibit a plateau and steep drop off that indicates they shift to the “no” category with a lower continuous rating.

Examining the interaction between socioeconomic status and whether the perpetrator said he or she would engage in the tactic or implied he would, higher SES respondents seem to be driving the full-sample perceptions that implying is more coercive than saying.

We are not sure why this pattern emerges. One speculation is that respondents may perceive implicit threats as more coercive because it is more sinister. An implicit threat may present all the same pressures on the victim but in such a way to give the perpetrator deniability. This loss of potential redress may constitute an additional level of entrapment. Alternatively, it could reveal something about the perpetrator’s character. Perhaps implying a favor or punishment and using it as leverage is more demonstrably corrupt than asking explicitly. Explicit requests may be interpreted as more transactional than threatening.

Figure 11 examines this relationship by tactic, examining the mean degree of freedom to say no that those who labeled the act as yes “forced or coerced” reported. Across all the non

break-up tactics, lower SES respondents reporting that the act was forced or coerced required the victim to have *less freedom* to say no than higher SES respondents do when choosing the category (lower mean rating). Interestingly, these disparities were most marked for cutting back shifts, a tactic that disproportionately affects lower-income individuals.

Figure 10: **Relationship between a respondent’s continuous rating of the degree of consent (lower = victim has less freedom to say no) and the respondent’s binary rating of whether an act was “yes” forced or coerced.** The Figure, which uses a local polynomial (loess) smoother, highlights that respondents with more educational attainment display a fairly linear relationship where *more perceived consent* leads to sharp declines in their classification of an event as coerced; respondents with a high school education display a flatter/more step-wise relationship where there are two tiers of acts (those with less consent and a very high likelihood of classification as coerced; those with more consent and a medium likelihood of classification as coerced).

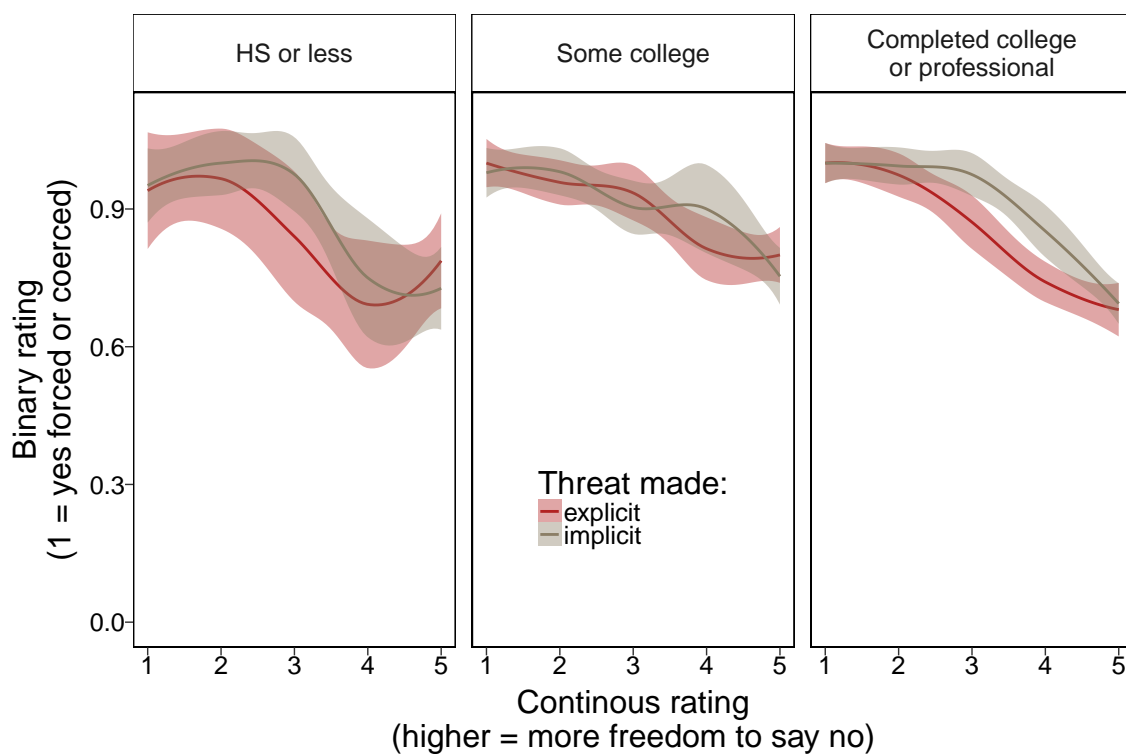


Figure 11: **Among those who answer that “yes” an act was forced or coerced, mean rating of the degree of consent they assign the act, separated by tactic** The figure highlights that there are few differences between demographic groups in the mean degree of consent they assign to tactics like post naked photos of and force when they rate these tactics as coercive. In contrast, for tactics like eviction and cutting back shifts, lower SES respondents who answer the tactic is coercive require that the tactic undermines consent to a higher degree (lower mean rating of consent among those who answer “yes”).

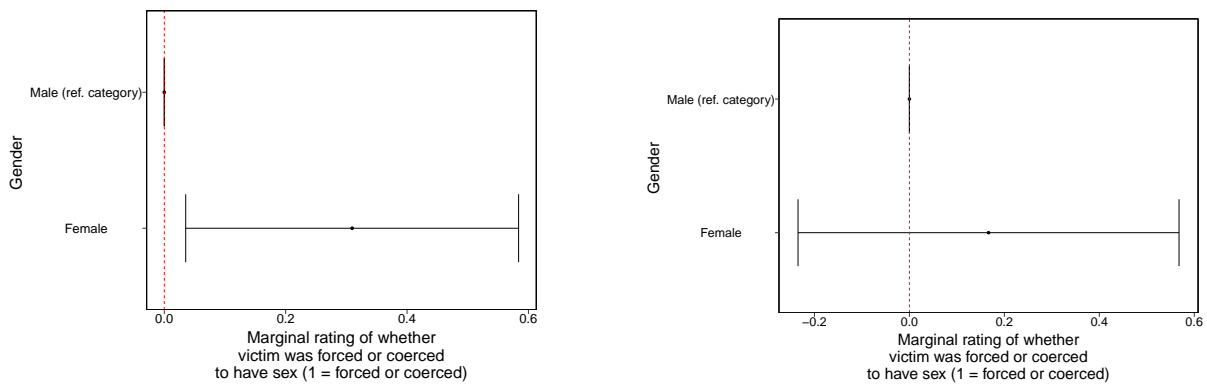
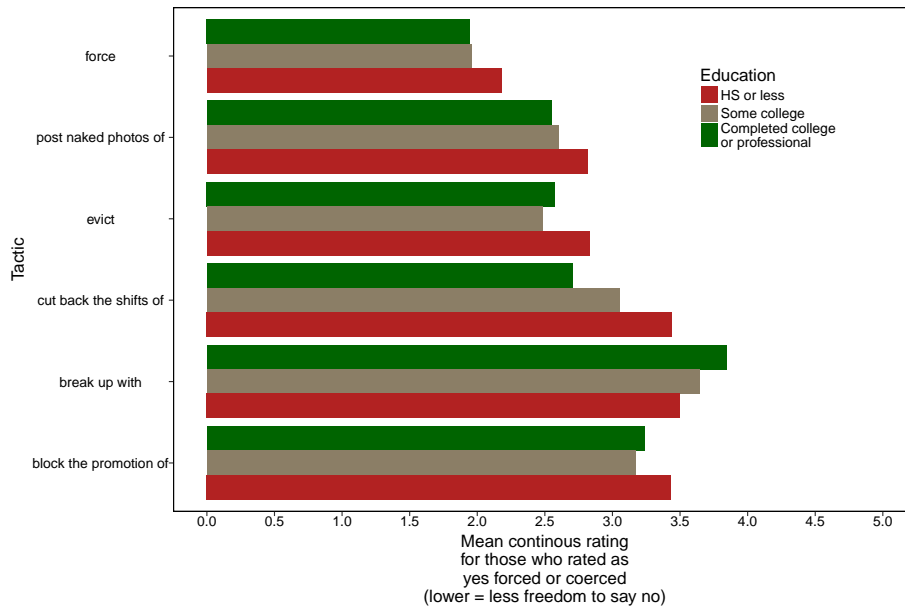


Figure 12: **The marginal effect of gender.** The figure shows that females in Wave 1 (left panel) were significantly more likely to rate the scenario as coercive when compared to male respondents. We do not see a significant difference in Wave 2 (right panel), though the point estimates remain close.

3.3.2 Variation by gender

Figure 12, which presents the effect of gender on continuous ratings, shows that females perceive the victim as having less freedom to say no than males. Since most vignettes depicted a male perpetrator and female victim, these results could be driven by greater identification with the scenario or other processes (as discussed in Figure 11).

3.4 Beyond labeling: judgments about criminality and reporting

Earlier, we described how ambiguity about whether an event is coerced can affect three decisions. First is the decisions about labeling the event as rape (the paper’s main focus). Yet individuals may also vary in two decisions that follow that label. Is the event a crime? And should the victim report the event? Figure 5 shows a hypothetical example of non-random attrition at each stage—demographic differences may not only affect who labels what as rape but also, among those who label an event as rape, judgments about criminality and reporting. Put differently, there may be demographic differences in progression through the three stages of what [Felstiner et al. \(1980\)](#) call the process of “naming, blaming, and claiming.”

Appendix Figure A11 shows descriptively the breakdown in these three ratings across tactics. The figure shows that, for instance, among those who label threatening to break up with as coercive, most respondents correctly recognize that this is not a crime that one can report. Workplaces tactics are more likely to stall at the stage of either labeling it as a crime or thinking it should be reported. For the former, this could be due to perceived distinctions between workplace discrimination (a civil violation) and criminal violations. For the latter, this could be due to perceived career repercussions for the victim if he or she reports.

Figure A11 also shows that the educational attainment differences in *labeling* an event as rape do not seem to persist to these other judgments.³² To investigate more formally, we estimated the following ordered logit model, subsetting to those who rated a particular interaction as “yes coercive” (the order of categories was: coercive only < coercive + a crime *or* worthy of reporting < coercive + a crime *and* worthy of reporting):

$$\begin{aligned} Pr(\text{category})_i = & \alpha + \beta_1 \text{education (ref. category = completed college)}_i + \\ & \beta_2 \text{race (ref. category = White)}_i + \\ & \beta_3 \text{Degree liberal}_i + \\ & \beta_4 \text{tactic (ref. category = Break up)}_i + \\ & \beta_5 \text{Age}_i + \\ & \beta_6 \text{Male (ref. category = female)}_i + \\ & \epsilon_i \end{aligned}$$

³²As an important caveat that we discuss further, these judgments seem especially susceptible to the distinction between 1) judging what a victim in a vignette should do when experiencing an event; and 2) the actions the respondent would personally take if he or she experienced the event.

Table 5 presents the results. Interestingly, the inequalities between educational attainment levels—pronounced in wave 1; attenuated in wave 2—that manifest themselves in perceptions of events as coercive do not persist through the subsequent decisions. That is, once lower SES respondents cross the (higher) hurdle of perceiving the event as coercive, they are similarly likely as higher SES respondents to view it as a crime and/or worthy of reporting.

While there are no differences by educational attainment in escalating from perceptions of coercion to perceptions of criminality and worthy of reporting, there are differences with respect to three other characteristics. Respondents who identify as more Liberal politically are significantly more likely to view the acts as criminal and recommend reporting than more Conservative respondents.. This may be driven by the prevalence of tactics like the workplace harassment ones that reflect violations of civil rights that are often the focus of progressive politics. Second, Older respondents are significantly *less* likely to progress through the decisions, which may reflect cultural differences between cohorts. Finally, males are significantly *less likely* to progress through the decisions than females. Figure 13 helps us visualize this relationship between a respondent’s age and his or her predicted probability of progression across tactics, predicted separately for each gender.³³

³³We restricted the wave 2 sample to respondents aged 18-45. The wave 1 sample was composed of respondents aged 18-35. There was no significant interaction between age and gender so each only enters additively in the model.

Table 5: **Among those who label an act as rape, who progresses to judging that the act is a crime or/and worthy of reporting? Wave 2** The table shows results from an ordered logit model, where the lowest-ranked category is label only and the highest is label + crime + report.

<i>Dependent variable:</i>	
progression_use	
High school or some college (ref: completed college)	0.078 (0.113)
Strength liberal ideology	0.176*** (0.027)
Block promotion (ref: break up)	3.165*** (0.224)
Cut shifts (ref: break up)	3.444*** (0.232)
Evict (ref: break up)	4.307*** (0.285)
Post naked photos (ref: break up)	3.682*** (0.244)
Force (ref: break up)	2.398*** (0.174)
Asian	-0.130 (0.197)
Black	0.064 (0.206)
Other race	0.352* (0.182)
Age	-0.034*** (0.009)
Male	-0.446*** (0.114)
Observations (3 vignettes per respondent)	2,170
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

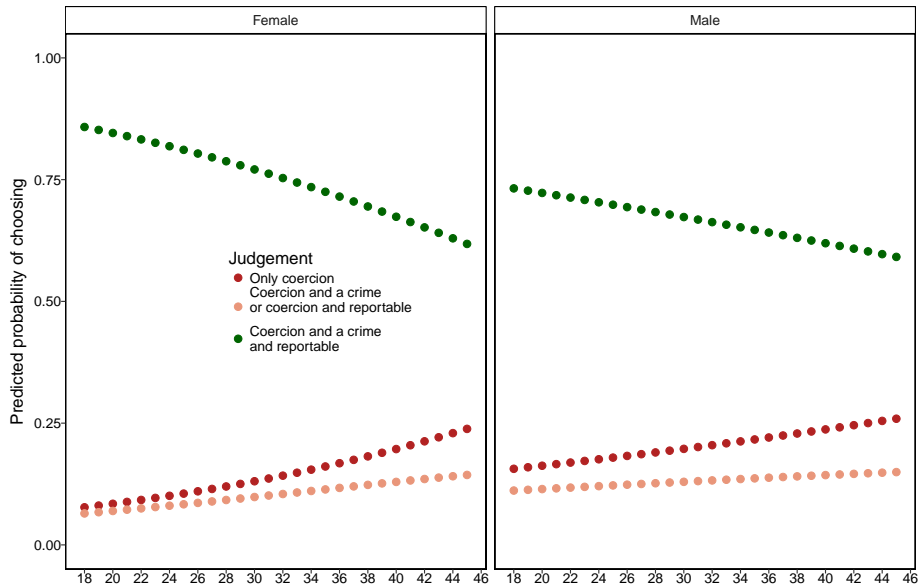


Figure 13: **Among those who label an act as rape, predicted probabilities of judging that the act should also progress to other decisions: differences by age, presented separately by gender** For each, other covariates are set to the following values: mean political ideology, tactic = force, education = high school or some college, and race = white. The figure highlights that older respondents are significantly *less likely* to rate that coercive acts are crimes/ought to be reported (declining slope on the green predicted probability).

4 Discussion

Recent events highlight how sexual victimization encompasses a range of coercive tactics beyond the use of physical force. These events raise questions about 1) whether our current measures of sexual victimization, which ask respondents about “forced or coerced” intercourse, capture these other forms of coercion, and 2) if there are inequalities where those from certain demographic groups are *less likely* to label these events as coercion.

We have three main findings. First, laypeople view non-physical forms of coercion—i.e., threats involving promotions or work hours; threats involving housing— as *undermining consent less* and *less likely to be “forced or coerced”* intercourse than the use of physical force. Second, despite viewing these non-physical forms of coercion as less coercive, laypeople *do* distinguish between these tactics and a tactic like the perpetrator threatening to break up with the victim that may constitute an inter-personal harm rather than an actionable form of coercion.

Third, we have some evidence that these perceptions are stratified by socioeconomic status (operationalized as educational attainment) and gender. Lower SES individuals 1) view the same events as having a lower *degree* of non-consent than higher SES individuals, 2) view the same events as having a lower *likelihood* of “counting” as forced or coerced sex than higher SES individuals, and 3) require that a given event has a *higher degree* of non-consent to count

as coerced, with results pronounced in the wave 1 pilot but attenuated in the second wave. There are also preliminary gender disparities where males also classify the same events as less coercive than females. Yet, in our initial sample, the socioeconomic disparities that emerge in *perceiving* an act as coercive do not persist to differences in other perceptions once the “hurdle” of classifying an act as coercive has been crossed, with other demographic differences like age and political ideology playing a larger role in these judgments.

Across all results, there is a tradeoff between our experimental design—which uses a multi-dimensional vignette to fix the events respondents are asked to evaluate—and asking respondents what they did in actual victimization experiences they have experienced. For instance, [Khan et al. \(2018\)](#) highlight several social costs of choosing to report a sexual assault to official adjudicatory channels; for instance, costs to one’s self-concept and perceptions that it will detract from one’s life goals/college project. These considerations that affect a respondent’s *personal* decisions to report likely play no role in ratings of a hypothetical victim in a vignette.

4.1 Next steps

This paper describes the preliminary analysis of two waves, and as such has several limitations that we plan to address as our next steps.

- **Field the experiment with a nationally-representative sample:** The present paper presents results from our pilot study. We presently have secured sufficient grant funding to field the study with a larger, nationally-representative sample, such as those run by *Qualtrics Panels*. If other grant applications are successful, this sample will over-sample recipients of public benefits. The larger sample is important for validating the existing results we present and for providing enough statistical power to estimate parameters like interaction effects between vignette attributes and respondent demographics that we discuss below.
- **Explore interactions between vignette attributes and respondent covariates:** The preliminary results show that when we average across tactics, respondents with lower levels of educational attainment rate the vignette as less coercive than respondents with higher levels of educational attainment. This lower average may be driven by strong tactic \times education effects for some tactics, and weaker/null effects for other tactics. As discussed, if lower-SES respondents are *least-likely* to rate tactics like *eviction* that they may have the *highest* comparative likelihood of experiencing, this may have important implications for measuring victimization’s prevalence in these subgroups.

Appendix

Table A1: Measurement methods in selected surveys or reporting sources (*based on Kruttschnitt, Kalsbeek, and House (2014) Table 6-1 and Stemple and Meyer (2014) Table 1*)

Data Source	(Rough) Category	Details
Uniform Crime Reports (UCR)	Abstract concept	Measures rape and attempted rape; recently updated to reflect male victims and forms of penetration other than penile penetration of vagina
National Crime Victimization Survey (NCVS)	Abstract concept	<p>Uses two screener questions: Question one: (Other than any incidents already mentioned), has anyone attacked or threatened you in any of these ways: (e) any rape, attempted rape, or other type of sexual attack; Follow up for yes on question one: You mentioned rape. Do you mean forced or coerced sexual intercourse (if answers no: "What do you mean")?</p> <p>Question two: Incidents involving forced or unwanted sexual acts often difficult to talk about. (Other than any incidents already mentioned), have you been forced or coerced to engage in unwanted sexual activity by (a) someone you didnt know before, (b) a casual acquaintance? OR (c) someone you know well? Follow up for yes on question two: You mentioned some type of unwanted sexual contact with force. Do you mean forced or coerced sexual intercourse including attempts?</p> <p>Respondents who answer no to above two questions might still be classified as a case of sexual victimization if they mention rape in response to reporting another violent incident</p>
National Intimate Partner and Sexual Violence Survey (NISVS)	Combination	<p>Question one: How many people have ever used physical force or threats to physically harm you to make you have or give: Options for question one: vaginal sex; perform or receive oral or anal sex; object penetration</p> <p>Also asks about following forms of pressure for vaginal, oral, or anal sex: Pressure one: doing things like telling you lies, making promises about the future they knew were untrue, threatening to end your relationship, or threatening to spread rumors about you? Pressure two: wearing you down by repeatedly asking for sex, or showing they were unhappy? Pressure three: using their authority over you, for example, your boss or your teacher? Also asks about intoxication</p>
Sexual Experiences Survey (SES)	Concrete behaviors	Short-form victimization survey (SES-SV) asks about various forms of coercion for following acts: sexual touching, oral sex, vaginal sexual intercourse, anal sex/object insertion (described more fully in main text)
National College Women Sexual Victimization Study (NCSWSV)	Concrete behaviors	Full screenshot in Appendix Figure A1
<i>Surveys not summarized in table:</i> National Inmate Survey (reports sexual victimization in prison and jails); National Survey of Youth in Custody (reports sexual victimization of youth in juvenile facilities); National Women’s Study; National Violence against Women Study		

Figure A1: Full text of National College Women Sexual Victimization Study (NCWSV)

1. *Since school began in the fall 1996, has anyone made you have sexual intercourse by using force or threatening to harm you or someone close to you? Just so there is no mistake, by intercourse I mean putting a penis in your vagina.*
2. *Since school began in the fall 1996, has anyone made you have oral sex by force or threat of harm? By oral sex, I mean did someone's mouth or tongue make contact with your vagina or anus or did your mouth or tongue make contact with someone else's genitals or anus.*
3. *Since school began in the fall 1996, has anyone made you have anal sex by force or threat of harm? By anal sex, I mean putting a penis in your anus or rectum?*

4. *Since school began in the fall 1996, has anyone ever used force or threat of harm to sexually penetrate you with a foreign object? By this, I mean, for example, placing a bottle or finger in your vagina or anus?*
5. *Since school began in fall 1996, has anyone attempted but not succeeded in making you take part in any of the unwanted sexual experiences that I have just asked you about? For example, did anyone threaten or try but not succeed to have vaginal, oral, or anal sex with you or try unsuccessfully to penetrate your vagina or anus with a foreign object or finger?*
6. *Not counting the types of sexual contact already mentioned, have you experienced any unwanted or uninvited touching of a sexual nature since school began in fall 1996? This includes forced kissing, touching of private parts, grabbing, fondling, and rubbing up against you in a sexual way, even if it is over your clothes.*
7. *Since school began in fall 1996, has anyone attempted but not succeeded in unwanted or uninvited touching of a sexual nature?*
8. *Since school began in fall 1996, has anyone made or tried to make you have sexual intercourse or sexual contact when you did not want to by making threats of nonphysical punishment, such as lowering a grade, being demoted or fired from a job, damaging your reputation, or being excluded from a group for failure to comply with requests for any type of sexual activity?*
9. *Since school began in fall 1996, has anyone made or tried to make you have sexual intercourse or sexual contact when you did not want to by promises of rewards, such as raising a grade, being hired or promoted, being given a ride or class notes, or getting help with coursework from a fellow student if you complied sexually?*
10. *Since school began in fall 1996, has anyone made or tried to make you have sexual intercourse or sexual contact when you did not want to by simply being overwhelmed by someone's continual pestering and verbal pressure?*

Figure A2: **When categorization does not affect comparative estimates of sexual victimization's prevalence** The figure shows the case where there is between-person variation in which events individuals categorize as forced/coerced intercourse (red circle), but where this between-person variation is random with respect to the individual's education level.

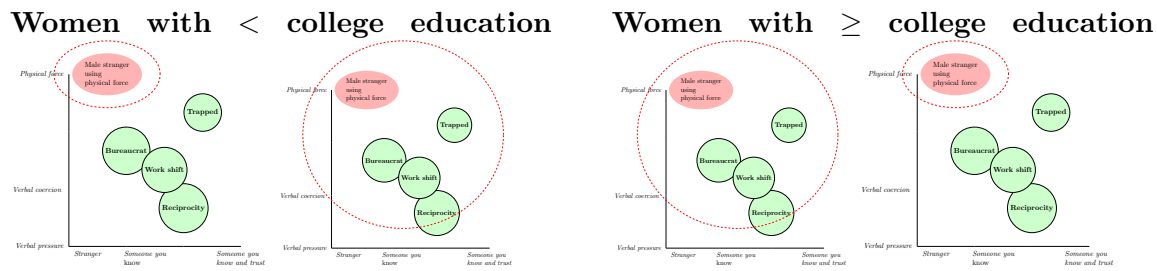


Figure A3: **When categorization does affect comparative estimates of sexual victimization's prevalence** The figure shows the case where there is between-person variation in which events individuals categorize as forced/coerced intercourse (red circle) and where this variation is correlated with the individual's education level (in this case, women with lower levels of education only categorizing events featuring physical force as forced/coerced intercourse, while women with higher levels of education placing a broader set of events into this category.)

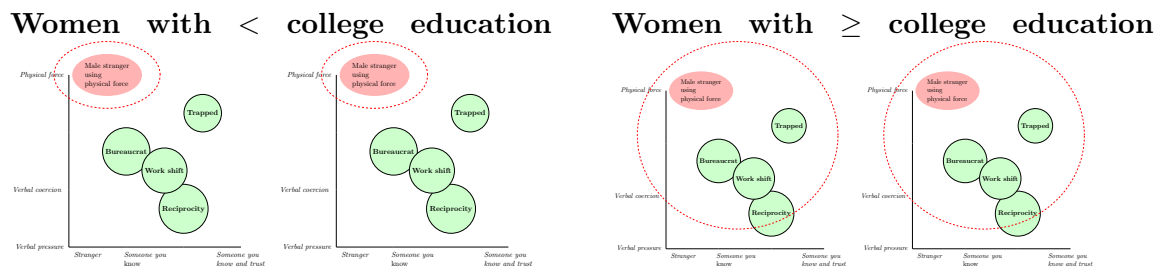


Table A2: **Prevalence of different tactics among close friends of respondents** The table ranks the tactics from the one with the highest prevalence among close friends (threatening to break up with) to the lowest prevalence (threatening to evict)

Tactic	% with zero friends experienced	% with 1 friend experienced	% with 2+ friends experienced
evict	0.81	0.12	0.07
cut back the shifts of	0.75	0.15	0.11
block the promotion of	0.74	0.14	0.12
post naked photos of	0.69	0.20	0.11
force	0.66	0.18	0.16
break up with	0.44	0.23	0.33

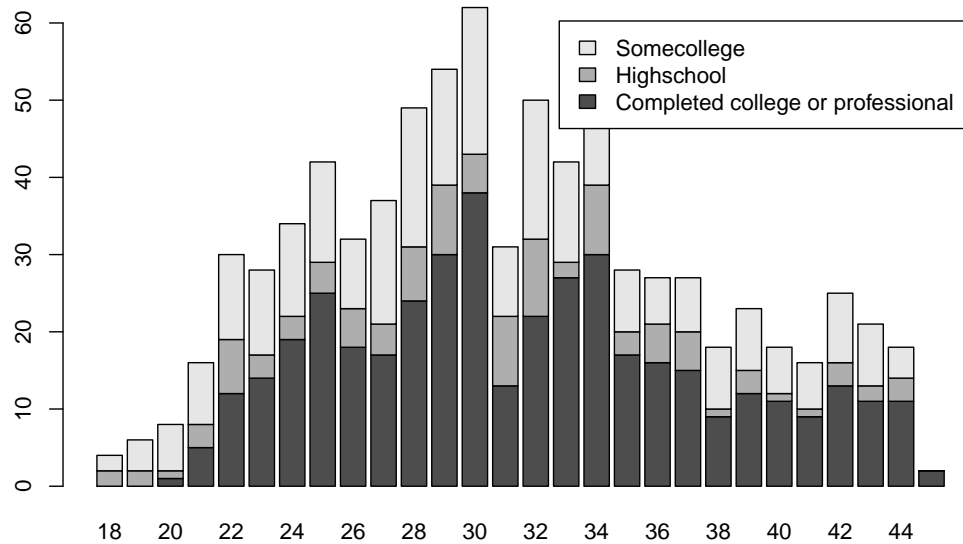


Figure A4: **Age and educational attainment, Wave 2 sample.** In general we see proportionately more individuals with advanced degrees with age, as we would expect. However, we do see a persistence of high school or some college through all ages. As there are more individuals with advanced degrees at upper age brackets, educational attainment may be a proxy for any generational differences in opinions regarding sexual assault or norms of interaction in addition to measuring the impact of education.

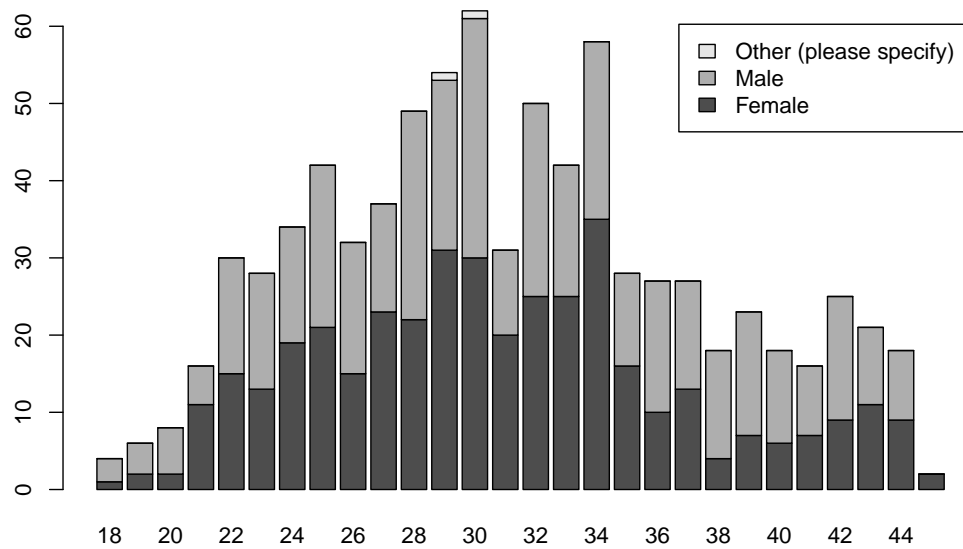


Figure A5: **Gender and age, Wave 2 sample.** While our second wave sample is balanced between men and women, we see proportionately more men at the upper and lower ages.

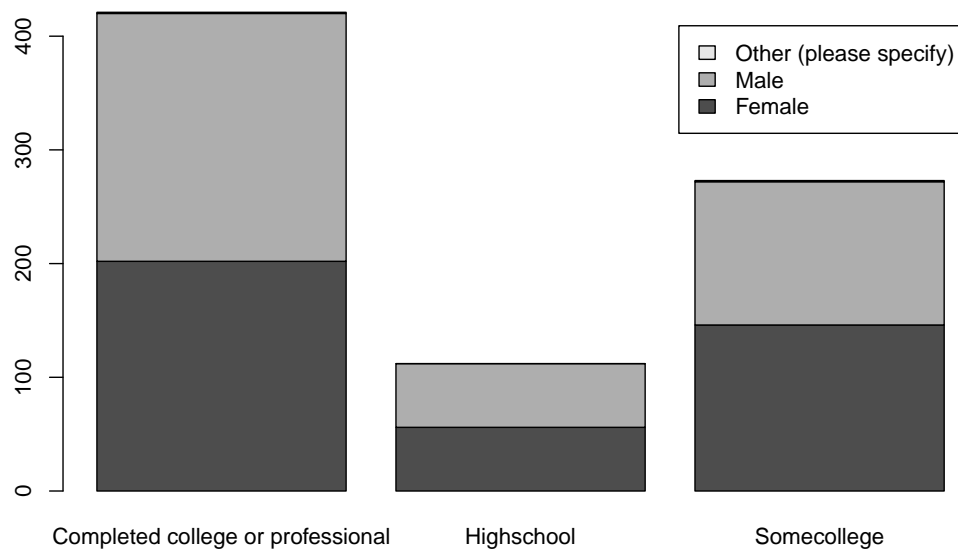


Figure A6: **Gender and educational attainment, Wave 2 sample.** In our second wave pilot, educational attainment was pretty well balanced across genders. However, while we have even numbers of men and women in high school or less (56/56) we have more women than men in some college (146/126) and fewer women than men in advanced degrees (202/218). We believe that men are less likely to view tactics as coercive, all else equal, and so this slight skew in our educational distribution by gender may have attenuated the effect of education. In other words, as men are less likely to categorize an act as coercive, higher education men may still be less likely to do so. Having a slight dominance of men in the higher education bin may therefore be providing a downward bias in the effect of education.

Figure A7: **Marginal effect of each tactic on binary judgments of whether the victim was forced or coerced into sex.** Similar to Figure 7, the *top panel* compares each tactic to the reference category of physical force while the *bottom panel* compares each tactic to the reference category of break-up. Positive values indicate a *higher likelihood* that the respondent classifies the act as forced or coerced; negative values indicate a *lower likelihood*. The results are similar to those for a continuous rating, with the point estimates on all tactics rated as less coercive than force (though more confidence intervals that intersect with zero) and as more coercive than threatening to break up with the victim (though larger effects for *naked photos*, *outing*, and *force* than the other three tactics).

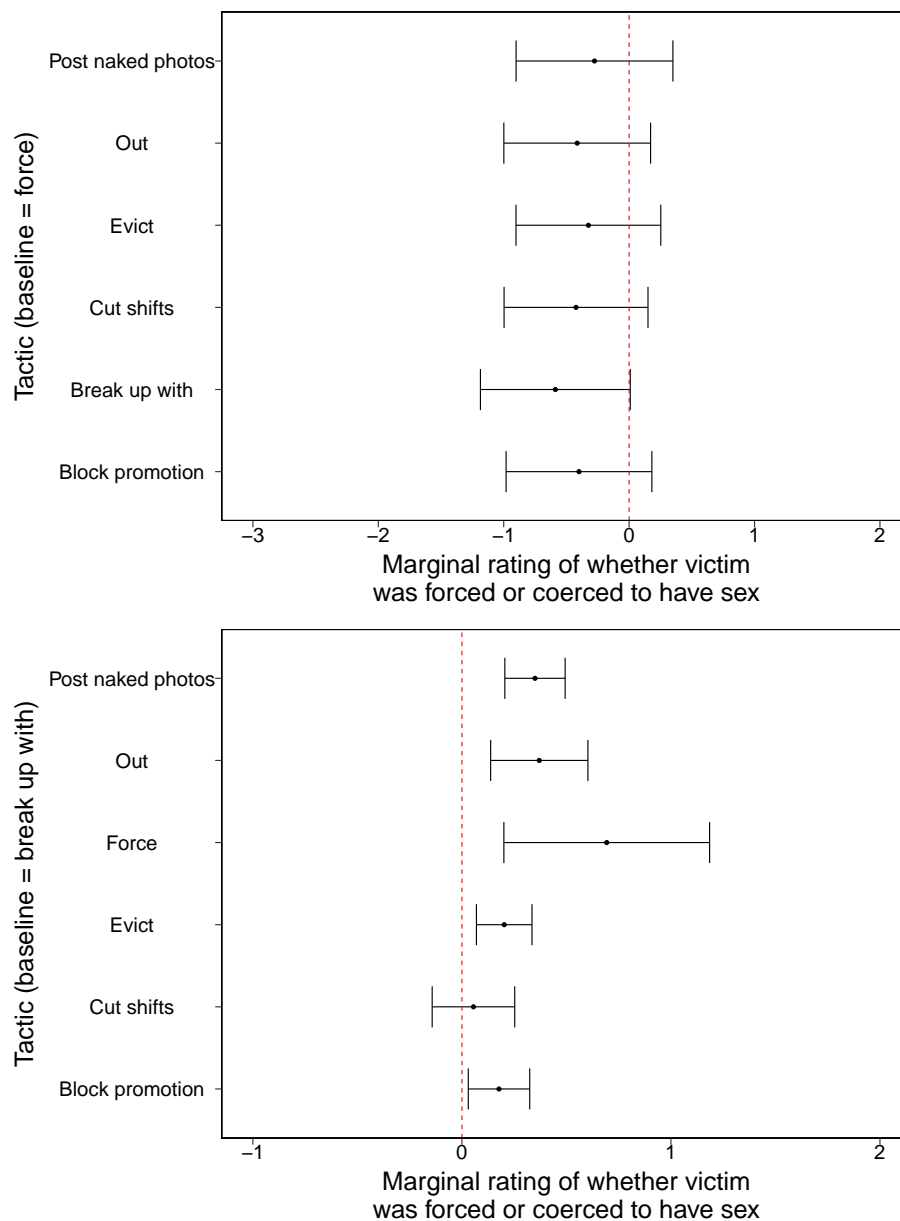


Figure A8: **Percentage of respondents who rated each tactic as forced or coerced.** With the exception of the break up with, all tactics were rated as coercive the overwhelming majority of the time regardless of other scenario attributes. In addition, there is little variation between implicit and explicit threat rankings. We see some variation in the interpersonal tactics (“break up with”, “post naked photos of”) and the largest variation in “block the promotion of” and “evict”. The variation in the latter two tactics may be do in part to the more illicit nature of implying a threat in these scenarios. We also know higher SES individuals were more sensitive to the implicit/explicit treatment than lower SES individuals which may explain why higher variation on “block the promotion” of as these individuals are more likely to fear or have experience with that scenario. Finally, it could be the fact that an implicit threat is not as directly actionable as an explicit threat. If an explicit threat is made, an individual can report the behavior without worrying about ambiguity or misinterpretation. An implicit threat in contrast is more difficult to report and may add to a feeling of entrapment.

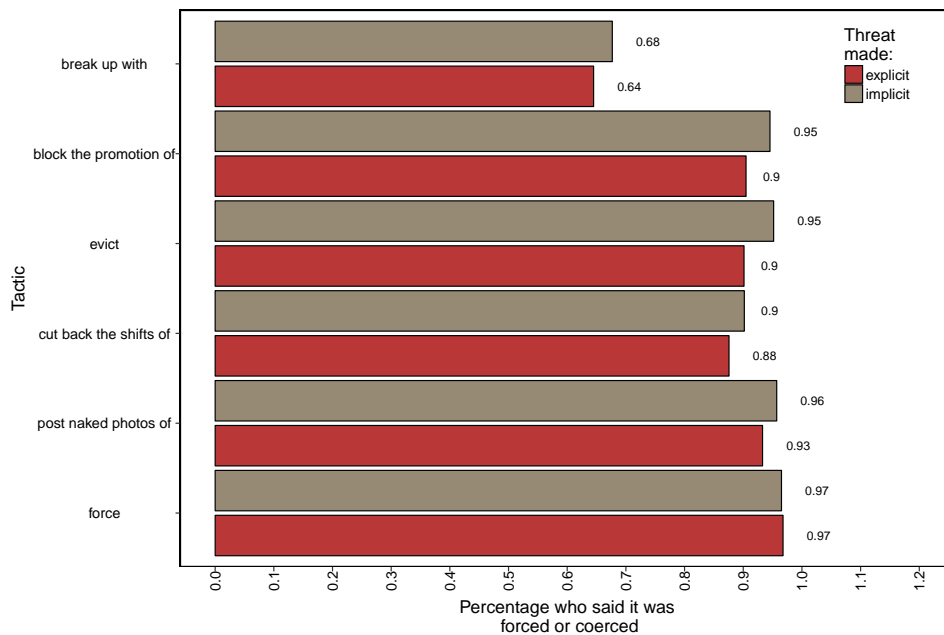


Figure A9: **The distribution of continuous ratings of freedom to refuse** The red dashed line shows the mean rating, while the histogram shows the distribution of ratings across the 5 options, from 1 = [the victim had] no freedom to refuse to 5 = [the victim had] a lot of freedom to refuse. Force has the highest count because all respondents received that vignette, while the others were randomized according to the $\frac{1}{5}$ probabilities outlined in Table 2. The histograms highlight interesting variation beyond the mean rating—in particular, the higher mean on *force* is driven by a large proportion of respondents rating it with the lowest degree of consent (1). The tactic perceived as next most coercive (*naked photos*) has a higher proportion of respondents falling in the middle category.

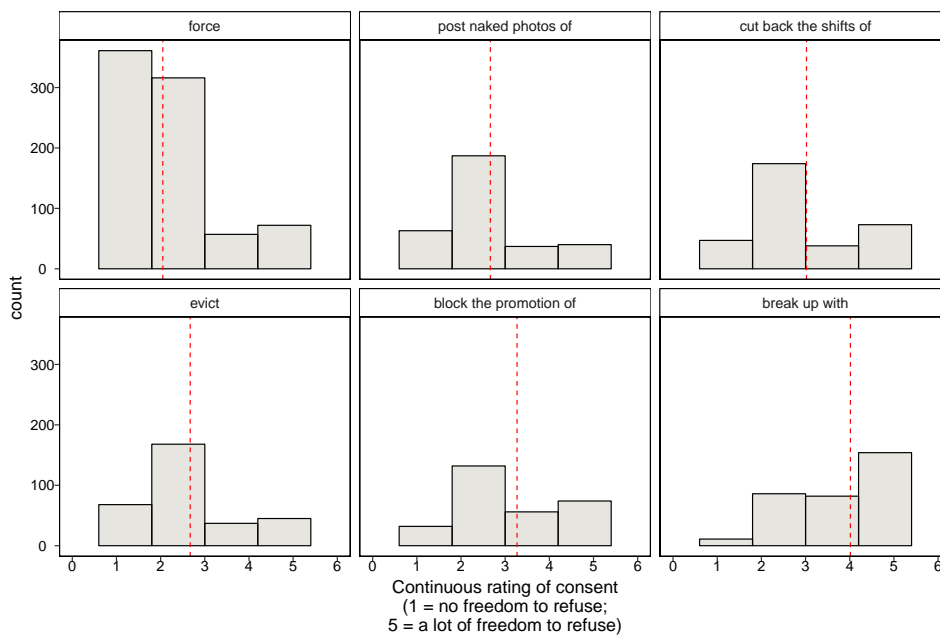


Table A3: Differences in continuous ratings by tactic and whether the threat was implied or stated explicitly

tactic	condition	mean	median	sd
force	explicit	2.02	2.00	1.30
force	implicit	2.08	2.00	1.25
post naked photos of	implicit	2.61	3.00	1.24
evict	explicit	2.66	2.50	1.30
evict	implicit	2.68	2.00	1.34
post naked photos of	explicit	2.71	2.00	1.27
cut back the shifts of	implicit	2.96	3.00	1.34
cut back the shifts of	explicit	3.08	3.00	1.35
block the promotion of	explicit	3.18	3.00	1.36
block the promotion of	implicit	3.35	3.00	1.30
break up with	explicit	3.93	4.00	1.19
break up with	implicit	4.10	5.00	1.07

Figure A10: Marginal effect of other attributes on victim's perceived freedom to say no.

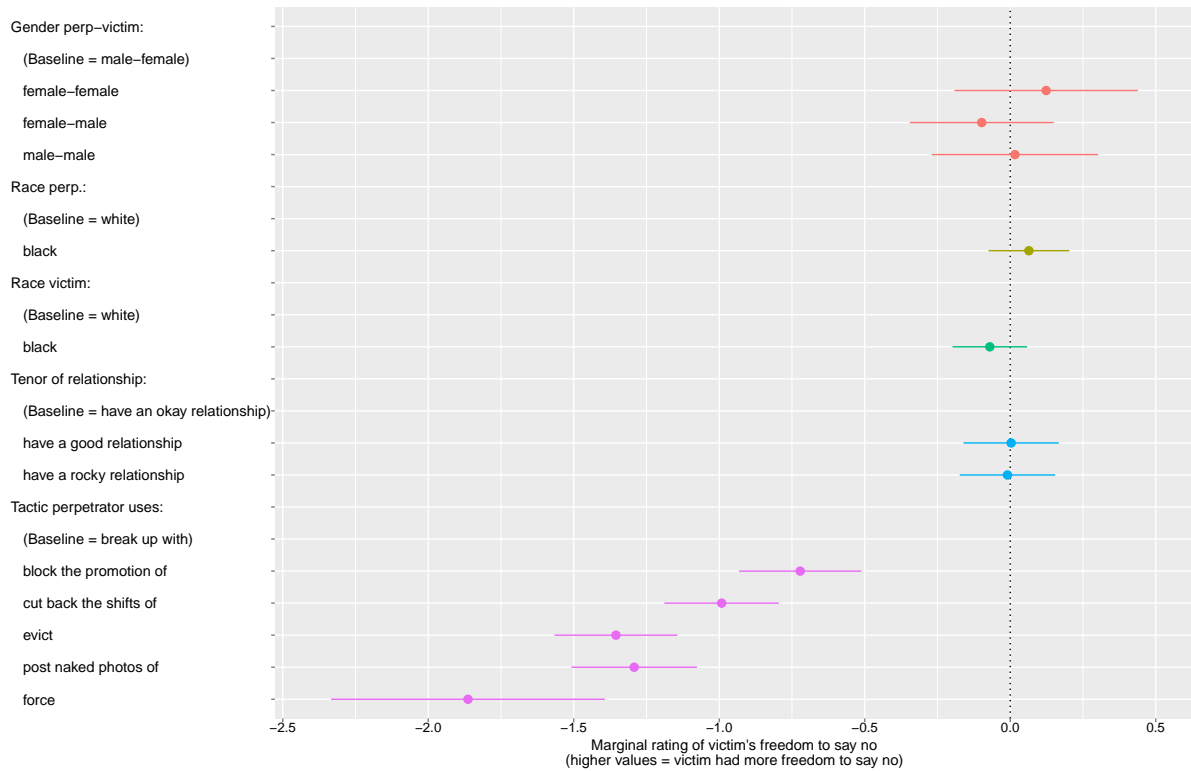
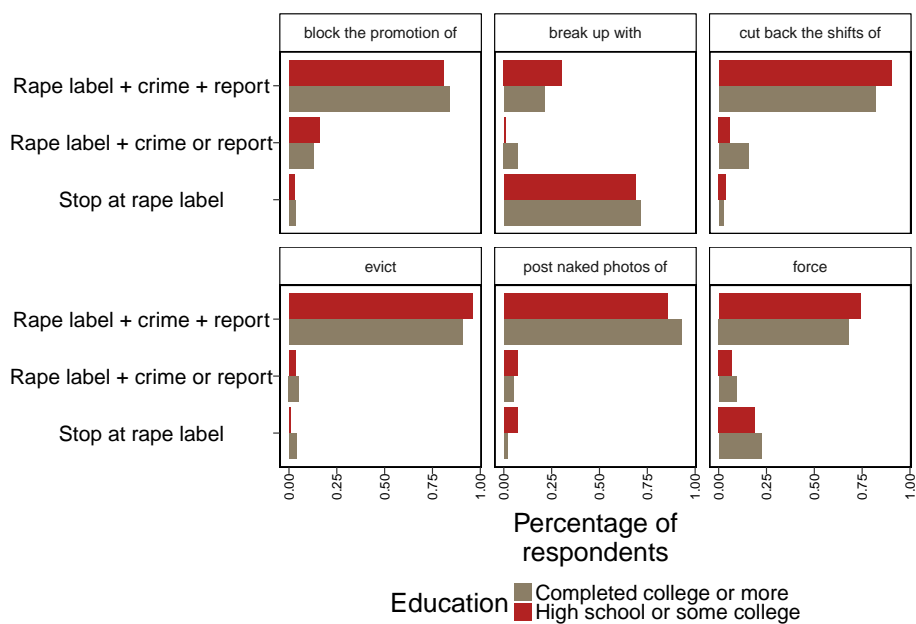


Figure A11: **Among those who rated an act as coercive, progressions to judgments about criminality and reporting.** The Figure subsets *only to those who rated an act as yes coercive*– thus, for instance, the higher prevalence of those who stop at the label for physical force could relate to the fact that nearly all respondents apply a “yes” label to that tactic. The Figure does not indicate differences by educational attainment in these further judgments.



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