# Shame-prone gamblers and their coping with gambling loss

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#### Abstract

Applying recent research on self-conscious emotions (e.g., Tangney & Dearing, 2002) to the literature of gambling, the proposal that painful self-conscious emotions brought about by chronic awareness of personal inferiority and inadequacy, deemed as a major predisposing factor for problem gambling (Jacobs, 1986), appears to be compatible with the chronic affective trait of shame-proneness but incompatible with guilt-proneness. This premise led to the hypothesis that shame-proneness is strongly associated with problem-gambling severity, whereas guilt-proneness is minimally associated with problem gambling. Further, it was hypothesized that shame-prone gamblers frequently use avoidant coping strategies following gambling loss and chase losses, whereas this tendency is minimal among guilt-prone gamblers. These hypotheses were supported by the data from a retrospective survey of recent gambling loss occasions (N=284). The findings indicate that shame-proneness may mitigate gambling problems.

Keywords: shame-proneness; problem gambling; gambling loss; avoidant coping

# Résumé

L'application aux études sur le jeu des résultats de recherches récentes sur les émotions liées à la conscience de soi (p. ex., Tangney et Dearing, 2002) a permis de faire la constatation suivante : la proposition selon laquelle ces émotions, lorsqu'elles sont douloureuses et provoquées par un sentiment chronique d'infériorité et de mésadaptation, seraient un important facteur prédisposant au jeu compulsif (Jacobs, 1986) semble se vérifier chez les personnes ayant comme trait affectif chronique une propension à la honte, mais ne pas s'avérer juste chez celles ayant une propension à la culpabilité. Cette prémisse a mené à la formulation de l'hypothèse selon laquelle la propension à la honte est fortement associée aux problèmes graves de jeu compulsif, alors que la propension à la culpabilité n'est

associée au jeu compulsif que de façon minimale. Il a également été postulé que les joueurs ayant une propension à la honte usent fréquemment de stratégies d'évitement après avoir connu des pertes ou tenté de récupérer des sommes perdues, et qu'inversement cette tendance est peu présente chez les joueurs ayant une propension à la culpabilité. Une étude rétrospective de nombreux cas de pertes au jeu (N=284) a été effectuée afin de corroborer ces hypothèses, et les résultats de cette étude indiquent que la propension à la honte est un des facteurs de risque prédisposant au jeu compulsif, tandis que la propension à la culpabilité pourrait avoir pour effet d'atténuer les problèmes de jeu.

# Introduction

The account of gambling as a means of dealing with negative affect, such as depressive states and boredom (McCormick, 1988), is well-established in the gambling literature. Hull's (1981) self-awareness model of alcohol addiction and Jacobs' (1986) general model of addiction are particularly noteworthy in that they clearly single out aversive affect arising from deep feelings of inferiority and inadequacy as one of the major predisposing factors for alcohol addiction and problem gambling. Specifically, according to Jacobs (1986), preoccupied with the conviction that "they are inferior, unwanted, unneeded and/or generally rejected by parents and significant others" (p. 17), these individuals engage in gambling activities and/or other addictive behaviors in order to escape from painful self-awareness. McCormick's (1988) subtype of "recurringly depressed pathological gamblers" is thematically consistent with Jacobs' (1986) model in that these gamblers tend to "generalize the impact of a setback in one part of their life to other parts, and they believe that things have always been bad and will continue to be so" (p. 260).

The central role of deep feelings of personal inadequacy in the development of behavioral addiction in Jacobs' (1986) model is echoed by Heatherton and Baumeister's (1991) escape theory. Heatherton and Baumeister (1991) posit that some individuals are vulnerable to negative self-awareness since they focus on personal inadequacies and blame the self for failure. Chronic high levels of self-awareness produce such painful negative feelings that these individuals are motivated to escape from self-awareness. To escape from painful feelings of failure, they tend to engage in cognitive narrowing, which refers to the narrowing of one's attention to "the immediate present, concrete, low-level thinking, and the refusal of broadly meaningful thought" (Heatherton & Baumeister, 1991, p. 8). Cognitive narrowing helps individuals temporarily forget aversive self-awareness by facilitating absorption in immediate sensations. Heatherton and Baumeister (1991) explain how binge eating and drinking result from the process of cognitive narrowing in response to painful self-awareness. It is highly plausible that gambling provides

another mechanism of escaping from the chronic experience of painful negative selfawareness posited by Heatherton and Baumeister (1991).

Although the central role of negative self-regard and painful self-awareness in the development of gambling and addictive behaviors has been acknowledged, recent theories and empirical findings on self-conscious emotions (for reviews, see Tangney & Fischer, 1995; Tracy, Robins, & Tangney, 2007) have not been incorporated in gambling research. In this article this gap was filled by explicitly considering *individual differences* in the chronic tendency to be prone to distinct types of negative self-conscious emotions, namely, guilt- and shame-proneness, in the context of gambling. Although the terms guilt, shame, and embarrassment are often used interchangeably by researchers and lay people, it has been found that these emotions have different antecedents, phenomenology, and action tendencies. This line of research is useful in establishing the conceptual link between shame- versus guilt-proneness and frequent aversive self-awareness as well as the sense of inferiority, which are posited as a predisposing factor for problem gambling (Jacobs, 1986; McCormick, 1988).

# The shame versus guilt distinction

A thorough review of previous gambling literature found that when the reference to gamblers' experience of self-conscious emotions due to negative self-awareness is made, the term guilt is commonly used. For example, Lesieur (1992) states that some individuals gamble as a way of relieving guilt along with anxiety, depression, and feelings of helplessness. Similarly, Gupta and Derevensky (1998) report that problem gamblers "show tendencies towards being guilt-prone and insecure" (p. 26), and that adolescents with gambling problems experience "guilt associated with their gambling problems" (Gupta & Derevensky, 2000, p. 44). Furthermore, one of the items used in the Canadian Problem Gambling Index (Ferris & Wynne, 2001) specifically asks about the frequency of "feeling guilty about your gambling." In contrast, the experience of shame due to chronic aversive self-awareness is rarely mentioned in the gambling literature. Moreover, the experiences of guilt versus shame in the context of gambling have rarely been separately discussed with a notable exception of Rosenthal and Rugle (1994). They observed that problem gamblers tend to experience guilt when they feel they can undo problems and losses. In contrast, shame is experienced when they feel that things cannot be undone and gambling offers an escape from painful awareness of shameful feelings. However, no further discussion of distinct effects of experiencing shame and guilt in the gambling context was offered by Rosenthal and Rugle (1994).

The lack of distinction between shame and guilt in the gambling literature is at odds with the recent conceptualization of shame versus guilt in the self-conscious emotion literature. Following H. B. Lewis's (1971) pioneering research on guilt and shame, researchers have reached the consensus that the key difference between guilt and shame rests in the role of the self in these experiences (Tangney & Dearing, 2002). According to Lewis (1971), the experience of shame is "directly about the self, which

is the focus of evaluation," while in guilt, "the self is not the central object of negative evaluation, but rather the thing done or undone is the focus" (p. 30). Lewis further argues that in the experience of guilt, "the self is negatively evaluated in connection with something but is not itself the focus of the experience" (p. 30). In other words, guilt involves preoccupation with a specific transgression ("I did that horrible *thing*"), whereas the experience of shame derives from negative evaluation of the global self ("I did that horrible thing") (Tangney & Dearing, 2002). Furthermore, shame is experienced when people attribute negative events to perceived deficiencies of the core self (Klass, 1990) and perceive that their deepseated flaws are revealed to oneself or others (Miller & Tangney, 1994). In contrast, guilt is experienced when individuals attribute setbacks and transgressions to specific and unstable internal factors (e.g., temporary slips) (Hoblitzelle, 1987). Devaluation of the global self that accompanies the experience of shame makes this emotion more debilitating and painful than guilt, and thus shame has been associated with the perception of helplessness and paralysis (e.g., "I couldn't have done differently even if I had pressed myself to") (Tangney & Dearing, 2002).

Theories and empirical research on this distinction between guilt and shame as emotional states offer a fruitful avenue for future research on gambling. For example, a recent study (Yi & Kanetkar, 2011) showed that following gambling losses, problem gamblers experienced more intense shame than low-risk gamblers, whereas the intensity of guilt following gambling losses did not differ. Future research should investigate the possibility that an acute experience of shame may trigger the desire to gamble in problem gamblers.

#### Shame- versus guilt-proneness as affective trait

Although guilt and shame were initially conceptualized as temporary emotional states, emotion researchers have also theorized the chronic propensity to guilt and shame as an individual difference construct (i.e., trait). In other words, shameproneness and guilt-proneness are traits that reflect individual differences in cognitive, affective, and behavioral responses to transgressions and setbacks (see Tangney, Youman, & Stuewig, 2009, for a review). Shame- and guilt-proneness are believed to be developed by middle childhood, after the development of the cognitive representation of the self concept. Children's shame-proneness has been associated with detrimental family dynamics and parenting styles such as parental hostility, little recognition of positive outcomes, and harsh and inconsistent parenting (Gilbert, Allan, & Goss, 1996). In contrast, parents of guilt-prone children were less likely to ignore their children or express disgust at them and more likely to use behaviour-focused messages rather than person-focused messages when disciplining them (Tangney & Dearing, 2002). Once developed, shame- and guiltproneness remain relatively stable over a life span. According to a longitudinal study reported in Tangney and Dearing (2002), shame-proneness and guilt-proneness at age 12 were quite predictive of shame-proneness and guilt-proneness at age 18 (r=.38 and .41, respectively).

Furthermore, shame-proneness is associated with a more maladaptive style of attribution than guilt-proneness. Specifically, shame-prone individuals chronically make internal, stable, and global attributions for setbacks and transgressions, whereas guilt-proneness is associated with the tendency to make internal, temporary, and specific attributions (Tangney & Dearing, 2002). In other words, shame-prone individuals are likely to engage in *characterological* self-blame after committing transgressions, whereas guilt-prone individuals are likely to use *behavioural* self-blame (Janoff-Bulman, 1979).

Moreover, there is growing evidence that shame-proneness is associated with more negative psychological outcomes than guilt-proneness. For example, Tangney, Wagner, and Gramzow (1992) report that shame-proneness is positively correlated with low self-esteem, impaired empathy with others, difficulty in dealing with anger, and interpersonal problems, whereas guilt-proneness is not significantly correlated with these problems. Furthermore, shame-proneness is positively correlated with addictive behaviours such as alcohol problems and substance use (Dearing, Stuewig, & Tangney, 2005) and eating disorder symptoms (Sanftner, Barlow, Marschall, & Tangney, 1995). In contrast, guilt-proneness was either unrelated or negatively related to these behaviours.

Applying previous research on guilt- and shame-proneness to the context of problem gambling, two research questions are examined in this article. The first research question is to investigate the relationship between problem gambling and shame- versus guilt-proneness. Based on the differences between guilt and shame summarized above, it is likely that shame-prone individuals' maladaptive attributional style and characterological self-blame would increase their vulnerability to the use of gambling as an escape mechanism. Considering that the act of gambling and its immediate environment is sensory-rich and attention-grabbing, gambling appears to be an ideal avenue for shame-prone individuals who seek cognitive narrowing. In contrast, guilt-proneness is closely associated with a chronic tendency to make internal, temporary, and specific attribution, which protects the self from unwarranted global devaluation following setbacks and failures. Therefore, guilt-prone individuals are likely to be relatively impervious to the acute experience of painful self-awareness posited as a proximal trigger of gambling and other addictive behaviour (Jacobs, 1986; Heatherton & Baumeister, 1991).

H1: Shame-proneness will be positively associated with problem gambling severity. In contrast, guilt-proneness will be either negatively or minimally associated with problem gambling severity.

#### Shame- versus guilt-proneness and coping with gambling loss

Another research question pursued in this article is the possibility that once gambling losses are incurred, shame- versus guilt-prone gamblers may cope with them differently. To the extent that the odds of loss are higher than those of gain in all forms of commercial gambling, how gambling losses are dealt with appears to be important to individuals' well-being and subsequent gambling patterns. Even though the construct of coping (Lazarus & Folkman, 1984) has been applied extensively to the study of gambling, few researchers have investigated how individuals cope with gambling losses. Two studies that are notable exceptions (Shepherd & Dickerson, 2001; Yi & Kanetkar, 2011) are briefly summarized below.

Shepherd and Dickerson (2001) tested the hypothesis that impaired control over gambling would be positively associated with the use of avoidant coping strategies (e.g., mental disengagement, behavioral disengagement, denial, wishful thinking) in response to specific gambling loss episodes. Although this hypothesis received support, the use of problem-focused coping strategies in response to gambling loss was also greater among individuals with impaired versus intact control over gambling. This unexpected finding was deemed partly due to the use of the COPE inventory (Carver, Scheier, & Weintraub, 1989), which was developed to assess coping with general life stressors. Specifically, some items in the COPE inventory are worded in such an abstract way that they can be interpreted in multiple ways in the gambling context. For example, the item "I made a plan of action to deal with the loss" can be construed either "as planning to secure more funds for the purpose of future gambling and recouping the loss" or "as planning to reduce future gambling activities" (Shepherd & Dickerson, 2001, p. 167). These findings suggest that the use of the inventory specifically designed to assess coping efforts in response to gambling loss is warranted.

In order to address this gap, the author has been developing an instrument designed to assess the coping with gambling loss. These coping strategies were used in a separate paper (Yi & Kanetkar, 2011) to investigate the relationship between the intensity of shame versus guilt experienced following gambling loss (i.e., shame and guilt as emotion *states*) and the subsequent use of coping strategies. We found that the use of avoidant coping strategies was positively predicted by the intensity of shame following gambling loss, whereas it was not associated with the intensity of guilt. Furthermore, it was found that the intensity of shame partially mediated the effect of problem gambling severity on the use of avoidant coping strategies.

Unlike the previous paper (Yi & Kanetkar, 2011), the main focus of the current article is to investigate the relationship between shame- versus guilt-proneness (i.e., shame and guilt as chronic affective *traits*) and the use of different types of coping strategies following gambling loss. To the extent that shame-proneness is highly associated with the maladaptive tendency of attributing setbacks and transgressions to the core self (Tangney & Dearing, 2002), it is likely that shame-prone individuals would predominantly use avoidant coping strategies (i.e., wishful thinking, nondisclosure, and mentally distorting loss) to deal with gambling loss. In contrast, since guilt-proneness is associated with the chronic tendency of attributing negative events to unstable and specific aspects of the self (e.g., temporary slips), guilt-prone individuals are less likely to use avoidant coping strategies. Instead, guilt-proneness

is likely to be positively associated with the frequent use of nonavoidant coping strategies in response to gambling loss, such as planful problem solving and seeking social support.

H2: The use of avoidant coping strategies following gambling loss will be positively associated with shame-proneness, whereas it will be either negatively or minimally associated with guilt-proneness.

H3: The use of nonavoidant coping strategies will be positively associated with guilt-proneness, whereas it will be either negatively or minimally associated with shame-proneness.

Another hypothesis tested in the current article is that chasing, defined as the attempt to recover one's gambling losses by further gambling (O'Connor & Dickerson, 2003), would be more frequent among shame-prone individuals than guilt-prone individuals. Based on research on the motivation of shame (Lindsay-Hartz, de Rivera, & Mascolo, 1995; Tangney, Miller, Flicker, & Barlow, 1996), shame-prone individuals are likely to be motivated to chase losses in order to counter acute feelings of failure that arise due to gambling loss. This possibility is echoed by Rosenthal and Rugle's (1994) comment that the defense against shame is to "counter feelings of weakness, impotence, and paralysis" (p. 34) by further gambling. On the other hand, guilt-proneness is likely to motivate genuine attempts to repair and discontinue the harm due to gambling loss, which is incompatible with chasing.

H4: Chasing loss will be positively associated with shame-proneness, whereas it will be negatively related to guilt-proneness.

# Method

Survey methodology was used to test the hypotheses and develop the coping instrument. Specifically, a retrospective approach was used in which gamblers recalled a recent gambling loss experience and reported the range of coping strategies they used in the wake of this loss.

# **Participants**

Participants were recruited by running advertisements in local newspapers and websites that carry classified advertisements. Three-hundred twenty-one individuals participated in the online study in exchange for having their names entered into a drawing for cash prizes. The odds for winning the prize were 1 out of 20. Participants had to be at least 23 years old to be eligible for the survey. Furthermore, to qualify, participants had to have spent at least \$80 on a single gambling occasion within the last three months and have felt badly about it. Thirty-seven participants did not answer a substantial number of questions and had

to be removed from further analysis; therefore, the data of the remaining 284 participants were used in the analysis. Sixty-two percent of the participants were male. About 39% of the participants were under the age of 30, 26% were between 30 and 39, 23% were between 40 and 49, and 12% were 50 and over. Sixty-eight percent of the participants reported gambling at least once a month.

#### Procedure

Upon completing the consent form, participants were asked to think back to the last time they gambled a significant amount of money at a casino or an online gambling site. At the outset of the survey, participants were asked to describe the gambling loss occasion in detail (e.g., where and when it occurred, how much they lost, who they were with). Participants' coping efforts were assessed using a coping scale specifically intended to assess coping efforts to deal with negative emotions in the gambling loss context. Participants were then asked to complete a series of individual difference measures as described below. Participants exited the survey after providing demographic data (i.e., age and gender).

# Measures

Shame- and guilt-proneness. Shame-proneness and guilt-proneness were measured using the Test of Self-Conscious Affect ver. 3 (TOSCA-3, Tangney, Dearing, Wagner, & Gramzow, 2000). TOSCA-3 is a self-report measure in which respondents are asked to indicate how they would respond in 16 vignettes describing common day-to-day situations. Guilt- and shame-proneness subscales in TOSCA-3 are known to have high test-retest reliability as well as convergent and divergent validity (e.g., Tangney et al., 1992). As in previous studies, shame-proneness was moderately correlated with guilt-proneness (r=0.57, p<.001). The internal consistency of shame- and guilt-proneness was also high in this study (Cronbach alpha=0.83 and 0.86, respectively).

**Problem gambling severity.** Problem gambling severity was measured with the Problem Gambling Severity Index (PGSI) of the Canadian Problem Gambling Index scale (CPGI: Ferris & Wynne, 2001). Developed based on DSM-IV (APA, 1994), the PGSI consists of nine items measured on a 4-point scale (0=never, 1=sometimes, 2=most of the time, 3=almost always). Participants were asked to indicate the frequency of engaging in thoughts and behaviors commonly associated with problem gambling (e.g., "bet more than you could really afford to lose") within the last 12 months. One advantage of the PGSI is that the total score, ranging from 0 to 27, denotes the continuum of problem gambling, but it can also be used to create four discrete categories: nongamblers (0), low-risk gamblers (1–2), moderate-risk gamblers (3–7), and problem gamblers (8–27). The PGSI is reported to have sound psychometric properties (Ferris & Wynne, 2001). The PGSI showed a high internal consistency in this study (Cronbach alpha=0.82). The mean of PGSI was 7.34, and its standard deviation was 5.76 in this study.

**Coping.** The coping instrument used in this study was specifically designed to assess coping efforts that deal with negative emotions in the gambling loss context. This scale has been reported on elsewhere (Yi & Kanetkar, 2011). The scale was still being developed during this study, and 34 coping items were included in the instrument. These items were intended to assess the frequency of using avoidant coping strategies and nonavoidant coping strategies following gambling losses. The 34 coping items were subsequently reduced to 21 items, and the process of refining this instrument is reported in the Results section.

Seeking social support (3 items, e.g., "I sought sympathy and understanding from someone"), planning to make up for monetary loss (3 items, e.g., "I tried to cut back on other expenses in order to make up for the lost money"), and rationalization (4 items, e.g., "I told myself I deserve to spend money on gambling from time to time") were nonavoidant coping strategies. Avoidant coping strategies included wishful thinking (3 items, e.g., "I wished that the lost money would somehow be recovered"), nondisclosure (4 items, e.g., "I kept others from knowing how bad things were"), and cognitive distortion of loss (4 items, e.g., "I thought that sustaining some losses is the only way to win big"). Each coping item was measured on a 5-point scale (1= "not at all/does not apply", 5= "to a great extent"). The coefficient alphas of the coping factors were satisfactory: seeking social support (.73), planning to make up for monetary loss (.72), rationalization (.82), wishful thinking (.77), nondisclosure (.81), and cognitive distortion of loss (.84).

**Chasing.** Two items were used to assess the extent to which respondents attempted to chase loss following the recalled gambling loss episode. Participants were asked to indicate the extent to which "they decided to gamble in the following days or weeks in order to recoup the money they lost" and the extent to which "they tried to borrow money from others or get money some other way in order to gamble and recoup this loss" using a 5-point scale (1=not at all, 5=to a great extent). Responses to the two items were averaged to form an index of chasing (Cronbach alpha=0.64).

#### Results

#### Relations between problem gambling severity and shame- and guilt-proneness

First, bivariate correlations between the problem gambling severity score and shame-proneness and PGSI score and guilt-proneness, respectively, were computed. Problem gambling severity was positively correlated with shame-proneness (r=0.16, p=.009) and negatively correlated with guilt-proneness (r=-0.21, p<.001). To control for a correlation between shame- and guilt-proneness, semipartial correlations were computed. When guilt-proneness was controlled for, shame-proneness was highly correlated with the problem gambling severity (r=0.34, p<.001). When shame-proneness was controlled for, guilt-proneness was negatively correlated with gambling severity (r=-0.36, p<.001). These findings provided support to H1.

Overall, the participants reported significantly greater guilt-proneness than shameproneness [M=3.81 vs. 3.06; t (1, 259)=16.76, p<.001]. The means of shameproneness and guilt-proneness were compared across three categories of CPGI status (see Table 1). To control for the positive correlation between shame- and guilt-proneness, guilt-proneness was used as a covariate when shame-proneness was subjected to a one-way ANCOVA with CPGI status as a predictor variable. The omnibus F test associated with CPGI status was significant [F (2, 256)=19.20, p<.001], and guilt-proneness was a significant covariate [F (1, 256)=169.62, p<.001]. As expected, shame-proneness was significantly higher among problem gamblers than among moderate-risk gamblers, followed by low-risk gamblers (see Table 1).

Likewise, guilt-proneness was subjected to a one-way ANCOVA, with CPGI status as a predictor variable and shame-proneness as a covariate. The omnibus F test associated with CPGI status was significant [F(2, 256)=21.98, p<.001], and shameproneness was a significant covariate [F(1, 256)=169.62, p<.001]. It was found that guilt-proneness was significantly lower for problem gamblers than for either moderate-risk gamblers or low-risk gamblers, and moderate-risk gamblers and lowrisk gamblers did not statistically differ with respect to guilt-proneness.

# Development of the coping instrument

The initial list of coping efforts consisted of 66 items, which were generated by adapting existing coping scales [e.g., Folkman & Lazarus's (1988) Ways of Coping Questionnaire, and Carver, Scheier, & Weintraub's (1989) COPE inventory] to fit the gambling loss context and by conducting a series of one-on-one interviews with gamblers. A separate sample of 181 undergraduate students had been used to reduce the number of items and to check the initial structure of coping. The use of exploratory factor analysis had reduced the number of items to 34 in seven factors: seeking social support, planning to make up for monetary loss, rationalization, wishful thinking, nondisclosure, cognitive distortion of loss, and behavioural

Table 1Shame- and guilt-proneness per CPGI status

	# of participants	Shame-proneness	Guilt-proneness
Problem gamblers	117 (41.2%)	3.32 <sub>a</sub> (0.80)	3.55 <sub>a</sub> (0.77)
Moderate-risk gamblers	95 (33.5%)	2.94 <sub>b</sub> (0.84)	3.96 <sub>b</sub> (0.76)
Low-risk gamblers	72 (25.3%)	$2.71_{\rm c}$ (0.78)	4.11 <sub>b</sub> (0.60)
Total	284	3.06 (0.82)	3.81 (0.75)

*Note*: Means that bear different letter subscripts under each column significantly differ at  $p \le 0.05$ . Numbers in parentheses refer to standard deviations.

disengagement strategies (e.g., overeating and using alcohol to avoid thinking about the stressor). This 34-item coping scale was administered to the present sample.

With the use of exploratory factor analysis and an oblique Promax, the number of items in the coping instrument was reduced from 34 to 21 for the current study by deleting items that had a low item-to-total correlation and/or substantial cross-loadings on nontarget factors. The six-factor solution was deemed most interpretable, and the extracted factors were consistent with those identified in the small undergraduate sample. The only exception was that behavioural disengagement did not emerge as an interpretable factor. The exploratory factor analysis showed that each item loaded most highly on the hypothesized factor and that there were relatively few cross-loadings (4, or 2.6%, of all possible nontarget loadings were greater than .3, the highest being .45). The average loading on target factors was .74 (the minimum was .47) and the six factors accounted for 67% of the variance in the observed measures. The scale items were reported in a separate paper (Yi & Kanetkar, 2011).

Overall, wishful thinking was the most frequently used coping strategy, whereas seeking social support and mental distortion were the least frequently used (see Table 2). The correlations among the six coping strategies are also reported in Table 2. As expected, the three avoidant coping strategies (i.e., wishful thinking, nondisclosure, and cognitive distortion of loss) were positively correlated with one another. In addition, seeking social support and planning to make up for monetary loss were moderately correlated with the three avoidant coping strategies. On the other hand, rationalization was only weakly correlated with the other strategies except for cognitive distortion of loss.

# Table 2

	Means (SD)	1	2	3	4	5	6
1. Seeking social support	1.82 (0.91)						
2. Planning to make up for monetary loss	2.89 (1.09)	0.31*					
3. Rationalization	2.88	0.11	0.14*				
4. Wishful thinking	3.24	$0.20^{*}$	0.41*	0.02			
5. Nondisclosure	(1.17) 2.80 (1.81)	$0.20^{*}$	0.42*	$0.17^{*}$	0.53*		
6. Cognitive distortion of loss	(1.81) 2.27 (1.03)	0.41*	0.30*	0.43*	0.32*	0.34*	

Coping dimensions: Means and correlations

*Note:* Correlations that bear an asterisk are significant at  $p \leq .01$ .

#### Relationships between shame- and guilt-proneness and coping strategies

To test H2 and H3, zero-order and partial correlations between each of the coping strategies and shame- and guilt-proneness, respectively, were computed (see Table 3). When guilt-proneness was controlled for, shame-proneness was positively correlated with avoidant coping strategies, namely, wishful thinking, nondisclosure, and cognitive distortion of loss. In contrast, when shame-proneness was controlled for, guilt-proneness was negatively correlated with nondisclosure and cognitive distortion of loss. This finding provided strong support to H2. In contrast, none of the nonavoidant coping strategies were positively correlated with guilt-proneness. Unexpectedly, seeking social support was negatively correlated with guilt-proneness. In addition, when guilt-proneness was controlled for, shame-proneness was positively correlated with seeking social support and planning to make up for monetary loss. As such, H3 was not supported.

# Relationships between shame-proneness and chasing

To test H4, zero-order and semipartial correlation between chasing behavior and shame- and guilt-proneness, respectively, were computed (see Table 3). When guilt-proneness was controlled for, chasing was positively correlated with shame-proneness. When shame-proneness was controlled for, chasing was negatively correlated with guilt-proneness. This finding provided strong support to H4.

#### Discussion

Based on the premise that problem gambling is motivated by a need to escape from the sense of personal inadequacy and inferiority (Jacobs, 1986; Lesieur & Custer,

	Shame- proneness (bivariate)	Guilt-proneness (bivariate)	Shame- proneness (semipartial)	Guilt-proneness (semipartial)
Seeking social support	0.18***	-0.12*	0.31***	-0.28*
Planning to make up for monetary loss	0.21***	0.11	0.17***	-0.01
Rationalization	0.004	0.04	-0.02	0.04
Wishful thinking	0.40***	0.19*	0.35***	-0.04
Nondisclosure	0.21***	-0.07	0.30***	-0.23*
Cognitive distortion of loss	-0.01	-0.17*	0.12*	-0.21*
Chasing	0.02	$-0.25^{***}$	0.20**	-0.32***

 Table 3

 Correlations between shame- and guilt-proneness and coping strategies and chasing

*Note:*  $p \le .05$ ;  $p \le .01$ ;  $p \le .001$ .

1984), the goal of this study was to explore the possibility that a chronic affective propensity to experience shame in setbacks, namely, shame-proneness, might be strongly associated with problem gambling severity. Specifically, following the theoretical frameworks of the chronic affective propensity to distinct self-conscious emotions pioneered by H. B. Lewis (1971) (e.g., Tangney, Youman, & Stuewig, 2009), it was proposed that shame-proneness would be strongly associated with problem gambling severity, whereas guilt-proneness would be minimally associated with it.

The hypothesized relationship between shame-proneness and problem gambling (i.e., H1) was confirmed by the finding that problem gambling severity was positively correlated with shame-proneness when guilt-proneness was controlled for. In contrast, guilt-proneness was negatively correlated with problem gambling when shame-proneness was controlled for. This finding is consistent with the premise that gambling activities help shame-prone individuals temporarily escape from aversive self-awareness by narrowing their attention to immediate, low-level tasks (Heatherton & Baumeister, 1991; Jacobs, 1986). An important contribution of this study is that it pinpoints the chronic propensity to shame as a potential risk factor of problem gambling, whereas its close cousin, guilt-proneness, is negatively correlated with problem gambling.

This finding may be surprising given that shame and shame-proneness are much less frequently mentioned than guilt and guilt-proneness in the literature of problem gambling. This is probably because the terms guilt and shame are often used interchangeably by gamblers and researchers. In this regard, Rosenthal (1986) rightly observed that when some problem gamblers talk about guilt, "their guilt is a sham" (p. 114). According to Rosenthal (1986), they are very good at blaming others as well as themselves for their gambling problems, and they do not have concern for what they have done, nor do they make a real effort at making reparations. The current finding suggests that these gamblers are likely to have high shame-proneness and low guilt-proneness.

Although the correlational data cannot cast light on the issue of causality, it is more likely that shame-proneness is an antecedent to the development and/or escalation of problem gambling than that problem gambling precedes the development of shame-proneness. Since shame-proneness is relatively stable once it is developed in middle childhood (i.e., about age 10–12, Tangney & Dearing, 2002), shameproneness is likely to precede habitual use of gambling as an escape mechanism, which is reported to develop during or after adolescence. However, it is not possible to completely rule out the possibility that problem gambling may contribute to further increases in shame-proneness. Furthermore, previous research suggests that other maladaptive personality traits are associated with the increased risk of problem gambling. For example, several individual difference variables such as chronic depression (Blaszczynsky & McConaghy, 1989) and narcissistic personality (Rosenthal, 1986) have been linked to problem gambling. Hence, it would be reasonable to posit that shame-proneness and the chronic tendency of global selfdevaluation could be factors that contribute to depression and narcissistic personality. This proposition is based on the views that narcissism is often conceptualized as a defense against excessive shame (Lewis, 1987; Wright, O'Leary, & Balkin, 1989) and that characterological self-blame, which is an essential component of shame-proneness, is theoretically and empirically linked to chronic depression (for a review, see Robins, 1988). The hypothesis that narcissism may mediate the effect of shame-proneness on problem gambling severity is worthy of investigation in the future.

Another research question addressed in this article concerns whether shame-prone gamblers use different sets of coping strategies to deal with gambling loss episodes than those used by guilt-prone gamblers. The current data clearly indicates that the use of avoidant coping strategies after gambling loss, namely, wishful thinking, nondisclosure, and cognitive distortion of loss, was positively correlated with shame-proneness, while their correlation with guilt-proneness was negative. Previous research in other domains found that frequent use of avoidant coping strategies in response to stress provided only short-term relief and was followed by maladaptive consequences in the long term (e.g., Suls & Fletcher, 1985; Aldwin & Revenson, 1987). Extending these findings to the gambling loss context, it is reasonable to presume that shame-prone individuals' frequent use of avoidant coping in response to gambling loss is likely to be followed by negative long-term outcomes such as the accumulation of debt, conflict with significant others, and helplessness. A longitudinal panel study would be necessary in order to formally test this possibility. On a different note, it is notable that even though the association between shame-proneness and avoidant coping *style* (i.e., coping as a trait) has been reported by previous researchers (e.g., Rubeis & Hollenstein, 2009), this article is the first to report the link between shame-proneness and the use of avoidant coping (i.e., coping as a state) in response to an adverse event. As such, this finding helps fill this gap in the coping literature.

On the other hand, the current data did not lend support to the hypothesis that nonavoidant coping strategies would be strongly associated with guilt-proneness (H3). It was found that guilt-proneness was not positively associated with planning to make up for monetary loss. Another unexpected finding was that seeking social support was positively associated with shame-proneness and negatively associated with guilt-proneness. At first blush, this finding does not appear to be consistent with the traditional conceptualization of seeking social support as a type of nonavoidant coping strategy. If anything, seeking instrumental and emotional support from others seems to be more in line with the action tendency of guilt (i.e., confessing, apologizing, and repairing the harm) rather than shame. However, together with the finding that shame-proneness was positively correlated with nondisclosure, this finding seems to suggest that shame-prone individuals seek social support to a great extent but they are selective in seeking support. For example, since some of the seeking social support items did not specify the person from whom participants sought social support,<sup>1</sup> shame-prone participants may have expressed their frustration to gambling pals to a great extent while not disclosing this loss to significant others. To secure the validity of the assessment of seeking social support, it would be necessary for researchers to clearly specify the source of social support sought in the coping questionnaire.

Lastly, the data provided support for the hypothesis that chasing loss would be positively associated with shame-proneness, while it would be negatively related to guilt-proneness (H4). The link between shame-proneness and chasing appears to be consistent with Rosenthal and Rugle's (1994) view that chasing is a desperate attempt to "counter feelings of weakness, impotence, and paralysis" (p. 34) that lie at the root of the chronic experience of shame. In contrast, the chronic tendency to attribute adverse events to internal, temporary, and specific factors (e.g., temporary slips) associated with guilt-proneness appears to reduce the tendency to chase loss. However, it should be acknowledged that the measure of chasing fell short of assessing actual chasing behavior and simply gauged the desire to chase loss. A more definite test of this hypothesis would be possible by measuring the frequency of within-session and across-session chasing following a session of gambling loss (e.g., O'Connor & Dickerson, 2003).

These findings may appear to be similar to the recent findings that problem gamblers experienced more intense shame following gambling loss than low-risk gamblers, and that the use of avoidant coping was more strongly predicted by the intensity of shame versus guilt experienced following gambling loss (Yi & Kanetkar, 2011). However, it should be noted that shame-proneness is a distinct construct from the intensity of experienced shame in that the former is a dispositional tendency (i.e., trait), whereas the latter is a temporary emotional state. Furthermore, shame is not necessarily consciously experienced following setbacks in highly shame-prone individuals since they may regulate it through suppression, externalization, and self-aggrandizement before the sting of shame is consciously experienced (Lewis, 1987). Thus, the main distinct finding from this study relative to the findings from Yi and Kanetkar (2011) is that individuals with higher shame-proneness tend to use more avoidant and nonavoidant coping following gambling loss regardless of the intensity of self-conscious emotions experienced in this situation.

However, this study is not free of limitations. First, even though the coping scale used in this study provided the unique benefit of assessing coping efforts that are specific to the gambling loss context, its convergent validity and its discriminant validity have not been established. This scale needs to be further refined and validated against multiple

<sup>&</sup>lt;sup>1</sup>Only one of the items used to measure seeking social support specified the person from whom social support was sought (i.e., "I asked people who have had similar problems what they did to deal with this problem"). The other items did not specify the source of social support (i.e., "I discussed my feelings with someone"; "I sought sympathy and understanding from someone").

samples of gamblers. More importantly, since all the variables were collected in a retrospective survey, findings from this study may be subject to common method bias and memory bias. As such, it was not possible to ascertain the temporal and/or causal relationships between shame-proneness and the use of avoidant coping strategies. Also, since these findings were obtained in the context of a single gambling loss, it was not possible to verify whether the obtained pattern is consistent across multiple gambling loss episodes. The use of a prospective research design such as the ecological momentary assessment (EMA) methodology (Stone, Shiffman, & DeVries, 1999) is warranted in order to track the consistency of coping attempts used to deal with multiple gambling loss episodes over a length of time.

Another limitation is that because only individuals who felt badly about a recent gambling loss were eligible to participant in the current study, findings from this study are not generalizable to gambling loss episodes that do not evoke considerable negative affect. This eligibility criterion was a deliberate choice in that the construct of coping would be meaningless for occasions in which gambling loss did not elicit any negative emotions and thus did not considerably tax individuals' mental resources. Unfortunately, there is a paucity of systematic research on the frequency and intensity of negative affect following gambling loss occasions across individuals and within the same individual over time. However, it should be acknowledged that gambling loss does not necessarily elicit negative emotions and subsequent coping efforts. For example, a few clinicians have observed that some problem gamblers who experience dissociative states while gambling (i.e., "being in a trance") do not keep track of time or money won or lost (e.g., Jacobs, 1988), which implies the lack of intense negative feelings following their immediate gambling loss, at least in the short term. Future research is necessary to explore situational variables that intensify and/or dampen negative affect following gambling loss and intra-individual variability in the intensity of negative emotions across multiple episodes of gambling loss.

Despite these limitations, this study provides strong evidence for the claim that shame-proneness increases the risk of problem gambling and that unlike guilt-prone individuals, shame-prone individuals frequently use various coping strategies and chase loses. Furthermore, even though the use of gambling as an escape mechanism has been recognized in the gambling literature (e.g., Jacobs, 1986; McCormick, 1988), the empirical link between the chronic affective propensity to shame and problem gambling severity has not been made before. As such, this article provides important contributions to the discipline of gambling research.

Lastly, the distinction between guilt- and shame-proneness has important clinical implications. To the extent that the chronic propensity to shame precipitates the need to use gambling as an escape mechanism, it is important for clinicians to address the problem of chronic experiences of shame and self-loathing. Specifically, since aversive self-awareness results from a chronic tendency to attribute major and minor adverse events to the flawed self, it is advisable for clinicians to help rebuild patients' self-worth in counseling sessions. For example, clinicians should probe

sources of patients' aversive self-awareness (e.g., patients' childhood and adolescent experience of feeling neglected by caregivers) and assist them to reaffirm their self-worth. In addition, it is important to avert the chronic experience of shame by encouraging patients to try to attribute adverse events not to the flawed self but to internal, temporary, and specific factors that they are able to control (e.g., temporary slips or the lack of effort). Moreover, clinicians may consider focusing their therapy on reducing the patients' preoccupation with their self and personal inadequacies and on increasing gamblers' empathy with significant others who suffer from the consequences of their gambling (e.g., Pattison, 2000). Once chronic experience of shame and self-loathing is lowered, interventions that focus on specific behavioral changes are likely to become more effective.

Furthermore, findings from the current study suggest that it is important to reduce gamblers' use of avoidant coping strategies and chasing in the event of gambling loss. One way of reducing these maladaptive coping strategies is to encourage gamblers to attribute the loss of control in the previous gambling session to temporary and specific factors (e.g., "I should have stopped gambling when my spouse left the casino") rather than to stable and global factors (e.g., "I can't seem to control my gambling no matter what I do"). This exercise will help gamblers to avert acute experience of shame and to realize that personal control over their gambling is within their reach if they adopt specific contingency action plans. Success of this exercise will depend on frequent monitoring of the extent to which they stick to contingency action plans after experiencing gambling losses.

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