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Humor as social risk-taking: The relationships among humor styles, sensation-seeking, and use of curse words

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Abstract: The research investigated the view that using humor can be a form of social risk-taking, as the attempt at humor may not always be viewed positively by others. Prior research has shown that individuals' levels of sensation-seeking, a personality variable related to risk-taking, was related to humor appreciation. Other research has shown that sensation-seeking also predicted the use of curse words, another form of verbal risk-taking. The present research tested two hypotheses: a) sensation-seeking positively relates to each of the four humor styles and b) the use of curse words also positively relates to each of the four humor styles. The results obtained from a large sample of undergraduate students partially supported the hypotheses. Multiple regression analyses using the hierarchical approach further showed that sensation-seeking predicted two of the four humor styles for men (i.e. affiliative, aggressive) and two of the four for women (i.e. aggressive and self-defeating). The use of curse words predicted variance not explained by variation in sensation-seeking in the use of the aggressive humor style in men and women and for the affiliative humor style only for men. Overall, men reported higher levels of aggressive humor, sensation-seeking, and cursing than women. Implications for theoretical perspectives on humor and social risk-taking are discussed.

Keywords: humor styles, cursing, sensation-seeking, social risk-taking, young adults

1 Introduction

Humor is a fundamental aspect of human interactions, and in recent decades, has received increasing attention from researchers (Martin 2006; Weems 2014).

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The study of humor has been advanced through the identification of two positive humor styles (i.e. affiliative, which includes the tendency to make others laugh, and self-enhancing, which includes using humor when alone to cope with stress) and two negative humor styles (i.e. aggressive, which includes teasing and putting others down for humorous effect, and self-defeating, which includes putting oneself down for humorous effect) (Martin et al. 2003). Martin (2006) reviewed the growing body of literature demonstrating that some individuals are more likely to appreciate and to use humor than others. In a recent study, Cann and Cann (2013) found that more frequent use of the aggressive humor style was related to lower perceptions of risk and greater amounts of actual risk-taking. The focus of the present research was to propose that humor is a form of social risk-taking, as is the use of curse words (Kennison and Messer 2017). This view is consistent with a common definition of risk-taking as doing something when the outcome is uncertain (Aven and Renn 2009; Fischhoff et al. 1978; Fox-Glassman and Weber 2016). Every utterance has the potential to have a different impact on the listener than that intended by the speaker (Austin 1962). The use of humor and the use of curse words may result in a listener responding positively with amusement or negatively, becoming offended. In the latter case, the use of humor may lead to negative social consequences, such as social stigmatization, ostracism, and/or loss of positive reputation (CareerBuilder 2012).

Cann and Cann (2013) pointed out the fact that humor research over the last few decades appears to have neglected topics related to negative aspects of humor, such as a link between the use of humor and greater risk-taking. Cann and Cann (2013) examined the relationship between humor styles and risk-taking and risk-perceptions. They found that participants who reported greater use of the aggressive humor style also reported lower risk-perceptions and greater risk-taking (e.g. having unprotected sex, texting while driving, among others). Risk perceptions and risk-taking were measured using the Domain-specific Risk-taking (DOSPRT, Weber et al. 2002; see also Blais and Weber 2006), which identified five domains of risk-taking (i.e. social, ethical, financial, health/safety, and recreational).

The purpose of the present research was to investigate the possibility that the use of humor is a form of social risk-taking, as is the use of curse words (Kennison and Messer 2017) and is related to sensation-seeking, the personality trait that has been shown to be positively related to risk-taking (Horvath and Zuckerman 1993; Roberti 2004; Zuckerman et al. 1964 and Zuckerman et al. 1978; Zuckerman 1994). In recent research, Kennison and Messer (2017) provided evidence that there is a link between the use of curse words and sensation-seeking. They proposed that the use of curse words (also referred to as swearing) is a form of social risk-taking and showed that sensation-seeking predicted use of curse words in a sample of

young adults. They also found that those who reported using curse words more frequently also reported engaging in higher amounts of risk-taking in the prior 30 days (e.g. sexual risk-taking and use of tobacco, alcohol, and illegal drugs). They argued that the use of curse words is a form of social risk-taking. Although few studies have addressed specifically verbal forms of risk-taking, in the DOSPERT (Weber et al. 2002), three of the six items assessing social risk-taking involved a type of verbal behavior (e.g. *disagreeing*, *speaking your mind*, and *admitting that your tastes are different from those of a friend*).

Prior to Kennison and Messer's (2017) research, no prior study had shown that a type of verbal behavior is related to sensation-seeking, for which the research literature extends back almost four decades. In seminal research by Zuckerman and colleagues (1978), individuals' sensation-seeking personality was assessed in a questionnaire that identified four aspects of sensation-seeking: a) experience seeking or desiring to experience novel sensory states either through interactions with unusual people or use of psychedelic drugs; b) boredom susceptibility or having an aversion to boring people and boring activities; c) disinhibition or enjoying the experience of being out of control as occurs at wild parties and/or using drugs and alcohol; and d) thrill and adventure seeking or enjoying dangerous physical activities, such as extreme sports. Numerous studies have confirmed the link between sensation-seeking and different examples of risk-taking, such as choosing dangerous careers (Goma et al. 1988; Zaleski 1984), engaging in dangerous sports (Goma-i-Freixanet et al. 2012; Zuckerman 1983a), driving recklessly (Jonah et al. 2001), gambling (Anderson and Brown 1984; Carver and McCarty 2013), using tobacco (Hampson et al. 2013; Zuckerman et al. 1990), abusing alcohol (Diulio et al. 2014; Zuckerman 1987), and abusing illegal drugs (Suerken et al. 2014; Zuckerman 1983b).

Understanding the relationships among these variables is important because risk-taking in all age groups, but particularly among adolescents and young adults, is a public health concern, as risk-taking is associated with higher rates of mortality (Eaton et al. 2010) and significant cost to society (DiClemente et al. 2009). If relationships between types of verbal behavior and risk-taking can be established, interventions designed to reduce risk-taking could be directed toward groups who curse and/or use humor frequently. Unlike some forms of risk-taking (e.g. taking illegal drugs and engaging in risky sexual behaviors), verbal forms of social risk-taking can be easily observed. Furthermore, prior research has shown that individuals' participation in each type of risk-taking is positively correlated with each of the other types, indicating that participating in any one type of risk behavior makes one more likely to engage in the other types of risk-taking behavior (Blais and Weber 2006; Weber et al. 2002). In the future, it may be possible to target individuals, particularly adolescents, with

interventions designed to reduce risk-taking based on the frequency with which they use verbal forms of social risk-taking.

We have found some support for our present inquiry from prior research. Although there has been no prior study demonstrating a link between sensation-seeking and individuals' use of the four humor styles measured by the HSQ (Martin et al. 2003), several studies have shown that sensation-seeking is positively related to humor appreciation (Carretero-Dios and Ruch 2010; Deckers and Ruch 1992; Forabosco and Ruch 1994; Lourey and McLachlan. 2003; Ruch 1988). We are not aware of any prior work linking the use of humor with using curse words. However, prior research suggests that both the use of humor and the use of curse words are related to individual differences in intelligence. Higher intelligence was found to be related to more use of humor (Christensen et al. in press; Greengross et al. 2012; Kellner and Benedek 2016) and more use of curse words; the use of humor and the use of curse words are positively related with intelligence (Jay and Jay 2015).

In the present paper, we report the results of a study with young adults in which we tested the following two hypotheses:

Hypothesis 1: Sensation-seeking positively relates to each of the four humor styles.

Hypothesis 2: The use of curse words positively relates to each of the four humor styles.

In the study, respondents provided information about their use of the four positive humor styles (i.e. affiliative, self-enhancing, aggressive and self-defeating), their sensation-seeking personality traits, their use of curse words, and demographic information.

2 Method

2.1 Participants

The participants were 333 undergraduates (166 women, 167 men). They were recruited from psychology and speech communication courses at Oklahoma State University. Participants received course credit as compensation for participation. Participant age was not assessed in the survey; however, in terms of year in university, 59% were freshman, 24%, sophomores, 15%, juniors, and 2% seniors. The sample was 70% White, 5% Hispanic, 13% Native American; 7% African-American; 4% Asian American, and 1% indicated *other*. The majority (i.e. 88%) of the sample reported annual family incomes during high school to be \$40,000 and

above. Seven percent of the sample reported annual family income during high school to be \$20,000 or below, and five percent, between \$20,000 and \$30,000.

2.2 Materials

Participants completed an online survey in which humor styles, sensation-seeking, the use of curse words, and demographics were assessed.

We assessed humor styles using the 32-item Humor Styles Questionnaire (HSQ, Martin et al. 2003). The questionnaire is a self-report measure that has four subscales, one for each of the four humor styles: affiliative, self-enhancing, aggressive, and self-defeating. In prior research, the HSQ has had high reliability (Cronbach alphas ranging from 0.70 to 0.86, see Baughman et al. 2012; Schermer et al. 2015). In the present study, we observed the following reliabilities: affiliative ($\alpha = 0.80$), self-enhancing ($\alpha = 0.80$), aggressive ($\alpha = 0.70$), and self-defeating ($\alpha = 0.77$).

We assessed the frequency of cursing using a self-report question as used by Kennison and Messer (2017) who selected the words because they appeared to be among the most frequently used English curse words. Participants' use of 20 common curse words was assessed (i.e. *ass, balls, bastard, bitch, cock, crap, damn, darn, dick, douche, fuck, goddamn, hell, piss, pussy, screw, shit, suck, tits, and whore*).

To assess sensation-seeking, we used Zuckerman and colleagues' 40-item Sensation Seeking Scale-V (SSS-V; 1978). As in prior studies conducted by Kennison and colleagues (Kennison and Ponce-Garcia 2012; Popham et al. 2011a and Popham et al. 2011b), participants were presented with 40 pairs of statements, and for each, they were asked to select the statement that described them best. The 40 items represent four subscales: a) thrill and adventure seeking; b) experience seeking; c) disinhibition; and d) boredom susceptibility. Prior research observed the following Cronbach's alphas: thrill and adventure seeking (0.91), experience seeking (0.79), disinhibition (0.83), and boredom susceptibility (0.72), (Gray and Wilson 2007). We observed the following Cronbach's alphas in the present study: thrill and adventure seeking (0.76), experience seeking (0.72), disinhibition (0.78), and boredom susceptibility (0.74).

2.3 Procedure

IRB approval was obtained for the study that was conducted via the Internet. We recruited participants for the study through the Department of Psychology SONA

system. Responses were collected using a professional license of SurveyMonkey.com. Participants' responses were stored in a database anonymously without association with names, IP addresses, or any other identifiers that could link individuals to data. Participants received the same order of questionnaires: HSQ, sensation-seeking, use of curse words, and demographics. We used the same order for all participants because we believed it not ideal to have curse words rated as the first questions in the survey for any participants, as they may fail to finish the survey at higher rates than those participants receiving the questionnaires in other orders. We used IBM SPSS Statistics for Windows 21.0 for all statistical analyses.

3 Results

We calculated the descriptive statistics for the key variables: the four humor styles (affiliative, self-enhancing, aggressive, and self-defeating), sensation-seeking (Dis, TAS, BS, and ES), and the frequency of using twenty common curse words, frequency of cursing. Table 1 displays the summary of the descriptive statistics for men and women. In order to determine whether men's and women's responses differed for each of the variables, we conducted a series of comparisons using analyses of variance (ANOVAs). The results showed that use of the aggressive humor style was greater for men than women, $F(1,330) = 17.35$, $p < 0.001$, $\eta^2 = 0.05$. The differences in men's and women's use of the other three humor styles were not significant; self-enhancing, $F(1,322) = 3.69$, $p = 0.06$; affiliative, $F(1,316) = 2.92$, $p = 0.09$; and self-defeating, $F(1,324) = 2.04$, $p = 0.15$. Men's sensation-seeking traits were higher than women's for three of the four traits: disinhibition, $F(1,326) = 9.14$, $p < 0.001$, $\eta^2 = 0.03$; thrill and adventure seeking, $F(1,325) = 9.10$, $p = 0.003$, $\eta^2 = 0.06$; and boredom susceptibility, $F(1,316) = 20.04$, $p = 0.003$, $\eta^2 = 0.03$. Levels of experience seeking did not differ significantly for men and women, $F(1,322) = 3.17$, $p = 0.08$. Men reported more frequent use of curse words than women, $F(1,308) = 29.98$, $p < 0.001$, $\eta^2 = 0.10$.

3.1 Hypothesis 1: Sensation-seeking and humor styles

We tested the hypothesis that sensation-seeking would be positively related to each of the four humor styles. We reasoned that the relationships among variables were likely to differ for men and women, because men have been found to engage in more risk-taking than women (Kennison and Ponce-Garcia 2012;

Table 1: Summary of descriptive statistics for men and women.

	Men						Women					
	Mean	SD	Min	Max	Skewness	Kurtosis	Mean	SD	Min.	Max.	Skewness	Kurtosis
Aggressive HS	3.93	0.90	1.50	6.25	-0.25	0.53	3.53	0.84	1.00	5.75	-0.15	0.79
Self-defeating HS	3.58	1.01	1.00	6.88	-0.04	0.63	3.41	1.07	1.00	6.63	0.12	-0.12
Affiliative HS	5.48	1.03	2.88	7.00	-0.55	-0.48	5.66	0.82	3.50	7.00	-0.41	-0.61
Self-enhancing HS	4.67	1.03	1.75	7.00	-0.08	-0.04	4.46	0.99	1.75	7.00	-0.01	0.14
Dis	0.49	0.27	0.00	1.00	-0.05	-1.08	0.39	0.28	0.00	1.00	0.14	-1.14
TAS	0.69	0.26	0.00	1.00	-0.44	-0.62	0.60	0.28	0.00	1.00	-0.46	-0.57
ES	0.47	0.20	0.00	1.00	0.06	-0.13	0.43	0.20	0.00	1.00	0.38	-0.23
BS	0.31	0.19	0.00	0.80	0.53	-0.67	0.23	0.16	0.00	0.80	0.72	0.58
Curse Words	86.42	27.54	20.00	140.00	-0.01	-0.57	70.19	24.47	20.00	140.00	0.18	-0.37

Note. HS = Humor Style; TAS = Thrill and Adventure Seeking; ES = Experience Seeking; DIS = Disinhibition; BS = Boredom Susceptibility.

Popham et al. 2011a and Popham et al. 2011b) and to curse more often than women (Kennison and Messer 2017). It has also been suggested that it is more socially acceptable for men to attempt to cause others to laugh than for women (Martin 2006). We examined the relationships between pairs of variables in a series of Pearson's product-moment correlation analyses. The summary of these results is displayed in Table 2 by participant sex. For men, three of the four sensation-seeking traits (i.e. disinhibition, experience-seeking, and thrill and adventure seeking) were positively correlated with one another. Boredom susceptibility was positively related to disinhibition and experience-seeking. The relationship between boredom susceptibility and thrill and adventure seeking was not significant. For women, disinhibition, boredom susceptibility, and thrill and adventure seeking were all positively related to one another. Experience seeking was positively related to disinhibition and thrill and adventure seeking. The relationship between experience seeking and boredom susceptibility was not significant.

For both men and women, use of the two positive humor styles (i.e. affiliative and self-enhancing) were positively related, as were the use of the two negative humor styles (i.e. aggressive and self-defeating). For women, higher levels of each of the four sensation-seeking traits were related to greater use of the aggressive humor style, and higher levels of experience-seeking and thrill and adventure seeking were related to greater use of the self-defeating humor style. For women, the relationships between sensation-seeking traits and the affiliative and self-enhancing humor styles were not significant. For men, sensation-seeking was related to three of the four humor styles: a) greater use of the aggressive humor style was related to higher levels of boredom susceptibility, b) greater use of the affiliative humor style was related to higher levels of disinhibition and thrill and adventure seeking; and c) greater use of the self-enhancing humor style was related to higher levels of experience seeking and thrill and adventure seeking. For men, the relationships between use of the self-defeating humor style and sensation-seeking traits were not significant.

3.2 Hypothesis 2: Use of curse words and humor styles

As shown in Table 2, more frequent use of curse words was positively related to greater use of only two of the four humor styles, specifically the aggressive humor style and the affiliative humor style. For both men and women, more frequent use of curse words was positively related to use of the aggressive humor style. For men, but not women, more frequent use of curse words was positively related to use of the affiliative humor style. Use of curse words was

Table 2: Summary of correlation results overall for men and Women.

	1	2	3	4	5	6	7	8	9
1. Aggressive HS	–	0.24**	–0.04	–0.02	0.26**	0.23**	0.31***	0.17*	0.34***
2. Self-Defeating HS	0.24**	–	–0.12	0.12	0.00	0.25**	0.03	0.20*	0.07
3. Affiliative HS	0.01	–0.09	–	0.41***	0.02	–0.10	–0.03	–0.03	0.13
4. Self-Enhancing HS	–0.15	0.07	0.54***	–	–0.11	0.00	–0.14	–0.04	0.08
5. Dis	0.02	–0.01	0.17*	0.02	–	0.23**	0.30**	0.46***	0.44***
6. TAS	–0.15	–0.06	0.21**	0.20*	0.23**	–	0.17*	0.31**	0.10
7. BS	0.19*	–0.09	–0.06	–0.08	0.25**	–0.01	–	0.10	0.20*
8. ES	–0.09	–0.03	0.15	0.16*	0.30**	0.24**	0.27**	–	0.25*
9. Curse Words	0.19*	0.07	0.20*	0.10	0.32***	0.03	0.16	0.15	–

Note. Lower half of the matrix displays correlations for men and the upper half, for women.
HS = Humor Style; DIS = Disinhibition; TAS = Thrill and Adventure Seeking; BS = Boredom Susceptibility; ES = Experience Seeking; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

related to three of the four subtypes of sensation-seeking. For men and women, those who reported more frequent use of curse words also reported higher levels of disinhibition. For women, but not men, those who reported more frequent use of curse words also reported higher levels of experience-seeking and boredom susceptibility.

In order to investigate whether the use of curse words predicted variation in the use of each of the humor styles not explained by individual differences in sensation-seeking, we carried out a series of multiple regression analyses each using the hierarchical approach in which sensation-seeking subscales were independent variables used to predict a particular humor style in Step 1 and in which sensation-seeking and use of curse words were independent variables in Step 2. In all analyses, models had acceptable Variance Inflation Factor and Tolerance values (Field 2009). VIFs ranged from 1.11 to 1.42, and Tolerance ranged from 0.71 to 0.90 for each of the first blocks. For the second blocks, the VIFs ranged from 1.10 to 1.59, and Tolerance ranged from 0.63 to 0.91.

The results of these regression analyses showed that sensation-seeking significantly explained variance in Block 1 for two of the four humor styles for both men and women; however the humor styles differed for men and women. For men, we observed significant results for a) the affiliative humor style: $F(4,137) = 2.63$, $p = 0.03$, adjusted $R^2 = 0.04$, $\Delta R^2 = 0.07$; b) the aggressive humor style: $F(4,143) = 3.03$, $p = 0.02$ adjusted $R^2 = 0.05$, $\Delta R^2 = 0.08$. Results for the self-enhancing and self-defeating humor styles were as follows: $F(4,141) = 2.40$, $p = 0.06$ adjusted $R^2 = 0.04$, $\Delta R^2 = 0.07$ and $F(4,141) = 2.82$, $p = 0.89$ adjusted $R^2 = 0.02$, $\Delta R^2 = 0.01$, respectively. In contrast, for women we observed significant results for a) the self-defeating humor style: $F(4,136) = 4.21$, $p = 0.002$, adjusted $R^2 = 0.09$, $\Delta R^2 = 0.11$ and b) the aggressive humor style: $F(4,136) = 5.19$, $p = 0.001$, adjusted $R^2 = 0.11$, $\Delta R^2 = 0.14$. Results for the affiliative and self-enhancing humor styles were as follows: $F(4,134) = 0.44$, $p = 0.79$ adjusted $R^2 = 0.01$, $\Delta R^2 = 0.01$ and $F(4,132) = 0.92$, $p = 0.45$ adjusted $R^2 = 0.01$, $\Delta R^2 = 0.03$, respectively. Boredom susceptibility was the only significant predictor for the use of the aggressive humor style in Block 1 for both men: β (standardized) = 0.21, $p = 0.015$ and women: β (standardized) = 0.23, $p = 0.009$. Thrill and adventure seeking was the only significant predictor in Block 1 for men's use of the affiliative humor style: β (standardized) = 0.19, $p = 0.035$ and for women's use of the self-defeating humor style: β (standardized) = 0.28, $p = 0.002$. In Block 2, use of curse words significantly explained additional variance for the aggressive humor style for both men [$F(5,143) = 3.99$, $p = 0.002$, adjusted $R^2 = 0.10$, $\Delta R^2 = 0.05$, standardized $\beta = 0.23$, $p = 0.008$] and women [$F(5,136) = 6.68$, $p = 0.001$, adjusted $R^2 = 0.17$, $\Delta R^2 = 0.07$, standardized $\beta = 0.29$, $p = 0.04$], for the affiliative humor style for men [$F(5,137) = 3.20$, $p = 0.009$, adjusted $R^2 = 0.07$, $\Delta R^2 = 0.04$, standardized $\beta = 0.19$, $p = 0.025$], but

not women. Tables 3–6 summarize these multiple regression analyses predicting the aggressive, affiliative, self-enhancing, and self-defeating humor styles, respectively. Neither men's nor women's use of curse words explained additional variance in the use of the self-defeating or the self-enhancing humor styles.

4 Discussion

The research investigated the view that using humor is a form of social risk-taking; thus, would be positively related to sensation-seeking, a personality trait that has been related to risk-taking in prior research (Horvath and Zuckerman 1993; Roberti 2004; Zuckerman et al. 1964 and Zuckerman et al. 1978; Zuckerman 1994) and positively related to the use of curse words, which has been described as a form of social risk-taking (Kennison and Messer 2017). The present results obtained from a relatively large study with young adults, showed that sensation-seeking predicted a) use of the aggressive humor style for both men and women, b) use of the affiliative humor style for men only, and c) use of the self-defeating humor style for women only. Furthermore, the results showed that participants' use of curse words predicted additional variance not explained by sensation-seeking for a) both men's and women's use of the aggressive and affiliative humor styles, b) men's use of the affiliative humor style, and c) women's use of the self-defeating humor style. For both men and women, the sensation-seeking trait predicting the aggressive humor style was boredom susceptibility. The sensation-seeking trait predicting the use of the affiliative humor style for men and the use of the self-defeating humor style for women was thrill and adventure seeking. The use of the self-enhancing humor style was not related to sensation-seeking for men or women. It is not clear why sensation-seeking was related to only three of the four humor styles. One possibility is that the self-enhancing humor style differs from the other three humor styles in that it involves one's use of humor when one is alone to cope with stress versus one's use of humor in the presence of others. Sensation-seeking traits may better predict individuals' humor styles in social contexts versus contexts in which one is alone.

The results are consistent with prior research showing that there is a link between sensation-seeking and humor appreciation (Carretero-Dios and Ruch 2010; Deckers and Ruch 1992; Forabosco and Ruch 1994; Lourey and McLachlan. 2003; Ruch 1988). Individuals who are higher in boredom susceptibility and thrill and adventure seeking may find appreciating others' humor and producing their own examples of humor as effective ways to relieve boredom and to liven

Table 3: Summary of multiple regression results with sensation seeking subscales and curse words predicting use of the aggressive humor style for men and women.

Predictors	Men						Women					
	Block 1			Block 2			Block 1			Block 2		
	B	SE	β	B	SE	β	B	SE	β	B	SE	β
Intercept	3.94	0.26	–	3.43	0.32	–	2.72	0.21	–	2.17	0.26	–
BS	0.10	0.04	0.2*	0.09	0.04	0.19*	0.12	0.05	0.23*	0.11	0.04	0.11
ES	–0.08	0.04	–0.17	–0.08	0.04	0.18*	0.02	0.04	0.04	0.01	0.04	0.21*
DIS	0.05	0.03	0.14	0.02	0.03	0.07	0.03	0.03	0.10	–0.01	0.03	–0.02
TAS	–0.03	0.03	–0.08	–0.02	0.03	–0.06	0.05	0.03	0.17	0.05	0.03	0.17*
Curse Words				0.01	0.003	0.23**				0.01	0.003	0.29***
R ²	0.08			0.13			0.13			0.11		
Adjusted R ²	0.05			0.10			0.20			0.17		

Note. ES = Experience Seeking; DIS = Disinhibition; BS = Boredom Susceptibility; TAS = Thrill and Adventure Seeking; B is unstandardized coefficient and β is standardized; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 4: Summary of multiple regression results with sensation seeking subscales and curse words predicting use of the affiliative humor style for men and women.

Predictors	Men						Women					
	Block 1			Block 2			Block 1			Block 2		
	B	SE	β	B	SE	β	B	SE	β	B	SE	β
Intercept	4.78	0.31	–	4.27	0.38	–	5.84	0.21	–	5.70	0.27	–
BS	–0.05	0.04	–0.10	–0.06	0.05	–0.11	–0.03	0.05	–0.06	–0.09	0.04	–0.07
ES	0.04	0.05	0.07	0.03	0.05	0.06	–0.01	0.04	–0.02	–0.01	0.04	–0.03
DIS	0.04	0.03	0.10	0.02	0.03	0.04	0.02	0.03	0.06	0.01	0.03	0.03
TAS	0.07	0.04	0.19*	0.08	0.04	0.21*	–0.03	0.03	–0.09	–0.03	0.03	–0.09
Curse Words				0.007	0.003	0.19*				0.01	0.003	0.08
R ²	0.07			0.10						0.02		
Adjusted R ²	0.05			0.07						0.02		

Note. ES = Experience Seeking; DIS = Disinhibition; BS = Boredom Susceptibility; TAS = Thrill and Adventure Seeking; B is unstandardized coefficient and β is standardized; * $p < 0.05$

Table 5: Summary of multiple regression results with sensation seeking subscales and curse words predicting use of the self-defeating humor style for men and women.

Predictors	Men						Women					
	Block 1			Block 2			Block 1			Block 2		
	B	SE	β	B	SE	β	B	SE	β	B	SE	β
Intercept	3.63	0.31	–	3.47	0.39	–	2.71	0.26	–	2.47	0.34	–
BS	–0.04	0.05	–0.08	–0.05	0.05	–0.09	–0.01	0.06	–0.01	–0.01	0.06	–0.02
ES	0.01	0.05	0.02	0.01	0.05	0.02	0.08	0.05	0.15	0.08	0.05	0.14
DIS	0.02	0.03	0.06	0.02	0.04	0.05	–0.07	0.04	–0.17	–0.08	0.04	–0.21*
TAS	–0.01	0.04	–0.03	–0.01	0.04	–0.03	0.11	0.03	0.28*	0.11	0.03	0.28*
Curse Words				0.002	0.003	0.06				0.01	0.004	0.10
R^2	0.01			0.01			0.11			0.12		
Adjusted R^2	0.01			0.01			0.09			0.09		

Note. ES = Experience Seeking; DIS = Disinhibition; BS = Boredom Susceptibility; TAS = Thrill and Adventure Seeking; B is unstandardized coefficient and β is standardized; * $p < 0.05$

Table 6: Summary of multiple regression results with sensation seeking subscales and curse words predicting use of the self-enhancing humor style for men and women.

Predictors	Men						Women					
	Block 1			Block 2			Block 1			Block 2		
	B	SE	β	B	SE	β	B	SE	β	B	SE	β
Intercept	4.10	0.32	–	4.77	0.39	–	4.74	0.26	–	4.39	0.33	–
BS	–0.07	0.05	–0.12	–0.07	0.05	–0.13	–0.09	0.06	–0.15	–0.10	0.06	–0.16
ES	0.10	0.05	0.18	0.09	0.05	0.18	–0.02	0.04	–0.05	–0.03	0.05	–0.02
DIS	–0.01	0.03	–0.03	–0.03	0.04	–0.07	–0.01	0.04	–0.03	–0.03	0.04	–0.10
TAS	0.06	0.04	0.14	0.06	0.04	0.15	0.01	0.03	0.02	0.01	0.03	0.02
Curse Words				0.005	0.003	0.12				0.007	0.004	0.06
R ²	0.07			0.08			0.03			0.05		
Adjusted R ²	0.04			0.05			0.01			0.01		
Predictors												
Intercept												
BS												
ES												
DIS												
TAS												
Curse Words												
R ²												
Adjusted R ²												

Note. ES = Experience Seeking; DIS = Disinhibition; BS = Boredom Susceptibility; TAS = Thrill and Adventure Seeking; B is unstandardized coefficient and β is standardized; **p* < 0.05

up their mental and/or physical states. The present results also provide a replication of Kennison and Messer's (2017) results showing that the use of curse words was higher for individuals reporting higher levels of sensation-seeking. The fact that frequency of curse word usage accounted for variance not accounted for by sensation-seeking suggests that there may be a unique link between cursing and humor, particularly between cursing and the use of the aggressive humor style by both men and women and between cursing and the use of the affiliative humor style for men.

There are limitations in the present research, which may affect whether the present results can be generalized to other samples in future research. Our sample was composed of undergraduates at a large public university; thus, different results may be observed for samples drawn from non-college populations. Our sample was predominately Caucasian and middle-to-upper middle class; thus, different results may be obtained in samples drawn from other populations. In future research samples obtained from populations having different levels of socioeconomic status may observe different outcomes, as socioeconomic status has been suggested to be related to cursing (Jay 2000; McEnery 2006). It is also important to note that our sample was obtained from a large public university located in the region of the United States often referred to as the Bible belt due to the high level of participation in organized religion (i.e. predominantly Christian). The participant pool from which our sample was obtained reported being over 80% Baptist. In future research, samples drawn from other populations may observe different outcomes, as religious affiliation has been suggested to be related to cursing behavior (Jay 2000; McEnery 2006). Lastly, one must also keep in mind the role of social desirability bias in the present research and all research investigating the use of curse words and, possibly, humor. Participants' responses may be more likely to reflect what they perceive to be socially acceptable rather than what is the case for them.

The present research suggests several avenues for future research, including the relationship between verbal risk-taking and other forms of risk-taking, such as drug use (e.g. tobacco, alcohol, marijuana, opiates, etc.), recreational (e.g. extreme sport activities), financial (e.g. risky investments and gambling), and ethical (e.g. cheating and fraud). Verbal risk-taking may be viewed as a subcategory of social risk-taking, which could also include a subcategory of non-verbal risk-taking (e.g. gesturing and other uses of body movements occurring during interpersonal interactions). As risk-taking is a serious concern for adolescents, motivating prevention programs (Chapman et al. 2013), in future research, investigators may find that verbal risk-taking may first appear in childhood before forms of physical risk-taking that may lead to injuries and/or other health concerns (e.g. drug abuse).

Future research is needed to explore how these factors are related to the use of curse words and the use of the different humor styles by men and women. This future research should also take into account the existence of gender-related social norms that make it less socially acceptable for women than men to use curse words and to try to make others laugh (Provine 2000). Future research is also needed to obtain a more fine-grained analysis of the use of curse words in terms of meaning and/or discourse function, as one may use the same curse word in a variety of contexts (e.g. teasing, anger, surprise, disappointment, etc.). It is possible that the relationship between the use of the curse word and humor style varies for the different types of semantic contexts. Furthermore, the use of different humor styles as measured by the HSQ (Martin et al. 2003) may also vary across situational contexts. For example, individuals may use the aggressive humor style when taking part in leisure activities with peers than in the workplace.

In summary, the present research demonstrated that the use of three of the four humor styles was predicted by sensation-seeking personality traits, which has been linked to individual differences in risk-taking behavior since the 1980s. For men, the relationship was observed for the aggressive and affiliative humor styles. For women, the relationship was observed for the aggressive and self-defeating humor styles. Furthermore, the use of curse words accounted for additional variance in the use of three humor styles (i.e. use of the aggressive humor style by men and women, men's use of the affiliative humor style, and women's use of the self-defeating humor style). The results support the view that the use of curse words and the use of some forms of humor are forms of verbal risk-taking that occur in the social domain and are produced more often by those who are sensation-seekers. As prior research has demonstrated that risk-taking in different domains is positively correlated (Blais and Weber 2006; Weber et al. 2002), we speculate that use of humor would be related to risk-taking in other domains (e.g. health, recreational, ethical, and financial), as using humor can be viewed as a form of social risk-taking.

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