



Short Communication

Beyond personality—Experimental investigations of the effects of personality traits on *in situ* alcohol consumption in social and solitary drinking contexts

Hervé Kuendig ^{a,*}, Emmanuel Kuntsche ^{a,b}

^a Addiction Switzerland, Research Institute, Lausanne, Switzerland

^b Radboud University, Behavioural Science Institute, Nijmegen, The Netherlands

HIGHLIGHTS

- ▶ Little is known on personality traits association with *in situ* alcohol consumption;
- ▶ Associations were recorded between personality traits and *in situ* consumption;
- ▶ Neuroticism and conscientiousness associated with consumption in solitary contexts;
- ▶ These associations were overwhelmed by contextual influence in social contexts.

ARTICLE INFO

Keywords:

Personality
Alcohol use
Social context
Analog measurement
Experimental design

ABSTRACT

Numerous studies have highlighted that personality traits are associated with alcohol problems and disorders; however, little is known on the link between personality and the quantities of alcohol actually ingested during given drinking episodes (i.e. *in situ* alcohol consumption, in grams of pure alcohol). Based on data of 123 young adults who participated in two wine-tasting assignments (one performed in group, the other individually; sequence of participation assigned at random), the results from regression models suggest that individual characteristics and personality traits are, to some extent, associated with *in situ* alcohol consumption, but contextual factors (e.g., in line with behavioral exposition and perceptions of norms) might overwhelm such associations in a social context, or later on in similar drinking contexts. These findings argue for the development of early preventive initiatives focusing on social influences and on specific drinking context.

© 2012 Elsevier Ltd. All rights reserved.

1. Introduction

Experimental studies provide evidence that the drinking behaviors of others, confederates or co-participants, serve as models for subjects' drinking (Caudill & Marlatt, 1975; Larsen, Engels, Granic, & Overbeek, 2009), and that imitation or modeling effects are influenced by individual, social, and situational factors (e.g., sex, age, usual drinking, type of interaction between protagonists, experimental settings, see Quigley & Collins, 1999). Recently, we hypothesized, based on results from an experimental study regarding the effect of social exposure on *in situ* alcohol consumption (i.e., the quantity of alcohol ingested in given situations), that normative perceptions might affect consumption over and above imitation effects (Kuendig & Kuntsche, 2012). While the effects of gender, age, and usual drinking were accounted for in this study, the effects of personality traits were not. Yet, studies have highlighted that personality traits are associated with drinking patterns (Atwell, Abraham, &

Duka, 2011). For instance, extraversion has been reported as positively associated with risky alcohol use (Cook, Young, Taylor, & Bedford, 1998; Cooper, Agocha, & Sheldon, 2000; Hussong, 2003; Malouff, Thorsteinsson, Rooke, & Schutte, 2007), whereas negative associations have been reported between alcohol use outcomes and neuroticism and conscientiousness (Cook et al., 1998; Hussong, 2003; Loukas, Krull, Chassin, & Carle, 2000; Malouff et al., 2007). However, some results contrast with these overall trends (Littlefield, Sher, & Wood, 2010), and meta-analyses have highlighted that *personality–alcohol use* associations are moderated by the study population characteristics (e.g., problem drinkers vs. general population, Malouff et al., 2007). Moreover, most of the published results relate to outcomes in line with alcohol use problems or disorders. To our knowledge, the *personality–alcohol use* association has never been investigated based on direct measures of consumption (i.e. non-self reported).

This study herein documents the effects of personality traits on *in situ* alcohol consumption – i.e. the quantity of alcohol actually ingested on a given occasion – of young adults who participated in wine-tasting experiments. The study first addresses the associations of personality with *in situ* alcohol consumption in different social contexts. Second, it investigates the stability of associations, given the

* Corresponding author at: Addiction Switzerland, Research Institute, PO Box 870, CH-1001 Lausanne, Switzerland. Tel.: +41 21 321 29 48; fax: +41 21 321 29 40.

E-mail address: hkuendig@addictionsuisse.ch (H. Kuendig).

absence or existence of prior-exposition to analogous drinking circumstances. Based on prior findings, we expected that *in situ* alcohol consumption would be associated positively with extraversion, but negatively with neuroticism and conscientiousness.

2. Material and methods

Data was obtained from a taste-rating experiment conducted between September and November 2010. Sixty-seven female and 56 male drinkers ($N=123$) aged 18 to 25 years (average age = 21.9 years, $SD=1.9$), recruited using Blackboard and e-mail announcements at Lausanne University (Switzerland), participated in two wine-tasting sessions with about one month between the sessions. One session was conducted in a group, the other was conducted individually (*group condition* vs. *individual condition*). The order of the sessions (*group-individual* or *individual-group*) was assigned at random. Eligibility criteria included subjects aged between 18 and 25 years, and to have no significant health constraints (e.g. pregnancy) or history of a psychiatric/substance use disorder. Furthermore, likely problematic drinkers were not eligible for ethical reasons (AUDIT score > 10, see Reinert & Allen, 2007). The group sessions exclusively consisted of either unacquainted men or women co-subjects (i.e. to avoid possible gender and peer group effects, and to keep the experimental condition as uniform as possible). In the *group condition*, four to eight participants completed the wine-tasting together. Interactions and discussions were stimulated/moderated by research assistants. In the *individual condition*, participants were strictly separated to avoid interaction and visual contact. In both conditions, subjects were served four glasses of wine that each contained exactly 12 g of ethanol. The tasting period itself lasted 25 min. Further details on recruitment and experimental protocols can be found elsewhere (Kuendig & Kuntsche, 2012; Kuntsche & Kuendig, 2012). The study was approved by the Ethics Committee for Research on Human Beings of Vaud Canton (Switzerland; protocol 165/10).

2.1. Measures

2.1.1. Baseline questionnaire

Data on socio-demographics (female coded as 0, male as 1, age in years), usual drinking (measured using the AUDIT-C score, Mean = 4.64, $SD=1.35$, see Reinert & Allen, 2007), and personality traits were collected using an online questionnaire. The three personality dimensions of *conscientiousness* (e.g., "I'm pretty good in pacing myself so as to get things done"), *extraversion* (e.g., "I like to have a lot of people around me"), and *neuroticism* (e.g., "I often feel inferior to others") were addressed via 36 items adapted from the NEO-FFI personality inventory (Costa & McCrae, 1992). All three dimensions – i.e. average scores on subsets of 12 items rated on 5-point Likert scales ranging from "strongly disagree" (coded as 0) to "strongly agree" (4) – had high internal consistency: Neuroticism, Mean = 2.33, $SD=0.69$, Cronbach's $\alpha=0.86$; Conscientiousness, Mean = 3.85, $SD=0.64$, $\alpha=0.87$; Extraversion, Mean = 3.57 ; $SD=0.48$, $\alpha=0.72$ (note that $\alpha>.7$ was considered satisfactory, see Nunnally & Bernstein, 1994). No difference in terms of demographics ($t_{age}=0.48$, n.s.; $\chi^2_{sex}(df=1)=1.42$, n.s.), usual drinking ($t_{AUDIT-C}=-.09$, n.s.), or personality dimensions' scores ($t_{extraversion}=-.43$, n.s.; $t_{neuroticism}=.75$, n.s.; $t_{conscientiousness}=-.02$, n.s.) was found between the subjects starting participation in the *individual* vs. the *group condition*.

2.1.2. Analogue measurement

In situ alcohol consumption during the first (*session 1*) and second (*session 2*) assignments was recorded in grams of ethanol by means of calibrated digital high-precision scales with error margins of less than 0.1 g. Consumed quantities were determined by subtracting

the remaining quantity in the glasses and spit containers from the quantity served.

Average alcohol consumption (in gram per subject) for every session in the first experimental phase (*session 1*) was computed based on individual measures. This was considered at individual level as a proxy for *prior behavioral exposition* in analyses conducted on *session 2* data (as effects of prior-exposition to behavioral norms were expected).

2.2. Analytic strategy

Three sets of two linear regression models were estimated to investigate the associations of personality traits with *in situ* alcohol consumption in different social contexts and given prior-exposition to analogous drinking circumstances. The first set of models used data from the first experimental phase (*session 1*); the second and third sets utilized data from the second phase (*session 2*).

The first set of two regressions – one considering data of *individual condition*, *Model 1a*, the other data of the *group condition*, *Model 1b* – regressed *in situ* consumption in *session 1* on sex, age, AUDIT-C score, and the three personality dimensions (conscientiousness, extraversion, neuroticism). The second set of models (*2a* and *2b*) applied the same statistical modeling on the data from the second experimental participation (*session 2*). The third set of models (*3a* and *3b*) considered the proxy measure of *prior behavioral exposition* as an independent predictor to investigate the effect of prior-exposition to behavioral norms. These models accordingly regressed *in situ* consumption (*session 2*) on sex, age, AUDIT-C score, and the personality dimensions, as well as the average alcohol consumption, as recorded during the session a participant took part in previously. The effects of various confounders on the personality-consumption associations were further investigated through regression models controlling for characteristics in line with group sessions' context (i.e. number of co-subjects, interactions' intensity, and atmosphere/agreeableness of interactions) and participants' own consumption in the first session.

Analyses were performed using the PASW/SPSS 18.0.3 software. Standardized coefficients (β) and adjusted R^2 are reported (Table 1).

3. Results

During the first experimental phase, an average of 13.29 and 18.93 g was consumed in *individual* and *group conditions*, respectively. In contrast, during *session 2*, consumption was higher in the *individual condition* (21.25 g), than in the *group condition* (17.14 g).

The first set of regressions highlighted differences regarding the influence of independent variables on *in situ* consumption under the two experimental conditions in *session 1* (Table 1): sex, usual drinking, and the two personality factors neuroticism and conscientiousness, were significantly associated with *in situ* consumption in the *individual condition* (*Model 1a*), but only participant sex and age showed such an association in the *group condition* (*Model 1b*).

The second set of models reveals that whereas no personality trait showed an association with consumption (*session 2*) in the *individual condition* (*Model 2a*), conscientiousness was associated with *in situ* consumption in the *group condition* (*Model 2b*; i.e., among participants for whom an association between consumption and conscientiousness was observed in *session 1*, see *Model 1a*). In *Models 3a* and *3b* the adjustment for *prior behavioral exposition* made the association between sex and consumption (significant in *Models 2a/2b*) non-significant in both conditions. However, the association between conscientiousness and consumption in the *group condition* (*Model 3b*) remained significant. Models controlling for the effects of group session characteristics, and with participants' own consumption in *session 1* did not reveal meaningful changes in the results regarding

Download English Version:

<https://daneshyari.com/en/article/10443359>

Download Persian Version:

<https://daneshyari.com/article/10443359>

[Daneshyari.com](https://daneshyari.com)