Analytic Plan

All analyses will be conducted using R and the lme4 extension (Bates, Mächler, Bolker, & Walker, 2014; Team, 2013). Significance cutoffs will be set at $p < .05$ for all tests. After checking model assumptions (e.g., linearity, homoscedasticity) and study design assumptions (namely, that drink condition predicted subjective intoxication and estimated amount of alcohol consumed, such that participants reported greater subjective intoxication and estimated a greater amount of alcohol consumed after having consumed alcohol than after having consumed a non-alcohol control beverage), data will be analyzed using a series of mixed effects models in line with the set of aims[1]:

Aim 1. To examine the effect of alcohol on perceptions of physical attractiveness (PPA).

Aim 1a. To examine the effect of rater (i.e., participant) drink condition on PPA, the model will be entered as follows: Aim1a.model = lmer(PPA ~ RaterDrink + (1|Rater:Dyad) + (1|Target), data=aim1a). As illustrated, we will enter rater drink condition ("RaterDrink") as a fixed effect. We will enter intercepts for raters (nested within dyads) and targets as random effects, to account for non-independence of responses within each grouping. A likelihood ratio test will be used to compare the full model with the main effect of drink condition against a model with the effect of drink condition removed. The *p*-value yielded by the model comparison will be assessed to determine if the effect of drink condition is significant. [Subsequent models will incorporate the same random effects, while the fixed effects will differ according to the variable of interest.]

[1] For all analyses, order of drink condition and stimulus set will be entered as covariates, but will be removed if they do not significantly increase model fit.

Aim 1b. To examine the effect of target drink condition on PPA, the model will be entered as follows: Aim1b.model = lmer(PPA ~ TargetDrink + (1|Rater:Dyad) + (1|Target), data=aim1b). I will enter target drink condition ("TargetDrink") as a fixed effect. A likelihood ratio test will be used to assess the significance of the main effect.

Aim 1c. To examine the interaction between rater- and target-drink condition on PPA, the model will be entered as follows: Aim1c.model = lmer(PPA ~ RaterDrink*TargetDrink + (1|Rater:Dyad) + (1|Target), data=aim1c), wherein "RaterDrink*TargetDrink" represents the interaction between rater drink condition and target drink condition, entered as a fixed effect. Using a likelihood ratio test, this model will be compared to a model in which the interaction term is replaced with "RaterDrink + TargetDrink", which represents the respective main effects of rater and target drink condition.

Aim 2. To examine whether orientation-match of target gender and rater sexual orientation moderates the effect of alcohol on PPA**.**

Aim 2a. To examine whether orientation-match moderates the effect of rater drink condition on PPA, the model will be entered as follows: Aim2a.model = lmer(PPA ~ RaterDrink*OrientationMatch + (1|Rater:Dyad) +(1|Target), data=aim2a), wherein "RaterDrink*OrientationMatch" represents the interaction between rater drink condition and orientation-match of the rating (i.e., orientation-matched vs. orientation-mismatched), entered as a fixed effect. Using a likelihood ratio test, this model will be compared to a model in which the interaction term is replaced with "RaterDrink + OrientationMatch".

Aim 2b. To examine whether orientation-match moderates the effect of target drink condition on PPA, the model will be entered as follows: Aim2b.model = lmer(PPA ~ TargetDrink*OrientationMatch + (1|Rater:Dyad) +(1|Target), data=aim2b),

"TargetDrink*OrientationMatch" represents the interaction between target drink condition and orientation-match of the rating, entered as a fixed effect. Using a likelihood ratio test, this model will be compared to a model in which the interaction term is replaced with "TargetDrink + OrientationMatch".

Aim 3. To examine whether sexual-desire alcohol expectancies moderate the effect of alcohol on orientation-matched PPA, the model will be entered as follows: Aim3.model = lmer(PPA ~ RaterDrink*SexualExpectancies + (1+RaterDrink|Rater:Dyad) + (1|Target), data=aim3), wherein "RaterDrink*SexualExpectancies" represents the interaction between rater drink condition and rater sexual-desire alcohol expectancies, entered as a fixed effect. Using a likelihood ratio test, this model will be compared to a model in which the interaction term is replaced with "RaterDrink + SexualExpectancies". This analysis will be limited to orientation-matched ratings regardless of aim 2a findings, as sexual-desire expectancies would not be expected to alter PPA for orientation-mismatched ratings.

Aim 4. To examine the role of mood in the alcohol-PPA relationship.

Aim 4a. To examine the effect of rater drink condition on mood, the model will be entered as follows: Aim4a.model = lmer(Mood ~ RaterDrink + (1|Rater:Dyad) +(1|Target), data=aim5a). A likelihood ratio test will be used to assess the significance of the main effect of rater drink condition on mood.

Aim 4b. To examine the effect of mood on PPA, the model will be entered as follows: Aim4b.model = lmer(PPA ~ Mood + (1|Rater:Dyad) +(1|Target), data=aim5b). A likelihood ratio test will be used to assess the significance of the main effect of mood on PPA. To enhance power, this analysis will be limited to orientation-matched ratings if aim 2a reveals the effect of

rater intoxication on PPA is greatest for orientation-matched ratings. It will include all ratings (regardless of orientation-match) if aim 2a does not reveal a significant effect.