

A conceptual paper on implicit gambling orientation

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Abstract:

This is a conceptual paper on implicit gambling orientation. Gambling can be considered a consumer product: some of its forms, like Lotto, generate the highest penetration of purchase of the population, and frequency of purchase, of all consumer products. However, gambling has also become a major concern for governments and not-for-profit agencies because of its negative personal and societal outcomes, including pathological addiction and financial difficulties. Thus, the question is as follows: Why people gamble despite losses? The structure of the paper is as follows. First, it is shown that previous research about gambling motivation mostly relies on self-report. The limitations of self-report measures in the context of gambling are analysed and the advantages of the use of implicit measures are discussed. In the second part, a literature review on gambling motivations is provided. Different studies are analysed and it is suggested that 1/ most popular explanations for gambling consumption have been cognitive-based, cognition referring here to the mental process of knowing, and 2/ gambling associations can be categorized along three independent dimensions: Outcomes/process; utilitarian/hedonic; approach/avoidance. Based here upon, a method for measuring *implicit gambling orientation* is provided. Finally, the paper ends with recommendations on future research on how *implicit gambling orientation* may be used to differentiate underlying gambling orientations among non-gamblers, gamblers and problem gamblers.

Key Words: Gambling, implicit measures.

1. Introduction

Gambling has one of the highest penetrations in populations where the product is legal (Mizerski et al., 2013) and is one of the most frequently purchased products among consumers (Mizerski et al., 2013). Over the past three years, more than 50% of the UK population reported participating in at least one form of gambling in the past four weeks (Gambling Commission, 2015: 58% in 2013, 56% in 2014 and 51% in 2015). In 2011, gambling represented a 10,1% share of total French cultural and entertainment expenditure, on equal terms (10,4%) with TV, Hi-Fi, Cameras and Video Cameras (INSEE, 2013). Furthermore, consumption of gambling is growing: during the period October 2013–September 2014, the British commercial gambling industry income increased by 5%, generating a gross yield of £7.1bn (Gambling Commission, 2015). Similarly,

gamblers in New Zealand spent \$2091 million dollars on gambling in the 2012/13 financial year, 0.9 % more than the previous year (The Department of Internal Affairs, 2015).

This increase also explains the simultaneous growing concern about the potential for harm to individuals, including pathological addiction and financial difficulties (CotteandLatour, 2009; Yani-de-Soriano, Javed, and Yousafzai, 2012). A meta-analysis of gambling studies in North America revealed that the rate of seriously adverse compulsive or pathological gambling for youths ranged between 4.4% and 7.4%, with between 9.9% and 14.2% of adolescents at risk of developing or returning to serious gambling problems (Shaffer and Hall, 1996). People experiencing severe adverse reactions to gambling are described as "compulsive," "problem," or "pathological" gamblers (Shaffer et al., 1999). The 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (p615) of the American Psychiatric Association states that "the essential feature of pathological gambling is persistent and recurrent maladaptive gambling behaviour that disrupts personal, family, or vocational pursuits" (Shaffer et al., 1999).

Therefore, the question to be addressed by governments and not-for-profit agencies is as follows: "Why do gamblers continue to gamble despite potential pathological addiction and financial difficulties?" Most strategies to modify consumers' behaviours focus either on individual behaviour modification or on changing consumers' environments (Samuels et al., 2010). In this study, the focus is on the former, with an emphasis on the traditional knowledge – attitude – behaviour hierarchy of effects model (Lavidgeand Steiner, 1961). In this context, communication campaigns launched by governments and not-for-profit agencies aim to increase consumers' knowledge about the consequences of gambling, to develop negative attitudes towards problem gambling behaviours which, in turn, should impact actual behaviour. As a matter of fact, the most popular recent explanations for gambling purchases have been affective and cognitive-based (Mizerski et al., 2013; Yi and Kanetkar, 2010). Cognition refers to the mental process of knowing: in this paradigm, behaviour can be modified through communication that changes attitudes and behavioural intention.

However, most studies about gambling cognition have relied on self-reports. Even if this research approach guarantees robust results, it does not take into account implicit cognition. As a matter of fact, current research in psychology suggests that much of human behaviour is influenced by uncontrolled processes in memory (Barghand Williams, 2006). In accordance with this view, Greenwald and Banaji (1995) suggest that there is a conceptual distinction between self-reported evaluations derived from introspective effort, called explicit attitudes, and automatic evaluations, which may occur outside of conscious awareness, called implicit attitudes. Furthermore, implicit cognition may reveal traces of past experience which are explicitly rejected because they conflict with values or beliefs and may also reveal information that is not available to introspective access and that is conflicting with reachable cognition (Nosek, Greenwald and Banaji, 2007). Implicit cognition automatically influences our judgments and our behaviours without our being aware of it (Greenwald and Banaji, 1995). As past research has established 1/ the importance of automatic memory processes in studying the psychology of gambling (Yi and Kanetkar, 2010), and 2/ the social stigmatization of gambling activities (Preston et al., 1998), an implicit approach would seem particularly appropriate for the study of gambling cognition. However, scant research has explored implicit attitude toward gambling (Brevers et al., 2013; Yi and Kanetkar, 2010).

The purpose of this conceptual article is to shed light on the relevance of an implicit cognition approach to the study of gambling cognition. First, we analyse the limitations of self-report measures in the context of gambling and we discuss the advantages of the use of implicit measures. Second, we review the literature on gambling to identify gambling associations, and we

develop a framework for presenting these different associations along three independent dimensions: Outcomes/process; utilitarian/hedonic ; approach/avoidance. Third, we propose a method for measuring *implicit gambling orientation*. We conclude with recommendations for future research on how *implicit gambling orientation* may be used to differentiate underlying gamblingorientations among non-gamblers, gamblers and problem gamblers.

2. Implicit gambling cognition

Although research conducted over the past twenty years in social psychology suggests that most decision-making and social behaviour takes place without the individual being aware of them, consumer behaviour research is still largely dominated by a cognitive approach according to which decisions are made deliberately (Bargh, 2002). In the field of gambling studies, the topic of automatic processes has not received wide attention so far (Yi and Kanetkar, 2010). However, the investigation of automatic memory processes may be of huge relevance for the study of the psychology of gambling (Yi and Kanetkar, 2010).

First, the HAM model describes human memory as a network of interconnected individual nodes—a basic element that constitutes a piece of information stored in a person's mind—that activate each other in relevant contexts (Anderson, 1983). Such nodes may be viewed as memory traces of previous learning episodes. Thus, it may be suggested that individuals may have stored networks of gambling associations in memory, and the nature and the strength of those associations may depend on their personal experience with gambling. Previous studies conducted in the field of gambling support this view. McCusker and Gettings (1997) and Boyer and Dickerson (2003) used a modified Stroop task to explore the automatic accessibility of gambling concepts in gamblers' memory, and found that problem gamblers (McCusker and Gettings, 1997) / gamblers who suffer impaired control (Boyer and Dickerson, 2003) have a higher activation potential of gambling-related associations in their memory, due to frequent gambling, than non-problem gamblers (McCusker and Gettings, 1997) / high control gamblers (Boyer and Dickerson, 2003). Zack and Poulos (2004) showed that amphetamine has a priming effect on automatic activation of the gambling concept, but not on automatic activation of neutral concepts among problem gamblers. Zack et al. (2005) established that gambling wins are associated with alcohol consumption in problem gamblers' memory. These different studies demonstrate that implicit measures, i.e. Stroop task and priming tasks, are a valid and valuable tool to tap gambling associations, and that the strength of gambling associations stored in memory vary among problem gamblers and non-problem gamblers.

Second, research on implicit measures of attitude is undergoing significant and continuing growth in many fields of behaviour (Petty et al., 2009). One of the reasons explaining this growing interest is the fact that implicit measures have been proven to overcome social desirability biases (Ackermann and Mathieu, 2015). Social desirability refers to the tendency to report answers matching with social norms rather than those which may be deeply held (Bernreuter, 1933). When responding a direct questionnaire, respondents may distort, and even falsify their answers such as to match with social norms, and this may typically occur through self-deception, or through impression management (Paulhus, 1984). Implicit measures are resistant to impression management as they are able to reveal traces of past experience which are explicitly rejected because they conflict with values or beliefs (Nosek, Greenwald, & Banaji, 2007). They may also reveal information that is not available to introspective access and that conflicts with reachable cognition (Nosek, Greenwald, & Banaji, 2007), and this further makes them resistant to self-deception. Because gambling activities are often socially stigmatized (Preston et al., 1998), explicit attitude measures may suffer impression management issues and gamblers may be motivated to underreport their favourable beliefs about gambling on self-report measures (Brevers et al., 2013). This is why some studies have investigated discrepancies between explicit, i.e. self-reported, and implicit measures of attitude towards gambling (Brevers et al., 2013; Yi and Kanetkar, 2010). Yi and Kanetkar (2010) found that implicit attitudes toward gambling were not significantly correlated with explicit attitudes. Moderate-to-high-risk gamblers held more

positive attitudes toward gambling in the IAT and exhibited more positive and more negative attitudes toward gambling in the evaluative priming task than did low-risk gamblers. Brevers et al. (2013) found in problem gamblers both positive implicit and explicit attitudes toward gambling, but no negative implicit gambling association.

These studies demonstrate the relevance of implicit measures in studying the psychology of gambling. We propose that the different beliefs individuals hold about gambling may be conceptualized as a network of gambling associations stored in memory, some of them being a motive for approach behaviours and others being a motive for avoidance behaviours. Furthermore, gambling being a socially stigmatized activity (Preston et al., 1998), we believe that some individuals may be reluctant to report positive beliefs (e.g. gambling is fun) or irrational beliefs (e.g. skilled gamblers exert control over the outcome of games) about gambling because of impression management issues. Thus, implicit measures may reveal association that cannot be tapped by explicit measures. In the next chapter, we will explore the nature of these gambling associations.

3. A framework for exploring implicit gambling associations

Previous studies were restricted to one-dimensional measurement of implicit associations, e.g. positive versus negative attitudes (Brevers et al., 2013; Yi and Kanetkar, 2010). We argue that this is a too simplifying approach. As a matter of fact, theories are often tested in isolation, without taking into account predictors from different theories which could account for unique variance in outcomes (Lindgren et al, 2013). In other words, implicit attitudes towards gambling may be predictors of gambling behaviour, but other implicit, non-evaluative, associations should be taken into consideration when investigating implicit gambling cognition. We propose three different dimensions which better capture the complexity of associations likely to be present in the context of gambling as an experiential consumption product (Figure 1). The three dimensions are outlined below:

1. Approach/Avoidance associations: Gambling is considered as a problematic consumer good because it provokes both positive and negative associations from a consumers' perspective. If there were no positive associations connected to gambling, one would not expect any person to consume such a product. Thus, it seems oversimplifying to test the presence of positive or negative associations in isolation. Instead, both positive and associations might be prevalent at the same time, leading to an inherent conflict between approach and avoidance tendencies. Thus, we propose to measure both approach and avoidance associations.
2. Utilitarian/hedonic associations: Gambling is furthermore a consumer good which addresses the benefits (as well as disadvantages) both on a utilitarian dimension and a hedonic dimension. While gaining money does not only constitute a monetary benefit but also a typical emotional arousal, losing money affects both wealth and emotions. Associations with gambling thus should relate to two contentual dimensions: utilitarian associations as well as emotional associations.
3. Outcomes/process associations: Finally, gambling is an experiential consumption good. Thus, not only the consumption outcome matters for consumers but the consumption process by itself as well. It may well be that consumers implicitly or purposefully trade-off a negative consumption outcome by positive experiences made during the consumption process.

Figure 1: The Gambling Association Cube

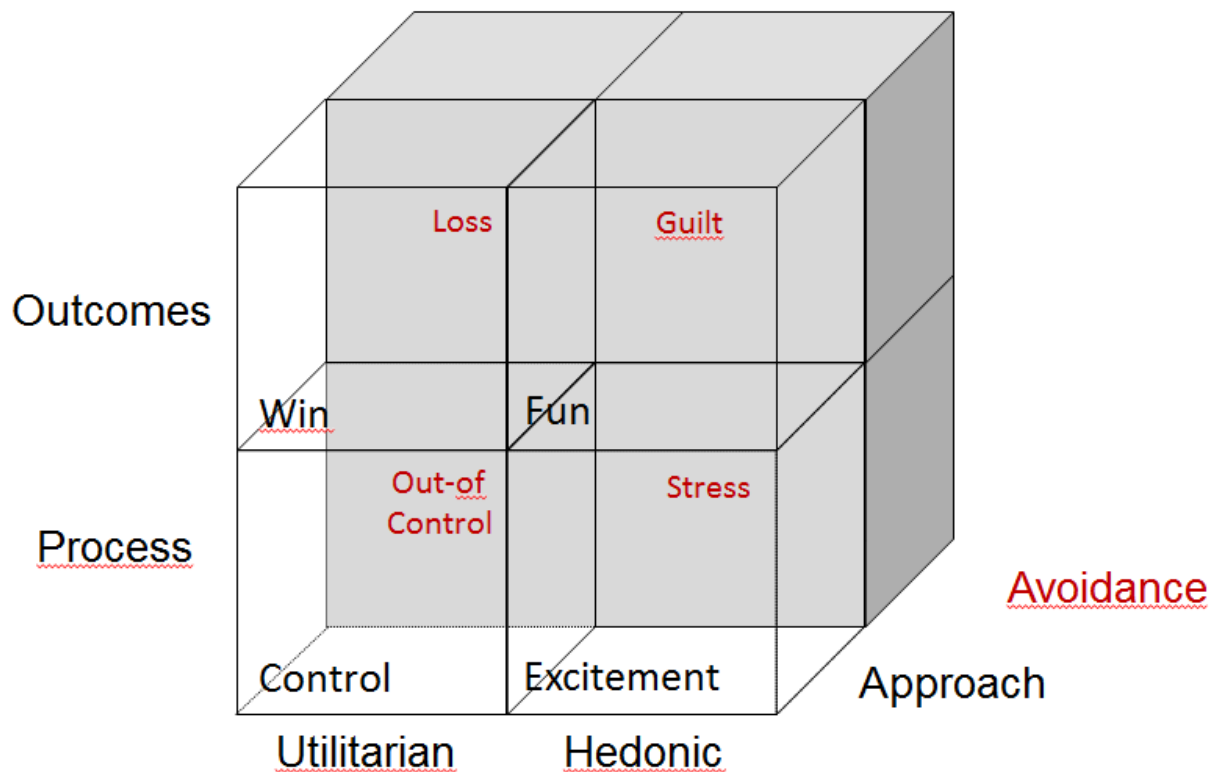


Figure 1 summarizes our framework for understanding reasons for gambling based on previous research. It is organised around three dimensions: approach versus avoidance; utilitarian versus hedonic; and process versus outcome associations.

4. Constrasting the Associations

In the following, we investigate the Gambling Association Cube in a more detailed way. We review the literature on gambling to identify gambling associations. To simplify the reading, we base our elaborations on the single axis “utilitarian associations” versus “hedonic associations”.

4.1. Utilitarian Associations

A primary motive for gambling is often money: gamblers would gamble because this is economically justified (Fisher, 1995). Or, on the opposite, people should avoid gambling because this is an economically irrational activity (Walker, 1995). Most theories for gambling are cognitive-based (Lam, 2007; Mizerski et al., 2013), assuming that behaviour is reasoned and can be explained by attitudes and beliefs (Fishbein and Ajzen, 1975; Ajzen, 1985). For instance, using a TPB model (Ajzen, 1985), Oh and Hsu (2001) demonstrated that decisions to gamble are largely a volitional process for casual participants. The question at stake here is not whether gambling is “reasoned” in the sense that it would be economically justified. As explained by Ajzen and Fishbein (2005), action is “reasoned” when behavioural intentions follow from beliefs about performing the behaviour, even if beliefs may be inaccurate and biased. For example, cognitive studies in gambling behaviour have demonstrated that 1/ gamblers misinterpret the

gambling odds, and over-estimate their subjective chances of success (Delfabbro, 2004), 2/ are under illusions over the control they exert (Martinez, Bonnefon, and Hoskens, 2009), or 3/display irrational beliefs, such as a belief in hot and cold numbers, a belief in personal luck, superstitious thinking (Rogers, 1998) or a belief that gambling involves special skills and knowledge (Langer, 1975). We thus refer to those reasons explaining gambling behaviours by subjective valuations about expected monetary outcomes and controllability hereof as “utilitarian”. They might be related to either the process or the outcome of gambling activities.

Figure 2 depicts prototypical utilitarian associations, organised around the approach versus avoidance and the process versus outcome dimensions.

Figure 2: Utilitarian gambling associations

	Approach Associations	Avoidance Associations
Process Associations	<p>“Various biases ... include ... a belief in personal luck, (and)... the illusion of control”(Rogers, 1998).</p> <p>“Gamblers appear to share the beliefs that gambling involves special skills or knowledge” (Lam, 2007).</p>	<p>“.. gambling was associated with loss of control and ambivalence to the activity, so that whilst being longed for it was also dreaded, since it had become irresistible.” (Moran, 1970)</p> <p>“One reason for avoiding gambling altogether may be (untested) fears about loss of control.”(Moore&Ohtsuka1999)</p>
Outcome Associations	<p>“Gamblers are in it for the money, .. economic motives are primary for many gamblers” (Cotte and Latour, 2009)</p>	<p>“Since all unfair gambles have an expectation of loss, no economically rational person should accept the opportunity to gamble” (Walker, 1992).</p>

4.2. Hedonic Associations

Utilitarian gambling can be associated with earning money or creating wealth while hedonic gambling may be contextualized as experience or pleasure or fun derived from gambling by itself independent of the awareness of losing money most of the time. Less focus has been placed on such affective-based reasons for continued gambling, including the pursuit of fun (Cotte, 1997), negative emotions (Andrade and Iyer, 2009), or the meaning of gambling (Cotte and Latour, 2009). After all, recreational casino gambling is not only a sure way to lose money, it may also be a good way to have fun (Cotte, 1997).

As a process, gambling may be treated as pure play (Huizinga, 1955). It provides excitement and arousal (Cotte and Latour, 2009 ; Yi and Kanetkar, 2010), and the casino experience 1/ is characterized by heightened expectation, preparation, and anticipatory excitement, resulting in high arousal emotions like exhilaration and celebration, and 2/ provides a perceived social connection with unknown others, resulting in a convivial atmosphere which is part of the overall enjoyment (Cotte and Latour, 2009). On the opposite, gambling may also be considered a process

on which individuals exert no control: Andrade and Iyer (2009) suggest that a significant proportion of consumer spending in casinos may represent unplanned, and even uncontrolled, behaviour as gamblers underestimate the impact of negative emotions generated by initial losses on future behaviour, i.e. deviation from the initial spending plan.

Considered from the outcome perspective, gambling may also be pursued for purely hedonic reasons, such as self-esteem enhancement (Cotte, 1997). Martinez (1983) suggests that gambling activities engender conscious moods that make possible a favorable, fantasized self-image. However, as gambling activities are often socially stigmatized (Preston et al., 1998), they also may be associated with guilt and disappointment. Nevertheless, the automatic association between the concept of gambling and positivity relative to negativity becomes stronger when gambling problem severity increases, probably because positive affect associated with gambling is more proximal than negative affect (e.g., guilt, disappointment) among high-risk gamblers (Yi and Kanetkar, 2010).

To sum up, Figure 3 depicts prototypical hedonic associations, organised around the approach versus avoidance dimension and the process versus outcome dimensions.

Figure 3: Hedonic gambling associations

	Approach Associations	Avoidance Associations
Process Associations	<p>“High-risk gamblers may have a predominantly enhancement motive (i.e., seeking excitement and arousal from gambling)” (Yi and Kanetkar, 2010)</p> <p>“The casino experience ... result in high arousal emotions like exhilaration and celebration” (Cotte and Latour, 2009)</p>	<p>“A significant proportion of consumer spending in casinos may actually represent unplanned (or even uncontrolled) behavior.” (Andrade and Iyer, 2009)</p>
Outcome Associations	<p>“Researchers have also interpreted gambling as self-esteem enhancement, suggesting that it allows gamblers to create a more favorable, fantasy-based self-image” (Cotte and Latour, 2009)</p> <p>Gambling activity engenders conscious moods that “... make possible a favorable, fantasized self-image” (Martinez, 1983)</p>	<p>“problem gamblers may ... consistently experience negative affect in the course of gambling (e.g., disappointment, guilt). ... possibility that as gambling severity increases, both positive and negative automatic associations become stronger but at different rates” (Yi and Kanetkar, 2010).</p>

We propose that beliefs are conceptualized as a network of gambling associations stored in memory, positive associations being a motive for approach behaviours and negative associations being a motive for avoidance behaviours. All dimensions of the gambling association cube are thus of significant importance to decision makers in charge of designing future consumer

information campaigns, either to promote gambling sales or to prevent from inappropriate gambling behaviour.

5. A method to measure implicit gambling associations

Over the past few years, there has been increasing interest for implicit measures of attitudes, i.e. automatic and indirect measures that tap the strength of the association between the attitude object and its evaluation (Greenwald, McGhee and Schwartz, 1998; Fazio and Olson, 2003; Petty, Fazio and Briñol, 2009). These measures require participants to classify words or pictures into categories, classification speed being used to assess the valence and the strength of the attitude. Respondents' answers are initiated spontaneously by the presented stimuli without them being able to exert any control on them, respondents are not required to make any introspective effort and they are not informed of what is being assessed (Greenwald, McGhee and Schwartz, 1998; Fazio and Olson, 2003; Petty, Fazio and Briñol, 2009). Thus, implicit measures are able to tap evaluations which may not be accessible to self-report (Greenwald and Banaji, 1995). Among the implicit measures, the Implicit Association Test (IAT, Greenwald, McGhee and Schwartz, 1998) has gained substantial support on the grounds of its validity and reliability properties and has been the most widely used in consumer behavior research (Ackermann and Mathieu, 2010; Brunel, Tietje, and Greenwald, 2004; Perkins et al., 2008).

The IAT is based on the assumption that categorization of target objects will be easier and thus faster if they are paired with an attribute category to which they are strongly associated in memory (Greenwald, McGhee, and Schwartz, 1998). IATs can differ in a variety of ways. Whereas the initial IAT was developed to tap implicit attitudes by measuring the relative strength of the association of two target objects with positive versus negative attributes, numerous IATs have been developed such as to tap different types of associations. For example, in social psychology, the IAT has been used to measure self-concept, stereotypes and self-esteem (Perkins et al., 2008). Such as to measure implicit gambling associations, we suggest to develop a set of three different gambling Single Category IAT: the Gambling Approach/Avoidance SC IAT, the Gambling Process/Outcome SC IAT and the Gambling Utilitarian/Hedonic SC IAT.

As a matter of fact, one of the specificities of the initial IAT is that it is a relative measure, measuring the difference between implicit attitude towards a target object A and implicit attitude towards a target object B. This makes sense in many situations in which it is a question of comparing two competing brands, a product and its challenger, or two opposite product categories. But there are also many cases where the researcher wishes to investigate a unique concept, and where finding an "opposite" concept is a matter of a pure methodological constraint (Ackermann and Mathieu, 2015). This may be an issue in our field of investigation, where there is no obvious opposite concept for "gambling". The single category IAT is a modified version of the IAT, measuring the strength of association of two attributes, positive and negative, with a unique concept, instead of the two concepts in a standard IAT (Karpinski and Steinman, 2006).

IATs can also differ regarding the associations that are being measured, as long as they are semantically opposed. In the realm of drinking behaviours, for example, different IATs have been developed such as to measure the association of alcohol with approach versus avoidance behaviours (Palfai & Ostafin, 2003), or with excitement versus diminish (Lindgren et al., 2011). Thus, the Gambling Approach/Avoidance SC IAT would measure whether one is faster at associating gambling-related stimuli with words representing approach, such as excitement, gains, or self-esteem, versus words representing avoidance, such as disappointment, lack of control or luck ; the Gambling Process/Outcome SC IAT would measure whether one is faster at associating

gambling-related stimuli with words representing the gambling process, such as gambling skills or luck, versus words representing the gambling outcomes, such as gains, loss or guilt ; the Gambling Utilitarian/Hedonic SC IAT would measure whether one is faster at associating gambling-related stimuli with words representing the utilitarian dimension of gambling, such as gains, versus words representing its hedonic dimension, such as play or excitement.

6. Implications

To sum up, our conceptualization of implicit gambling orientation revealed three complementary dimensions of gambling associations. Together these three dimensions build a gambling association cube which consists of eight arrays. Specific associations which consumer might have in respect to gambling can be located each in one of the eight arrays. For example, the process association of “tension” can be characterized as an avoidance association concerning the hedonic value of the gambling process, located in the lower right array in the back of the cube (named “stress”).

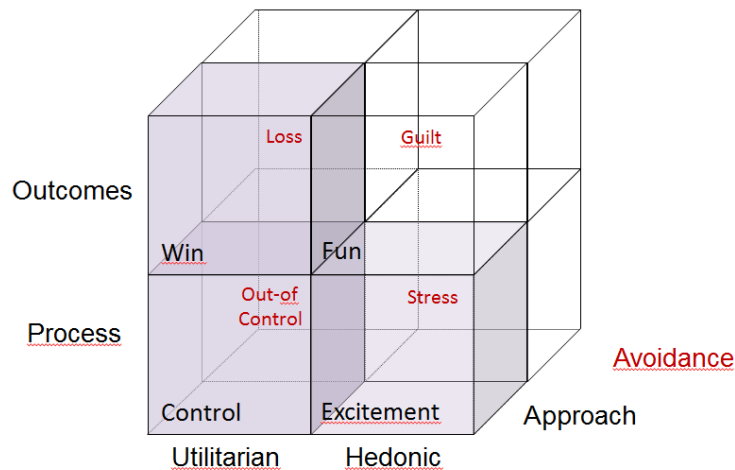
Previous research showed that problem gamblers do not differ from non-problem gamblers in all dimensions (i.e. arrays of the implicit association cube) equally. It has been shown that negative emotional associations about a problematic consumption process (drinking alcohol, smoking) can be equally prevalent for the problem group as for the non-problem group, whereas problematic consumers are characterized by more positive emotional associations about the specific consumption processes (Houben&Wiers 2008a; McCarthy &Thompson 2006).

Thus we argue that it is insufficient to compare association patterns between different consumers within a single array of the cube. Instead, it is necessary to assess and compare the entire association cubes of relevant consumer groups. In this way, the combination of associations along the three dimensions of process versus outcome, utilitarian versus hedonic as well as approach versus avoidance should provide comprehensive insights about a persons’ implicit cognitions.

Coherent association patterns across all eight arrays are simple to interpret: Persons who have pronounced avoidance associations concerning processes & outcomes both at the utilitarian and hedonic level without any positive associations are clearly out of scope for gambling activities. The reverse can be said for those persons, where approach associations dominate unilaterally. Such simple patterns of implicit cognitions are however not to be expected, as the above mentioned studies already showed. Thus, we sketch implications of our conceptualization by providing a very first – and yet unvalidated - sketch of potential association patterns for two consumer groups: “professional gamblers” and “problem gamblers”.

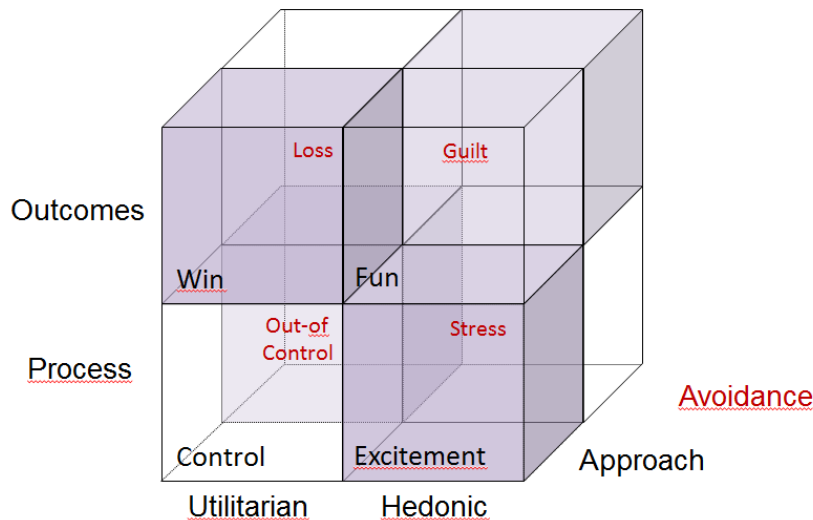
An initial – yet unvalidated - sketch of the gambler type “professional gambler” can be based upon conceptual thoughts: given that professional gamblers perceive their gambling as a serious job with its own career (Hayano, 1977), they should associate their activities with rational motives both in terms of process as well as outcome. The outcome evaluation is likely to be based purely on rational considerations while emotional aspects of winning or loosing should be torn out. Rational outcome associations should then focus on win and neglect (potential) losses, a mental shortcoming which is addressed as a pathway of “fame, fortune and failure” (Hayano, 1984). Figure 2 illustrates such a possible profile in the implicit gambling association cube, knowing that it needs empirical validation.

Figure 4: Possible Gambling Association Cube of a Professional Gambler



A characterization of problem gamblers will be much more difficult to achieve as quite different personality profiles (e.g. Clarke 2004, Slutske et al 2005) impact problematic gambling behavior. In their seminal review article about pathways to pathological gambling, Blaszczynski and Nower (2002) differentiate three distinct subgroups of gamblers as (a) behaviourally conditioned, (b) emotionally vulnerable and (c) antisocial, impulsivist. This let us expect to find quite different Gambling Association Cubes for the different pathological gambling types. The first (and most simple) pathway is characterized by classic and operant conditioning, followed by habituation and finally chasing. From this perspective, it is likely that utilitarian outcome associations of winning are coupled with positive hedonic process associations, which might lead to an approach orientation both at the outcome as well as process level. Experienced losses are likely to be mentally deemphasized and attributed externally (Toneatto 1999). If at all, this may ultimately result in limited out-of-control avoidance associations. Finally, implicit associations of guilt might be present once gambling-related conflicts within family and friends were already experienced. They, however, are likely to be devalued as well (Yi and Kanetkar 2011). This leads to following initial sketch of a profile for a (not the!) problem gambler (Figure 3):

Figure 5: Possible Gambling Association Cube of a Potential Problem Gambler



By taking a more granular perspective we broadly divided gamblers into two parts, i.e. ‘Professional Gambler’ and ‘Non-professional or Problem gambler’. A more deep-dive into the literature as well as a qualitative research inquiry are clearly required to substantiate this very first impression. This, however should be a very important and fundamental exercise as the inherent act of ‘Gambling’ is clearly very different for these two gambler archetypes that should logically result into different sets of arrays.

Specific association patterns of consumer groups need to be explored empirically given the explorative research setting in which implicit cognition research operates. Thus it is too early to conclude form specific patterns of the implicit association cube about the problem level of gamblers. Nonetheless, the above provided sketch of potential profiles of specific gambler types is based upon prima-facie evidence and previous – but limited – research findings. We hope that it encourages further research in further conceptual developments as well as in clearly needed empirical testing.

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