Manipulated Variables

Participant Drink Condition

As noted in the *Procedures* document (*see Sampling plan/Data collection procedures/OSF Procedure_ Stimulus Mode as a Moderator of the Effect of Alcohol on PPA.pdf*): Drink condition (alcohol vs. no-alcohol control) will be randomized by dyad and counter-balanced across sessions. The drink procedure will follow a protocol used in prior studies conducted at the ASRL (e.g., Sayette et al., 2012). For the alcohol condition, a 0.82g/kg dose of alcohol will be provided (e.g., a 150-lb male will receive about five ounces of vodka) and participants will be informed that their drinks contain alcohol. The drink will be one part 100 proof vodka and 3.5 parts cranberry-juice cocktail. For the control condition, participants will receive cranberry-juice cocktail and will be told that their drinks do not contain alcohol. Total beverage will be isovolumetric in the alcohol and control conditions.

Participants will receive one half of their beverage at minutes 0 and 18, respectively, such that they will consume entire beverage across 36 minutes. They will be asked to drink each half evenly over the 18 minute intervals. Immediately after the second half is finished (minute 36), participants will rinse their mouths with water, provide another BAC breath sample, and will report their subjective intoxication. In both conditions, participants will be informed that they are permitted to talk during the drinking period but will be asked to refrain from commenting on their perceived intoxication.

Attractiveness Rating Task

Attractiveness stimuli will be derived from video footage of individuals who participated in a previous study conducted in the ASRL (see Sayette et al., 2012) and who consented to having their videos used in future research. Videos were obtained during a triadic group-

formation drinking period, wherein 160 three-person groups of strangers were brought into the lab and were administered either alcoholic or non-alcoholic control beverages.[1] Three cameras were positioned to capture each participant's face. Participants were told were told the cameras were used to monitor drink consumption.

[*Irrelevant to the present aims*: **Target drink condition.** The drink condition of the targets (i.e., the individuals in the images being perceived) will be defined by the whether the target had been assigned to the alcohol condition or the no-alcohol control condition for the study in which he/she participated. Beverage dosing in the study that the targets participated in mirrored the dosing to be used for participants in the present study with two exceptions: (a) In the prior study drinks were consumed across three 12-minute periods, rather than across two 18-minute periods as will be done in the present study; (b) Females in the prior study received a 0.74-g/kg dose of alcohol. Stimuli will be derived from video footage of the last 12 minutes of the drinking period in the previous ASRL alcohol study, to ensure alcohol-consuming participants are captured nearest their peak intoxication.]

Stimulus mode. We recently concluded a study (n = 181) testing the effect of stimulus mode on attractiveness ratings (using sober participants and images derived only from the control-beverage condition) to inform the modes of stimuli to be used in the present study. Results of the recently completed study indicated that attractiveness ratings were higher for smiling (as opposed to neutral expression) and dynamic (as opposed to static) images (Bowdring et al., in prep). These presentation styles (smiling vs. neutral, static vs. dynamic) will be fully crossed such that the following four stimulus modes will be used in the present study: static

[1] The previous study had 240 groups total, wherein 80 consumed placebo beverages. However, the present study will only derive images from the alcohol and control groups, so as to mirror the beverage conditions of the raters.

neutral, static smiling, dynamic neutral, and dynamic smiling images. Static neutral images will offer consistency with past studies of alcohol and perceptions of physical attractiveness (PPA) that have relied on this stimulus mode and will enable comparison with the more ecologically valid stimulus modes that incorporate emotional expression and movement, thereby informing future research.

Videos were previously coded using Paul Ekman's Facial Action Coding System (FACS; Ekman & Friesen, 1978), which is the gold standard for measuring visible facial movements thought to be related to emotion. This coding, as well as previously coded speech and beverage sipping behaviors, informed the frames of video extracted for stimuli creation. Frames from each stimulus type were non-overlapping with one another (e.g., the static smiling stimulus presented a different smile than did the dynamic smiling stimulus for a given target; Rennels & Kayl, 2015; Roberts et al., 2009). Sipping behavior and presence of the cup were absent from all images. Eye gaze was held constant across stimuli, such that eye gaze was never directed at the camera, as eye-gaze can alter PPA (Conway, Jones, DeBruine, & Little, 2008) and camera-directed eye gazes were too rare in our dataset to facilitate extraction of a sufficient quantity of stimuli with direct gazes. Each stimulus type will be defined by the following criteria:

Static images. Static images will be single frames of video.

Static neutral. Static neutral images will be defined by the absence of Action Units (AUs; Ekman & Friesen, 1978).

Static smiling. Static smiling images will be defined by the presence of the genuine, "Duchenne," smile – AUs 6 (cheek raiser) + 12 (lip corner puller) – (Ekman & Friesen, 1982), along with AU 25 (lips part), as open mouth criteria has been applied in previous research and has been shown to increase smile authenticity (compared to closed-mouth Duchenne smiles;

Korb, With, Niedenthal, Kaiser, & Grandjean, 2014; Krumhuber, Manstead, Cosker, Marshall, & Rosin, 2009).

Dynamic images. Dynamic images will be five-second periods of video in which the target was talking[2], as has been done in past research in order to capture facial dynamics that are typical of perception experiences in natural social interactions (Penton-Voak & Morrison, 2011; Rennels & Kayl, 2015).

Dynamic neutral. Dynamic neutral images will be defined by the absence of AUs.

Dynamic smiling. Dynamic smiling images will be defined by the presence of AUs 6 (cheek raiser) + 12 (lip corner puller) + 25 (lips part), wherein AU 6 was not present at the start of the clip but occurred at some point and remained present through the end of the clip (such that the image displayed the onset, but not offset, of the Duchenne smile, as the onset of a smile encompasses a key component of the social signal; Cohn & Schmidt, 2004; Leonard, Voeller, & Kuldau, 1991).

[2] Our previous study using sober participants found no main effect of audio-accompaniment on attractiveness ratings (Bowdring et al., in prep), which may be in part due to considerable variability in the content and quality (e.g., volume, clarity) of vocalizations. Thus, because inclusion of audio would likely be confounded and because the present study focuses on alcohol's effect on perceptions of *physical* attractiveness (Post, Haberman, Iwaki, & Whitney, 2012), dynamic images will be audio-free. Because acoustics can be altered by alcohol and because vocal cues can alter perceptions of attractiveness (Raines, Hechtman, & Rosenthal, 1990), incorporation of audio into PPA stimuli may be a direction of interest for future research.