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## **Unplanned reaction or something else? The role of subjective cultures in hazardous and harmful drinking**

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### Abstract

This study compares the impact of levels of impulsivity and subjective cultures through which subjects interpret their experience of the social environment on the probability of hazardous and harmful alcohol use. A sample of 501 participants from Southern Italy completed a series of questionnaires in order to detect their subjective cultures and levels of impulsiveness (attentional, motor and non-planning). Moreover, alcohol consumption, drinking behavior, alcohol-related problems and adverse reactions during the past year were assessed. A sub-group of hazardous and harmful drinkers (n = 106; 21%) was identified and a healthy control group (n = 127; 25%) was selected. Members of the hazardous and harmful group view the social environment as a significantly more unreliable place, and also scored higher on motor impulsiveness and lower on non-planning impulsiveness. Discussion considers theoretical and clinical implications of the results.

### Keywords

Southern Italy

Hazardous and harmful alcohol use

Cultural factors

Subjective cultures

Impulsivity

### 1. Introduction

Most social science explanations emphasize individual motivations for human behavior. Accordingly, maladaptive pattern of behavior is conceptualized in terms of a faulty, erratic psychological mechanism, due to which the individual is no longer able to operate “realistically”, according to the principles of normal, healthy, goal-oriented behavior. Psychopathology is considered in terms of functional impairment or disability (Bergner, 1997). An epistemology of sickness and disease is recognizable also in the earlier theorization on hazardous and harmful alcohol use (Fingarette, 1988). More than 70 risk factors have been associated with substance use (Swadi, 1999) and the identification of the individual determinants (i.e., subjective norms, irrational belief, poor impulse control, biochemical and genetic factors) has been the main focus of the most of the psychological literature.

On the other hand, in the past two decades, there has been a growing interest in the role of social and cultural factors in affecting drinking behavior (Heath, 1995). There are several bodies of evidence and a number of systematic reviews on the influences of family (Hayes et al., 2004), peer (Leung et al., 2014) and environment-related factors (Wagenaar et al., 2010) in the initiation and use of alcohol. Ecological models have been proposed to provide comprehensive frameworks for understanding the multiple and interacting determinants of the problem patterns of alcohol consumption (Sallis et al., 2008, World Health Organization, 2014).

This paper is a contribution to this line of thought. We argue that the personal and socio-cultural meanings (Valsiner, 2007) in terms of which actors interpret individual and contextual characteristics may play a major role in affecting maladaptive behavioral patterns, that place individuals at risk for adverse health events, as in hazardous alcohol use, or that result in physical or psychological harm, and serious social consequences, as in harmful alcohol use (Saunders et al., 1993). Cross-cultural, ethnographic, anthropological studies, as well as research in the field of cultural psychopathology, give evidence in support of the idea that "context" (interpersonal environment, social norms, socio-economic variables, cultural factors) influences health trajectories over the life course (Kroenke, 2008), defines sources of distress and impairment (Cox et al., 2011) and different protective/risk factors (Bloomfield et al., 2006). This cultural standpoint does not overlook the fact that, the propensity for substance use may be rooted, in part, in biological factors and emotional or mood disorders; rather, it underlines that the psychological value (i.e., the meaning) and the effects of individual elements on people's adaptation should be interpreted according to the culture the subject is part of.

Within these general premises, firstly, we will examine the role of impulsivity in hazardous and harmful alcohol use, a risk factor cogently presented in the literature, in the light of the cultural dimensions that seem to effect the way impulsivity is expressed. Then, we will argue that the subjective cultures (Triandis, 1972, Venuleo et al., 2014b) through which subjects interpret their experience of the social environment play a major role in increasing/decreasing the probability of hazardous and harmful alcohol use. Finally, an empirical study will be presented where the role of impulsivity and subjective cultures in differentiating Italian hazardous and harmful drinkers and non-drinkers was examined.

## 2. Cultural variations of impulsive behaviors

Historically, impulsivity is the most frequently cited risk factor for maladaptive behaviors (Anestis et al., 2007), such as hazardous and harmful alcohol use. Despite the varied definitions of impulsivity (see Dawe and Loxton, 2004), widely recognized as a multidimensional construct, authors converge in the general idea that impulsiveness or some specific facets of it, makes individuals more prone to engage in approach behavior without considering the consequences.

Although empirical evidence has been found with higher levels of impulsivity among hazardous and harmful drinkers (Lawrence et al., 2009, Rubio et al., 2008), others have failed to support this link (Papachristou et al., 2012). It is beyond the scope of this article to offer a comprehensive analysis of the factors which might explain the discordant results at a theoretical and methodological level (for a review, see Dick et al., 2010). We cite evidence here only to illustrate a key point. The works reviewed above share the assumption that the link between alcohol and impulsivity works is invariant, independent of socio-cultural and personal cultural meaning. Yet, one has to recognize that impulsivity may be expressed through very different behaviors in everyday life (talking on the phone while crossing the road, risky driving, risky sex, gambling...), corresponding to different levels of harm and social adaptation (Gullo and Dawe, 2008, Schulenberg and Maggs, 2002). It is reasonable to assume that people who are high on impulsivity are, remain, or become hazardous drinkers (rather than hazardous gamblers, drivers and so on) when their impulsivity interacts with a social and cultural environment that allows their drinking to begin and to maintain. This argument is supported by the evidence that, although impulsivity as a trait is universally recognizable, hazardous and

harmful drinking and other impulsive behaviors have a different prevalence in different historical periods and in different societies (Rehm et al., 2003). Variation in the meaning that different impulsive behavior acquires from one culture to another may play a role in these different rates. In certain cultures, drinking (as well as driving fast, smoking marijuana and other risky behaviors) is deplored as irrational and irresponsible, while among other cultures the same behavior can be approved and encouraged (Sznitman et al., 2013).

In addition, there is a body of research that highlights how the effect of interpersonal and social influence may also differ from one culture to another. It is recognized, for instance, that collectivistic cultures emphasize values such as conformity, obedience, and in-group harmony. These, in turn, encourage people to adjust their behavior to the group more than individualistic cultures (Hofstede, 2001). Individualism and collectivism were found to affect a variety of risky behaviors, like hazardous alcohol use, illicit drug use, unsafe sexual behavior, and impaired driving, whose rates are higher in nations with more individualistic cultural orientations, and lower in collectivistic cultures (Schwartz et al., 2011).

Other studies have focused on the importance of culture conflict, acculturative stress identification, and parent-youth differential acculturation in modifying psychosocial vulnerability for alcohol and drug abuse (Cox et al., 2011, De la Rosa, 2002, Martinez, 2006). On the whole, this line of research provides support to the idea that the probability of risky behavior, like hazardous and harmful drinking, may be stronger for some people, expressing a certain position and attitude towards the role demand made on people by their social and cultural environment, than for others.

Yet, cultural characteristics (e.g., individualism and collectivism) are not global constructs that invariantly characterize members. Variation in cultural influences may be equally great within the same society boundaries (Cox et al., 2011). Thus, we argue that incorporating culture for the understanding of hazardous and harmful alcohol use furthers the acknowledgment of the cultural differences among groups characterized by different ethnicity, race and nationality and entails the recognition of the intra-variability of the culture.

### 3. Subjective cultures and people's adaptation

In accordance with a semiotic, cultural standpoint (Olds, 2000, Shweder and Sullivan, 1990, Salvatore and Venuleo, 2013), our work focuses on the impact that the subjective cultures used by subjects to interpret their social environment have on hazardous and harmful alcohol use. The term subjective culture can be found originally in Triandis, 1972, Triandis, 2002, and includes ideas about how to make the elements of material culture, how to live properly, and how to behave in relation to objects and people. However, whereas for the author the subjective culture is a society's "characteristic way of perceiving its social environment" (Triandis, 1972, p. viii, 3), we recognize that within the same society many subjective cultures may be expressed (Valsiner, 2012). Furthermore, whereas Triandis makes beliefs, norms, values, attitudes, rules and tasks elements of subjective culture, we regard these elements as the by-products of a system of meaning grounding beliefs, norms, values, rules, and so on (see Venuleo et al., 2014b).

Meaning has to be conceived as the by-product of a field dynamics (sensemaking), where individuals, the situated system of activity and culture (Valsiner, 2012) recursively interact with each other (Linell, 2009, Salvatore and Venuleo, 2013). On one hand, culture provides the semiotic resources grounding the way of perceiving and experiencing the social world, and therefore constrains the virtually infinite ways in which people can interpret their shared experience. On the other hand, human subjects take an active part in the semiotic cultural process in which they are embedded.

Based on a joint semiotic and psychodynamic perspective (Salvatore and Venuleo, 2008, Salvatore and Venuleo, 2009), in the attempt to define the relationship between shared socio-cultural forms of thinking

and acting (what we are referring to as culture) and the variability of the ways such forms are expressed by different individuals and groups (Cohen, 2009), it was proposed to interpret culture as the interweaving of generalized meanings encompassing the whole experience (Salvatore and Venuleo, 2013). Believing that life is a “question of luck”, or rather “of effort and pain” is an example of generalized meaning, which does not concern a specific aspect, but encompasses the experience as a whole. Any generalized meaning can be conceived as a polarity of an oppositional dimension, called a dimension of sense – e.g. pleasant versus unpleasant; trustworthy versus untrustworthy; familiar versus unfamiliar (Mossi and Salvatore, 2011, Venuleo and Guacci, 2014). Subjective culture can be regarded as a particular plotting of basic positions on those dimensions of sense (for instance, a combination of the position ‘trustworthiness’ on the ‘trustworthiness–untrustworthiness’ dimension of sense and the position ‘dependence’ on the ‘dependence–autonomy’ dimension of sense), namely a particular system of meanings that each person uses to enact their own interpretation of the cultural system in which they are embedded.

As systems of meanings, subjects' subjective cultures are not merely different abstract judgments, but different ways of experiencing the social environment, of being channeled to act and react in a certain way. Some subjective cultures encourage beliefs, feelings, behaviors that are related to interpersonal and social tasks, rules and goals – such as high commitment on the rules – while others do not. Consistent with this general tenet, in previous studies, subjective cultures were found to affect the dropping out of undergraduate students (Venuleo et al., 2014a), as well as pathological gambling (Venuleo et al., 2014b).

Our argument is that subjective cultures have different capacities of encouraging maladaptive patterns of behavior, including hazardous and harmful alcohol use. Generally speaking, the capacity to protect from problematic patterns of alcohol consumption reflects the consistency between the beliefs, feelings and actions motivated by the subjective culture and the role demands made on the subject by his social environment (see Venuleo et al., 2014a). Imagine a person interpreting the social environment he/she is part of as the worst of all possible worlds, where everyone acts in their own self-interest and there is no place for mutuality and reciprocal obligations. It is plausible that within this image of the social environment, people are less motivated to control behavior and conform to social norms in society. In similar circumstances, behavior related to the lack of control (as hazardous and harmful alcohol use is traditionally understood) might reflect this interpretation of one's own environment and its rules. The higher rates of involvement in high-risk behaviors among minority groups (Factor et al., 2011), as well as the results coming from studies which explore the relationship between social bonding (conventional moral belief, attachment, and commitment/involvement) and risky behavior (Longshore et al., 2005) offer indirect support to this hypothesis. They highlight how substance use could be interpreted as a means of rebelling against the traditional belief systems of parents or extended community (Cox et al., 2011).

#### 4. Aim of the study

The study sets out to analyze how subjective cultures relate to hazardous and harmful alcohol use. The effect of the main dimensions of sense composing subjective cultures on the probability of hazardous and harmful alcohol use is compared with measurements of impulsivity.

Our hypotheses are that:

a) Hazardous and harmful drinkers differ from non-drinkers (i.e., control subjects) in both their level of impulsivity and their subjective cultures, namely in their positions on latent dimensions of sense composing the cultural universe they belong to;

b) Consistent with belonging to subjective cultures consistent with involvement in the social environment, respondents will show a lower probability of hazardous or harmful alcohol use than subjects adhering to subjective cultures inconsistent with such demands.

## 5. Method

### 5.1. Participants

The study was conducted in Lecce, a medium-sized town in South-Eastern Italy. The study is based on a convenience sample of 501 participants (mean age  $30.11 \pm 11.405$ ) recruited in six different contexts: undergraduate courses at the University of Salento ( $n = 90$ ); casinos ( $n = 23$ ); public health services for addiction treatment ( $n = 113$ ); bars ( $n = 95$ ); the help center for immigrants and disadvantaged ( $n = 45$ ); and others recruited in no-specific contexts, like streets, park, and squares ( $n = 135$ ). The subsample recruited within the public health services consists of in-patient individuals: 13 (11.5%) were identified as people having problems related to gambling, 30 (26.5%) problems related to alcohol use, 5 (4.4%) problems related to drug use, 29 (25.7%) problems related to more addictions, 36 (31.6%) problems related to other kind of addictions.

Socio-demographic characteristics of the sample, disaggregated for the six contexts, are reported in Table 1. The six subsamples show significant differences on all characteristics.

**Table 1**  
Socio-demographic characteristics of the sample.

Variable	Public health services $n = 113$	Casino $n = 23$	Undergraduate course $n = 90$	Bar $n = 95$	Help centers $n = 45$	No-specific contexts (streets, park, squares) $n = 135$	Total $N = 501$	$\chi^2$	p-value
Gender	Male	97 (86%)	18 (78%)	12 (13%)	61 (64%)	17 (38%)	76 (56%)	120.67	0.000
	Female	16 (14%)	5 (22%)	78 (87%)	34 (36%)	28 (62%)	59 (44%)		
Marital status	Single	62 (55%)	21 (92%)	85 (95%)	84 (89%)	16 (36%)	105 (78%)	161.11	0.000
	Married	20 (18%)	1 (4%)	1 (1%)	5 (5%)	27 (60%)	12 (9%)		
	Cohabiting	11 (10%)	0	4 (4%)	4 (4%)	1 (2%)	8 (6%)		
	Separated	15 (13%)	1 (4%)	0	2 (2%)	1 (2%)	4 (3%)		
	Divorced	4 (4%)	0	0	0	0	5 (3%)		
	Widow	0	0	0	0	0	1 (1%)		
							1 (0%)		
Job status	Employee	22 (19%)	12 (52%)	1 (1%)	24 (25%)	14 (31%)	29 (21%)	316.28	0.000
	Freelancer	11 (10%)	5 (22%)	1 (1%)	12 (13%)	6 (13%)	23 (17%)		
	Unemployed	70 (62%)	4 (18%)	1 (1%)	10 (11%)	9 (20%)	16 (12%)		
	Student	1 (1%)	1 (4%)	87 (97%)	47 (49%)	6 (13%)	55 (41%)		
	Others	9 (8%)	1 (4%)	0	2 (2%)	9 (20%)	12 (9%)		
							33 (7%)		
Educational status	Primary school	19 (17%)	0	0	1 (1%)	0	20 (4%)	243.79	0.000
	Middle school	50 (44%)	1 (4%)	0	7 (7%)	9 (20%)	12 (9%)		
	High school	35 (31%)	12 (53%)	89 (99%)	52 (55%)	22 (49%)	84 (62%)		
	Bachelor's degree	5 (4%)	9 (39%)	1 (1%)	31 (33%)	14 (31%)	39 (29%)		
	Others	4 (4%)	1 (4%)	0	3 (3%)	0	8 (1%)		
							8 (1%)		

### 5.2. Instruments

The study was based on 3 instruments:

1.

The questionnaire on the Interpretation of the Social Environment (ISE). This instrument is designed to map the cultural context of a given population and to identify the subjective cultures found in the cultural context (Mossi and Salvatore, 2011). In the current study a short version of the instrument was used, established on the basis of data provided by its previous usage (Mossi and Salvatore, 2011, Venuleo et al., 2014b). The cultural context is analyzed in terms of the set of meanings it provides subjects for describing the social environment. The ISE consists of 37 items designed to facilitate the expression of perceptions, opinions and judgments concerning the micro and macro social environment (i.e., evaluation of the place where the subject lives, level of reliability of social facilities) and social identity (i.e., moral judgments on critical social behaviors). The items are associated with a 4-point Likert scale (e.g. "very unreliable", "quite unreliable", "quite reliable", "very reliable"). Previous Italian studies have shown satisfactory construct validity of this instrument (Carli and Salvatore, 2001, Mannarini et al., 2012). An item analysis on data provided by the current study was performed. The inter-item consistency proved satisfactory (Cronbach  $\alpha = 0.72$ ).

2.

The Barratt Impulsiveness Scale-11 (BIS-11). This is arguably the most commonly administered self-report measure for the assessment of impulsiveness. It consists of 30 items associated with a 4-point Likert response scale (Patton et al., 1995). Items are scored to yield three factors: Attentional Impulsiveness (Cronbach's  $\alpha = 0.63$ ), involving an inability to focus attention or concentrate; Motor Impulsiveness (Cronbach's  $\alpha = 0.65$ ), involving acting without thinking; Non-Planning Impulsiveness (Cronbach's  $\alpha = 0.64$ ), involving a lack of forethought (Patton et al., 1995). In a study of Fossati et al. (2001) on the Italian version of BIS-11, construct validity proved satisfactory.

3.

The Alcohol Use Disorders Identification Test (AUDIT). It is one of the most accurate screening tests available for the early identification of hazardous and harmful alcohol use. It consists of 10 items examining alcohol consumption, drinking behavior and alcohol-related problems and adverse reactions during the past year. Responses to each question are scored from 0 to 4, giving a maximum possible score of 40 (Cronbach's  $\alpha = 0.91$ ). Using the defined cut-off point of eight, the overall sensitivity for hazardous and harmful alcohol use was 87%–96%, with an overall value of 92% (Saunders et al., 1993). A variety of studies in many settings and nations supports the AUDIT's reliability and validity (Babor et al., 2001).

### 5.3. Procedures

The questionnaires were administered on paper. In all contexts, they were administered individually. In the casino, we approached participants singly at the entrance of the casino and asked them to complete the questionnaires in a room made available by the casino director for this purpose. In the case of the health service for the treatment of drug addiction and help Centre for immigrants and disadvantaged, the questionnaires were administered in a room made available by the service. In the case of students, the participation was requested collectively, before the lesson started; an appointment was booked for each student and the instruments were administered in an office in the researchers' department. The same office was used for the administration to subjects recruited in bars and in non-specific contexts, like streets, park, and squares, once their agreement was obtained.

According to the ethical code of the Italian Psychology Association (AIP) (<http://www.aipass.org/node/26>) and the Italian Code concerning the protection of personal data (Legislative decree No 196/2003), participants were informed about the general aim of the research, the anonymity of responses and the voluntary nature of participation and signed an informed consent. No incentive was given.

### 5.4. Data analysis

#### 5.4.1. Detection of subjective cultures

Consistent with the suggestion that culture, as a complex phenomenon (Batista-Foguet et al., 2000), requires the recognition of the interdependency of all the survey variables, the responses of the general sample ( $N = 501$ ) to ISE were subjected to Multiple Correspondence Analysis (MCA, Lebart et al., 1984). MCA is a form of principal component analysis with categorical variables (Greenacre and Blasius, 2006). It is a useful method for the concise mapping of the relations observed among the set of variables. The analysis is conducted on a "subjects x variables" matrix, composed of I rows/cases (all the respondents constituting the sample) and J columns/variables (all the response choices depicted by the questionnaire). The associative patterns assumed by the set variables are summed up by a limited number of Factorial Dimensions (Blasius and Greenacre, 1998), which progressively explain a decreasing proportion of variability of the response association patterns within the whole sample (Benzécri, 1992): this means that a

very limited number of factors retains the greatest amount of the initial information contained in the data matrix. Each factorial dimension describes the opposition between two patterns of co-occurring response modalities across respondents, and can be interpreted as the effect of a latent generalized meaning linking the response modalities independently from their specific content (Lebart et al., 1998). Accordingly, we consider factors as the markers of an oppositional dimension made of opposite generalized meanings, above called Latent Dimension of Sense (Mossi and Salvatore, 2011).

An exploratory analysis of the dataset was conducted to exclude from the analysis all the questionnaires in which more than 10% of the answers were missing and the response chosen from less than 3% of the sample. According to these criteria, no questionnaires were excluded; 38 response choices were eliminated. The analysis was performed by means of the SPAD software.

We focused on the first two factorial dimensions (henceforth: ISE1 and ISE2) extracted from MCA, as the ones explaining the largest proportion of the data matrix's inertia (i.e., variance) generated by the current sample (Abdi and Valentin, 2007).

We adopted the subjects' scores (factorial coordinates) on the two factorial dimensions as measurements of their subjective culture. The more the similarity between the respondent's profile of answers and the profile characterizing the factorial dimension, the higher the respondent's score on that factor/dimension of sense.

#### 5.4.2. Comparisons between problem drinker group and control

Groups were created for hazardous or harmful drinkers and for a healthy control group, balanced for sex, age, marital, educational and job status and context of recruitment. Following indications from Audit Guidelines (Babor et al., 2001), a cut-off score of 8 was chosen to identify individuals engaged in hazardous and harmful alcohol use. Thus, 106 subjects were selected and composed the Problem Group (PG); 127 participants, randomly selected from the 374 (79.1%) respondents scoring less than 8 on AUDIT, were selected as Control Group (CG). The PG group aged  $30.36 \pm 9.91$  years, the CG group aged  $30.97 \pm 11.13$  years. Groups' socio-demographic characteristics appear in Table 2.

**Table 2**  
Socio-demographic characteristics of problem group and control.

Variable		Problem group <i>n</i> = 106	Control group <i>n</i> = 127	Total <i>N</i> = 233	$\chi^2$	<i>p</i> -value
Context	University	6 (6%)	19 (15%)	25 (11%)	6.37	0.173
	Casino	2 (2%)	3 (2%)	5 (2%)		
	Health service	33 (31%)	37 (29%)	70 (30%)		
	Bar	38 (36%)	34 (27%)	72 (31%)		
	No-specific contexts (streets, park, squares)	27 (25%)	34 (27%)	61 (26%)		
Gender	Male	72 (68%)	77 (61%)	149 (64%)	1.33	0.248
	Female	34 (32%)	50 (39%)	84 (36%)		
Marital status	Single	80 (75%)	93 (74%)	173 (74%)	6.78	0.148
	Married	7 (7%)	14 (11%)	21 (9%)		
	Cohabitant	11 (10%)	8 (6%)	19 (8%)		
	Separated	7 (7%)	5 (4%)	12 (5%)		
	Divorced	1 (1%)	7 (5%)	8 (4%)		
Job status	Employee	19 (18%)	31 (25%)	50 (21%)	2.36	0.670
	Freelancer	11 (10%)	17 (13%)	28 (12%)		
	Unemployed	32 (30%)	33 (26%)	65 (28%)		
	Student	38 (36%)	40 (31%)	78 (34%)		
	Others	6 (6%)	6 (5%)	12 (5%)		
Educational status	Primary school	10 (9%)	6 (4%)	16 (7%)	3.57	0.467
	Middle school	23 (22%)	21 (17%)	44 (19%)		
	High school	53 (50%)	75 (59%)	128 (55%)		
	Undergraduate course	17 (16%)	21 (17%)	38 (16%)		
	Others	3 (3%)	4 (3%)	7 (3%)		

One-way analysis of variance (ANOVA) was used to compare groups on ISE scores and the three factors of BIS-11. Moreover, a logistic regression (Hosmer and Lemeshow, 2000) was applied in order to estimate the hypothesized effect of the subjective cultures and impulsivity on the differentiation between PG and CG. Logistic Regression predicts the probability of occurrence of an event (its presence: 1; its absence: 0) by fitting data to a logistic function. In the current study, the membership of PG vs CG was used as outcome variable. The predictor variables are: (a) the two factorial coordinates measuring the subjective cultures of the respondents; and (b) the three sub-factors of BIS-11 scores, measuring attentional, motor and non-planning impulsiveness. The logit function is given by the natural logarithm of the ratio between the probability that the  $i$ -th subject belongs to the problem group ( $\pi_i$ ) and the probability that the subject belongs to the control group ( $1 - \pi_i$ ). Logistic regression was performed adopting the backward method of linear regression, based on the criterion of maximum partial likelihood estimates.

## 6. Results

### 6.1. The dimensions of sense of the social environment

After applying the Benzécri formula of inertia adjustment (Benzécri, 1979), it was found that the first factorial dimension of the ISE (ISE 1) accounts for 42.6% of the inertia, and the second (ISE 2) for 18.5%; on the whole, these two factors account for 61.1% of the inertia. Table 3, Table 4 show the most significant modalities of answers characterizing respectively ISE1 and ISE2 polarities.

ISE 1. Experience of the social environment: this dimension opposes two patterns of answers which we interpret as the markers of two ways of perceiving the social environment: Moderation (–) versus Reactivity (+). On the Moderation polarity, answers adopting intermediate choices on the Likert scale (e.g. “quite reliable”, “quite agree”) are aggregated. Although some critical aspects of the social environment are perceived (e.g. “Almost all politicians are dishonest”), it appears a comfortable and trustworthy place (the services are perceived as being rather reliable, faith is expressed in people and in the future development of the country). On the Reactivity polarity, answers adopting the extreme choices on the Likert scale (e.g. “strongly agree”, “very resigned”) are aggregated. The social environment is negatively described. It is considered to be affected by many problems (e.g. the services are very unreliable; Italian people are very resigned; strongly agree is expressed on the statement ‘It will be more and more difficult to find people to trust’).

ISE2. Evaluation of the social environment: this dimension opposes two ways of evaluating both macro and micro social environment: Unreliable (–) versus Reliable (+). On the Unreliable polarity, both macro and micro-social environments are perceived as uncomfortable and non-supportive. People don't like living where they live: politicians are dishonest, services are unreliable, there is no faith in the development of the country in the future. On the Reliable polarity, both macro and micro-social environments are perceived in a positive way. People like living where they live: public services are reliable, Italians try to improve human society. Socio-demographic characteristics were not significantly related to ISE scores.

### 6.2. Problem drinkers vs control

Table 5 shows the comparison of groups on ISE and BIS-11 scores. Significant differences were found on ISE 2 [ $F(1,231) = 6.533, p < 0.05$ ]: problem drinker group has negative score on ISE 2, namely it lies in the unreliable polarity; control group has positive score, thus it positions itself on the reliable polarity.



Significant differences were found also on motor impulsiveness factorial score on BIS-11. The problem group scored higher on motor impulsiveness [ $F(1.231) = 7.184, p < 0.01$ ].

The parameters of the logistic regression model appear in Table 6. A significant effect of ISE 2 ( $\beta = -0.795, p < 0.05$ ), of Motor Impulsiveness ( $\beta = .074, p < .05$ ) and of Non-Planning Impulsiveness ( $\beta = -0.072, p < 0.05$ ) was found. Compared to controls, problem drinkers were significantly more likely to judge local culture as unreliable and to show higher motor impulsiveness and lower non-planning. The Hosmer–Lemeshow test was applied to evaluate the fitness of the model (Hosmer and Lemeshow, 2000). The test showed the predicted values do not differ significantly compared to the predicted values ( $\chi^2 = 4.698, df = 8, p > 0.05$ ; 64.4% of cases classified correctly). Thus, the model had good fit to the actual data.

**Table 3**

Response modes most significantly associated to the first factorial dimension (ISE 1) of the Interpretation of the Social Environment questionnaire.

Test values <sup>a</sup>	Item	
<i>Moderation</i>		
7.64	'Citizens try to improve human society'	Quite agree
7.02	'Almost all politicians are dishonest'	Quite agree
6.54	'Healthcare services are'	Quite reliable
6.33	'I like living in this country'	Quite agree
5.83	'Law enforcement are'	Quite reliable
5.61	'Degree of development of the country'	Quite high
4.77	'Public service are'	Quite reliable
4.23	'Public transport are'	Quite reliable
3.99	'It is important to follow rules'	Quite agree
3.41	'Newspapers and TV are'	Very reliable
<i>Reactivity</i>		
10.45	'It will be more and more difficult to find people to trust'	Strongly agree
10.06	'Italian are'	Very resigned
9.93	'Citizens rely on themselves'	Strongly agree
8.84	'Politicians are almost always dishonest'	Strongly agree
8.55	'Healthcare Services are'	Very unreliable
8.24	'Degree of development of the country'	Quite low
7.53	'Citizens try to improve human society'	Strongly disagree
6.72	'Public transport are'	Very unreliable
5.03	'Newspapers and TV are'	Very unreliable
4.20	'I like living in this Country'	Quite disagree

Note: ISE1 = Interpretation of the Social Environment questionnaire. Dimension one.

<sup>a</sup> Coefficient of statistical association between an item and a factorial dimension. An association is significant if the absolute value is greater than 2.

**Table 4**

Response modes most significantly associated to the second factorial dimension (ISE 2) of the Interpretation of the Social Environment questionnaire.

Test values <sup>a</sup>	Item	
<i>Unreliable</i>		
7.97	'Public transport are'	Quite unreliable
6.68	'Newspapers and TV are'	Very unreliable
6.15	'I like living in Italy'	Quite disagree
5.84	'Law enforcement'	Quite unreliable
4.80	'Almost all politicians are dishonest'	Quite agree
4.53	'Citizens try to improve human society'	Quite disagree
4.41	'Italians try to improve human society'	Quite disagree
4.39	'Degree of development of the country'	Quite low
4.36	'Degree of development Italy'	Quite low
4.15	'I like living in this country'	Quite disagree
<i>Reliable</i>		
9.55	'I like living in Italy'	Very much
7.46	'I like living in this country'	Very much
7.35	'Law enforcement are'	Very reliable
7.01	'Newspapers and TV are'	Quite reliable
7.00	'Public transport are'	Very reliable
6.50	'Italians try to improve human society'	Quite agree
5.90	'Public service are'	Quite reliable
5.60	'Degree of development of the country'	Quite high
5.53	'Degree of development Italy'	Quite high
3.95	'Citizens try to improve human society'	Very much

Note: ISE2 = Interpretation of the Social Environment questionnaire. Dimension two.

<sup>a</sup> Coefficient of statistical association between an item and a factorial dimension. An association is significant if the absolute value is greater than 2.

**Table 5**

Differences in the Interpretation of the Social Environment questionnaire and sub-factors of the Barratt impulsiveness scale between the problem and control groups.

	Problem group (n = 106)		Control group (n = 127)		Combined (n = 233)		ANOVA <i>F-test</i>	<i>p-value</i>
	Mean	SD	Mean	SD	Mean	SD		
ISE 1	-0.0641	0.44632	0.0036	0.41797	-0.0272	0.43148	1.42	0.234
ISE 2	-0.1292	0.41724	0.0024	0.36790	-0.0575	0.39574	6.53	0.011
BIS attentional	16.90	2.798	16.06	3.995	16.44	3.519	3.33	0.069
BIS motor	22.04	3.966	20.43	5.023	21.16	4.634	7.18	0.008
BIS no planning	24.84	3.639	25.51	5.569	25.21	4.790	1.14	0.287

Note: ISE 1 = Interpretation of the Social Environment questionnaire, dimension one. ISE 2 = Interpretation of the Social Environment questionnaire, dimension two. BIS = Barratt impulsiveness scale (11 point scale).

**Table 6**

Regression coefficients ( $\beta$ ) of the predictor variables (Interpretation of the Social Environment questionnaire and Barratt impulsiveness scale) and relative statistics.

	$\beta$	S.E.	Wald	df	p-value	Exp ( $\beta$ )
ISE 1	-0.397	0.326	1.488	1	0.223	0.672
ISE 2	-0.795	0.357	4.954	1	0.026	0.452
BIS attentional	0.067	0.049	1.841	1	0.175	1.069
BIS motor	0.074	0.035	4.442	1	0.035	1.077
BIS no planning	-0.072	0.034	4.509	1	0.034	0.931
Constant	-1.089	0.951	1.312	1	0.252	0.337

*Note:* ISE 1 = Interpretation of the Social Environment questionnaire, dimension one. ISE 2 = Interpretation of the Social Environment questionnaire, dimension two. BIS = Barratt impulsiveness scale (11 point scale). S.E. = standard error. df = degrees of freedom.

## 7. Discussion

Concerning the effect of subjective cultures on the probability of belonging to the problem drinker group, results showed that one out of two components of the subjective cultures investigated – the Latent Dimension of Sense we labeled ISE 2 (Evaluation of the social environment) – is associated with differential probabilities of belonging to the problem group or control group, consistent with hypotheses. More specifically, the more the subjects tend to perceive the social environment as unreliable, the more they are likely to be hazardous or harmful drinkers. The first factorial dimension (ISE 1: experience of the social environment) did not relate to belonging to the problem group. This finding suggests that the intensity of the attitude/feeling does not play a role in differentiating hazardous and harmful drinkers and controls. Thus, we must conclude that some components of subjective culture relate to hazardous and harmful alcohol use and others do not. A similar result emerged from a prior study conducted among pathological gamblers, where one of the two Dimension of Sense detected was shown to play a role in differentiating pathological gamblers (Venuleo et al., 2014b). Besides the specificity of the cultural components involved, what appears worthy of attention is that subjective cultures seem to effect different kinds of harmful behaviors.

The results provide support also to the hypothesis that the probability of hazardous and harmful drinking is a function of the compatibility between subjective cultures and social role demands. Analyses have shown that the second dimension of sense (ISE 2: evaluation of the social environment) relates to the probability of hazardous and harmful drinking: people tending to assume the cultural polarity “Unreliable context” have more probability of belonging to the problem group, unlike the subjects tending to assume the opposite polarity “Reliable context”. This result is understandable. Subjects associated with the Reliable pole perceive their micro and macro social environment as a supportive and trustworthy place; it is reasonable that this kind of connotation encourages the commitment to injunctive and social norms. In contrast, subjects associated with the Unreliable pole have very low expectations on their social environment. It can be seen that the feeling of living in a ‘bad’ world is not confined to a particular space or temporal dimension; it extends to subjects’ micro and macro social environment and concerns the present and the future. One might suppose that without hope in the subject’s power to get ahead in a context

perceived as lacking in rules and, thus, as ungovernable and unpredictable, drinking may offer the powerless a sense of strength (Seeman and Anderson, 1983). This view is consistent with evidence that people living in a neighborhood characterized by incivilities, associated with the breakdown of social control, consume alcohol as a means of palliative escape from psychological distress (see: Hill and Angel, 2005). What our study suggests is that, the source of distress is not directly related to the features of the social environment. Indeed, the problem and control groups in our study share the same environment (a southern Italian region), but they interpret it differently. So, our findings encourage the hypothesis that subjective cultures work as a factor orienting the way people interpret and therefore deal with the characteristics of their social context. Hazardous or harmful alcohol use might be interpreted as one way of enacting a certain subjective culture of the context and at the same time of getting it to reproduce over time, within one's own interpersonal world. The idea that individuals' behaviors influence the environments or situations that they subsequently experience is widely recognized. As concerns harmful alcohol use, it is known that often drinking has harmful effects also in such areas as family relationships, friendships, work performance and standing (Room, 2005). It is likely that, in the short or long run, parents, and friends refuse affective help and support for a person who drinks despite the serious implications of his/her drinking, and that the person will interpret their distance as further sign of the unreliability and hostility of the social environment, serving as a frame driving him/her toward further drinking.

As concerns impulsivity, logistic regression shows that one dimension – Attentional Impulsiveness – is not related to problem drinking, whereas the other two – motor and non-planning – relate to problem drinking, although in smaller magnitude than the factorial/cultural dimensions. The higher the score on motor impulsiveness, the more likely it is that a person is in the problem drinking group. As observed, motor impulsiveness – defined as acting without thinking on the spur of the moment, without consideration of the negative consequences of one's behaviors (Patton et al., 1995) – may predispose an individual to heavy drinking in order to experience the immediate positive reinforcing qualities of alcohol (Papachristou et al., 2012). Our results support this view. On the other hand, hazardous and harmful drinkers of our study do not seem to be lacking in forethought toward the future. Indeed, the problem group is predicted also by a lower score in non-planning impulsiveness (“present orientation”). Thus, we must conclude that, hazardous and harmful drinkers are able to evaluate the implication of their behavior. This result is not surprising. As Fingarette (1988) suggested, drinkers (at least a part of them) know what they are doing, as well as the financial and social ruin related to their conduct. From this perspective the fundamental question that must be posed is not: why they engage in conduct without consideration for the individual and social harmful consequences? – they are well aware of the consequences of their conduct – but what make their drinking ‘reasonable’? Our study suggests the role of the subjective cultures and the related picture of one's own environment. In the light of our results, we can suggest that hazardous and harmful drinkers' expectation is that being reasonable, being reliable, acting responsibly, is not the rule in their own anomic social environment nor the key of a person's social adaptation nor power over events and over one's own future.

### 7.1. Limitations

There are a number of methodological inadequacies in the current study. First, it can be seen that we have proposed the subjective culture construct as a factor of vulnerability to the over-use of alcohol and this entails a causal direction from culture to hazardous and harmful alcohol use. However, our study does not allow us to rule out the opposite direction, namely that the harmful consequences of alcohol use may favor the foregrounding of a certain set of meanings and, thus, a certain way of interpreting the social environment. Neither can we rule out a circular causality between patterns of alcohol consumption and subjective culture: impulsive behavior may favor a certain reaction from the social environment that the subject may interpret as the sign of an unreliable context, that, in turns, drives a person to excessive alcohol consumption.

Another question that needs to be examined in greater depth is the relationship between subjective cultures and impulsivity. We suggested and examined whether subjective cultures and impulsivity related to hazardous and harmful drinking. However, it is reasonable to hypothesize that, subjective cultures may alter the direction or strength of the relation between impulsivity and hazardous and harmful alcohol use. We cannot rule out that other individual or social factors, not investigated by the study, mediate the effect of impulsivity and subjective culture on hazardous and harmful alcohol use. For instance, previous studies show the mediating effect of drinking motives (Adams et al., 2012), cumulative lifetime adversities (Helen et al., 2010), parental style (Patock-Peckham and Morgan-Lopez, 2006) and familial alcoholism (Chassin et al., 2004) on the association between impulsivity and alcohol consumption. Other studies show the influences of cultural variables, like family and peer values and norms (Cox et al., 2011) on alcohol consumption. Their potential role as a moderator or as a mediator of hazardous and harmful drinking and their interaction with the subjective cultures of the social environment may be examined.

A further methodological limitation of the study is that we adopted a convenience sample localized in a specific geographical area; in different populations, different subjective cultures might work as a risk/protective factor for hazardous and harmful alcohol use. What appears to be generalizable is the relationship between subjective culture and hazardous and harmful alcohol use, while the content, the strength and the nature of this relationship is probably context-specific (Salvatore and Valsiner, 2010). Replications in a broader range of countries are clearly needed.

## 8. Conclusion

The study favors the hypothesis of a major role of subjective cultures in differentiating hazardous and harmful drinkers, in particular the role of the component of the subjective culture concerning the evaluation of the social environment. At the theoretical level, the study highlights that subjective cultures represent a factor to be taken into account in order to have a better understanding of hazardous and harmful alcohol use; the findings are consistent with previous studies (and encourage further research) on the role of subjective culture in affecting other kinds of pattern of behavior related to harmful consequences. As to the clinical implications, our results suggest that knowledge of the subjective cultures might be a key area in the design and development of strategies to prevent people from hazardous and harmful drinking. Since the historical-cultural heritage offers the meanings through which a certain subjective culture develops, more attention should be addressed to the meanings promoted and suggested by experiences of family life of people in their communities.

## References

- H. Abdi, D. Valentin, Multiple correspondence analysis, Neil Salkind (Ed.), *Encyclopedia of Measurement and Statistics*, Sage, Thousand Oaks (CA) (2007), pp. 651-657
- Z.W. Adams, A.J. Kaiser, D.R. Lynam, R.J. Charnigo, R. Milich, Drinking motives as mediators of the impulsivity-substance use relation: pathways for negative urgency, lack of premeditation, and sensation seeking, *Addict. Behav.*, 37 (7) (2012), pp. 848-855
- M.D. Anestis, E.A. Selby, T.E. Joiner, The role of urgency in maladaptive behaviors, *Behav. Res. Ther.*, 45 (12) (2007), pp. 3018-3029
- T.F. Babor, J.C. Higgins-Biddle, J.B. Saunders, M.G. Monteiro, *The Alcohol Use Disorders Identification Test. Guidelines for Use in Primary Care*, (Second ed.), World Health Organization, Department of Mental Health and Substance Dependence (2001)

- J.M. Batista-Foguet, R. Mendoza, M. Pérez-Perdigón, R. Rius, Life-Styles of Spanish school-aged children: their evolution over time. Use of multiple correspondence analysis to determine overall trends over time, A. Ferligoj, A. Mrvar (Eds.), *New Approaches in Applied Statistics, Metodološki zvezki*, vol. 16, FDV, Ljubljana (2000), pp. 173-221
- J.P. Benzécri, Sur le calcul des taux d'inertie dans l'analyse d'un questionnaire. Addendum et erratum à, *Cahiers de l'Analyse des Données*, 4 (1979), pp. 377-378
- J.P. Benzécri, *Correspondence Analysis Handbook*, Marcel Dekker, New York (1992)
- R.M. Bergner, What is psychopathology? And so what?, *Clin. Psychol. Sci. Practice*, 4 (3) (1997), pp. 235-248
- J. Blasius, M.J. Greenacre, *Visualization of Categorical Data*, Academic Press, New York (1998)
- K. Bloomfield, U. Grittner, S. Kramer, G. Gmel, Social inequalities in alcohol consumption and alcohol-related problems in the study countries of the EU concerted action gender, culture and alcohol problem: a multi-national study, *Alcohol Alcohol.*, 41 (Suppl. 1) (2006), pp. 26-36
- R. Carli, S. Salvatore, *L'immagine della psicologia (The Image of Psychology)*, Kappa, Roma (2001)
- A.B. Cohen, Many forms of culture, *Am. Psychol.*, 64 (3) (2009), pp. 194-204,
- L. Chassin, D.B. Flora, K.M. King, Trajectories of alcohol and drug use and dependence from adolescence to adulthood: the effects of familial alcoholism and personality, *J. Abnorm. Psychol.*, 113 (4) (2004), pp. 483-498
- R.B. Cox, B. Burr, A.J. Blow, J.R. Parra Cardona, Latino adolescent substance use in the United States: using the bioecodevelopmental model as an organizing framework for research and practice, *J. Fam. Theory Rev.*, 3 (2) (2011), pp. 96-123
- M. De la Rosa, Acculturation and Latino adolescents' substance use: a research agenda for the future, *Subst. Use Misuse*, 37 (4) (2002), pp. 429-456
- S. Dawe, N.J. Loxton, The role of impulsivity in the development of substance use and eating disorders, *Neurosci. Biobehav. Rev.*, 28 (2004), pp. 343-351
- D.M. Dick, G. Smith, P. Olausson, S.H. Mitchell, R.F. Leeman, S.S. O'Malley, K. Sher, Review: understanding the construct of impulsivity and its relationship to alcohol use disorders, *Addict. Biol.*, 15 (2) (2010), pp. 217-226
- R. Factor, I. Kawachi, D.R. Williams, Understanding high-risk behavior among non-dominant minorities: a social resistance framework, *Soc. Sci. Med.*, 73 (9) (2011), pp. 1292-1301
- H. Fingarette, *Heavy Drinking: The Myth of Alcoholism as a Disease*, University of California Press, London (1988)
- A. Fossati, A. Di Ceglie, E. Acquarini, E.S. Barratt, Psychometric properties of an Italian version of the Barratt impulsiveness scale-11 (BIS-11) in nonclinical subjects, *J. Clin. Psychol.*, 57 (6) (2001), pp. 815-828
- M. Greenacre, J. Blasius (Eds.), *Multiple Correspondence Analysis and Related Methods*, CRC Press (2006)
- M.J. Gullo, S. Dawe, Impulsivity and adolescent substance use: rashly dismissed as "all-bad"?, *Neurosci. Biobehav. Rev.*, 32 (8) (2008), pp. 1507-1518

- L. Hayes, D. Smart, J.W. Toumbourou, A. Sanson, Parenting Influences on Adolescent Alcohol Use, Australian Institute of Family Studies, Canberra (2004)
- D. Heath, International Handbook on Alcohol and Culture, ABC-CLIO, USA (1995)
- C. Helen, L. Keri, G. Peihua, S. Rajita, Interactive effects of cumulative stress and impulsivity on alcohol consumption, *Alcohol. Clin. Exp. Res.*, 34 (8) (2010), pp. 1376-1385
- T.D. Hill, R.J. Angel, Neighborhood disorder, psychological distress, and heavy drinking, *Soc. Sci. Med.*, 61 (5) (2005), pp. 965-975
- G.H. Hofstede, *Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations across Nations*, (second ed.), Sage, Thousand Oaks, CA (2001)
- D.W. Hosmer, S. Lemeshow, *Applied Logistic Regression*, (second ed.), John Wiley & Son, New York (2000)
- C. Kroenke, Socioeconomic status and health: youth development and neomaterialist and psychosocial mechanisms, *Soc. Sci. Med.*, 66 (1) (2008), pp. 31-42
- A.J. Lawrence, J. Luty, N.A. Bogdan, B.J. Sahakian, L. Clark, Impulsivity and response inhibition in alcohol dependence and problem gambling, *Psychopharmacology*, 207 (1) (2009), pp. 163-172
- L. Lebart, A. Morineau, K. Warwick, *Multivariate Descriptive Statistical Analysis. Correspondence Analysis and Related Techniques for Large Matrices*, Wiley, New York (1984)
- L. Lebart, A. Salem, L. Berry, *Exploring Textual Data*, Kluwer Academic Publisher, Dordrecht/Boston/London (1998)
- R.K. Leung, J.W. Toumbourou, S.A. Hemphill, The effect of peer influence and selection processes on adolescent alcohol use: a systematic review of longitudinal studies, *Health Psychol. Rev.*, 8 (4) (2014), pp. 426-457
- P. Linell, *Rethinking Language, Mind and World Dialogically: Interactional and Contextual Theories of Sense Making*, Information Age Publishing, Charlotte (NC) (2009)
- D. Longshore, E. Chang, N. Messina, Self-control and social bonds: a combined control perspective on juvenile offending, *J. Quant. Criminol.*, 21 (4) (2005), pp. 419-437
- T. Mannarini, E. Ciavolino, M. Nitti, S. Salvatore, The role of affects in culture based interventions: implications for practice, *Psychology*, 3 (8) (2012), pp. 569-577
- C.R. Martinez, Effects of differential family acculturation on Latino adolescent substance use, *Fam. Relat.*, 55 (3) (2006), pp. 306-317
- P. Mossi, S. Salvatore, Transición psicológica de significado a sentido, *Eur. J. Educ. Psychol.*, 4 (2) (2011), pp. 153-169
- D.D. Olds, A semiotic model of mind, *J. Am. Psychoanal. Assoc.*, 48 (2) (2000), pp. 497-529
- H. Papachristou, C. Nederkoorn, R. Havermans, M. van der Horst, A. Jansen, Can't stop the craving: the effect of impulsivity on cue-elicited craving for alcohol in heavy and light social drinkers, *Psychopharmacology*, 219 (2) (2012), pp. 511-518

- J.A. Patock-Peckham, A.A. Morgan-Lopez, College drinking behaviors: mediational links between parenting styles, impulse control, and alcohol-related outcomes, *Psychol. Addict. Behav.*, 20 (2) (2006), pp. 117-125
- J.H. Patton, M.S. Stanford, E.S. Barratt, Factor structure of the Barratt impulsiveness scale, *J. Clin. Psychol.*, 51 (6) (1995), pp. 768-774
- J.U.R. Rehm, N. Rehn, R. Room, M. Monteiro, G. Gmel, D. Jernigan, U. Frick, The global distribution of average volume of alcohol consumption and patterns of drinking, *Eur. Addict. Res.*, 9 (4) (2003), pp. 147-156
- R. Room, Stigma, social inequality and alcohol and drug use, *Drug Alcohol Rev.*, 24 (2) (2005), pp. 143-155
- G. Rubio, M. Jimenez, R. Rodrigo-Jimenez, I. Martinez, C. Avila, F. Ferre, M. Angel, J. Arriero, G. Ponce,
- T. Palomo, The role of behavioral impulsivity in the development of alcohol dependence: a 4-year follow-up study, *Alcohol. Clin. Exp. Res.*, 32 (9) (2008), pp. 1681-1687
- J.F. Sallis, N. Owen, E.B. Fisher, Ecological models of health behaviour, K. Glanz, B.K. Rimer, K. Viswanath (Eds.), *Health Behavior and Health Education. Theory, Research, and Practice* (fourth ed.), John Wiley & Sons, San Francisco (2008), pp. 465-485
- S. Salvatore, J. Valsiner, Between the general and the unique. Overcoming the nomothetic versus idiographic opposition, *Theory Psychol.*, 20 (6) (2010), pp. 817-833
- S. Salvatore, C. Venuleo, Understanding the role of emotion in sensemaking. A semiotic psychoanalytic oriented perspective, *Integr. Psychol. Behav. Sci.*, 42 (1) (2008), pp. 32-46
- S. Salvatore, C. Venuleo, The unconscious as symbolic generator: a psychodynamic approach to meaning making, B. Wagoner (Ed.), *Symbolic Transformations: The Mind in Movement through Culture and Society*, Routledge, London, New York (2009), pp. 59-74
- S. Salvatore, C. Venuleo, Field and dynamic nature of sensemaking: theoretical and methodological implications, *Pap. Soc. Represent.*, 22 (2013), pp. 21.1-21.41
- Saunders et al., 1993
- J.B. Saunders, O.G. Aasland, T.F. Babor, J.R. de la Fuente, M. Grant, Development of the alcohol use disorders identification test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption-II, *Addiction*, 88 (6) (1993), pp. 791-804
- J.E. Schulenberg, J.L. Maggs, A developmental perspective on alcohol use and heavy drinking during adolescence and the transition to young adulthood, *J. Stud. Alcohol Drugs Suppl.*, 14 (2002), pp. 54-70
- S.J. Schwartz, R.S. Weisskirch, B.L. Zamboanga, L.G. Castillo, L.S. Ham, Que-Lam Huynh,
- I.J.K. Park, R. Donovan, S.Y. Kim, M. Vernon, M.J. Davis, M.A. Cano, Dimensions of acculturation: associations with health risk behaviors among college students from immigrant families, *J. Couns. Psychol.*, 58 (1) (2011), pp. 27-41
- M. Seeman, C.S. Anderson, Alienation and alcohol: the role of work, mastery, and community in drinking behaviour, *Am. Sociol. Rev.*, 48 (1) (1983), pp. 60-77



- R.A. Shweder, M.A. Sullivan, The semiotic subject of cultural psychology, L. Pervin (Ed.), *Handbook of Personality: Theory and Research*, Guilford Press, New York & London (1990), pp. 399-416
- H. Swadi, Individual risk factors for adolescent substance use, *Drug Alcohol Depend.*, 55 (3) (1999), pp. 209-224
- S.R. Sznitman, T. Kolobov, T. ter Bogt, E. Kuntsche, D. Walsh, M. Boniel-Nissim, Y. Harel-Fisch, Exploring substance use normalization among adolescents: a multilevel study in 35 countries, *Soc. Sci. Med.*, 97 (2013), pp. 143-151
- H.C. Triandis, *The Analysis of Subjective Culture*, Wiley, New York (1972)
- H.C. Triandis, Subjective culture, *Online Read. Psychol. Cult.*, 2 (2) (2002), <http://dx.doi.org/10.9707/2307-0919.1021>
- J. Valsiner, Personal culture and conduct of value, *J. Soc. Evol. Cult. Psychol.*, 1 (2) (2007), pp. 59-65
- J. Valsiner, *The Oxford Handbook of Culture and Psychology*, Oxford University Press, Oxford (2012)
- C. Venuleo, C. Guacci, The general psychologist. A case study on the image of the psychologist's role and integrated primary care service expressed by paediatricians and general practitioners, *Psicologia della Salute*, 1 (2014), pp. 73-97
- C. Venuleo, P. Mossi, S. Salvatore, Educational subcultures and dropping out at higher education. A case study, *Stud. High. Educ.* (2014), pp. 1-22, (published online 30 June 2014)
- C. Venuleo, S. Salvatore, P. Mossi, The role of cultural factors in differentiating pathological gamblers, *J. Gambl. Stud.* (2014), pp. 1-24, (published online: 27 June 2014),
- A.C. Wagenaar, A.L. Tobler, K.A. Komro, Effects of alcohol tax and price policies on morbidity and mortality: a systematic review, *Am. J. Public Health*, 100 (11) (2010), pp. 2270-2278
- World Health Organization, *Global Status Report on Alcohol and Health-2014*, World Health Organization, Luxembourg (2014)