Extended analyses on sex toy use – solo and partnered – pertaining to the "Reversed orgasm gap" study.

This report has been written in response to a reviewer who suggested further exploration of the associations between the use of sex toys on the one hand and the number of orgasms during partner sex, sexual excitation and sexual inhibition proneness on the other. This extension can be seen as an example of how the current large-scale data collection is not analytically exhausted by the analyses reported in the main text. As the data is freely available, other researchers are invited to investigate their own inroads into these data.

Regarding sex toy use, I first present the histograms that show how many women or men use sex toys during solo or partner sex. The response categories were: "never" (= 1), "rarely" (=2), "sometimes" (=3), "often" (=4), "always" (= 5). What can be seen is that women use sex toys more often during masturbation than men – as reported in the main text, Table 2 (*d* = -1.0). Sex toy use during partner sex is similar for women and men (Table 2, *d* = 0.1), which is to be expected for heterosexual partner sex as percentages of women and men should be approximately equal.

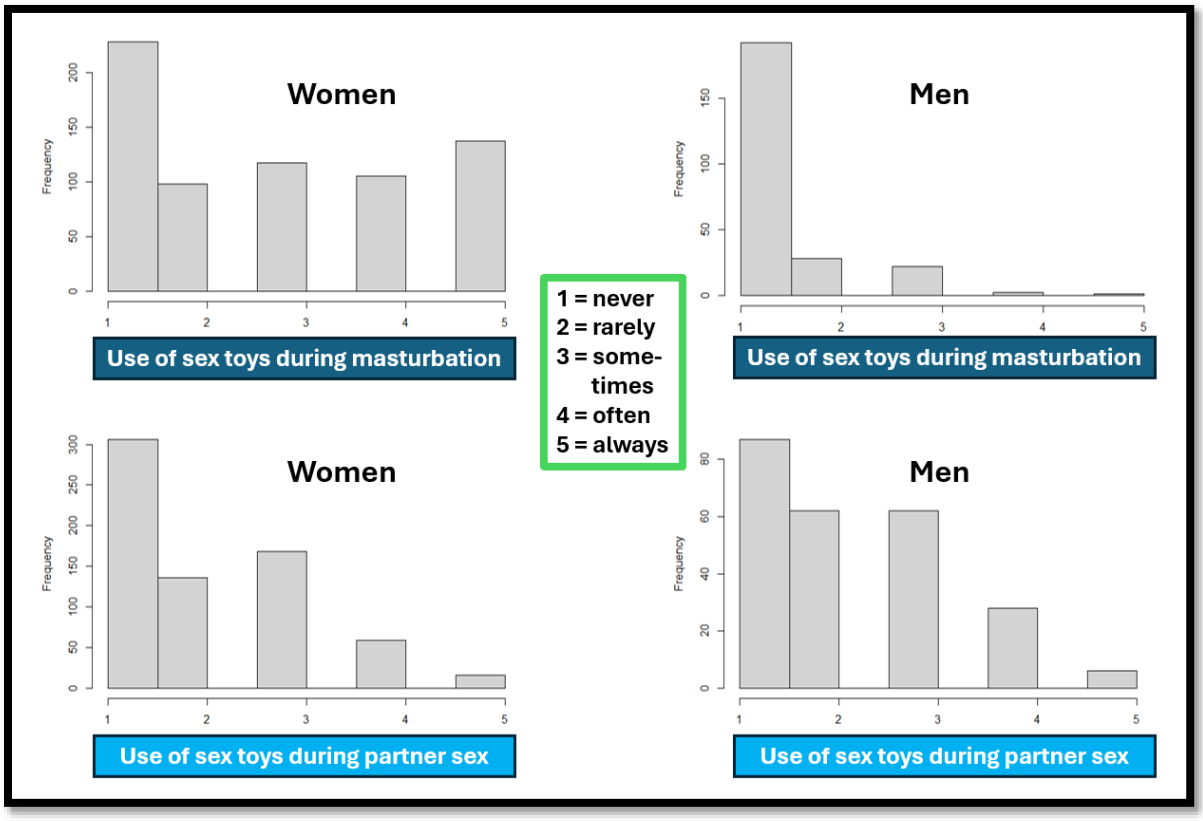


Figure 1. The use of sex toys during masturbation (upper figures) and during partner sex (lower figures) for women (left figures) and men (right figures).

Following, I performed regression analyses for women and men separately in which sex toy use during masturbation and sex toy use during partner sex together predicted three outcomes: 1) number of orgasms during partner sex; 2) sexual excitation proneness; and 3) sexual inhibition proneness. First a model without the interaction of both uses of sex toys was tested with these three outcomes and then the interaction of both sex toy uses was added to the first model. This resulted in 6 times 2 models being analyzed. Here below the results for women and men are reported. In the R-

file from line 908 onwards these results can be found as well. Note that only women and men who had sex in the previous six months were included – thus excluding 9.4% of women and 9.6% of men from the analyses to limit the data to those having partner sex in which they could have used sex toys.

Results Women

Results for women show that sex toy use during partner sex positively predicted the number of orgasms **(*b* = 0.16; *SE* = 0.03; p < .001)** but not sex toy use during masturbation (*b* = -0.04; *SE* = 0.02; *p* = .09). The interaction between both uses of sex toys was not significant in predicting the number of orgasms during partner sex (*b* = 0.02; *SE* = 0.02; *p* = .35).

Results for women show furthermore that sex toy use during partner sex did not predict sexual excitation proneness (*b* = 0.06; *SE* = 0.15; *p* = .70) but that sex toy use during masturbation did **(*b* = -0.54; *SE* = 0.11; *p* < .001).** The interaction between both uses of sex toys was not significant in predicting sexual excitation proneness (*b* = -0.01; *SE* = 0.09; *p* = .88).

Results for women showed finally that sex toy use during partner sex did not predict sexual inhibition proneness (b = -0.31; SE = 0.20; p = .12) and that sex toy use during masturbation did significantly predict sexual inhibition proneness (b = -0.03; SE = 0.15; p = .82). The interaction between both uses of sex toys was not significant in predicting sexual inhibition proneness (b = -0.05; SE = 0.12; p = .70).

Results Men

Results for men show that sex toy use during partner sex negatively predicted the number of orgasms **(*b* = -0.08; *SE* = 0.03; p = .02)** and that sex toy use during masturbation predicted the number of orgasms positively **(*b* = 0.11; *SE* = 0.05; *p* = .04)**. The interaction between both uses of sex toys was not significant in predicting the number of orgasms during partner sex (*b* = -0.06; *SE* = 0.04; *p* = .18).

Results for men show furthermore that sex toy use during partner sex did not predict sexual excitation proneness (*b* = -0.06; *SE* = 0.23; *p* = .78) and that sex toy use during masturbation did also not predict sexual excitation proneness (*b* = -0.07; *SE* = 0.36; *p* = .84). The interaction between both uses of sex toys was significant in predicting sexual excitation proneness **(*b* = -0.69; *SE* = 0.28; *p* = .02)**. Of the six tested interaction effects this is the only one that is found to be significant; it is presented in Figure 2 for further interpretation.

Results for men showed finally that sex toy use during partner sex did not predict sexual inhibition proneness (b = -0.18; SE = 0.29; p = .53) and that sex toy use during masturbation did also not predict sexual inhibition proneness (b = 0.69; SE = 0.46; p = .13). The interaction between both uses of sex toys was not significant in predicting sexual inhibition proneness (b = -0.12; SE = 0.36; p = .75).

Discussion.

While sexual inhibition proneness is not associated with use of sex toys in masturbation or partner sex or their combination – neither for women nor for men – sexual excitation proneness is positively related to higher sex toy use during masturbation for women – women who use sex toys in that context show higher sexual excitation. This association did not extend to partner sex for women as there the association was not significant. For men only the interaction of both uses of sex toys led to

significant results in predicting sexual excitation. Figure 2 represents the interaction: for higher levels of sex toy use during masturbation the association between sex toy use during partner sex becomes a more negative predictor of sexual excitation. For lower levels of sex toy use during masturbation the association between sexual excitation and sex toy use during partner sex becomes is non-significant. This seems to imply that for men using sex toys both during masturbation and during partner sex, this is associated for them with lower sexual excitation – as compared to men using sex toys only during partner sex and not during masturbation. This result is hard to explain, though in interpretating this result Figure 1 needs to be reconsidered which shows most men don't use sex toys during masturbation. To gauge the smaller subgroup of men who use sex toys both during masturbation and partner sex, at least sometimes, an interview study might be conducted, keeping in mind current results regarding lower sexual excitation levels for this group.

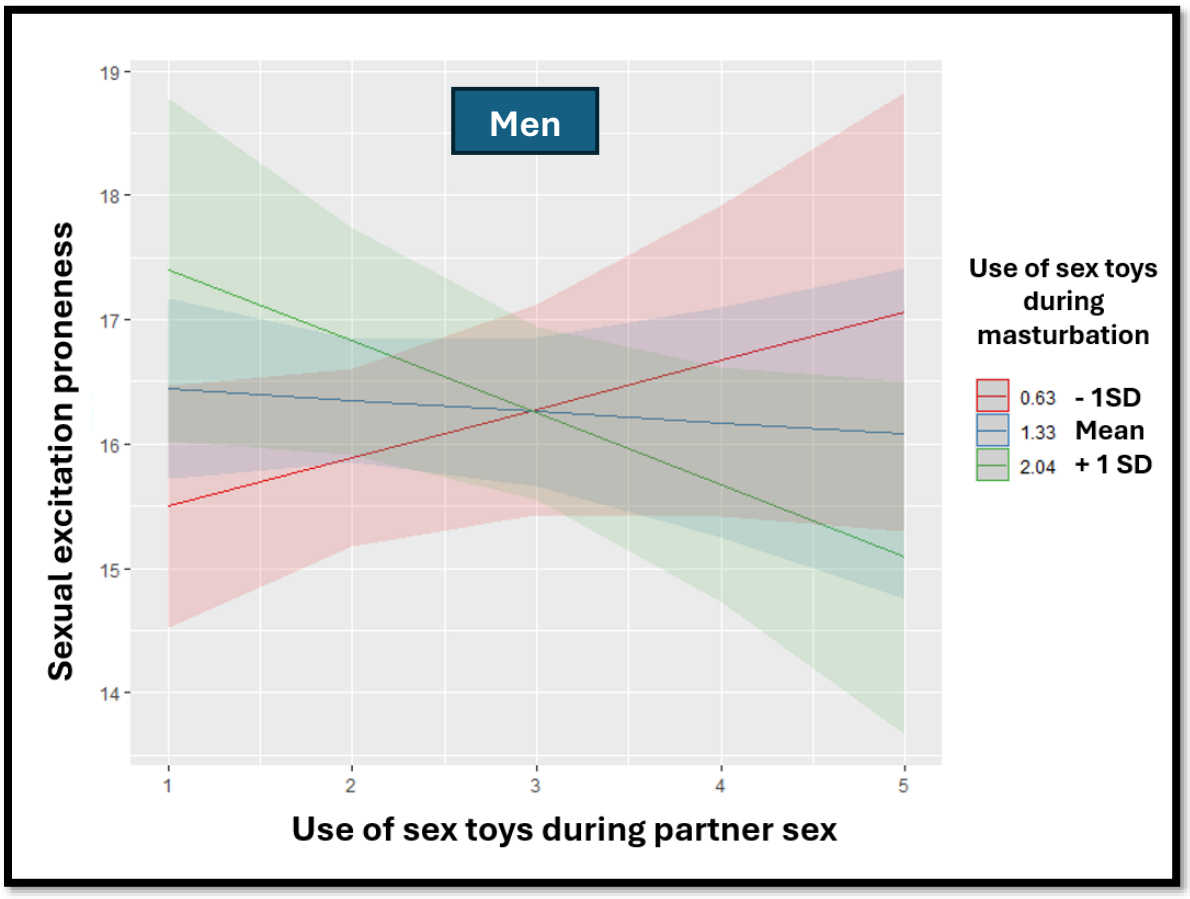


Figure 2. Interaction of use of sex toys during masturbation and during partner sex in predicting sexual excitation proneness for men.

Results regarding the prediction of the number of orgasms during one partner sex session show that for women only sex toy use during partner sex predicts more orgasms. Sex toy use during solo sex is not related with number of orgasms during partner sex for women – showing there is no transference from the solo to the partnered context regarding number of orgasms. For men partnered sex toy use predicted the number of orgasms negatively, while sex toy use during masturbation predicted the number of orgasms positively. While associations seem small, the difference for women between no sex toy use during partner sex and "always" is 5*.16 – 1*.16 = .64 more orgasms during a partner sex session, and this implies sex toy use might benefit women in reaching orgasm – though it might

hamper men at the same time, but to a lesser extent than it benefits women (5*-0.08 – 1*-0.08 = -.32). One might speculate and surmise sex toy use during partner sex leads to more creative sex - diverging from PIV scripts – thus benefitting women. However, also here it would be best to follow-up current explorative results with qualitative studies among women and men with sex toy use experience.