



Why do women regret casual sex more than men do?

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ABSTRACT

Sex differences in sexual regret are found to be robust across nations. Participants in Norway (N = 547) and the United States (N = 216) reported their level of regret for their most recent casual sexual experience. Participants also reported on proximate factors hypothesized to predict casual sex regret: negative emotions (worry), feeling pressured to have sex, low sexual gratification, partner's sexual competence, and to what extent they initiated the sexual encounter.

Results suggest that greater feelings of worry, experiencing disgust, and feeling pressured to have sex predicted more regret for casual sex. In contrast, experiencing higher levels of sexual gratification, finding the partner to be sexually competent, and being the one taking the initiative predicted less sexual regret. Predictors of casual sex regret were not moderated by nation. However, relative to men, most of these predictors had a stronger impact on women's likelihood of regretting their most recent casual sex encounter. Discussion focuses on disgust, the key predictor of sexual regret, addresses limitations of the current study, and suggests future lines of research.

1. Introduction

Regret, an emotional response to counter-factual cognitive processing, may be an evolved adaptation designed to reduce the likelihood of repeating past errors (Galperin et al., 2013). Although there do not appear to be sex differences in regret in general (Roese et al., 2006), consistent sex differences emerge in the domain of sexual regret (Galperin et al., 2013; Kennair, Bendixen, & Buss, 2016). These findings suggest that regret regarding sexual behavior may be a specific domain in which men and women have faced somewhat different adaptive problems. Regret may be uniquely important in regulating sexual behavior (Kennair et al., 2016), as sexual regret can have substantial psychological and emotional consequences (Garcia, Reiber, Massey, & Merriwether, 2012; Lewis, Granato, Blayney, Lostutter, & Kilmer, 2012).

Sexual Strategies Theory (Buss & Schmitt, 1993), building on (Trivers, 1972) seminal insights on how differences between the sexes in minimum obligatory parental investment influence behavior, provides the basis for the hypotheses about the psychology of sexual regret. Specifically, it predicts that women are more likely to regret decisions to engage in casual sex whereas men are more likely to regret decisions *not* to engage in casual sex. Women bear greater costs of poor choices of sexual partners, since their minimal investment in offspring is greater

than men's minimal obligatory investment. In contrast, men's reproductive success has, through the history of human evolution, primarily been limited heavily by sexual access to fertile women. Therefore, while women are predicted to regret a poor choice of sexual partner or casual sex with a partner who is uninterested in committing to a long-term relationship, men tend to regret passing up sexual opportunities, especially those that require little investment (Bendixen, Asao, Wyckoff, Buss, & Kennair, 2017; Eshbaugh & Gute, 2008; Fisher, Worth, Garcia, & Meredith, 2012; Galperin et al., 2013; Kennair et al., 2016). These predicted sex differences have been robustly confirmed. Sex differences in sexual regret have been documented even in highly gender egalitarian nations and the level of sexual regret is not influenced by religiosity (Bendixen et al., 2017).

Galperin et al. (2013) suggested that men regret casual sex less than women because men experience greater sexual *gratification*. Kennair et al. (2016) investigated the effect of three domains of gratification: physical pleasure, orgasm and orgasm importance on casual sex regret in a Norwegian, sexually liberal sample. They found that more physical gratification was associated with less sexual regret of the most recent casual sex encounter. Report of higher sexual pleasure for last actual casual sex experience was associated with more regret having passed up an opportunity for casual sex. While men reported significantly more physical gratification than women, individual differences in

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experiencing physical gratification affected both sexes' sexual regret, and did not account for the sex difference.

Galperin et al. (2013) also hypothesized that worry about pregnancy may account for the sex difference in casual sex regret. Kennair et al. (2016) expanded upon this worry hypothesis by considering the effect of three domains of worry: pregnancy, sexually transmitted infections (STIs) and sexual reputation. They found that worry about pregnancy or STIs did not predict sexual regret. Interestingly, worry about reputation was positively associated with regret of having had casual sex. However, none of the three worry domains accounted for the sex difference in casual sex regret.

Another source of negative affect in sexual relations may be the experience of *disgust*. Tybur, Lieberman, and Griskevicius (2009) proposed three domains of disgust: sexual, pathogen and moral. Women have greater disgust responses, and this sex difference is especially strong in the domain of sexual disgust (see Al-Shawaf, Lewis, & Buss, 2017, for a review). Short-term sexual encounters may encompass all three forms of disgust, as one may contract an STI, find the sex itself disgusting, or believe the one-night-stand immoral. Individual differences and sex differences in sexual regret may be affected by disgust following casual sex (Kennair et al., 2016).

One factor that has been suggested to predict especially women's likelihood to engage in casual sex is their perception of a hypothetical partner's *sexual skill* or *competence* (Conley, 2011). Although this is expected to correlate largely with sexual gratification (Galperin et al., 2013; Kennair et al., 2016), perhaps having had casual sex with a sexually skilled partner reduces sexual regret, particularly in women, as there might be greater variance in gratification among women due to partner's competence than among men. Corroborating evidence comes from Fisher et al. (2012), who found that women who reported having had high quality sex experienced less negative emotions following a casual sex experience.

Negative emotions also may be experienced if one has been *coerced*, *coaxed* or *pressured* into having sex. Being pressured is one of the many sources people report for engaging in sex, albeit a less frequent one than sexual desire and sexual gratification (Meston & Buss, 2007). Engaging in sex resulting from feeling pressured or obligated has been linked to a short-term mating orientation (Kennair, Grøntvedt, Mehmetoglu, Perilloux, & Buss, 2015), as are many forms of sexual harassment (Bendixen & Kennair, 2017; Kennair & Bendixen, 2012). Even though being subject to pressure might reduce personal responsibility, being pressured might still predict counterfactual mental processing and wishes that the sexual encounter had not taken place (Kennair et al., 2016).

Finally, relative to women, men take the *initiative* in having sex approximately twice as often, both in couples and in casual sex encounters (Grøntvedt, Kennair, & Mehmetoglu, 2015; Impett & Peplau, 2003). It is unclear whether taking the initiative would reduce or increase regret. If one has taken the initiative and the choice is bad then regret might be higher. Conversely, perhaps people will report reduced retrospective levels of initiative if they regret the sexual encounter in hindsight.

1.1. The current study: aims and predictions

We seek to answer the following two questions: (1) What individual differences predict increased or decreased casual sex regret, and (2) Do these predictors differ in their effect for women and men? More women than men regret casual sex, and some predictors of casual sexual regret identified in recent studies shed light upon why women regret more. However, our knowledge of proximal psychological factors that may affect feelings of regret following casual sex is still relatively scarce, and a more comprehensive examination of these is warranted.

First, we aim to replicate findings from Kennair et al. (2016) considering the effects of worry and sexual gratification on casual sex regret in two samples from different nations. Further, the current research

tested several novel predictors previously unexamined. We predicted that two factors would increase casual sexual regret: (1) disgust and (2) being pressured into having sexual relations; whereas two other factors would decrease casual sexual regret: (3) taking the initiative in having casual sex and (4) partner's sexual competence will decrease sexual regret. While in anthropological terms the differences between Norwegian and US culture may be small, the differences that do exist between the two cultures in sexual liberalism, secularism, and gender equality may be especially relevant for studies of casual sexual regret (Bendixen et al., 2017).

2. Method

2.1. Participants and procedure

2.1.1. Norwegian sample

Nine hundred and twenty-nine students (560 women, 369 men) were recruited from a university in Norway. Students were recruited during a 15-minute lecture break at multiple different lectures. After being informed of the purpose of the study and assured that the survey was voluntary and anonymous, participants were asked to complete a four-page questionnaire on sexual regret. Included in the analyses were participants who were 30 years old or younger,¹ who self-reported heterosexual orientation, and who reported on their most recent casual sex incident were included for analyses. The final sample included 547 heterosexual students. Mean ages for women ($N = 329$) and men ($N = 218$) were 21.5 ($SD = 2.1$) and 22.1 ($SD = 2.4$) respectively. Fifty-seven percent of the women and 64% of the men reported their relationship status as "single." Participants did not receive course credit or any form of compensation.

2.1.2. United States sample

Five hundred and twenty-four students (321 women, 203 men) were recruited from a large public university in the Southwestern United States to complete the English version of the above questionnaire on sexual regret. Participants were recruited from the undergraduate research subject pool in exchange for partial fulfillment of a course requirement. After being informed of the purpose of the study and assured that the survey was voluntary and anonymous, participants were asked to complete a four-page questionnaire on sexual regret. Inclusion criteria for analyses were as for the Norwegian sample. The final sample consisted of 216 heterosexual students. Mean ages for women ($N = 131$) and men ($N = 85$) were 19.2 ($SD = 1.2$) and 19.6 ($SD = 1.6$) respectively. Sixty percent of the women and 65% of the men reported their relationship status as "single."

2.2. Materials

2.2.1. Casual sex regret

Participants were instructed to report regrets relating to their *most recent* casual sexual incidence. This measure was based on Galperin et al. (2013) measure and was applied by (Bendixen et al., 2017; Kennair et al., 2016). Participants were given the following options: *I didn't have the chance for casual sex (not coded)*, *I had the chance, but did not have casual sex (not coded)*; *I'm glad I did it (coded 0)*; *Neutral – neither glad nor have regrets (1)*; *I regret it somewhat (2)*; and *I regret it very much (3)*.

2.2.2. Predictors

For all measures below, we applied a 5-point Likert scale. For each item (statement), participants rated their response from 1 (*strongly disagree*) to 5 (*strongly agree*).

¹ Less than 2% of the participants were older than 30 years. To keep comparability with the US sample, only those aged 30 years and younger were included. The exclusion did, however, not affect the reported results.

2.2.3. Gratification

Three items from the measure of physical gratification used by Kennair et al. (2016) were utilized to measure different aspects of the physical gratification they experienced in their most recent casual sex incident. Participants rated their general sexual pleasure, whether they achieved an orgasm, and how important it was for them to achieve orgasm. Higher values indicate higher level and importance of physical gratification. These items demonstrated good internal consistency ($\alpha = 0.84$).

2.2.4. Worry

Participants completed a three-item measure of worry regarding casual sex developed by Kennair et al. (2016). Participants rated their agreement on statements about worry about casual sex resulting in: pregnancy, STIs, and reputation damage (e.g. “the last time I had casual sex I worried about becoming pregnant, or that my partner(s) would become pregnant”). The internal consistency (α) was 0.59.

2.2.5. Disgust

Three-items were developed to measure domain-specific sexual disgust. Participants rated their agreement to the following statements about the last time they had casual sex: “the sex was disgusting”; “it was unhygienic”; and “it was wrong/immoral.” These items demonstrated good internal consistency ($\alpha = 0.81$).

2.2.6. Sexual competence

Participants were asked to rate the sexual competence of their casual sex partner. Participants rated the degree to which they agreed with the following two statements pertaining to their most recent casual sex incidence: “my partner was sexually competent” and “my partner was skilled enough to satisfy me sexually”. The internal consistency was 0.86.

2.2.7. Sexual pressure

Participants were asked to rate their agreement on two items concerning whether they felt pressured to have sex in their most recent casual sex experience (“I felt pressured to have sex” and “I felt obliged to do it”). The internal consistency was 0.89.

2.2.8. Sexual initiative

A single-item was used to measure whether or not the participant initiated their most recent casual sex experience. Regarding their last casual sex incidence, participants were asked to rate their agreement on the following statement: “I was the one to take the initiative.”

2.3. Statistical analyses

Respondent sex and nationality differences in gratification, worry, and the additional predictors were analyzed using 2×2 ANOVAs. We report effect sizes as Partial Eta Squared and Cohen's d . We applied Ordered Logistic Regression (OLR)² analysis for predicting casual sex regret. This statistical technique is applicable for categorized dependent variables under the assumption that the levels of the dependent variable have a natural ordering (low to high), but the distances between adjacent levels are unknown. The proportional odds assumption was checked for all analyses. OLR analysis produces ordered log-odds (logits) and proportional odds (OR). We report the latter along with the test statistic z , which is the ratio of the log-odds to the Standard Error of the respective predictor. For multivariate models we also report McFadden's pseudo R-squared as an approximation to explained variance. All analyses were performed using Stata/IC 14.2 for Mac (StataCorp, 2015).

3. Results

3.1. Tests of sex and cultural differences

We first examined the level gratification, worry, disgust, sexual competence, pressure, and initiative applying 2×2 ANOVA's with participant sex and nation as predictors. As shown in Table 1, women reported markedly lower levels of gratification after their most recent casual sex encounter than men, and Americans were moderately less gratified than Norwegians. The sex difference in gratification was strong in both Norway ($d = 0.99$) and US ($d = 1.00$) (no sex \times nation interaction effect).

Women reported moderately more worries than men after having had casual sex and Americans reported moderately more worries than Norwegians. The sex difference for worry was similar in Norway ($d = -0.39$) and the US ($d = -0.54$). Women and Americans were also slightly more disgusted by their most recent casual sex encounter, with sex differences approximating a third of a standard deviation unit. Women found their most recent casual sex partner slightly less sexual competent than did men in both samples (Norway: $d = 0.39$; US: $d = 0.28$), and Norwegians considered their partner less sexually competent than Americans. Women in both nations also reported being slightly more pressured during their most recent casual sex encounter (Norway: $d = -0.29$; US: $d = -0.27$) and Americans somewhat more than Norwegians. Finally, men and Norwegians reported taking slightly more initiative for casual sex than women and Americans. The sex difference was moderated by nation, suggesting that among all groups, American women took the least initiative. The sex difference in the Norwegian sample was marginal ($d = 0.12$) but moderate in the US sample ($d = 0.49$).

3.2. Predictors of casual sex regret

Bendixen et al. (2017) reported from this dataset of Norwegian and US students that relative to women, men were less likely to regret casual sex (Ordered Logistic Regression analysis: $Z = -4.24$, $p < .001$, $OR = 0.51$). Level of regret did not differ across nations, and the sex effect was equally strong in both nations. In both the Norwegian and US sample, more men (49% and 48%) than women (34% and 31%) were glad they engaged in their most recent casual sex incident, while more women (41% and 50%) than men (26% and 35%) regretted having had casual sex somewhat or very much. Median scores for women and men in both samples were ‘1’ suggesting they were on average ‘neither glad nor had regrets.’

Next, we regressed the likelihood of casual sex regret on each proximate sexual factor, sex and nation in six separate OLR analyses. We report on the main effect of each proximate factor along with any moderating effect of sex and nation. First, higher levels of sexual gratification reduced the likelihood of casual sex regret significantly ($Z = -9.49$, $p < .001$, $OR = 0.50$). This effect was qualified by a gratification \times sex effect ($Z = 3.60$), suggesting stronger effect of increased gratification on less regret for women. The effect of gratification was also moderated by nation ($Z = 1.99$, stronger in the US sample). A significant three-way gratification \times sex \times nation effect ($Z = -2.60$) suggest that gratification affected casual sex regret markedly for all groups except Norwegian men. Second, participants who reported higher levels of worry also reported higher likelihood of casual sex regret ($Z = 9.85$, $p < .001$, $OR = 2.16$). The effect of worry on sexual regret was neither qualified by sex nor nation. Third, participants feeling more disgusted reported much higher likelihood of casual sex regret ($Z = 14.53$, $p < .001$, $OR = 3.42$). The effect of disgust was qualified by a disgust \times sex interaction effect ($Z = -2.31$) suggesting that women's likelihood of regret was stronger influenced by their feelings of disgust than were men's. Fourth, having had casual sex with a sexually competent partner reduced the likelihood of regretting the most recent casual sex incident ($Z = -9.72$, $p < .001$, $OR = 0.51$).

² <https://stats.idre.ucla.edu/stata/output/ordered-logistic-regression/>.

Table 1
ANOVAs, means and SDs for worry, gratification, disgust, sexual competence, pressure, and initiative.

Predictor:	Norway				US				F (η_p^2)		
	Women	Men	Women	Men	Women	Men	Women	Men	Sex	Nation	Sex × Nation
	Gratification (3)	2.34 (1.05)	3.37 (1.00)	2.84 (1.02)	3.85 (0.99)	142.93*** (.164)	33.17*** (.043)	0.01 (.000)			
Worry (3)	2.48 (0.99)	2.12 (0.84)	3.02 (1.04)	2.47 (0.96)	33.93*** (.044)	32.23*** (.042)	1.45 (.002)				
Disgust (3)	2.10 (1.04)	1.81 (0.85)	2.36 (1.08)	2.03 (0.87)	14.78*** (.020)	8.74** (.012)	0.06 (.000)				
Sexual Competence (2)	3.02 (1.13)	3.43 (0.96)	3.55 (1.13)	3.84 (0.92)	15.96*** (.021)	28.64*** (.038)	0.46 (.001)				
Pressure (2)	1.91 (1.06)	1.63 (0.88)	2.42 (1.24)	2.10 (1.07)	12.09*** (.016)	32.89*** (.043)	0.05 (.000)				
Initiative (1)	3.06 (1.06)	3.18 (1.06)	2.37 (1.03)	2.89 (1.14)	13.48*** (.018)	31.21*** (.041)	5.34* (.007)				

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Number in parenthesis denotes the number of items in each scale. η_p^2 = Partial Eta Squared

The effect was stronger for women than for men (significant competence × sex interaction effect, $Z = 2.07$). Fifth, feeling more pressured when having had casual sex significantly increased the likelihood of regretting casual sex ($Z = 10.73, p < .001, OR = 2.15$). The effect was slightly stronger for women than for men (significant pressure × sex interaction effect, $Z = -1.89, p = .059$). Finally, participants who took initiative to casual sex reported significantly lower likelihood of regretting the sex ($Z = -7.20, p < .001, OR = 0.61$). The effect of taking initiative on casual sex regret was moderated by sex and affected female participants only (significant initiative × sex interaction effect, $Z = 3.81$).

3.3. Multivariate analysis of what proximate sexual factors that may contribute to casual sex regret for Norwegian and US women and men

The pattern of correlations for the six predictors (Appendix A) suggest that they reflect two domains, one associated with reduced levels casual sex regret, and the other with increased levels. Sexual competence and gratification was substantially associated with across all four sex-by-nation groups (overall $r = 0.65$), possibly tapping into one common factor. Both gratification and sexual competence were moderately associated with initiative. Similarly, disgust and pressure evinced strong correlations across all groups (overall $r = 0.60$), and both were moderately to strongly associated with worry. Compared with the other five predictors, disgust appeared to be substantially and consistently associated with casual sex regret regardless of sex and nation.

We then regressed most recent casual sex regret on all six predictors. Similar to the analyses above, we report on the main effects of the proximate factors along with any moderating effect of sex and nation. Initial analysis suggests the effects of gratification and competence of the most recent casual sex partner wiped each other out, while both were significant when entered separately into the model. For this reason, we decided to merge the two measures into one and re-run the model. In this model, disgust ($Z = 8.01, p < .001, OR = 2.34$) was clearly the strongest predictor of casual sex regret, followed by the combined competence/gratification variable ($Z = -5.29, p < .001, OR = 0.65$), worry ($Z = 3.78, p < .001, OR = 1.40$), and initiative ($Z = -3.38, p < .001, OR = 0.78$). Being subject to pressure did not affect casual sex regret over and above the effect of the other variables. Overall, the predictors accounted for 40% of the variance in casual sex regret (Pseudo $R^2 = 0.402$). Several interactions were examined, but only one effect reached significance. The effect of initiative was moderated by sex ($Z = 2.03, p < .05$). As shown in Fig. 1, taking more initiative were highly associated with lower levels of casual sex regret for women, while this effect was nearly absent for men. Importantly, none of the reported effects were moderated by nation in the multivariate model.

Additional analyses for each of the four subgroups separately suggest that disgust was the only proximate factor consistently affecting the casual sex regret. The effect of disgust on regret is shown in Fig. 2 for women and men in Norway and US (all effects were controlled for the influence of competence/gratification, initiative, worry, and pressure).

Given the importance of disgust on casual sex regret we finally regressed the likelihood of casual sex regret on sex, nation and each of the three disgust dimensions (the sex was disgusting/it was unhygienic/it was wrong/immoral). The analysis suggests that the moral disgust dimension was most important, and that the effect of the hygienic disgust dimension was fully accounted for by feeling of the sex being disgusting. In addition, the effect of the moral aspect was moderated by sex, suggesting that the association was stronger for women ($r = 0.55$) than for men ($r = 0.40$), but equally strong for both nations.

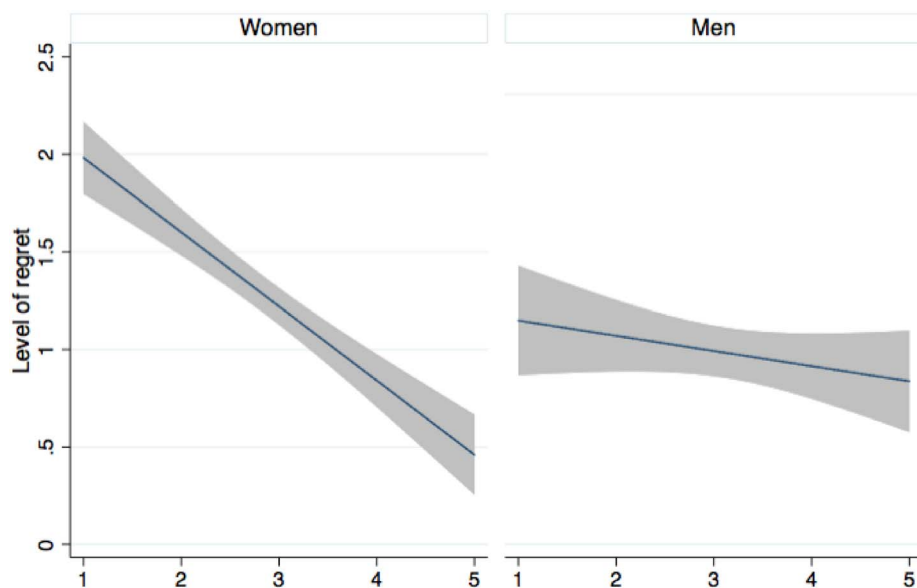


Fig. 1. Level of regret as a function of taking initiative for women and men (fitted values and 95% CIs).

4. Discussion

Why do women more than men regret casual sex? To answer this key question, we examined individual differences that predicted increased or decreased casual sex regret, and explored the extent to which these effects differed for women and men. For the predictors worry and gratification, the current study replicates the findings from the original Norwegian study (Kennair et al., 2016) in both nations. Women's greater worry and lower levels of sexual gratification partially explain why women regret casual sex. The novel proximate predictors in the current study help to explain additional variance in casual sexual regret. Worry, disgust, and experienced pressure were all associated with higher likelihood of regretting casual sex. In contrast, sexual gratification, sexual competence, and initiative were all associated with decreased likelihood of casual sexual regret. Except for worry, these proximate factors affected women's casual sex regret more than men's regret, thereby illuminating key features of women's psychology implicated in regretting casual sex. Importantly, these patterns of sex differences were highly similar across nations.

The multivariate analysis suggests that disgust, worry, a combined

measure of sexual competence and gratification, and initiative all predicted the likelihood of casual sex regret. Taking initiative to engage in casual sex reduced the likelihood of regret for women but not men. The protective effect of initiative on regret for women has important implications. Women presumably take sexual initiative as part of a proactive sexual strategy that involves partners who they find highly desirable. Consequently, this effect on regret could be due to women taking less initiative in partners they do not find highly desirable. Additionally, the relationship between low initiative and regret could be correlated with women experiencing lack of ability to consent to casual sex (e.g. sexual coercion, intoxication). Future research is needed to elucidate these causal pathways.

Sexual competence of the most recent casual sex partner was linked with the level of sexual gratification. The association was strong for both sexes and across nations. One possibility is that gratification results from the sexual competence and skills of the partner. On the other hand, gratification may also be a result of endogenous variables, such as individual differences in orgasm likelihood, guilt over enjoying sexual experiences, and spectating or the act of focusing on oneself from a third-party perspective during sex distracting one from the physical sensations.

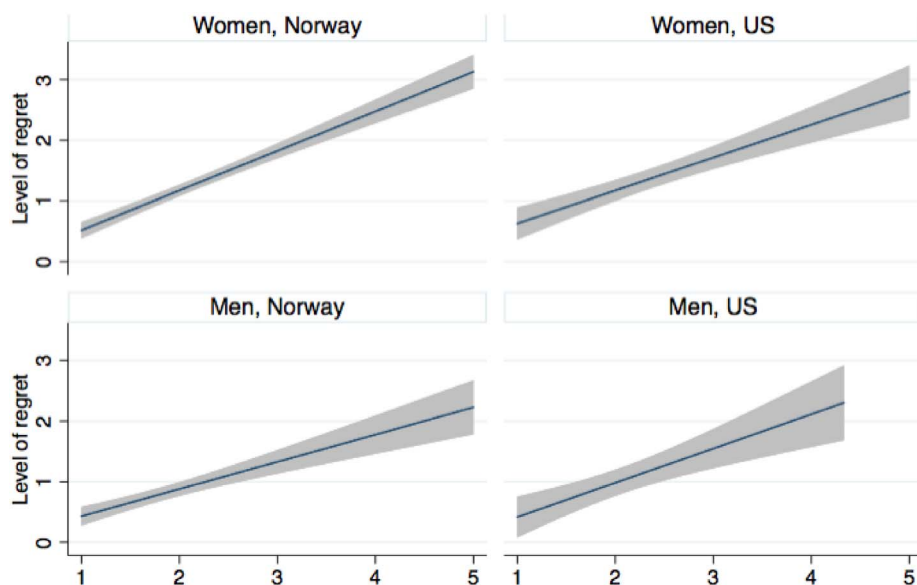


Fig. 2. Level of regret as a function of disgust for women and men in Norway and US (fitted values and 95% CIs).

The most important novel finding in the current study is the role of disgust in predicting casual sex regret. In the multivariate analysis, disgust proved to be the strongest predictor of regret. From an adaptationist view, disgust is an evolved adaptation that guides the organism to avoid (1) contact with pathogens, (2) sexual partners that could compromise one's long-term reproductive success, and (3) individuals who could inflict costs on oneself or members of one's social network (Tybur et al., 2009). Sexual disgust in particular could facilitate avoiding contracting sexually transmitted infections (STIs) and avoiding sex with potential partners of low mate value (Al-Shawaf et al., 2017). The current findings suggest that avoiding these multiple costs of casual sex is a key part of the sexual psychology of men as well as women.

In-depth analyses of the disgust dimensions reveal that casual sex regret was especially strongly predicted by sexual and moral disgust. Despite Norwegians being less concerned about the moral aspect of casual sex than Americans, individual differences in disgust predicted the odds of casual sex regret for Norwegians and Americans at the same magnitude.

4.1. Limitations and future directions

One limitation of the present study is its cross-sectional design, which cannot directly address causality. The core adaptive hypothesis is that regret functions to deter the repetition of past costly or damaging behaviors (Galperin et al., 2013). The sex, for which casual sex is more likely to be costly (women), shows higher rates of regretting casual sex, providing one key line of evidence in support of this hypothesis. Nonetheless, longitudinal studies are needed to assess causal impact of

the different predictors of sexual regret and, not least, the core hypothesized function of regret: that stronger sexual regret predicts lower levels of future casual sex, especially with potential sex partners with whom the multiple costs will be highest, such as those of low mate value, those who show signs of disease, and in social circumstances likely to lead to reputational damage.

While sexual disgust probably is a major reason for sexual regret, there might be other relevant negative emotions such as shame, guilt or emotional difficulties (e.g. loss of self-worth or respect), which may be associated with regretting casual sex. Further research may still uncover major relevant predictors (including effects of intoxication), including predictors more relevant for men. Further, we measured the three disgust dimensions with three single items. Full-scale measures (Tybur et al., 2009) might have produced even stronger associations.

4.2. Conclusions

The current study provides the most comprehensive investigation of multiple proximate predictors of casual sexual regret to date, shedding light upon why women regret casual sex more than men across two nations. The predictive effect is most pronounced for the emotion of disgust, which supersedes all the other predictors, including predictors that have been found in previous research (Bendixen et al., 2017; Kennair et al., 2016) as well as novel predictors in the current study. The current findings may have practical educational and informational implications in highlighting the specific circumstances in which women, and to some degree men, are likely to regret casual sexual encounters.

Appendix A. Correlations between predictors and casual sex regret

Norwegian women (n = 315)

Variable	1	2	3	4	5	6	7
1. Gratification	–						
2. Worry	–0.26	–					
3. Disgust	–0.44	0.50	–				
4. Sex Comp	0.68	–0.16	–0.50	–			
5. Pressure	–0.30	0.43	0.62	–0.31	–		
6. Initiative	0.30	–0.32	–0.41	0.30	–0.48	–	
7. Regret	–0.47	0.41	0.62	–0.44	0.46	–0.41	–

Note. Sex Comp = sexual competence.

Norwegian men (n = 202)

Variable	1	2	3	4	5	6	7
1. Gratification	–						
2. Worry	–0.23	–					
3. Disgust	–0.32	0.43	–				
4. Sex Comp	0.55	–0.19	–0.33	–			
5. Pressure	–0.29	0.40	0.55	–0.23	–		
6. Initiative	0.20	–0.15	–0.09	0.12	–0.16	–	
7. Regret	–0.19	0.31	0.42	–0.22	0.23	–0.10	–

US women (n = 131)

Variable	1	2	3	4	5	6	7
1. Gratification	–						
2. Worry	–0.07	–					
3. Disgust	–0.25	0.46	–				
4. Sex Comp	0.65	–0.06	–0.31	–			
5. Pressure	–0.27	0.42	0.61	–0.17	–		
6. Initiative	0.22	–0.16	–0.20	0.31	–0.36	–	
7. Regret	–0.28	0.43	0.53	–0.33	0.44	–0.31	–

US men (n = 85)

Variable	1	2	3	4	5	6	7
1. Gratification	–						
2. Worry	–0.13	–					
3. Disgust	–0.35	0.41	–				
4. Sex Comp	0.61	–0.20	–0.41	–			
5. Pressure	–0.30	0.22	0.45	–0.21	–		
6. Initiative	0.01	–0.08	–0.19	–0.20	–0.06	–	
7. Regret	–0.36	0.20	0.44	–0.32	0.27	0.00	–

References

- Al-Shawaf, L., Lewis, D. M. G., & Buss, D. M. (2017). Sex differences in disgust: Why are women more easily disgusted than men? *Emotion Review*. <http://dx.doi.org/10.1177/1754073917709940>.
- Bendixen, M., Asao, K., Wyckoff, J. P., Buss, D. M., & Kennair, L. E. O. (2017). Sexual regret in US and Norway: Effects of culture and individual differences in religiosity and mating strategy. *Personality and Individual Differences*, *116*, 246–251. <http://dx.doi.org/10.1016/j.paid.2017.04.054>.
- Bendixen, M., & Kennair, L. E. O. (2017). Advances in the understanding of same-sex and opposite-sex sexual harassment. *Evolution and Human Behavior*, *38*(5), 583–591. <http://dx.doi.org/10.1016/j.evolhumbehav.2017.01.001>.
- Buss, D. M., & Schmitt, D. P. (1993). Sexual strategy theory - An evolutionary perspective on human mating. *Psychological Review*, *100*(2), 204–232. <http://dx.doi.org/10.1037/0033-295X.100.2.204>.
- Conley, T. D. (2011). Perceived proposer personality characteristics and gender differences in acceptance of casual sex offers. *Journal of Personality and Social Psychology*, *100*, 309–329. <http://dx.doi.org/10.1037/a0022152>.
- Eshbaugh, E. M., & Gute, G. (2008). Hookups and sexual regret among college women. *The Journal of Social Psychology*, *148*(1), 77–90. <http://dx.doi.org/10.3200/SOCP.148.1.77-90>.
- Fisher, M. L., Worth, K., Garcia, J. R., & Meredith, T. (2011). Feelings of regret following uncommitted sexual encounters in Canadian university students. *Culture, Health & Sexuality*, *14*(1), 45–57. <http://dx.doi.org/10.1080/13691058.2011.619579>.
- Galperin, A., Haselton, M. G., Frederick, D. A., Poore, J., von Hippel, W., Buss, D. M., & Gonzaga, G. C. (2013). Sexual regret: Evidence for evolved sex differences. *Archives of Sexual Behavior*, *42*, 1145–1161. <http://dx.doi.org/10.1007/s10508-012-0019-3>.
- Garcia, J. R., Reiber, C., Massey, S. G., & Merriwether, A. M. (2012). Sexual hookup culture: A review. *Review of General Psychology*, *16*(2), 161–176. <http://dx.doi.org/10.1037/a0027911>.
- Grøntvedt, T. V., Kennair, L. E. O., & Mehmetoglu, M. (2015). Factors predicting the probability of initiating sexual intercourse by context and sex. *Scandinavian Journal of Psychology*, *56*(5), 516–526. <http://dx.doi.org/10.1111/sjop.12215>.
- Impett, E. A., & Peplau, L. A. (2003). Sexual compliance: Gender, motivational, and relationship perspectives. *The Journal of Sex Research*, *40*(1), 87–100. <http://dx.doi.org/10.1080/00224490309552169>.
- Kennair, L. E. O., & Bendixen, M. (2012). Sociosexuality as predictor of sexual harassment and coercion in female and male high school students. *Evolution and Human Behavior*, *33*(5), 479–490. <http://dx.doi.org/10.1016/j.evolhumbehav.2012.01.001>.
- Kennair, L. E. O., Bendixen, M., & Buss, D. M. (2016). Sexual regret: Tests of competing explanations of sex differences. *Evolutionary Psychology*, 1–9. <http://dx.doi.org/10.1177/1474704916682903>.
- Kennair, L. E. O., Grøntvedt, T. V., Mehmetoglu, M., Perilloux, C., & Buss, D. M. (2015). Sex and mating strategy impact the 13 basic reasons for having sex. *Evolutionary Psychological Science*. <http://dx.doi.org/10.1007/s40806-015-0024-6>.
- Lewis, M. A., Granato, H., Blayney, J. A., Lostutter, T. W., & Kilmer, J. R. (2012). Predictors of hooking up sexual behaviors and emotional reactions among U.S. college students. *Archives of Sexual Behavior*, *41*(5), 1219–1229. <http://dx.doi.org/10.1007/s10508-011-9817-2>.
- Meston, C. M., & Buss, D. M. (2007). Why humans have sex. *Archives of Sexual Behavior*, *36*(4), 477–507. <http://dx.doi.org/10.1007/s10508-007-9175-2>.
- Roese, N. J., Pennington, G. L., Coleman, J., Janicki, M., Li, N. P., & Kenrick, D. T. (2006). Sex differences in regret: All for love or some for lust? *Personality and Social Psychology Bulletin*, *32*(6), 770–780. <http://dx.doi.org/10.1177/0146167206286709>.
- StataCorp (2015). *Stata statistical software: Release 14*. College Station, TX: StataCorp LP.
- Trivers, R. (1972). Parental investment and sexual selection. In B. Campbell (Ed.), *Sexual selection and the descent of man, 1871–1971* (pp. 136–179). Chicago: Aldine.
- Tybur, J. M., Lieberman, D., & Griskevicius, V. (2009). Microbes, mating, and morality: Individual differences in three functional domains of disgust. *Journal of Personality and Social Psychology*, *97*(1), 103–122. <http://dx.doi.org/10.1037/a0015474>.