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Consenting to Counter-normative Sexual Acts: Differential Effects of Consent on Anger and
Disgust as a Function of Transgressor or Consenter

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Abstract

Anger and disgust may have distinct roles in sexual morality; here we tested hypotheses regarding the distinct foci, appraisals, and motivations of anger and disgust within the context of sexual offenses. We conducted four experiments in which we manipulated whether mutual consent (Studies 1-3) or desire (Study 4) was present or absent within a counter-normative sexual act. We found that anger is focused on the injustice of non-consensual sexual acts, and the transgressor of the injustice (Studies 1 and 3). Furthermore, the sexual nature of the act was not critical for the elicitation of anger—as anger also responded to unjust acts of violence (Study 3). By contrast, we hypothesized and found that disgust is focused on whether or not a person voluntarily engaged in, desired, or consented to a counter-normative sexual act (Studies 2-4). Appraisals of abnormality and degradation were the primary appraisals of disgust, and the sexual nature of the act was a critical elicitor of disgust (Study 3). A final study ruled out victimization as the mechanism of the effect of consent on disgust and indicated that the consenter's sexual desire was the mechanism (Study 4). Our results reveal that anger and disgust have differential roles in consent-related sexual offenses due to the distinct appraisals and foci of these emotions.

Keywords: disgust; anger; consent; condemnation; morality; sexuality; bodily-norm violation; injustice

Consenting to Counter-normative Sexual Acts: Differential Effects of Consent on Anger and Disgust as a Function of Transgressor or Consenter

In criminal law, an important factor influencing the liability of a sexual offense is consent (Baker, 2009; Christopher & Pinals, 2010; Feldman-Summers & Palmer, 1980; Scroggs, 1976). Within the context of criminal law, blame and punishment are often mitigated if it is proven that both parties consented to the act (Feinberg, 1984, 1988; Hart, 1968; Robinson, 1984). By contrast, the absence of consent is essentially what makes an otherwise innocent, private act transgressive and punishable (Baker, 2009), though prior to 2003 in the U.S. even some private, consensual sexual acts were deemed punishable by rule of law in some states. The use of consent as a criminal defense is not without limitation (Baker, 2009; McConnell, 2000) and determining whether consent is present is often a complex matter (Bolt & Caswell, 1981; Christopher & Pinals, 2010; Jenkins & Dambrot, 1987; Muehlenhard, 1988; Sullivan, 2007; Whatley, 1996).

Despite a vast literature on perceptions of consent and blame within sexual offenses (see Whatley, 1996, for a review), no research has systematically investigated the effect of consent on eliciting morally condemning emotions in the context of sexual offences. In the present research, we compared the influence of consent on anger and disgust, both of which have been linked to judgments of wrongdoing and condemnation (e.g., Haidt, 2003; Horberg, Oveis, Keltner, & Cohen, 2009; Inbar, Pizarro, Knobe, & Bloom, 2009; Prinz, 2007; Rozin, Lowery, Imada, & Haidt, 1999; Russell & Giner-Sorolla, 2011a, 2011b, 2011c, 2013; Russell, Piazza, & Giner-Sorolla, 2013). Most perspectives consider disgust the primary emotion relevant to the sexual domain (see e.g., Haidt, 2003; Horberg et al., 2009; Inbar et al., 2009; Prinz, 2007; Rozin et al., 1999) and the general trend has been to focus on reactions to the action or transgressor (e.g., Schnall, Haidt, Clore, & Jordan, 2008; Wheatley & Haidt, 2005). By contrast, little attention has been given to responses to *both individuals* involved

within a sexual offense. In an attempt to fill this gap, we examine the impact of consent on both anger and disgust in the context of sexual offenses that have a clear victim and perpetrator, as well as victimless offenses that involve mutual consent or the wilful fulfilment of a sexual request.

We hypothesized that that anger would be relevant to judgments of sexual offenses when the act is perceived as being unjust. A great deal of evidence suggests that moral anger is closely tied to perceptions of harm and injustice, such as someone selfishly engaging in an unfair distribution of resources, recklessly injuring someone, or unjustifiably insulting another person (Goldberg, Lerner, & Tetlock, 1999; Pillutla & Murnighan, 1996; Rozin et al., 1999). We submit that injustice (i.e., the selfish violation of a person's interests) is the central appraisal of anger. As such, anger should be highly focused on transgressors (i.e., individuals that are primarily responsible for an act of injustice); furthermore, anger should be elicited by injustice witnessed across action domains, whether sexual or violent in nature. Conversely, anger should be less focused on victims, or individuals who have been wronged, who generally evoke sympathy from third parties (see Goetz, Keltner, & Simon-Thomas, 2010), and when there is mutual consent between individuals, the event should be less aggravating to third parties, since no injustice has occurred. This would be consistent with other research showing that anger is a flexible emotion, sensitive to the actors' reasons for acting and the circumstances surrounding an act of wrongdoing (Piazza, Russell, & Sousa, 2013; Russell & Giner-Sorolla, 2011a, 2011b, 2011c).

In contrast with anger, disgust directed at a transgressor seems to be more stable regardless of the transgressor's reasons or justifications for acting (see Piazza et al., 2013; Russell & Giner-Sorolla, 2011a, 2011b, 2011c; Young & Saxe, 2011). For example, unlike anger, disgust appears insensitive to whether a counter-normative sexual act is performed with or without awareness (Young & Saxe, 2011) or in the pursuit of a greater good (Piazza

et al., 2013). Disgust appears to be a more categorical, object-focused emotion than anger (Ortony, Clore & Collins, 1988; Russell & Giner-Sorolla, 2013). Indeed, disgust's elicitation within the social-moral domain¹ appears to be focused on the occurrence of "bodily-norm violations" (see Giner-Sorolla, Bosson, Caswell, & Hettinger, 2012; Russell & Giner-Sorolla, 2013), which mainly includes counter-normative sexual practices (e.g., incest and other suboptimal sexual unions), but also food taboos involving people (e.g., cannibalism). On the other hand, some research suggests that certain aspects of disgust (e.g., facial markers) may even be elicited by non-bodily moral transgressions (e.g., acts of unfairness), in addition to bodily-norm violations—in other words, that disgust's role in morality extends beyond misuses of the body (e.g., Chapman & Anderson, 2014; Chapman, Kim, Susskind, & Anderson, 2009). Despite this controversy, most researchers agree that disgust is often elicited within the sexual-moral domain, and, thus, disgust may have a role in the condemnation of sexual transgressions (e.g., Haidt, 2003; Horberg et al., 2009; Prinz, 2007). Moving beyond the current literature, we propose that whether or not a person consents to, desires, or wilfully engages in a counter-normative sexual act is a critical modifier of disgust reactions within the sexual-moral domain, which has not been identified previously.

Our hypothesis that the desire of an actor matters for disgust seems on the surface to contradict past findings suggesting that disgust is more resistant to modification than anger. However, past research comparing antecedents of anger and disgust have focused on the role of intentionality, specifically the *awareness* component of intentionality (see Russell & Giner-Sorolla, 2011a; Young & Saxe, 2011), while no research has focused on whether the act was performed consensually or in accordance with the recipient's desire, thus, it remains to be seen whether desire may influence disgust. Desire and awareness are both requisites for

¹ Outside of the social-moral domain, disgust of course plays a large role in guarding the body against disease and other contaminants that might cause illness, particularly via oral ingestion (Curtis, Aunger, & Rabie, 2004; Rozin, Haidt, & McCauley, 1993).

inferences of intentional action (see Malle & Knobe, 1997), yet one component may be present without the other; for example, a person may be aware that they have violated a sexual norm that they never wanted to perform yet they were coerced into doing so. Likewise, a person might want to violate a bodily norm but never act upon this desire, and thus will never be aware of doing so. Therefore, in this research we isolate the desire component of intentionality and examine whether it influences levels of disgust.

Some previous theorizing might be brought to bear on this unanswered question. It has been surmised that disgust may be centered around a person's character or underlying nature, rather than the specific acts they perform, while this may be less true of anger (Haidt, 2003; Nussbaum, 2004). For example, Haidt (2003) has speculated, "Disgust has an unfortunate habit of bringing condemnation down on people for *what they are*, not just for what they do" (p. 858; *italics added*).² Furthermore, several perspectives on dispositional attributions reveal that desires are particularly illuminating for inferences of the character or underlying nature of a person (Malle, 2004; Reeder, 2009; Sripada, 2010). Connecting these

² Although we are unaware of any empirical evidence that directly bears on this assertion, one preliminary study we conducted may be illuminating in this respect. We had 48 adult American participants imagine a young man with a deviant sexual desire (e.g., the man wanted to have sex with a dead woman's body or to have sex with his grandmother's 90-year-old female friend), but that the man never acted upon the desire. Participants rated the extent to which the man had a deviant character, and how disgusted and angry they were. We found that participants were more disgusted ($M = 5.63$, $SD = 2.58$) than angry ($M = 3.13$, $SD = 2.46$), $t_{\text{repeated-samples}}(47) = 7.49$, $p < .001$, and that appraisals of deviant character and disgust (controlling for anger) were correlated, $r(45) = .58$, $p < .001$, while deviant character and anger (controlling for disgust) were not correlated, $r(45) = .19$, $p = .188$. The results of this preliminary study, though correlational, provide initial evidence that disgust may be more person-focused and desire-focused than is anger, at least within the domain of sexual-morality.

two perspectives suggests that a person's inner desire towards performing a sexual act may be an important antecedent of disgust.

Consistent with the preceding discussion, in the present research we tested the following hypotheses regarding the role of anger vs. disgust in the sexual-moral domain:

Hypothesis 1a: The absence of mutual consent within a counter-normative sexual act will increase transgressor-directed anger, compared to the presence of mutual consent.

Hypothesis 1b: Appraisals of injustice will be the primary appraisals of anger.

Hypothesis 1c: Anger will strongly predict motivations to condemn (e.g., punish) the transgressor, but not motivations to condemn the consenter.

Hypothesis 2a: The presence of consent will increase levels of disgust directed towards those who desire or consent to counter-normative sexual acts, compared to when desire or consent is absent.

Hypothesis 2b: Appraisals of abnormality and degradation will be the primary appraisals of disgust.

While we anticipated that anger would predict motivations to punish the transgressor of a sexual offense, we were less certain about the role of disgust as a predictor of condemnation. Thus, in addition to the above hypotheses, we also investigated the following research question (Question 1): To what extent is disgust related to the moral condemnation of individuals who desire or consent to counter-normative sexual acts?

To test the above hypotheses (and question), we conducted four experiments in which we manipulated actors' perceived desire towards engaging in counter-normative sexual acts

via manipulations of consent. Given that sexual offenses involve a minimum of two parties³, and that our hypotheses regarding anger and disgust vary as a function of the target, we assessed third-party reactions not only to “transgressors” (vs. non-transgressors), but also to “consenters” (vs. non-consenters). Additionally, we tested our hypotheses across a range of behaviors to rule out extremity as a potential uninteresting explanation for our findings, and to show that our hypotheses generalize. In Study 1, we assessed feelings of anger and disgust directed at a transgressor, a man who performs an act of necrophilia either with or without his late wife’s consent. In Study 2 we focused on the consenter, and manipulated whether a woman willingly or unwillingly had sex with a female-to-male Trans male. In Study 3, we examined reactions to both the transgressor and the consenter. In addition to an act of sexual deviance, we also manipulated consent within a violent act – a domain in which disgust should be less relevant, but anger should still be relevant. This was done to test the ancillary hypothesis that the absence of consent enhances anger towards transgressors of injustice irrespective of domain. In Study 4 we sought to rule out victimization as a possible explanation for why consent affects disgust towards the consenter by holding constant whether the *recipient* of a counter-normative sexual act desired the act, and orthogonally manipulating whether or not the *actor* desired the act.

Across all four studies, we assessed appraisals of injustice and abnormality/degradation using multi-item assessments. This is necessary to test our hypotheses about the distinct appraisals of anger and disgust (Hypotheses 1b and 2b), and it is also beneficial to the field because very little research has directly measured disgust-relevant appraisals (though see Giner-Sorolla et al., 2012; Russell & Giner-Sorolla, 2011a). Instead, most extant research on moral emotions has simply varied the nature of the eliciting

³ We set aside the controversial claim that some self-directed sexual acts (e.g., masturbation) may be construed by some individuals as transgressive. Self-directed sexual acts are generally performed with the implicit consent of the actor/recipient (except perhaps under very unusual circumstances – e.g., alien-hand syndrome), and therefore fell outside the purview of this present paper.

stimuli (scenario) without measuring the inferences people draw from them, and the relationship these appraisals have to the elicited emotions.

Study 1

Study 1 examined the effect of anger and disgust directed at the transgressor when consent is given versus withdrawn for a counter-normative sexual act, necrophilia. Consistent with Hypothesis 1a, we predicted that participants would feel angrier at the transgressor when the sexual act was committed without the consent of the other individual; by contrast, transgressor-directed disgust should be less affected by consent. We also predicted, consistent with Hypothesis 1b, that appraisals of injustice would largely explain the effect of consent on anger directed at the transgressor, and in turn anger would predict condemnation of the transgressor (Hypothesis 1c).

Method

Participants. We recruited 73 adults (40 male, $M_{age} = 33.53$ years, $SD = 14.87$), located in the United States, who participated via Amazon's Mechanical Turk (www.mturk.com) in exchange for payment. The ethnicity of the sample was predominantly White (84%). We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the studies. We used Mechanical Turk to recruit a more diverse sample (in terms of gender, age, and education) than the 'WEIRD' samples typically obtained through university samples (see Buhrmester, Kwang, & Gosling, 2011), and we used this method throughout all four of the experiments. Additionally, for all four of the experiments we aimed to recruit 30-45 participants per condition. Sample size was always determined prior to recruitment, and analysis commenced only after the target sample size was attained.

Design, materials and procedures. Before taking part in this experiment participants were provided with information about the study and gave their informed consent. Participants were informed that the experiment contained sexual themes and that they could skip any part that they were not comfortable with and withdraw from the study at any time. We used the same ethics procedure for all of the experiments.

After agreeing to take part, participants were randomly assigned to read a scenario that described an act of necrophilia, which was adapted from Parkinson, Sinnott-Armstrong, Koralus et al. (2011). In the scenario Jack's wife requested Jack to have sex with her after she dies. In the consent version ($n = 38$) Jack honoured his wife's request, alternatively, in the withdrawn version ($n = 35$) Jack's wife told him that she no longer wanted him to have sex with her after she dies but nonetheless he goes through with the sexual act.⁴ After reading the scenario, participants rated how much anger and disgust they were experiencing towards Jack, the transgressor. They were provided four words for anger (*angry, mad, outraged, furious*) and four words for disgust (*sickened, grossed out, nauseous, queasy*), rated from 1 (Not at all) to 7 (Very much). We deliberately avoided the word "disgust", as research has shown that its linguistic meaning is closer to "anger" in situations theoretically more relevant to anger (e.g., unfairness; see Nabi, 2002; Russell et al., 2013). Instead, we selected linguistic elements connoting the underlying physiology of disgust, pertaining to nausea and oral inhibition – terms which have been found to help dissociate disgust from anger in the past (see Horberg et al., 2009; Nabi, 2002; Piazza et al., 2013; Russell & Giner-Sorolla, 2011a, 2011b). Participants were also given a photo of an actor displaying a prototypical anger face, and a prototypical disgust face, taken from the University of California, Davis, Set of Emotion Expressions (Tracy, Robins, & Schriber, 2009). The five anger word/face items

⁴ Please contact the authors for the full vignettes presented in this research.

formed a highly reliable scale (Cronbach's $\alpha = .96$); same for the five disgust items ($\alpha = .91$); thus, we separately aggregated anger and disgust indices.

Next, individuals reported their level of agreement (1 = Strongly disagree; 4 = Neither agree nor disagree; 7 = Strongly agree) towards a number of statements adapted from Russell and Giner-Sorolla (2011a) – see Appendix for full list of measures. The items assessed appraisals of injustice: (4 items, $\alpha = .78$); appraisals of abnormality and degradation (3 items, $\alpha = .82$), and condemnation of Jack for his actions (3 items, $\alpha = .91$). After providing basic demographics⁵, all participants were then fully debriefed and were reminded of the contact details of the researchers in case they had any queries.

Analysis Plan

In each study presented here, we first conducted ANOVA tests separately for disgust and anger, which are reported in footnotes. We then followed-up significant results with ANCOVAs, controlling for covariance between the two emotions. For brevity, we report the results of the ANCOVAs in the text, as this is our primary analysis, unless the initial ANOVA was non-significant. Significant findings for disgust and anger were followed up with mediation analyses to test our appraisal and condemnation hypotheses and research question.

Results

⁵ Measures of political orientation were included in basic demographics for all studies on account of past research linking political conservatism and disgust sensitivity (e.g., Inbar, Pizarro, & Bloom, 2009). We assessed political orientation either on a 1-7 or 1-9 scale with increasing scores representing greater conservatism. Analysis of political orientation was peripheral to our research aims and therefore will not be reported in detail here. In general, political orientation was unrelated to disgust levels and transgressor/consenter condemnation, across the studies, and, with one exception (Study 2), failed to interact with consent to affect either disgust or condemnation. Please contact the authors for details. A measure of disgust sensitivity was also included in Study 1 (and only Study 1) for exploratory purposes, but had little bearing on the results and therefore will not be discussed further.

The manipulation checks were found to be successful; participants were more condemning when consent was absent (see Supplementary materials). To test Hypothesis 1a we conducted between-subjects ANCOVAs (consent vs. no consent) for both anger and disgust, controlling for the other emotion as a covariate, since anger and disgust highly correlated, $r(73) = .59, p < .001$. Consistent with Hypothesis 1a, the effect of consent on disgust was not significant, $F < 1, p = .70, \eta^2_p = .00$, while the effect of consent on anger was significant, revealing that participants felt more anger when consent was withdrawn, $F(1, 70) = 6.10, p = .016, \eta^2_p = .08$ ($M_{\text{non-consent}} = 3.49, SE = 0.25$ vs. $M_{\text{consent}} = 2.63, SE = 0.24$)⁶.

To test Hypothesis 1b we conducted multiple mediation analyses using the PROCESS bootstrapping procedure in SPSS (see Hayes, 2013). We entered consent as the independent variable, anger as the dependent variable, appraisals of injustice and abnormality as simultaneous mediators, and disgust as a covariate. As predicted, injustice appraisals but not abnormality appraisals significantly mediated the effect of consent on anger (see Figure 1). To assess Hypothesis 1c, we then performed a mediation analysis in which anger and disgust were simultaneous mediators of the relationship between consent and moral condemnation, which revealed that anger, but not disgust, was a significant mediator (see Figure 1).

[Insert Figure 1 about here]

Study 2

Study 1 provided initial support for Hypotheses 1a-1c, which focused on reactions of transgressors of sexual-norm violations. We now turned the attention toward the other individual involved in the sexual act, the consenter, in order to test Hypothesis 2a, 2b and

⁶ When disgust was not controlled for, anger was significantly affected by consent, $F(1, 71) = 11.40, p < .001, \eta^2_p = .14$, with more anger when consent was withdrawn ($M = 3.74, SE = 0.29$) than present ($M = 2.39, SE = 0.28$). When anger was not controlled for, disgust was also significantly affected by consent in a similar direction, but to a lesser extent ($M_{\text{non-consent}} = 5.53, SE = 0.27$ vs. $M_{\text{consent}} = 4.70, SE = 0.26$), $F(1, 71) = 4.97, p = .03, \eta^2_p = .07$.

Question 1. In the current experiment we examined reactions to a scenario that was less severe or controversial in nature than the previous experiment: sex with a transgender individual. We also used a different operationalization of consent in which consent is either given, or consent is withheld and yet the person is forced to participate.

Method

Participants. Eighty adults (37 female; $M_{\text{age}} = 34.57$ years, $SD = 13.03$) located in the U.S. were recruited from the same web service as before and paid for their time. Participants from the previous study were not eligible to participate in this study. One participant was dropped from analysis because they offered the same response to every question, leaving 79 participants, who were randomly assigned to either the consent ($n = 38$) or non-consent condition ($n = 41$).

Design, materials and procedures. Participants read a vignette about a woman, Donna, who fell in love with a man who she later found out, had gender reassignment surgery. In the consent version, Donna willingly consented to have sex with the man, while in the non-consent version, Donna expressed discomfort about having sex and did not consent, but she was nevertheless forced to have sex against her will. Afterwards, participants responded to the same anger and disgust items as in Study 1, with the addition of four sympathy emotion words (*sympathy*, *pity*, *empathy*, *compassion*), rated on a 1-9 scale ($\alpha = .85$). More sympathy towards Donna was expected when consent was withheld.

Participants then filled in measures of appraisals and condemnation, on a 9-point scale. Appraisals of the injustice of Donna's actions were assessed with the previous four items; however, the reverse-scored item ("What Donna did was justified") failed to load with the other four items, thus, was dropped from the scale, improving its reliability ($\alpha = .81$). Appraisals of abnormality were assessed with the previous three items, plus two additional

items focused on the durability of Donna's deviant nature ("Donna has a deviant character"; "Donna has a deviant personality"; $\alpha = .83$). To assess condemnation, participants rated the same measures as in Study 1 (3 items; $\alpha = .81$). We also included, as manipulation checks, one item assessing attributions of the harm Donna experienced, and two items assessing how "responsible" or "to blame" Donna was for her actions (the two items were highly correlated, $r(80) = .63, p < .01$). Afterwards, participants answered basic demographic questions, were debriefed and paid.

Results

The manipulation checks were once again successful, with the exception of the injustice appraisal (see Supplementary materials for manipulation checks and sympathy measures). Supporting our hypotheses, anger was equally low across consent conditions ($M_{\text{non-consent}} = 1.58, SE = 0.15; M_{\text{consent}} = 1.27, SE = 0.15$), $F(1, 77) = 2.14, p = .148, \eta^2_p = .03$. To test Hypothesis 2a, we conducted a one-way ANCOVA on disgust scores, by consent condition, controlling for anger, since anger and disgust were moderately correlated, $r(80) = .49, p < .001$. We found the effect of consent on disgust towards Donna was statistically significant, with more disgust when the sexual act was consensual, $F(1, 76) = 8.62, p < .005, \eta^2_p = .10$ ($M_{\text{non-consent}} = 1.60, SE = 0.22; M_{\text{consent}} = 2.52, SE = 0.22$)⁷.

To test Hypothesis 2b, we conducted similar multiple mediation analysis as Study 1 for the appraisal variables, which indicated that only abnormality appraisals, not injustice appraisals, mediated the effect of consent on disgust (see Figure 2). Finally, to address Question 1, we performed a mediation analysis in which disgust was entered as a mediator, and anger as a covariate, of the effect consent had on condemnation, which revealed that disgust was a significant mediator; however, both the total and direct effects were significant,

⁷ An ANOVA, not controlling for anger, revealed that participants experienced marginally more disgust when Donna consented to the act than when she did not consent, $F(1, 77) = 2.99, p = .088, \eta^2_p = .04$.

suggesting that disgust did not fully account for the relationship between consent and condemnation (see Figure 2).

[Insert Figure 2 about here]

Study 3

In the previous experiments we found that mutual consent *reduced* anger directed at the transgressor (Study 1) and *increased* disgust directed at the consenter of a counter-normative sexual act (Study 2), evincing that anger and disgust have different foci within the sexual-moral domain. The current study extends the previous studies in two ways. First, we manipulated consent within an act of violence (violence between siblings of same sex), in addition to yet another counter-normative sexual act (sex between siblings of same sex), in order to establish whether the effects of consent on anger and disgust are specific to the sexual domain. Second, we investigated reactions to both parties involved in the event: the consenter and the transgressor, enabling us to test all of our hypotheses and research question within a single study. We also held constant that both parties were dispositionally inclined to engage in behavior of the sort described, since in the previous experiments the actors' predilections were not made explicit. Being predisposed towards a class of actions does not necessitate that a person will consent to an act when the opportunity arises. Thus, we sought to control for the predisposition of the actor, independent of whether he consented or dissented within the focal event.

Method

Participants. We recruited a new sample of 170 adults (85 male, $M_{\text{age}} = 34.46$ years, $SD = 12.64$) located in the U.S. from the same web service as before in exchange for comparable payment.

Design, materials and procedures. The design of this study was a 2 (consent vs. no consent) x 2 (transgression: sexual vs. violence) between subjects design. Participants were randomly assigned to read one of four scenarios in which two brothers, Jeff and Thomas, engaged in sexual or violent activities with one another. The vignette was loosely inspired by *R. v. Brown*, a historical case in the UK in which a group of homosexual men committed voluntarily acts of masochistic violence against one another (see Baker, 2009). Both Jeff and Thomas were described as having developed the urge to engage in same sex relations, or violent behavior, when they went through puberty, but because of their upbringing they felt the need to suppress these urges. However, Thomas proposes to Jeff that they should explore their urges by experimenting with one another. In the *consent version*, Jeff expresses to his brother that he thinks it is a good idea and consents to perform sexual or violent activities with Thomas. In the *non-consent version*, Jeff expresses to his brother that he thinks it is a bad idea and he is opposed to it, yet Thomas forces his brother to perform sexual or violent acts against his wishes. After reading the scenario, participants responded to a series of measures, one set pertaining to the transgressor (Thomas), and the other set pertaining to the consenter (Jeff); which set they answered first was randomized. They answered the same measures as Study 2; except we did not include the two deviant nature items or the sympathy measures. After responding to demographic questions, participants were debriefed and paid. No other measures were collected.

Results

For our analyses we were not interested in comparing differences between actors (consenter vs. transgressor), only within; thus, we conducted analyses separately for the consenter and transgressor.

Transgressor.⁸ When anger was entered as the DV and disgust was controlled for, the effect of violation type, $F(1, 165) = 6.99, p = .009, \eta^2_p = .041$, consent, $F(1, 165) = 41.01, p < .001, \eta^2_p = .20$, and the interaction effect were all significant, $F(1, 165) = 5.93, p = .02, \eta^2_p = .03$ - (see Figure 3).⁹ Consistent with Hypothesis 1a, simple-effects tests revealed significantly greater anger was felt towards the transgressor when he committed violence towards his brother in the absence of consent ($M = 6.42, SE = 0.31$) than when his brother consented ($M = 5.22, SE = 0.30$), $F(1, 165) = 8.19, p = .005$. Likewise, significantly greater anger was expressed when the transgressor committed a sexual offense in the absence of consent ($M = 6.30, SE = 0.30$) than in the presence of consent ($M = 3.66, SE = 0.31$), $F(1, 165) = 38.81, p < .001$. Hayes (2013) recommends that when you have more than one IV that you enter one IV as a predictor controlling for the other IV as a covariate, thus enabling a test of the interaction effect. Therefore, we entered consent as the predictor; violation type and anger as covariates, with injustice and abnormality appraisals as mediators, in order to examine whether the injustice appraisal could explain the interaction effect (Hypothesis 1b). , Injustice appraisals were found to mediate the effect of consent on transgressor-directed anger, across transgression type, while abnormality appraisals did not mediate transgressor-directed anger (see Figure 4). We then entered anger and disgust as simultaneous mediators of the effect of consent and moral condemnation, revealing, consistent with Hypothesis 1c, that anger but not disgust mediated the amount of condemnation toward the transgressor (see Figure 4).

[Insert Figure 3 and 4 about here]

⁸ Anger and disgust were correlated, $r(170) = .60, p < .01$.

⁹ When entering anger as the DV, not controlling for disgust, the effect of violation type on anger was non-significant, $F(1, 166) = 0.75, p = .39, \eta^2_p = .005$, but there was a main effect of consent, $F(1, 166) = 40.18, p < .001, \eta^2_p = .19$, and a significant interaction effect, $F(1, 166) = 3.93, p < .05, \eta^2_p = .023$.

When entering disgust as the DV controlling for anger, both the main effect of consent ($M_{\text{non-consent}} = 5.09$, $SE = 0.22$ vs. $M_{\text{consent}} = 5.82$, $SE = 0.22$), $F(1, 165) = 4.90$, $p < .05$, $\eta^2_p = .03$, and violation type ($M_{\text{violence}} = 4.62$, $SE = 0.21$ vs. $M_{\text{sexual}} = 6.29$, $SE = 0.21$), $F(1, 165) = 31.65$, $p < .001$, $\eta^2_p = .16$, were significant, revealing that participants were more disgusted at the wrongdoer when there was mutual consent, and when the offense was sexual in nature. However, the interaction effect was not found to be significant, $F(1, 165) = 1.98$, $p = .16$, $\eta^2_p = .01$.¹⁰ We performed multiple mediation analyses for the main effect of consent since the interaction effect was non-significant, for the consent on transgressor-directed disgust effect, controlling for anger. Abnormality appraisals emerged as a significant mediator (95% CIs [-.57, -.03]), but injustice appraisals were not [-.50, .04]; however, the total effect was marginally significant ($p=.07$), whilst the direct effect was significant ($p=.004$).¹¹

Consenter.¹² When disgust toward the consenter was entered as the dependent variable and anger was controlled for, the effect of violation type was significant, $F(1, 165) = 13.14$, $p < .001$, $\eta^2_p = .07$, the effect of consent was approaching significance, $F(1, 165) = 3.86$, $p = .05$, $\eta^2_p = .02$, and the critical interaction was significant, $F(1, 165) = 14.78$, $p < .001$, $\eta^2_p = .08$ (see Figure 5).¹³ Simple effects revealed that participants were more disgusted when both parties consented to the sexual act than when consent was withheld, $F(1, 165) = 16.73$, $p < .001$, $\eta^2_p = .09$ ($M_{\text{non-consent}} = 4.11$, $SE = 0.28$; $M_{\text{consent}} = 5.75$, $SE = 0.29$);

¹⁰ When entering disgust as the DV, not controlling for anger, there was a significant main effect of transgression type, $F(1, 166) = 24.66$, $p < .001$, $\eta^2_p = .13$, with more disgust directed at the transgressor for the sexual offense compared to the violent offense. There was also a significant main effect of consent, $F(1, 166) = 4.04$, $p < .05$, $\eta^2_p = .02$. However, the interaction of transgression and consent was not at all significant, $F < 1$, $p = .91$.

¹¹ When the analysis is repeated controlling for violation type, abnormality is still a significant mediator. In a final analysis entering violation type as the predictor, neither of the appraisals could account for the difference in disgust across the different violation types.

¹² Anger and disgust were correlated, $r(170) = .65$, $p < .01$.

¹³ When disgust toward the consenter was entered as the dependent variable, not controlling for anger, there was a marginal effect of violation type, $F(1, 166) = 2.91$, $p = .09$, $\eta^2_p = .02$, a significant effect of consent, $F(1, 166) = 5.74$, $p < .05$, $\eta^2_p = .03$, and the critical interaction between consent and violation type was significant, $F(1, 166) = 6.47$, $p < .05$, $\eta^2_p = .04$.

however, consent did not have a significant impact on levels of disgust toward the violent act with similar levels when consent was present versus absent, $F(1, 165) = 1.75, p = .19, \eta^2_p = .01$ ($M_{\text{non-consent}} = 4.16, SE = 0.29; M_{\text{consent}} = 3.63, SE = 0.27$). When the analysis of variance was repeated entering anger toward the consenter as the DV, none of the effects were found to be significant, all $ps > .16$; thus this analysis was not followed-up with an ANCOVA.

[Insert Figure 5 about here]

We then performed mediation analysis entering disgust toward the consenter as the outcome, appraisals as the mediators and entered anger and violation type as covariates. Consistent with Hypothesis 2b, it was found that abnormality appraisals, but not injustice appraisals, accounted for disgust directed at the consenter as a function of consent (see Figure 6). We then performed a multiple mediation analysis to test whether anger and/or disgust were significant mediators of the consent-condemnation relationship controlling for violation type; this analysis indicated that the indirect effect of disgust was significant but the indirect effect of anger was not significant. Both the total and direct effects were significant, revealing that disgust did not fully account for the link between consent and consenter-directed condemnation (see Figure 6).

[Insert Figure 6 about here]

Study 4

Study 3 replicated the findings of Studies 1 and 2 within a single study, and revealed a domain-general relationship between anger and injustice performed by a transgressor, and a domain-specific relationship between disgust and sexual deviance exhibited by a consenting individual. Critically, mediation analyses revealed injustice as the central appraisal for anger, and abnormality/degradation as the central appraisal for disgust. It should be noted that levels

of transgressor-directed disgust were not trivial for the violent act but, in contrast to transgressor-directed anger, were nonetheless below the midpoint of the scale.

In all of the previous experiments we compared a mutual consent condition to a condition in which consent was withheld and the person either went through with the action (Study 1) or was coerced into performing the act (Studies 2-3). Thus, in the no consent conditions there was always a victim¹⁴, while in the consent conditions there was no victim. As a result, we cannot determine if victimization is what *supressed* disgust or if it was the desire of the consenter that *enhanced* disgust. To rule out victimization, and isolate desire as the mechanism that enhances disgust, we devised a scenario in which the consent of the recipient of a counter-normative sexual act was held constant, while we manipulated the actor's desire towards performing the act. We also wanted to disentangle whether it is the actual performance of the act that elicits disgust, or if it is the case that one's desire toward the act is sufficient to elicit disgust.

We predicted that having the desire would be *sufficient* to elicit disgust, but we were uncertain whether desire would be a *necessary* elicitor of disgust. It might be that engaging in a sexual act is equally sufficient to elicit disgust, regardless of the actor's desire towards the act. If both desire and behavior are sufficient causes of disgust, then we should observe an interaction of desire and behavior such that desiring the counter-normative sexual act would evoke disgust regardless of whether or not the action was performed, while, conversely, engaging in the sexual act would elicit disgust regardless of the person's underlying desire; in other words, disgust should be equally high in all conditions except when the person does not desire the act and does not perform the act.

¹⁴ Technically there was no victim in Study 1, as the man's wife was deceased at the time of the act. But the results showed that participants construed the man's actions as harming the "integrity" of his wife when she withdrew the request, so arguably participants perceived there to be a victim in Study 1 as well.

Method

Participants. We recruited a new sample of 128 adults located in the U.S.; however, 5 participants were excluded either because they did not complete the study or provided the same response for every question, leaving 123 participants (76 males, $M_{\text{age}} = 32.06$, $SD = 9.63$).

Design, materials and procedure. The design of this study was a 2 *desire* (desire vs. no desire) x 2 *behavior* (behavior vs. no behavior) between subjects design. Participants were randomly assigned to read one of four scenarios. The vignette was a modified version of the scenario used in Study 1; however, within all versions the wife maintained her consent. Within the scenario we varied whether or not the husband, Jack, had the desire to engage in the sexual act. Additionally, we separately manipulated whether Jack actually engaged in the sexual act or did not have the opportunity to go through with the act. After reading the scenario, participants responded to a series of measures. They filled in the same measures of anger and disgust towards Jack as previous experiments. We also had a manipulation check of perceived desire: “To what extent do you think Jack wanted to have sex with his wife's dead body?”

They also rated their agreement with several appraisal items on 1-9 scales, which included items that measured whether Jack was seen as being cruel (4 items, $\alpha = .97$), abnormal (6 items, $\alpha = .97$), or having caused injustice (3 items, $\alpha = .91$) (see Appendix for full list of measures). We expanded our assessment of appraisals as a more thorough test of whether it is specifically inferences about the abnormal nature of the person that is driving the disgust effects, and not inferences about other aspects of the individual's character having to do with cruelty or injustice, which are more relevant to harm and anger, respectively. We also expanded our condemnation measures, to include items pertaining to social avoidance (3

items), having a general bad character (2 items) and punishment (3 items; see Appendix). All nine measures formed a reliable index ($\alpha = .95$) and were therefore aggregated to assess how much participants condemned Jack for his actions.¹⁵ Aside from basic demographics, no other measures were collected. All participants were debriefed and paid at the end.

Results

The manipulation check, appraisals and condemnation analyses can be found in the Supplementary Materials. When disgust was entered as the dependent variable in a 2 (desire vs. no desire) 2 (behaviour vs. no behaviour) ANOVA the main effect of behavior and the predicted interaction between desire and behavior was approaching significance, but the main effect of desire was non-significant (see Table 1 and Figure 7). Since, disgust and anger were moderately correlated, $r(123) = .62, p < .01$, across conditions, we repeated the analysis controlling for anger, which revealed that both the main effect of behavior and the interaction were still marginally significant (see Table 1 and Figure 8). Simple effects indicated that disgust did not differ when the behavior was carried out depending on desire, $F(1, 118) = 0.07, p = .79, \eta^2_p = .001$; however, when the behavior was not carried out people felt more disgust when Jack desired to engage in the behavior than when he did not have the desire $F(1, 118) = 4.41, p < .05, \eta^2_p = .04$, and this mean was similar to the behavior-completed condition means. We then repeated the analyses using anger as the DV; however, neither of the main effects nor the interaction were found to be significant (see Table 1 and Figure 7); thus, this analysis was not followed up with an ANCOVA. The means were much lower for anger than disgust across all conditions.

[Insert Table 1, Figure 7 and 8 about here]

¹⁵ We treated both avoidance and punishment items as a single measure as they loaded onto one factor. Additionally, when analyzing the avoidance and punishment items separately the results were the same.

Similar to the previous study in order to examine the interaction effect, we entered the manipulated variable that had a significant effect as the predictor whilst controlling for the other IV. We entered cruelty, abnormality, and injustice appraisals as mediators, disgust as the outcome, anger and desire manipulation as covariates, and behavior manipulation as the predictor. In line with Hypothesis 2b, it was found that the abnormality appraisals were the only significant mediator (see Figure 6). We then examined if disgust was a significant mediator of condemnation (Question 1), controlling for anger and the desire manipulation, entering the behavior manipulation as the predictor, which revealed that disgust was related to condemnation but it could not account for the interaction effect.¹⁶

[Insert Figure 9 about here]

General Discussion

These four studies highlight a number of fundamental differences between anger and disgust as they pertain to sexual offenses. Consistent with our hypotheses for anger, the influence of consent on anger was focused primarily around the transgressor. In Study 1 and 3 it was found that levels of anger toward the transgressor increased when mutual consent was absent rather than present, and this relationship was uniquely mediated by injustice appraisals. Critically, because of anger's strong association with injustice, the influence of consent on anger was not limited to sexual transgressions, but violent offenses as well. This finding is important because it highlights injustice (i.e., the selfish violation of a person's interests) as the central appraisal of anger, rather than harm (i.e., inflicting pain and suffering) specifically, which has been the primary focus of most prior research. By contrast, since the consenter never caused injustice, regardless of whether consent was present or absent, anger

¹⁶ Disgust was also not a mediator of condemnation when the desire manipulation was entered as the predictor or when both anger and disgust were entered as simultaneous mediators.

towards the consenter was virtually non-existent and relatively stable. Levels of anger were also highly predictive of motivations to condemn and punish the transgressor.

On the other hand, the relationship between consent and disgust directed at the transgressor was much weaker and largely driven by anger and disgust's covariance; disgust was always higher when there was mutual consent and in general individuals were more disgusted at a transgressor of a sexual than violent act. Consistent with our hypotheses for disgust, Studies 1-3 revealed that perceiving someone as having the desire to engage in a counter-normative sexual act – whether this desire was revealed through an expression of consent or the fulfilment of a request – increased the disgust participants felt towards this consenting individual. By contrast, when the same person was perceived to be opposed to the act – either because they withheld their consent and/or were coerced into performing the act against their will – significantly less disgust was directed at this person. Furthermore, across all three studies, appraisals of abnormality and degradation, and not appraisals of injustice, mediated the effect that consent had on levels of consenter-directed disgust. Finally, while Studies 1-3 left open the possibility that the effect of consent on consenter-directed disgust was simply due to victimization, Study 4 demonstrated that desire influences disgust even in the absence of a victim. However, this study also revealed that desire, though a sufficient cause of disgust, was not a necessary cause, since when the counter-normative sexual act was carried out, levels of disgust were not affected by the presence or absence of desire. Instead, simply performing a counter-normative sexual act – independent of how the actor truly feels about it – was sufficient to elicit disgust as well. The fact that behavior alone was sufficient to elicit disgust in Study 4 may on the surface appear to contradict the findings of Studies 1-3 regarding consent and disgust. However, since we did not manipulate behavior in these earlier studies, but held behavior constant, there is no contradiction. Critically, when the counter-normative sexual behavior was not carried out, participants felt more disgust when

the desire was present than when it was absent. This finding departs from past research (e.g., Russell & Giner-Sorolla, 2011a; Young & Saxe, 2011) by showing that at least one element of intentionality—namely, the desire component—does affect levels of disgust.

This novel finding that disgust, but not anger, was affected by information about a person merely possessing but not acting upon sexual desire, is consistent with past theorizing that disgust is a more person- or character-focused emotion than is anger (Haidt, 2003; Nussbaum, 2004). Yet the precise reasons for this remain unclear. We speculate that disgust is a more person-focused emotion than anger by virtue of the fact that inferences about an actor's motivations for desiring or performing a counter-normative sexual act are more focused on the inner qualities of a person (e.g., their desires and appetites), and less focused on the circumstances surrounding the event. By contrast, inferences about an actor's motives for causing injustice demand greater analysis of the surrounding circumstances, such as the recipient's attitude towards the act and whether there were mitigating factors (see Monroe, Guglielmo, & Malle, 2012; Piazza et al., 2013; Reeder, 2009).

It is important to note that within the current research consent was non-ambiguous. Nevertheless, in everyday occurrences the perception of consent, or of an individual's capacity to provide adequate consent, is not always so clear-cut. Research has consistently shown that victim derogation is much more likely to occur when consent is ambiguous, or in cases where characteristics of the victim erroneously lead observers to presume a predisposition towards consent (Jones & Aronson, 1973; Kanekar & Kolsawalla, 1980; Muehlenhard, 1988; Scroggs, 1976; Whatley, 1996). Thus, it is possible that the fairly low levels of victim-directed anger we observed in the present studies would not replicate in settings where victim consent or non-consent is harder to establish—a topic that is worthy of continued investigation.

Conclusion

The current research highlights the differential influence of consent on anger and disgust, with intriguing possibilities for future research. They suggest that anger, more so than disgust, is strongly tied to appraisals of injustice and the condemnation of transgressors of non-consensual offenses, violent and sexual, while disgust seems to be focused on the consensual nature of counter-normative sexual acts, which violate norms about the proper use of the human body. Although disgust does not seem to be a strong predictor of condemnation towards transgressors, independent of feelings of anger, disgust does sometimes predict condemnation towards individuals who consent to sexual offenses. This distinction between anger and disgust is important because it suggests that efforts to address the circumstances surrounding an act of wrongdoing may go far in redressing feelings of anger towards perpetrators of injustice, yet such attempts are likely to fall short in reducing the amount of disgust people feel towards perpetrators. At the same time, efforts to establish the non-voluntary nature of a person's involvement within a sexual offense may be the most effective route to reducing feelings of disgust towards the victim.

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Appendix

Appraisal and condemnation items for Study 1

Moral Condemnation

1. Jack should be held accountable for his actions
2. Jack should be punished for his actions
3. What Jack did was bad

Abnormality and Degradation

1. Jack is abnormal because of what he has done
2. Jack is a lesser human being because of what he has done
3. Jack as a person is tarnished in some way because of what he has done

Injustice

1. What Jack did was unjust
2. What Jack did was justified (reverse scored)
3. Jack has violated his wife's rights
4. Jack has damaged his wife's integrity

Appraisal and condemnation items for Study 4

Moral Condemnation

1. Jack is a bad person.
2. Jack is an immoral person.
3. Jack should be punished.
4. Jack should be locked up.
5. Jack should be thrown in jail.

6. I would be very uncomfortable meeting Jack.
7. I would avoid shaking Jack's hand if I were introduced to him.
8. I would go out of my way to avoid interacting with Jack.

Abnormal

1. Jack is abnormal.
2. Jack is twisted.
3. Jack is perverse.
4. Jack is deviant.
5. Jack is indecent.
6. Jack doesn't fit in with the rest of society.

Cruel

1. Jack is cruel.
2. Jack is vicious.
3. Jack is mean.
4. Jack is malicious.

Injustice

1. Jack behaved unjustly.
2. Jack violated his wife's rights.
3. Jack violated his wife's integrity.

Table 1

Anger and disgust: F-statistics, estimated effect sizes, means, and standard errors (Study 4)

Disgust		
Behavior 5.19*, $\eta^2_p = .04$		
Desire 2.02ns, $\eta^2_p = .02$		
Behavior x Desire 3.82*, $\eta^2_p = .03$	No Behavior/No Desire 4.49 _a (.44) Behavior/No Desire 6.41 _b (.45)	No Behavior/Desire 6.02 _b (.45) Behavior/Desire 6.17 _b (.47)
Disgust controlling for anger		
Behavior 3.08†, $\eta^2_p = .03$		
Desire 1.64ns, $\eta^2_p = .01$		
Behavior x Desire 2.76†, $\eta^2_p = .02$	No Behavior/No Desire 4.91 _a (.36) Behavior/No Desire 6.15 _b (.36)	No Behavior/Desire 5.98 _b (.36) Behavior/Desire 6.01 _b (.37)
Anger		
Behavior 2.03ns, $\eta^2_p = .02$		
Desire 0.43ns, $\eta^2_p = .004$		
Behavior x Desire 1.06ns, $\eta^2_p = .009$	No Behavior/No Desire 2.45 ^a (.39) Behavior/No Desire 3.44 ^a (.40)	No Behavior/Desire 3.13 ^a (.40) Behavior/Desire 3.29 ^a (.41)

Note. † $p \leq .10$, * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Figure 1. Mediation analyses Study1, focussing on transgressor. Left Panel: Injustice and abnormality appraisals as mediators of consent-anger effects, controlling for disgust. Right Panel: Anger and disgust as mediators of consent-condemnation effects. † $p \leq .10$, * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Figure 2. Mediation analyses Study 2, focussing on consenter. Left Panel: Injustice and abnormality appraisals as mediators in of consent-disgust effects, controlling for anger. Right Panel: Disgust as mediator of consent-condemnation effects, controlling for anger. † $p \leq .10$, * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Figure 3. Study 3 transgressor-directed emotion effects. Left panel: Disgust and anger toward transgressor as a function of sexual Consent x Violation type, controlling for other emotion. Right panel: Plot of anger as a function of Consent x Violation type, controlling for disgust toward transgressor. Error bars are ± 1 SE.

Figure 4. Mediation analyses Study 3, focussing on transgressor. Left Panel: Injustice and abnormality appraisals as mediators of consent-anger effects, controlling for disgust toward transgressor. Right Panel: Anger and disgust as mediators of consent-condemnation effects. † $p \leq .10$, * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Figure 5. Study 3 Plot of disgust toward consenter as a function of Consent x Violation type, controlling for anger toward consenter. Error bars are +/- 1 SE.

Figure 6. Mediation analyses Study 3, focussing on consent. Left Panel: Injustice and abnormality appraisals as mediators of consent-disgust effects, controlling for anger. Right Panel: Anger and disgust as mediators of consent-condemnation effects. † $p \leq .10$, * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Figure 7. Disgust and anger towards the actor as a function of sexual Desire x Behavior, Study 4. Different subscripts denote statistically significant means at $p < .05$. Error bars are ± 1 SE.

Figure 8. Disgust towards the actor as a function of sexual Desire x Behavior, controlling for anger, Study 4. Error bars are ± 1 SE.

Figure 9. Mediation analyses Study 4. Left Panel: Injustice, abnormality and cruelty character appraisals as mediators of behavior-disgust effect, controlling for anger and desire manipulation. Right Panel: Disgust as mediator of behavior-condemnation effects, controlling for anger and desire manipulation. † $p \leq .10$, * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.