



Contents lists available at ScienceDirect

## Evolution and Human Behavior

journal homepage: [www.elsevier.com/locate/ens](http://www.elsevier.com/locate/ens)Sexual violence laws: Policy implications of psychological sex differences<sup>☆</sup>David M. Buss<sup>\*</sup>

University of Texas, Austin, United States of America

## ARTICLE INFO

## Keywords:

Sexual harassment  
Stalking  
Rape  
Marital rape  
Tonic immobility  
Psychological sex differences

## ABSTRACT

Laws act as levers to influence human behavior. Their effectiveness hinges on understanding an accurate model of human nature, particularly the psychological and behavioral components of that nature. Evolved sex differences in our sexual psychology are sometimes moderate to large in magnitude and highly replicable. Women, for example, typically judge the same set of actions—such as leering, sexual jokes, or unwelcome workplace advances—as more sexually harassing and upsetting than do men. When a generic “reasonable person” standard is applied to adjudicating sexual harassment cases, this standard can harm women if judges and juries are populated by “reasonable men.” Other relevant sex differences involve fears evoked by stalking victimization, defenses against rape such as tonic immobility, and negative emotions in response to certain forms of unsolicited sexual imagery. This paper argues that existing psychological sex differences should inform the construction and implementation of policies and laws that regulate forms of sexual violence such as sexual harassment, mate stalking, and rape.

Laws serve multiple functions. One is deterrence—creating punishments that disincentivize people from performing undesirable actions, such as theft, assault, and murder. A second is to encourage desirable behaviors, such as providing truthful under-oath testimony in criminal proceedings or legal depositions. A third, perhaps overarching, function, is to establish rules and social norms that help resolve social conflicts that beset all societies, such as divorce, intimate partner violence, and property disputes. According to legal scholars Jones and Goldsmith (2005), laws act as “levers” to influence human behavior. Critically, the effectiveness of laws as levers hinges on understanding an accurate model of human nature. Inaccurate assumptions about human nature, particularly the hypothetically gender-neutral “reasonable person” standard, may undermine the presumptive functions of laws and render them less effective.

## 1. The reasonable person standard

A small subset of laws explicitly invoke what is called “the reasonable person” standard. In stalking laws, for example, *the evocation of fear in the victim [a reasonable person]* is a critical component of the crime. Would a reasonable person, when subjected to a repeated pattern of conduct such as receiving unwanted letters, phone calls, text messages,

flowers, or veiled threats experience fear of bodily injury, damage to their property, or death? Sexual harassment laws also invoke a reasonable person standard. In California, for example, would a reasonable person find a specific pattern of sexual comments, jokes, touching, or sexual propositions in the workplace to be offensive, hostile, or abusive? Note that reasonable person standards require decision-makers such as judges and juries to consult their own intuitions.

Laws such as these that explicitly invoke the psychological states of victims as critical to the crime are rare. In other crimes, such as robbery or embezzlement, the crime is typically defined by the act of theft rather than by the psychological state of the victim. Even in these cases, however, robbers who commit the crimes by threats that instill fear in victims often warrant greater penalties than those that do not. A purse snatcher on a crowded urban street typically receives a lesser punishment than a similar act in which a man purloins the purse with the threat of a gun or knife, which evokes greater psychological anxiety in the victim. The key point is that even when a “a reasonable person” standard is not explicitly invoked, judges and juries sometimes incorporate psychological states of victims and intentions of perpetrators into their judgments, whether consciously or not.

How judges or juries determine the psychological states of proverbial reasonable victims is often left vague, and this vagueness can

<sup>☆</sup> The author thanks Courtney Crosby, Debra Lieberman, John Monahan, Becka Hahnel-Peters, Carin Perilloux, Anna Sedlacek, and Keelah Williams for helpful comments on an earlier draft of this paper.

<sup>\*</sup> Corresponding author at: Department of Psychology, University of Texas, Austin, TX 78712, United States of America.

E-mail address: [dbuss@austin.utexas.edu](mailto:dbuss@austin.utexas.edu).

<https://doi.org/10.1016/j.evolhumbehav.2023.01.003>

Received 9 February 2022; Received in revised form 9 November 2022; Accepted 2 January 2023

1090-5138/© 2023 Elsevier Inc. All rights reserved.

detrimentally impact important judicial decisions. Jurists are typically left to consult their own intuitions about the psychological impact on victims. Nonetheless, the “reasonable person” standard has a cogent rationale: to prevent people from unnecessarily claiming fear or harassment when most people would not find the actions to be fear-inducing or harassing. A bit more implicitly, the “reasonable person” standard prevents setting the threshold for an offense so low that it would include the most sensitive or fearful person in the society, which could burden the courts with an avalanche of frivolous claims and perhaps produce unjust outcomes. Despite these valid intentions, the employment of the “reasonable person” standard presents complications when we consider the scientific evidence for psychological sex differences.

## 2. Do reasonable women differ from reasonable men?

A challenge in making appropriate judicial decisions emerges when (1) crimes are differentially perpetrated against one sex versus another, and critically (2) when there exist sex differences in their psychological effects on victims. Consider sexual harassment. Several studies find that when judging precisely the same set of actions—such as someone leering, telling sexual jokes, or making sexual propositions—women more than men perceive these actions to be sexually harassing (e.g., Sedlacek, 2021; see Buss, 2021 for a review of studies). In addition to sex differences in these third-party judgments, when someone personally experiences these actions from a member of the opposite sex, women more than men, on average, report more emotional upset (Buss, 2021). Stalking exhibits a similar sex difference: precisely the same pattern of conduct—such as being repeatedly surveilled or followed—evokes greater fear in women than in men (Buss & Duntley, 2011).

An evolutionary perspective illuminates why these psychological sex differences exist. Sexual harassment, for example, sometimes reflects an attempt to bypass female choice—a cardinal feature of women’s evolved mating strategy (Buss, 2021; Perilloux, Duntley, & Buss, 2012). Having unwanted sex with an unwanted partner is typically more costly for women than for men in the evolutionary currency of fitness due in large part to large sex differences in obligatory parental investment. Sexual harassment can have more damaging effects on a woman’s social reputation compared to a man’s (Perilloux et al., 2012). Sexual harassment can also create another sex-differentiated problem that puts women in an especially difficult dilemma—rejecting a man’s advances without incurring his wrath or retaliation for being spurned, especially if the man is in a position of power. Because men are overwhelmingly the perpetrators of sexual harassment, and women are overwhelmingly the targets, this collection of sex differences has great relevance for the reasonable person standard.

The conclusion is profound—the average “reasonable woman” differs from the average “reasonable man” in delimited domains of perceived sexual violations. Judicial decisions made by men may therefore differ vastly from decisions made by women. Failing to account for evolved sex differences when making judicial decisions can thus be detrimental to victims—mostly women—of certain sexual violations or crimes. Sex differences in sexual psychology could – and should – inform laws for sex-linked crimes. Echoing Jones and Goldsmith (2005), a more accurate model of human nature should increase the efficacy of laws as “levers” on human behavior.

So how should laws invoking the reasonable person standard be written? Should two different laws be created, one for reasonable women and one for reasonable men? Should the laws split the difference and average the two?

There has often been a push to write laws in the most gender-neutral manner possible, which is certainly a laudable goal. In this case, however, an ostensibly gender-neutral law may harm women, especially if the judge adjudicating the case is a “reasonable man” and consults his own intuitions about fear and emotional distress, or if the jury is composed predominantly of “reasonable men.”

By analogy, the field of medicine belatedly discovered that the standard 10 mg dosage of the sleeping pill Ambien (generic zolpidem) has a far more powerful and dangerous effect on women than on men (<https://www.ajmc.com/view/gender-differences-in-prescribing-of-zolpidem-in-the-veterans-health-administration>). Efforts to apply ostensibly gender-neutral medicine can harm women if they are more sensitive to the drug, and studies showed that women indeed have been given inappropriately high doses of the sleeping pill. In sum, ostensibly gender-neutral laws against sexual harassment, stalking, and rape, as argued below, can be as harmful as gender-neutral policies in medicine.

## 3. Sexual harassment

Researchers and legal scholars have identified at least two partially distinct forms of sexual harassment. The first is *quid pro quo* sexual harassment. Examples include offering a prized job or pay raise in return for sexual favors and workplace punishment or threats of punishment for lack of sexual cooperation (Gelfand, Fitzgerald, & Drasgow, 1995). The convicted movie mogul Harvey Weinstein provides a vivid example. He allegedly demanded one actress who auditioned for a part to show him her breasts. She declined. He replied: “Do you know who I am? You know I can make your career or I can break your career? I can make it so you will never work in this business again. So show me your breasts.” *Quid pro quo* is often viewed as the most severe form of sexual harassment.

The second major type of sexual harassment includes making lewd remarks, unwanted attempts to establish a sexual or romantic relationship, unwelcome seductive behavior, unwanted touching or fondling of arms, breasts, or buttocks, and unwanted staring, leering, or ogling. In contrast to *quid pro quo* harassment, this cluster is marked by *unwanted sexual attention* or *sexual persistence* (Gelfand et al., 1995; Pina, Gannon, & Saunders, 2009; Sedlacek, 2021). Although threats of cratering a career, present in *quid pro quo* harassment, can be psychologically devastating to victims, sexual persistence can be no less traumatizing—the proverbial “death by a thousand cuts.” Some women feel trapped in an enclosed work environment with a sexually persistent serial harasser. Unlike sex-segregated ancestral hunter-gatherer environments in which women had female friends and kin around to deter unwanted harassment, modern women are often stuck in schools and workplaces in which their ability to avoid a sexual harasser are sharply constrained. Their psychological distress intensifies when they perceive the possibility that sexual harassment might escalate to sexual assault.

Sexual harassment is sometimes motivated by the desire for short-term sexual opportunities, by a search for a lasting romantic relationship, or by the desire to demonstrate or maintain power. Scholarly attempts to reduce sexual harassment to a single motive are naïve; sex, power, and status often mingle in men’s minds and cannot be neatly siloed (Bargh, Raymond, Pryor, & Strack, 1995).

Victims of sexual harassment are not random. A study of 10,000 sexual harassment complaints in the USA in 2017, for example, found that 83% were filed by women, in contrast to only 16.5% filed by men (Jones, 2018). Often the male victims were harassed by other men. The fact that women are generally the victims and men the perpetrators should surprise no one, but it is an important finding that demands legal consideration.

Men who harass women sometimes erroneously infer that their attraction is reciprocated by the woman—a hypothesized male sexual over-perception bias based on error management theory logic (Haselton & Buss, 2000). From the woman’s perspective, however, she may act friendly and deferential simply because people in positions of power (who are often men) can inflict large costs or confer large benefits on their careers. Victims sometimes interpret sexual overtures as motivated by power rather than by sex, since harassers are sometimes in positions of power over their targets and moreover the situation holds no sexual interest for the victim. Men, however, often do not view their overtures as exploitative. This may be because harassers in positions of power

often overestimate their own attractiveness, believe that their sexual attractions are reciprocated, and feel entitled to sexual favors from subordinates (Buss, 2021).

Feminist theorists of sexual harassment persuasively argue that some men use sexual harassment as a means of gaining or maintaining power over women or showing off their power to other men (e.g., McLaughlin, Uggen, & Blackstone, 2012). An evolutionary perspective suggests that the reverse causal arrow may be equally true—men strive for status and power, in part, in order to get sex (Browne, 2006).

Women's evolved sexual psychology is also critical in understanding prevalence rates of sexual harassment. Women experience greater distress than do men in response to acts of sexual aggressiveness such as unwanted touching (Buss, 1989). Consequently, women are more likely than men to file harassment complaints: not only are women harassed more often, they experience it as more upsetting.

Perpetrators of sexual harassment tend to target young single women—those who might be vulnerable due to a lack of social bodyguards. Women over forty-five are less likely to be victims of sexual harassment (Studd & Gattiker, 1991). One study found that women between the ages of twenty and thirty-five filed 72% of the complaints of harassment, whereas they represented only 43% of the workforce at the time. Women over forty-five, who represented 28% of the workforce, filed only 5% of the complaints (Terpstra & Cook, 1985). Perpetrators also target single and divorced women more than married women. In one study, single women represented only 25% of the workforce but filed 43% of complaints; married women, comprising 55% of the workforce, filed only 31% of the complaints (Terpstra & Cook, 1985). There may be several reasons for these relationship status differences: spouses could function as “bodyguards,” deterring would-be harassers or making harassment more costly, and men could perceive single or unattached women to be more receptive to sexual advances. An evolutionary perspective illuminates the motives of male harassers and the qualities of women they target as victims. Young women, for example, are more likely to be sexually harassed, and features highly correlated with youth such as clear smooth skin, lustrous hair, full lips, and good muscle tone are linked with a woman's fertility and are key ingredients of men's evolved standards of women's attractiveness.

Reactions to sexual harassment also follow evolutionary psychological logic. When asked how they would feel if an opposite-sex coworker asked them to have sex, 63% of the women said that they would be insulted, while only 17% said that they would feel flattered (Guttek, 1985). Men's reactions were roughly the opposite—only 15% said they would be insulted, and 67% would feel flattered. In some situations, where women see danger, men may see sexual opportunity. These reactions reflect human sexual psychology—men generally have more positive emotional reactions to the prospect of casual sex (Buss & Schmitt, 1993). Some women, of course, enjoy sexual attention from some men in some circumstances. Most, though, react more negatively than do men to being treated merely as sex objects.

The attractiveness of the perpetrator and the socio-sexual orientation of the person evaluating acts of harassment also influence legal outcomes. In two studies involving 1516 individuals, participants evaluated different hypothetical scenarios occurring in a workplace coffee bar (Klümper & Schwarz, 2019). The scenario depicts a co-worker of the opposite sex entering the room and, after some small talk with the victim, abruptly making either an implicitly sexual comment such as, “when you feel tension after work, I could help you relax,” or an overt sexual advance such as “fondles your back” or “grabs your butt.” Participants rated how disturbing each scenario would be to the targeted person and how uncomfortable the situation would be to the participant doing the rating. Men perceived all these workplace sexual advances as less disturbing than women did. Both men and women high in desire for casual sex viewed the sexual advances as less disturbing. And women evaluated sexual advances from a physically attractive man as significantly less disturbing than advances from a physically unattractive man, possibly because the emotional impact of a sexual overture is influenced

by the man's mate value.

Women's reactions to sexual harassment also depend heavily on whether the motivation of the harasser is perceived to be sexual or romantic. Sexual bribery, attaching job promotions to sex, and other cues that the person is interested only in casual sex are more likely to be interpreted as harassment than are signals of genuine romantic interest, complimentary looks, or mild flirtation (Buss, 2021). In this study, college women rated acts by coworkers such as a man putting his hand on a woman's genital area or trying to corner a woman when no one else was around as “extremely harassing.” In contrast, those same women viewed acts such as telling a woman that he sincerely liked her and would like to have coffee with her after work as signifying little or no harassment.

These findings about the profiles of sexual harassment victims, the gender differences in emotional reactions, and the importance of the attractiveness of the harasser all follow from the evolutionary psychology of human sexual strategies. Men more than women seek casual sex, and men's sexual over-perception bias leads them to infer sexual interest where none may exist.

A concrete example of how this bias led to sexual harassment occurred when a supermarket chain implemented a new “superior customer service” program in which checkout clerks were instructed to make eye contact with and smile at customers (Ream, 2000). Some women workers filed sexual harassment lawsuits, stating that their friendly conduct toward male customers frequently was misconstrued as flirtatiousness, leading to unwanted requests for dates, sexual propositions, and in some cases stalking. The supermarket subsequently changed its policy, which lowered the rate of sexual harassment.

Women who decline a man's overtures risk retaliation. In one admittedly extreme case, a female college student who ignored a man's sexual catcalls was stalked and strangled by her harasser, who was angry that she ignored his overtures (<https://www.nytimes.com/2019/11/27/us/chicago-college-student-killed-catcall.html>). Some women attempt to deter unwanted overtures with “soft rejections”—phrases such as “I'm busy tonight” or “I have a boyfriend.” Unfortunately, men might construe these polite refusals as meaning: “I would if I were not busy or if I didn't have a boyfriend, so perhaps some time in the future.” Sometimes these efforts to dissuade persistent men without incurring their wrath have the unintended consequence of keeping men's sexual hopes alive. When women say, “I have a boyfriend,” some men persist with comments like “well he isn't here now” or “break up with him.” This forces harassment victims into a predicament in which they must choose between potentially costly courses of action.

Men consistently underestimate the emotional distress women experience from various forms of sexual harassment (e.g., Buss, 1989, 2021). Since women are the primary victims of sexual harassment, acknowledging these differences becomes doubly important. Male judges and jury members may bias their evaluations if these known sex differences are not made salient. Closing the gender gap in legal fairness to victims requires recognizing these gender differences.

In sum, it is naïve and unfair to apply a generic “reasonable person standard” — which frequently masks an assumption of the male perspective as the default — to a domain of criminal conduct that is highly sex-differentiated in perpetrators, victims, and psychological experience. The concept of the “reasonable person” must be informed by scientific evidence of reliable psychological differences between groups, since those differences can strongly influence what any given person perceives as “reasonable.” Ignoring these sex differences will perpetuate a legal system that prioritizes the perspective of men over that of women—a position actively debated among legal scholars (e.g., Alicke & Weigel, 2021; Blumenthal, 1998; Schlanger, 2001).

#### 4. Stalking

Stalking laws, like sexual harassment laws, typically hinge on the psychological state of the victim and a “reasonable person” standard. As

an example, here is how the University of Texas defines stalking: “A course of conduct directed at a specific person that would cause a reasonable person to fear for the person’s own safety or the safety of others or would cause that person to suffer substantial emotional distress” (<https://catalog.utexas.edu/general-information/appendices/appendix-d/>).

Women perceive patterns of unwanted romantic persistent pursuit more fear-inducing and emotionally distressing than do men (Buss & Duntley, 2011). Women also typically experience greater fear than do men when stalked by a former romantic partner after a breakup. Women’s greater levels of fear are warranted in the sense that statistically, male stalkers are more likely to become persistent and violent than female stalkers (Meloy, 2002). The risks to women victims include threats of violence; destruction of property such as cars, houses, or pets; non-sexual physical violence; sexual assault; and murder (Buss & Duntley, 2011). Compared to men, women’s greater levels of fears from stalkers roughly track their greater risk of multiple forms of violence.

Large-scale studies of stalking show that 60–80% of stalking victims are women and 20–40% are men (Spitzberg & Cupach, 2007). Ex-romantic partners are the most frequent perpetrators and also the most persistent stalkers. Considering these multiple sets of findings, women are more likely to be stalked than men and are more likely to become victims of persistence and violence than are men at the hands of their stalkers. As with sexual harassment laws, scientifically documented sex differences surrounding stalking could inform policies their implementation by police, prosecuting attorneys, judges, and juries.

We now turn from sex differences in “reasonable person” standards pertaining to stalking and sexual harassment to other domains in which knowledge of evolved sex differences might beneficially inform the law.

## 5. Rape and consent: tonic immobility

Rape is a fraught and complicated topic with many dimensions that are well beyond the scope of this paper. Only a few will be considered here. One critical issue is the complicated topic of “consent.” In many rape cases, the accused argues that sexual consent was granted, and the accuser denies that it was granted. Historically, women who were victims of rape had to show evidence of strenuous or ferocious resistance to the attack, as indicated by broken fingernails, blood, bruises, and vaginal trauma (e.g., Flowe, Ebbesen, & Putcha-Bhagavatula, 2007). This evidence would be used to infer that force was used and thus corroborate the victim’s lack of consent. The lack of such evidence was often interpreted as indicating her implicit consent.

This criterion for evaluating consent, however, is exceedingly problematic especially since a common reaction to rape is *tonic immobility* (Galliano, Noble, Travis, & Puechl, 1993). In the context of rape, tonic immobility is sometimes called ‘rape-induced paralysis,’ and is a state in which the victim’s body is *involuntarily immobile*. The victim literally cannot move her body, much less fight back. Tonic immobility occurs in roughly 30–40% of rape victims (Galliano et al., 1993). Two circumstances predict the onset of tonic immobility—high levels of *fear* and a sense of *entrapment* from which escape is not possible. Analogous states have been observed in prey animals trapped by predators. In both cases, these may be evolved defenses whose function is to minimize physical injury or even death during an attack (Suarez & Gallup, 1979).

The prevalence of tonic immobility has great relevance to the issue of consent when legal standards use evidence of fighting back as a key criterion for nonconsent. Rape victims who experience tonic immobility literally cannot fight back; the response is involuntary and renders them unable to move. Women often feel guilty and come to believe that they could or should have done more to fight back. And some defenders of men accused of rape use the lack of fighting back as evidence that it was a consensual sexual encounter rather than rape.

Scientific knowledge about tonic immobility could inform these legal arguments and may help to minimize victim blaming and victim self-blaming. At a minimum, the existence and frequency of tonic immobility should be taken into account when evaluating the claims made by

rape victims and alleged rapists.

## 6. Rape in the context of marriage

Most scholars distinguish spousal rape as a conceptually separate kind of rape, particularly as contrasted with rape by a stranger or acquaintance. Laws have traditionally separated it, going back to 17th-century English law: “[T]he husband cannot be guilty of a rape committed by himself upon his lawful wife, for by their mutual matrimonial consent and contract the wife hath given up herself in this kind unto her husband, which she cannot retract” (Hale, 1736). In the 1970s, marital rape was legal in all 50 U.S. states. By July 5, 1993, all 50 states had laws on the books criminalizing it. Some countries around the world, such as Yemen, have continued the tradition of exempting marital rape from criminal statutes.

Nonetheless, the trend worldwide is clearly improving. Criminalization of marital rape started in Australia in 1981, in Brazil in 2005, in Albania in 2012, and in Barbados in 2016 ([https://en.wikipedia.org/wiki/Marital\\_rape\\_laws\\_by\\_country](https://en.wikipedia.org/wiki/Marital_rape_laws_by_country)). The cultural progression of laws and attitudes surrounding this form of institutionalized sexual assault is rapid and moving in mostly in one direction (Afghanistan after the US troop withdrawal in 2021 and the Taliban subsequent takeover of power may be an exception to this trend). Despite changes in the legal codes, some people still perceive marital rape to be less of an infringement on women’s rights and less psychologically traumatic than stranger or acquaintance rape (Martin, Taft, & Resick, 2007).

Estimates of the rates of marital rape are fraught, of course, in part due to the low rates of criminal charges filed and the mistaken belief among victims that forced sex within a marriage can’t constitute legal rape. For example, some women describe their husbands as threatening harm and using force to have sex against the women’s will, but do not categorize the acts as rape. Despite these difficulties obtaining accurate rates, extant studies put the rate between 5.7% to nearly 16% of all married couples (Martin et al., 2007). One telephone poll of 1108 women, for example, found that 13% reported that their husband had used force or the threat of force to obtain sex (Basile, 2002).

An evolutionary perspective sheds light on why partner rape, what Professor Linda Mealey calls “The Mate-Guarding Model,” should be distinguished from other forms of rape. The circumstances in which it occurs differ dramatically from those of acquaintance or stranger rape. Misperception of sexual interest, for example, is a circumstance underlying some instances of acquaintance rape but is unlikely to play a key role in spousal rape. A distinguishing feature is that marital rapes are more likely when the husband is concerned about a suspected or actual sexual infidelity. This feature is generally not relevant to acquaintance or stranger rape. Similar patterns are seen in other species: American black ducks, mallards, and shrikes also attempt forced copulation on their regular mates when they perceive cues that another male may have copulated with her (Lalumiere et al., 2005).

Married women also experience a dramatically elevated risk of rape during or immediately following a breakup. This finding supports Mealey’s mate-guarding model when it is linked with the finding that some women use affairs in order to facilitate exiting from a bad relationship and transitioning to a better mate (Buss, Goetz, Duntley, Asao, & Conroy-Beam, 2017). Men often view a spouse who is leaving as irreplaceable (although not necessarily consciously). Forced sex in these circumstances may reflect the urge to maintain control over what, from an evolutionary perspective, is a desirable and valuable woman who might be lost forever. This motivation does not reflect adaptations specifically for marital rape, but rather men’s more general psychological mindset of gaining sexual access and jealously striving to retain that access by whatever means they feel entitled and able to implement (Buss, 2000; Wilson & Daly, 1992).

Although husbands can now be charged with raping their wives, the effects of this form of institutionalized patriarchy continue to linger. As of 2019, for example, the details of marital rape laws continue to vary

from state to state. In 17 states, the husband must use physical force to qualify the act as rape (<https://www.motherjones.com/crime-justice/2019/11/deval-patrick-spousal-rape-laws/>). Unlike non-spousal rape, he cannot be convicted of rape if the wife is unconscious, drugged, or incapacitated by means other than physical force. Attempts to remove these marital exemption clauses and impose the same legal standards for rape in marital and non-marital contexts have failed so far in the states of Ohio and Maryland. Even in states that have removed these marital loopholes, the penalties for spousal rape are often lighter than for non-marital rape. In California, for example, husbands who rape their wives, unlike other rapists, are not required to register as sex offenders unless they use physical force to commit the rape.

Because physical force is used by men on women who physically resist, the issue of tonic immobility becomes especially relevant in this context. If the wife feels trapped by the husband and experiences high levels of fear, tonic immobility may render her involuntarily unable to resist. Consequently, laws that single out the use of physical force by the rapist harms victims by ignoring a scientifically documented feature of women's anti-rape defense, plausibly designed to minimize physical harm during a rape.

## 7. Rape and property laws

For at least a couple thousand years, a man who had sex with another man's wife was viewed as committing a property violation. The rape of a married woman by another man was viewed primarily as an offense against the husband; if unmarried, an offense against her father; if a slave, an offense against the slave owner (Pinker, 2012). During the 246-years of legalized slavery in the sordid history of the United States, the rape of slaves was not a criminal offense (Feinstein, 2018). The explicit granting of legal rights to sex with the bodies of women owned by men anchors one end of this horrifically immoral male mindset.

This male mentality plausibly led male lawmakers over centuries to write statutes granting husbands property-like rights over married women's bodies. It's a mindset that allowed men to punish women who violated those rights by refusing a husband's sexual advances or by having sex with other men. It's a mindset that leads men to acquire resources and to dole those resources out to women as a mean of controlling them. And it's a mindset that causes men to use violence to prevent women from leaving and to stalk them after they have departed in an attempt to retrieve and retain them.

Sex differences in sexual psychology, in short, are profoundly relevant to laws written by men and historically adjudicated by men. There can be little doubt that women would write different laws, and women judges and juries would adjudicate them differently.

## 8. Laws against "dick pics" and digital sexual images

Consider the emotion of *sexual disgust*—the things that repulse you from a sexual perspective. Are men aware that women are more easily sexually disgusted than they are? (Crosby, Durkee, Meston, & Buss, 2020). Judging from the number of men who send unsolicited "dick-pics" (photographs of men's genitalia) to women, the answer is a resounding "no." Among millennial-aged women, slightly more than half have received dick pics, and 78% of these were unsolicited (<https://www.bustle.com/p/how-many-women-have-received-dick-pics-according-to-research-over-half-of-millennial-women-have-2893328>). Roughly 27% of millennial-age men admit to having sent them. Women's most common reaction to receiving dick pics is "gross," an adjective used by 49% of millennial women. On the flip side, 30% of men think that women will find these images as "sexy," but only 17% of women used that adjective. Stated differently, 83% of women do not find dick pics at all sexy, and half find them repulsive. In short, some men commit a major mind-reading error. They fail to understand that a majority of women are sexually disgusted by photos of context-free male genitals. Receiving these unsolicited images is a form of sexual contact:

perhaps like other forms of sexual contact, consent from the receiver might be in order.

Sending unwanted dick pics can be considered a modern form of sexual harassment. These sometimes come from total strangers. Some women subway riders in New York city report receiving unwanted dick pics through AirDrop (<https://www.lifewire.com/what-is-airdrop-how-does-it-work-1994512>). Because AirDrop has a preview feature, receivers must view the images before making the decision about whether or not to accept them. Some lawmakers are taking action to make sexting without consent illegal. In 2019, Texas became the first state to ban sending sexually explicit images without the consent of the receiver (<https://www.vox.com/policy-and-politics/2019/9/3/20847447/unsolicited-dick-pics-texas-law-harassment>). It's a misdemeanor punishable by a fine of up to 500 dollars. Reducing this form of sexual conflict through legal means is one strategy. Using one's own sexual mind as a default for inferring the sexual minds of others is an error. In this case the error evokes sexual disgust in women, often presumably precisely the opposite of the sender's intentions. Scientific knowledge of sex differences in sexual psychology, in short, can inform laws surrounding sending unsolicited sexual images.

## 9. Discussion

Understanding sex differences in sexual psychology provides a path toward reducing violence toward women. When women have a say in designing laws and policies around sexual violence, they are more likely to bring a female mindset to those policies—a sensibility that understands deeply the traumas that victims of sexual violence experience. And when women have the freedom and resources to leave bad relationships and men have the resources to use benefit-bestowing methods of mate retention (e.g., providing financial support, protection, kindness, and other qualities that embody women's mate preferences), men are more likely to refrain from resorting to violence to hold onto a mate. Knowledge of our evolved sexual psychology can be leveraged to reduce sexual violence. Workshops in high schools and colleges could help to educate men and women about the science of sex differences in the domains of mating and sexuality.

Despite the strikingly high rates of sexual harassment, partner violence, stalking, and sexual assault, there are some grounds for optimism. The rates of physical and sexual violence within relationships have declined dramatically over spans of decades. From 1993 to 2005, for example, the rates of violence by intimate partners in the United States have fallen by two thirds, perhaps because women and their allies are more likely to report it when it does occur—a dramatic shift in social norms from a time when most people looked the other way (Pinker, 2012). Similar drops in partner violence have been documented in England and Wales for the years 1995 to 2008 (Pinker, 2012). And although some highly patriarchal countries lag in progress this dramatic, there are positive signs in those lands as well. In nations where wife-beating was once perfectly legal and seen as a husband's right, laws against it have now been put on the books in 25% of Arab states and 35% of sub-Saharan African countries (Pinker, 2012). Rates of forcible rape have also declined. In the United States, reported rape rates were 43 per 100,000 inhabitants in 1992, but have fallen by roughly 25% to 31 per 100,000 inhabitants in 2018 (Pinker, 2012). The ideal rate is zero, of course, and rape is still dramatically under-reported. Nonetheless, these trends encourage the hope that progress can continue toward the goal of zero.

Another key to progress resides in recognizing evolutionary mismatches and the rapid pace of cultural evolution. Women evolved in a social context with kin in close proximity and allies that could deter potential sexual predators. That historical context did not prepare women for a world of fraternity parties with spiked punch, novel date-rape drugs such as Rohypnol, and online sexual deceivers. Consequently, cultural defenses must be invented and deployed, including laws and workplace policies, where our ancient evolved defenses no

longer do the job.

Although this paper has focused largely on psychological sex differences for some specific sexual crimes, this analysis has broader implications for legislators, judges, juries, and the police force. If judges are “reasonable women” rather than “reasonable men,” the outcomes of trials for sexual crimes are likely to differ. The same goes for juries. In both cases, judgments of innocence or guilt, as well as the penalties imposed if the accused is found guilty, are likely to be influenced by evolved sexual psychology. The sex composition of police handling accusations of sex crimes is likely to have similar effects. Sex differences in evolved sexual psychology, in short, have legal consequences for everything from the ways law are written, to how police handle sex crime reporting, to judges and juries adjudicating the cases.

### Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

### References

- Alicke, M. D., & Weigel, S. H. (2021). The reasonable person standard: Psychological and legal perspectives. *Annual Review of Law and Social Science*, 17, 123–138.
- Bargh, J. A., Raymond, P., Pryor, J. B., & Strack, F. (1995). Attractiveness of the underling: An automatic power→ sex association and its consequences for sexual harassment and aggression. *Journal of Personality and Social Psychology*, 68(5), 768–281.
- Basile, K. C. (2002). Prevalence of wife rape and other intimate partner sexual coercion in a nationally representative sample of women. *Violence and Victims*, 17, 511–524.
- Blumenthal, J. A. (1998). The reasonable woman standard: A meta-analytic review of gender differences in perceptions of sexual harassment. *Law and Human Behavior*, 22(1), 33–57.
- Browne, K. R. (2006). Sex, power, and dominance: The evolutionary psychology of sexual harassment. *Managerial and Decision Economics*, 27(2–3), 145–158.
- Buss, D. M. (1989). Conflict between the sexes: Strategic interference and the evocation of anger and upset. *Journal of Personality and Social Psychology*, 56(5), 735–747.
- Buss, D. M. (2000). *The dangerous passion: Why jealousy is as necessary as love and sex*. New York: Free Press.
- Buss, D. M. (2021). *When men behave badly: The hidden roots of sexual deception, harassment, and assault*. New York: Little Brown Sparks.
- Buss, D. M., & Duntley, J. D. (2011). The evolution of intimate partner violence. *Aggression and Violent Behavior*, 16(5), 411–419.
- Buss, D. M., Goetz, C., Duntley, J. D., Asao, K., & Conroy-Beam, D. (2017). The mate switching hypothesis. *Personality and Individual Differences*, 104, 143–149.
- Buss, D. M., & Schmitt, D. P. (1993). Sexual strategies theory: An evolutionary perspective on human mating. *Psychological Review*, 100(2), 204–232.
- Crosby, C. L., Durkee, P. K., Meston, C. M., & Buss, D. M. (2020). Six dimensions of sexual disgust. *Personality and Individual Differences*, 156, Article 109714.
- Feinstein, R. A. (2018). *When rape was legal: The untold history of sexual violence during slavery*. Routledge.
- Flowe, H. D., Ebbesen, E. B., & Putcha-Bhagavatula, A. (2007). Rape shield laws and sexual behavior evidence: Effects of consent level and women’s sexual history on rape allegations. *Law and Human Behavior*, 31(2), 159.
- Galliano, G., Noble, L. M., Travis, L. A., & Puechl, C. (1993). Victim reactions during rape/sexual assault: A preliminary study of the immobility response and its correlates. *Journal of Interpersonal Violence*, 8(1), 109–114.
- Gelfand, M. J., Fitzgerald, L. F., & Drasgow, F. (1995). The structure of sexual harassment: A confirmatory analysis across cultures and settings. *Journal of Vocational Behavior*, 47(2), 164–177.
- Guttek, B. A. (1985). *Sex and the workplace* (p. 46). San Francisco: Jossey-Bass.
- Hale, M. (1736). *Historia placitorum coronae: The history of the pleas of the crown*. London: Gyles, Woodward, and Davis.
- Haselton, M. G., & Buss, D. M. (2000). Error management theory: A new perspective on biases in cross-sex mind reading. *Journal of Personality and Social Psychology*, 78(1), 81–91.
- Jones, O. D., & Goldsmith, T. H. (2005). Law and behavioral biology. *Columbia Law Review*, 105, 405.
- Jones, R. (2018). Women report sexual harassment more than men, even in male-dominated workplaces. <https://msmagazine.com/2018/08/07/women-report-sexual-harassment-men-even-male-dominated-workplaces/>.
- Klümper, L., & Schwarz, S. (2019). Oppression or opportunity? Sexual strategies and the perception of sexual advances. *Evolutionary Psychological Science*, 1–12.
- Lalumiere, M., et al. (2005). *The causes of rape*. Washington, DC: American Psychological Association.
- Martin, E. K., Taft, C. T., & Resick, P. A. (2007). A review of marital rape. *Aggression and Violent Behavior*, 12(3), 329–347.
- McLaughlin, H., Uggen, C., & Blackstone, A. (2012). Sexual harassment, workplace authority, and the paradox of power. *American Sociological Review*, 77(4), 625–647.
- Meloy, J. R. (2002). Stalking and violence. In *Stalking and Psychosexual Obsession* (pp. 105–124).
- Perilloux, C., Duntley, J. D., & Buss, D. M. (2012). The costs of rape. *Archives of Sexual Behavior*, 41(5), 1099–1106.
- Pina, A., Gannon, T. A., & Saunders, B. (2009). An overview of the literature on sexual harassment: Perpetrator, theory, and treatment issues. *Aggression and Violent Behavior*, 14(2), 126–138.
- Pinker, S. (2012). *The better angels of our nature: Why violence has declined*. New York: Penguin Group USA.
- Ream, S. L. (2000). When service with a smile invites more than satisfied customers: Third-party sexual harassment and the implications of charges against Safeway. *Hastings Women’s LJ*, 11, 107–122.
- Schlanger, M. (2001). Gender matters: Teaching a reasonable woman standard in personal injury law. *Louis ULLJ*, 45, 769.
- Sedlacek, A. G. B. (2021). *Sexual harassment proclivity: dimensionality and individual differences* (Doctoral dissertation). Austin: University of Texas.
- Spitzberg, B. H., & Cupach, W. R. (2007). The state of the art of stalking: Taking stock of the emerging literature. *Aggression and Violent Behavior*, 12(1), 64–86.
- Studd, M. V., & Gattiker, U. E. (1991). The evolutionary psychology of sexual harassment in organizations. *Ethology and Sociobiology*, 12(4), 249–290.
- Suarez, S. D., & Gallup, G. G. (1979). Tonic immobility as a response to rape in humans: A theoretical note. *The Psychological Record*, 29(3), 315–320.
- Terpstra, D. E., & Cook, S. E. (1985). Complainant characteristics and reported behaviors and consequences associated with formal sexual harassment charges. *Personnel Psychology*, 38(3), 559–574.
- Wilson, M., & Daly, M. (1992). The man who mistook his wife for a chattel. In *The adapted mind: Evolutionary psychology and the generation of culture* (289–322). New York: Oxford University Press.