

On passion and moral behavior in achievement settings: The mediating role of pride

Julien S. Bureau · Robert J. Vallerand ·
Nikos Ntoumanis · Marc-André K. Lafrenière

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Abstract The Dualistic Model of Passion (Vallerand et al. in *J Person Soc Psychol* 85:756–767, 2003) distinguishes two types of passion: harmonious passion (HP) and obsessive passion (OP) that predict adaptive and less adaptive outcomes, respectively. In the present research, we were interested in understanding the role of passion in the adoption of moral behavior in achievement settings. It was predicted that the two facets of pride (authentic and hubristic; Tracy and Robins in *J Person Soc Psychol*, 92:506–525, 2007) would mediate the passion-moral behavior relationship. Specifically, because people who are passionate about a given activity are highly involved in it, it was postulated that they should typically do well and thus experience high levels of pride when engaged in the activity. However, it was also hypothesized that while both types of passion should be conducive to authentic pride, only OP should lead to hubristic pride. Finally, in line with past research on pride (Carver et al. in *J Res Person* 44:698–703, 2010; Tracy et al. in *Self Identity* 8:196–213, 2009), only hubristic pride was expected to negatively predict moral behavior, while authentic pride was expected to positively predict moral behavior. Results of two studies conducted with paintball players ($N = 163$, Study 1) and

athletes ($N = 296$, Study 2) supported the proposed model. Future research directions are discussed in light of the Dualistic Model of Passion.

Keywords Passion · Moral behavior · Pride · Cheating

Introduction

Highly-involved individuals would appear to have a lot at stake in achievement settings. Indeed, because the activity they care about serves to define them, a loss or negative performance in the purview of the activity may have a negative connotation for their sense of self. Thus, if these individuals have the opportunity to erase the negative performance through cheating or immoral behavior, they might be inclined to do so. Alternatively, it is also possible that highly-involved individuals over time develop a strong sense of identity and confidence as pertains to the activity, and thus may not be adversely affected by the negative performance. Consequently, they might be in an ideal position to accept the negative performance as such without resorting to cheating to protect themselves. In the present research, we attempted to determine which of these two positions is correct by looking at one type of highly-involved individuals, namely passionate people. Furthermore, we also sought to identify the nature of the psychological processes responsible for such effects.

The Dualistic Model of Passion

Vallerand (2008, 2010), Vallerand et al. (2003), Vallerand and Houliort (2003) and Vallerand and Miquelon (2007) have proposed a conceptual model of passion toward activities. This model, the Dualistic Model of Passion,

J. S. Bureau
Research Laboratory on Healthy Hierarchical Relationships,
Université de Montréal, Montreal, QC, Canada

R. J. Vallerand (✉) · M.-A. K. Lafrenière
Laboratoire de Recherche sur le Comportement Social,
Université du Québec à Montréal, Box 8888, Succursale
Centre-Ville, Montreal, QC H3C 3P8, Canada
e-mail: vallerand.robort_j@uqam.ca

N. Ntoumanis
School of Sport and Exercise Sciences, University
of Birmingham, Birmingham, UK

posits that passion refers to a strong inclination toward a self-defining activity that individuals like (or even love), that they value, and in which they invest time and energy (Vallerand et al. 2003). This model further posits that because of the high level of importance of the activity and the need for self-growth (e.g., Deci and Ryan 2000), the beloved activity will be internalized in the identity. Such internalization can take either of two forms, leading to two types of passion, namely harmonious and obsessive. Harmonious passion (HP) results from an autonomous internalization (Deci and Ryan 2000) of the activity into the person's identity. An autonomous internalization occurs when individuals have freely accepted the activity as important for them without any contingencies attached to it (Vallerand et al. 1997). HP leads one to engage in the activity willingly and engenders a sense of volition and personal endorsement about pursuing the activity. Individuals do not feel compelled to engage in the enjoyable activity, rather, they freely choose to do so. With this type of passion, the activity occupies a significant, but not overpowering, space in the person's identity and is in harmony with other aspects of the person's life. In other words, with HP, the authentic integrating self is at play (Hodgins and Knee 2002). HP is thus hypothesized to lead the person to engage in the task in a flexible manner, and thus to experience task engagement rather fully. The person should then be in a position to concentrate on the task and experience positive affect, task satisfaction, and flow (i.e., the feeling that one is immersed in the activity; see Csikszentmihalyi 1978) while engaging in the activity (Carpentier et al. in press). Furthermore, because HP facilitates control of the activity, it should contribute to the experience of positive affect and task satisfaction and minimize the experience of negative affect *after* task engagement that might be due to over-engaging in the activity. In addition, such control over the activity should lead the person to display flexible persistence toward the activity.

Conversely, obsessive passion (OP) results from a controlled internalization (see Deci and Ryan 2000; Sheldon 2002; Vallerand 1997) of the activity into one's identity. Such internalization originates from intra and/or interpersonal pressure either because certain contingencies are attached to the activity, such as feelings of social acceptance or self-esteem, or because the sense of excitement derived from activity engagement becomes uncontrollable. With OP, individuals come to develop ego-invested self-structures (Hodgins and Knee 2002) and eventually display a rigid persistence toward the activity. Thus, although individuals love the passionate activity, they find themselves in the position of experiencing an internal uncontrollable urge to engage in the passionate activity, leading to a more rigid and conflicted form of task engagement.

Such pressured engagement should prevent the person from fully focusing on the task at hand. It may also interfere with the experience of positive affect and task satisfaction, and even facilitate negative affect (such as guilt) during task engagement as one may engage in the activity at ill-advised times. In addition, because with OP an internal urge leads the person to engage in the activity even when he or she should not, he or she may experience negative emotions once engagement in the passionate activity is terminated (e.g., guilt for having engaged in the activity when one should not have done so).

Research has provided empirical support for several aspects of the passion conceptualization (see Vallerand 2008, 2010, for reviews). First, results from exploratory and confirmatory factor analyses with the Passion Scale (Vallerand et al. 2003, Study 1; Vallerand et al. 2006, Study 1) supported the existence of two constructs, corresponding to both HP and OP. Second, in line with the DMP, results from partial correlations (controlling for the correlation between the two types of passion) revealed that both types of passion are positively associated with measures of activity valuation and measures of the activity being perceived as a passion, thereby providing support for the definition of passion. Finally, empirical evidence has also shown that the two types of passion differently predict various outcomes. More specifically, OP has been positively related to negative emotions (Mageau et al. 2005; Vallerand et al. 2003, Study 1), poor concentration (Vallerand et al. 2003, Study 1), increased rumination with the activity (Ratelle et al. 2004; Vallerand et al. 2003, Study 1), and a rigid task engagement (Rip et al. 2006; Vallerand et al. 2003, Studies 3 and 4) that can lead to physical symptoms (Lafrenière et al. 2009) and injuries (Rip et al. 2006; Stephan et al. 2009) and even pathological gambling (Ratelle et al. 2004; Rousseau et al. 2002). Finally, when prevented from engaging in the passionate activity, OP has been associated with rumination and negative affect (Carpentier et al. in press; Ratelle et al. 2004; Vallerand et al. 2003, Study 1).

Conversely, HP has been associated with high levels of positive emotions both during and after engagement in the passionate activity (Vallerand et al. 2003, Study 1; Vallerand et al. 2006, Studies 2 and 3), concentration, absorption, and flow during activity engagement (Forest et al. 2010; Mageau et al. 2005; Vallerand et al. 2003, Study 1), as well as subjective well-being (Rousseau and Vallerand 2003, 2008; Philippe et al. 2009b; Vallerand et al. 2008, Study 2; Vallerand et al. 2007, Studies 1 and 2). Additionally, HP has been negatively associated with negative emotions (Lafrenière et al. 2009; Mageau et al. 2005; Philippe et al. 2010; Vallerand et al. 2003, Study 1) and with conflict with other activities (Séguin-Lévesque et al. 2003; Vallerand et al. 2003, Study 1).

The present research: Passion and moral behavior in achievement settings

Reviews of studies on morality have argued that behavior, rather than intentions or judgment, should be the main object of investigation in the moral domain (Blasi 1980; Rest 1984). As Kavussanu (2008) proposed, behavior that has consequences for others' rights and well-being pertains to morality (see Turiel 1983) and can be classified as moral behavior. She further discusses that, even if researchers often assess morality through scenarios (e.g., "I help the opponent get up after a fall"), these scenarios involve real-world behaviors, and thus represent an approximation of the real social conduct of the individual (Kavussanu 2008). The present study labels concepts pertaining to fairplay and sportspersonship in an activity as "Moral behavior" and concepts pertaining to cheating behavior, non-gamesmanship, and antisocial behavior against other individuals in the activity as "Immoral behavior". Some authors rather emphasize moral and immoral behavior as behavior that affects others' rights and well-being (Kavussanu 2008; Turiel 1983). Past research shows that there is little correlation between the proactive (tendency to act humanely) and inhibitive (tendency to refrain from acting inhumanely) aspects of morality ($r < 0.23$; Bandura 1999; Sage and Kavussanu 2008), suggesting that both positive and negative aspects of moral behavior should be examined to better understand the determinants of moral or immoral behavior. Many studies also found that males display lower levels of morality than females (Coulomb-Cabagno and Rasclé 2006; Miller et al. 2005; Sage and Kavussanu (2007). Such issues are of great relevance and will be taken into account in the present research.

As pertains to the motivational determinants of moral behavior, self-determined motivation (engaging in the activity out of pleasure and/or choice) has been found to have a positive influence on sportspersonship (i.e., positive attitudes and behaviors towards the sport, the teammates and the opponents; Vallerand and Losier 1994; Ntoumanis and Standage 2009) and a negative influence on antisocial attitudes in sports (Ntoumanis and Standage 2009). Of interest, research by Donahue et al. (2006) has shown that intrinsic motivation was positively, while extrinsic motivation negatively, related to sportspersonship that, in turn, was negatively related to cheating through the use of performance-enhancing substances. Chantal et al. (2005) have found support for a similar model as pertains to aggressive behavior.

While the above research is important and has shown that less self-determined motivational processes are likely to lead to lower levels of moral behavior, such research has not addressed the role of passion in moral behavior. Such investigation is of prime importance because of the

likeliness to come across passionate people in the highest domains of achievement (academia, Olympics, etc.) where moral and mostly immoral behavior can have huge impacts when not detected (such as having cheaters receive tenure or medals). To the best of our knowledge, no published research has looked at passion and moral behavior. However, recent research has been conducted as pertains to behavior related to the morality domain. For instance, Donahue, Rip, and Vallerand (2009) have shown that obsessively-passionate individuals are likely to be aggressive, especially when winning or losing is on the line. Similarly, Philippe et al. (2009c) have found that OP is likely to lead to road rage and aggressive behavior if one's goals as a driver have been thwarted by another driver. However, no research so far has looked at the role of passion in moral (or immoral) behavior as such. Thus, one of the goals of the present research was to address this issue. In line with research presented above pertaining to self-determined motivation, HP should promote moral behavior through confident and non-contingent engagement in the activity. The absence of self-worth contingencies in harmoniously passionate individuals' engagement (Mageau et al. 2011) should make them more likely to respect opponents and rules in the face of adversity in the task. However, in line with research showing that OP can trigger aggression when the outcome is uncertain (Donahue et al. 2009), and that obsessively passionate individuals have more self-worth contingencies pertaining to the activity (Mageau et al. 2011), OP should lead to subsequent immoral behavior because these behaviors may help validate self-esteem through dominance over opponents in the face of adversity.

Another goal of the present research was to identify the psychological process that mediates the passion-moral behavior relationship. Research by Tracy and Robins (2004, 2007) pertaining to the emotion of pride are of much relevance in the present context. These authors distinguish two forms of pride: authentic pride and hubristic pride. Authentic pride is hypothesized to be based on self-accomplishments and to reflect genuine feelings of self-worth. This type of pride has been associated with self-esteem, long-term goal-achievement, better social interactions, and prosocial behavior (Carver et al. 2010; Tracy et al. 2009; Tracy and Robins 2007). Hubristic pride is hypothesized to be less based on self-accomplishments and to reflect distorted and self-aggrandized self-views. This type of pride has been associated with narcissistic self-aggrandizement, short-term goal-attainment, and to aggressive and antisocial behavior (Carver et al. 2010; Tracy et al. 2009). However, to the best of our knowledge, no research has looked at the role of pride as pertains to passion and moral behavior. However, why should pride mediate the link between passion and moral behavior? During activity engagement, harmoniously passionate individuals are likely to feel confident (because their

sense of achievement is not contingent on success outcomes in the activity; Mageau et al. 2011) and accomplished (as they have come to reach high levels of proficiency in their activity): These feelings of confidence and accomplishment, as found in authentic pride, should then promote moral behavior such as fair play through the better social interactions that they entail (Tracy et al. 2009). Moreover, authentic pride should not be predictive of immoral behavior because of the adaptive goal regulation that it entails. Indeed, individuals experiencing authentic pride should seek success mainly through mastery goals and, when success is not possible, should move on to new goals (Carver et al. 2010) instead of resorting to immoral behavior. Conversely, OP should entail an important need to succeed that derives from high self-worth contingencies (Mageau et al. 2011), leading the individual to focus egotistically on goal-seeking at the expense of the other individuals involved in the activity, thus promoting arrogance and hubristic pride. These feelings should then promote immoral behavior (Carver et al. 2010; Cheng et al. 2010; Tracy et al. 2009), such as disregarding sportspersonship and resorting to cheating, given that such behavior will increase chances of goal-attainment (it is easier to win for someone who cheats than for someone who respects the rules). Furthermore, OP also leads to performance (Vallerand et al. 2007) and obsessively passionate individuals should therefore also experience some levels of authentic pride (confidence, sense of accomplishment, etc.) when engaging in the activity.

In light of the above, the purpose of the present research was to test an integrated model in which both HP and OP positively predict authentic pride that, in turn, positively predicts moral behavior. OP was also posited to positively predict hubristic pride that, in turn, positively predicts immoral behavior. This basic model was tested in two studies in two different achievement settings and in two different cultures. Study 1 was conducted with paintball players from North America, while Study 2 took place with athletes of different sports from the United Kingdom. Furthermore, while Study 1 focused on immoral behavior (cheating), Study 2 assessed both moral and immoral behavior.

Study 1

The purpose of Study 1 was to test the model proposed above in a specific realm of achievement, namely paintball, with players from North America and focused on the narrower issue of cheating behavior. This sport was chosen because of the multiple possibilities of cheating behavior it enables, given that some features of the sport are based on trust (e.g., admitting you have been hit even though this prevents you from further play). It was predicted that both HP and OP would positively predict authentic pride, while

only OP would predict hubristic pride that, in turn, would positively predict self-reported cheating behavior.

Method

Participants and procedure

Participants were 163 paintball players (160 males, 3 females). Some participants were recruited in a paintball center ($N = 34$) in Montreal and completed a paper questionnaire in French while other participants were recruited on the internet ($N = 129$) via advertisement on a popular social networking website and completed the questionnaire online in English. Whether recruited live or online, participants were immediately supplied with a questionnaire and were asked, following informed consent, to complete the scales described below. In addition, each questionnaire contained demographic questions (e.g., age, gender). Following the instructions, participants completed the questionnaire independently. Players' mean age was 19.84 years ($SD = 7.77$ years). At the time of the study, they were practicing their activity an average of 3.76 times a month ($SD = 2.73$ times), for an average of 6.19 h each time ($SD = 5.83$ h).

Measures

Passion Passion for paintball was assessed using the Passion Scale (Vallerand et al. 2003), an instrument composed of two six-item subscales assessing HP and OP. In the present study, the scale items were slightly adapted so that the word "activity" was replaced by the word "paintball" (a sample item for HP: "Paintball is in harmony with the other activities in my life."; $\alpha = 0.86$; a sample item for OP: "Paintball is the only thing that really turns me on."; $\alpha = 0.87$). This scale was completed on a 7-point Likert scale ranging from 1 ("not agree at all") to 7 ("very strongly agree"). The Passion Scale has been used in several studies and has shown high levels of validity and reliability (see Carbonneau et al. 2008; Donahue et al. 2009; Lafrenière et al. 2011; Philippe et al. 2009a, c; Vallerand et al. 2008).

Pride Feelings of authentic and hubristic pride while engaging in paintball were assessed using two 3-item subscales taken from the Pride Scale (Tracy and Robins 2007, Study 2; a sample item for authentic pride: "In general, during a game, I feel accomplished."; $\alpha = 0.82$; a sample item for hubristic pride: "In general, during a game, I feel arrogant."; $\alpha = 0.67$). This scale was also completed on a 7-point Likert scale ranging from 1 ("not agree at all") to 7 ("very strongly agree"). Because the original scale was adapted to paintball and shortened, a Confirmatory Factor Analysis (CFA) was conducted on the data. Results supported the two-factor structure of this scale, χ^2 ($df = 8$,

$N = 163$) = 17.70, $p = 0.02$, $\chi^2/df = 2.21$, CFI = 0.97, IFI = 0.97, RMSEA = 0.09 [0.03–0.14], SRMR = 0.08. In order to demonstrate the validity of the short scale, we conducted a validation study. A hyperlink leading to an online questionnaire was posted on two social psychological research forums. A different sample of participants ($N = 53$) completed both the short and original scales in counterbalanced order separated by a filler task consisting of describing an average day in their life in details. Correspondence between the short and long subscales was high ($r = 0.77$ for authentic pride and $r = 0.73$ for hubristic pride) while correlations between the two subscales of a same scale were similar ($r = 0.39$ for the short scale and $r = 0.27$ for the original scale). Although the short scale showed a slightly higher intercorrelation, this difference was not significant ($p = 0.50$).

Self-reported cheating behavior Self-reported cheating behavior was assessed using a scale developed for the purpose of this study. Many items representing different forms of cheating behavior in paintball were generated by the first author and two associates who had extensive experience in the field of paintball. Ten of these items were selected for their face validity with cheating behavior and were cross-verified by an expert in the domain. In preliminary analyses, we performed an EFA using an oblimin rotation with data from all participants of the present study ($N = 163$). Two factors emerged from the analyses, explaining 57.9 % of the variance. Factor 1 had 5 items (standardized loadings in brackets): “Continued to play after being hit by a paintball (0.65)”, “Started running or walking before the game has begun (0.56)”, “Protested against a referee’s decision during the game (0.68)”, “Wiped off a paintball that hit me (0.78)”, and “Not respected a referee’s specific game rule (0.70)”. This factor was labeled “self-reported usual cheating behavior” ($\alpha = 0.81$) because such acts represent somewhat common cheating behavior. Factor 2 had also 5 items: “Hidden the flag in a forbidden place (0.93)”, “Moved the flag while I was dead or while I didn’t have the

right to do so (0.98)”, “Voluntarily trespassed the game limits when playing an outside game (0.58)”, “Used a forbidden gadget on my gun (0.75)”, and “Faked death so that I can go behind the enemy lines (0.33)”. This factor was labeled “self-reported extreme cheating behavior” ($\alpha = 0.83$) because such acts represent extremely antisocial forms of cheating behavior. Factor correlation was 0.51. This scale was completed on a 7-point Likert scale ranging from 1 (“never”) to 7 (“very often”).

Results and discussion

Preliminary analyses

Missing values (representing 0.30 % of the total data file) were replaced using a regression imputation procedure. Inspection of the skewness indices for all variables proved to be normal (values ranged from -1.075 to 1.581) except for self-reported extreme cheating behavior which was positively skewed (3.394). An inverse transformation was performed on this subscale in order to restore normality. Means and standard deviations (non-transformed), and Pearson correlations for all measures are presented in Table 1. Partial correlations are presented between passion and other measures since HP and OP are highly correlated ($r = 0.45$) and given that this procedure is believed to produce correlations that better reflect the links between each form of passion and the other variables.

Main analyses

The full measurement model was tested in the present study using AMOS 19. It was composed of 6 latent variables: 2 exogenous variables (i.e., HP and OP) and 4 endogenous variables (i.e., authentic pride, hubristic pride, self-reported usual cheating behavior and self-reported extreme cheating behavior). In this model, a total of 8 paths were specified: one between HP and authentic pride, two between OP and both types of pride, and two between

Table 1 Means, standard deviations, and correlations involving all variables of Study 1($N = 163$)

	<i>M</i>	<i>SD</i>	2	3	4	5	6
Harmonious passion	5.38	1.15	0.45***	0.19*	-0.24**	-0.09	-0.13[†]
Obsessive passion (2)	3.62	1.59		0.34***	0.45***	0.20**	0.16*
Authentic pride (3)	5.84	1.18			0.39***	0.23**	0.04
Hubristic pride (4)	2.69	1.38				0.39***	0.33***
Self-reported usual cheating behavior (5)	2.05	0.99					0.53***
Self-reported extreme cheating behavior (6)	1.12	0.31					

Correlations in bold are partial correlations. Correlations with HP are partial correlations controlling for OP while correlations with OP are partial correlations controlling for HP (except intercorrelation between HP and OP)

[†] $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Table 2 Goodness-of-fit indices of the six models of Study 1 ($N = 163$)

Model	χ^2	df	χ^2/df	CFI	IFI	SRMR	RMSEA [95 %] CI	AIC
1.1	518.73	338	1.54	0.91	0.92	0.08	0.06 [0.05–0.07]	710.73
1.2	550.69	335	1.64	0.90	0.90	0.10	0.06 [0.05–0.07]	748.69
1.3	527.73	335	1.58	0.91	0.91	0.09	0.06 [0.05–0.07]	725.73
1.4	551.10	336	1.64	0.90	0.90	0.10	0.06 [0.05–0.07]	747.10
1.5	527.73	335	1.58	0.91	0.91	0.09	0.06 [0.05–0.07]	725.73

hubristic pride and both forms of self-reported cheating behavior; finally, three covariance paths were specified: one between HP and OP, one between the residuals of authentic and hubristic pride, and one between the residuals of self-reported usual and extreme cheating behavior. As can be seen in Table 2, the results showed that the hybrid model (Kline 2005) had reasonable fit to the data ($\chi^2(df = 338, N = 163) = 518.73, p < 0.001, \chi^2/df = 1.53, CFI = 0.91, IFI = 0.92, NNFI = 0.90, SRMR = 0.08, RMSEA = 0.07 [0.06–0.08]$; Model 1.1). However, modification indices suggested the addition of a path between HP and hubristic pride. Because this path was not previously hypothesized and because the hypothesized model fit the data well, we decided to reject this modification. Modification indices suggested that no other addition or deletion of any theoretically sound parameters could significantly improve model fit. Results revealed that all paths were significant. As shown in Fig. 1, the results showed that HP positively predicted authentic pride ($\beta = 0.29$). OP positively predicted both authentic pride ($\beta = 0.31$) and hubristic pride ($\beta = 0.44$). In turn, hubristic pride positively predicted both self-reported usual cheating behavior ($\beta = 0.51$) and self-reported extreme cheating behavior ($\beta = 0.39$). When age and years of experience were included as covariates, the model did not change significantly ($\Delta\chi^2(26) = 30.51, p = 0.25$ and $\Delta\chi^2(26) = 24.53, p = 0.55$, respectively), modification indices did not suggest addition of paths between covariates and other variables and all betas did not significantly change ($\Delta\beta \leq 0.01$ for all β s). Therefore, age and years of experience were not included in the present model.

In order to test whether the hypothesized model provided the best fit indices, four meaningful alternative models were tested. These models were chosen because they were theoretically or statistically more plausible than other possible models. Modification indices were also screened and any meaningful additions or removals of parameters were executed in order to improve the probability of alternative models to fit data. The first alternative model (i.e., Model 1.2) was one in which passion predicted self-reported cheating behavior that, in turn, predicted both types of pride. The second alternative model (i.e., Model 1.3) was one in which both types of pride predicted passion

that, in turn, predicted self-reported cheating behavior. The third alternative model (i.e., Model 1.4) was one in which both types of pride predicted self-reported cheating behavior that, in turn, predicted passion. The fourth alternative model (i.e., Model 1.5) was one in which self-reported cheating behavior predicted passion that, in turn, predicted both types of pride. As can be seen in Table 2, all alternative models (Models 1.2–1.5) resulted in poorer fit indices than the proposed model. Thus, all four alternative models were rejected.

Indirect effects

Indirect effects were investigated to further test the mediating role of hubristic pride between OP and self-reported usual ($pr = 0.20$) and extreme ($pr = 0.16$) cheating behavior. Consequently, bootstrapped confidence interval estimates of the indirect effect (Preacher and Hayes 2008) were calculated to confirm the significance of mediations. Bootstrapping is a statistical method that randomly constructs a number of resamples of the original sample in order to estimate parameters. In the present study, the 95 % confidence intervals of the indirect effects were obtained with 5,000 bootstrap resamples. Using bootstrap methods to estimate indirect effects is especially recommended in small-to-moderate samples (Shrout and Bolger 2002). It should be noted that the indirect effect is significant at $p < 0.05$ if the 95 % confidence intervals do not include the value of zero. In the present study, the confidence interval was bias-corrected given that this correction is believed to improve power and Type 1 error rates (MacKinnon et al. 2004). Results confirmed the mediating role of hubristic pride between OP and self-reported usual ($\beta = 0.34; CI = 0.24–0.44$) and extreme ($\beta = 0.26; CI = 0.18–0.34$) cheating behavior.

In sum, the present findings provided support for the proposed model. Specifically, OP was positively related to hubristic pride that, in turn, was positively related to self-reported cheating behavior. Moreover, HP was positively related to authentic pride. Finally, results from bootstrapping statistics provided support for the mediating role of hubristic pride in the relationships between OP and self-reported cheating behavior. As expected, authentic pride was unrelated to cheating behavior.

Pride Feelings of authentic and hubristic pride were assessed using the same scale used in Study 1 (α for authentic pride = 0.77; α for hubristic pride = 0.85).

Self-reported moral behavior Self-reported moral behavior was assessed using two subscales from the Multidimensional Sportspersonship Orientations Scale (MSOS; Vallerand et al. 1997a, b), each assessed with 5 items: The first subscale assessed the respect for the rules and the officials (a sample item: “I really obey all rules of my sport.”; $\alpha = 0.76$). The other subscale assessed the respect and concern for the opponent (a sample item: “If I see that the opponent is unjustly penalized, I try to rectify the situation.”; $\alpha = 0.74$). This scale was completed on a 5-point Likert scale ranging from 1 (“Doesn’t correspond to me at all”) to 5 (“Corresponds to me exactly”). These two subscales have been used in past research and have shown high levels of validity and reliability (see Vallerand et al. 1997a; Lemyre et al. 2002; Miller et al. 2003).

Self-reported immoral behavior Self-reported immoral behavior in sport was assessed with three different subscales. First, the Antisocial Behavior Against the Opponent subscale developed by Kavussanu and Boardley (2009) was used. This subscale consists of four items (a sample item: “In the past year, I have deliberately fouled an opponent.”; $\alpha = 0.83$). A short version of AMDYSQ, developed and validated by Lee et al. (2008) was used in this study to measure antisocial attitudes using two 3-items subscales, specifically cheating (a sample item: “I would cheat if I thought it would help me win.”; $\alpha = 0.85$) and gamesmanship (a sample item: “If I don’t want another person to do well I put them off a bit.”; $\alpha = 0.84$). These scales were completed on a 5-point Likert scale ranging from 1 (“Never”) to 5 (“Very often”).

Results and discussion

Preliminary analyses

Means, standard deviations, and Pearson correlations for all measures are presented in Table 3. Missing values (representing 0.25 % of the total data file) were replaced using a

regression imputation procedure. Inspection of the skewness indices for all variables proved to be normal (values ranged from -0.686 to 1.487). Furthermore, because participants were part of teams, we calculated intraclass correlations of all variables to determine if observations were independent. Results revealed that mean intraclass correlation was small ($M = 0.04$, $SD = 0.03$) suggesting that shared team variance could be omitted. Consequently, in lines with Julian (2001), observations were considered independent. The means, standard deviations, and correlations of all variables are presented in Table 3.

Main analyses

The model tested in the present study was composed of 6 latent variables: 2 exogenous variables (i.e., HP, OP) and 4 endogenous variables (i.e., authentic pride, hubristic pride, self-reported moral behavior and self-reported immoral behavior). We tested the measurement model for passion and pride but there were too many items in the full-measurement model to maintain an acceptable ratio of sample size to estimated parameters and thus measurement model for self-reported moral and immoral behavior could not be included in the main model. However, we tested a second order CFA including both self-reported moral and immoral behavior variables which yielded acceptable model fits ($\chi^2(149) = 380.93$, $p < 0.001$, $\chi^2/df = 2.56$, CFI = 0.91, IFI = 0.91, NNFI = 0.89, SRMR = 0.07, RMSEA = 0.07 [0.06–0.08]). In the main model, self-reported immoral behavior had two indicators. The first one was the Antisocial Behavior Against the Opponent subscale and the second one was the combination (a sum of their scores) of the two subscales of the shortened AMDYSQ assessing cheating and gamesmanship behavior. These subscales were combined because of high intercorrelation between them ($r = 0.63$) and because they originated from the same scale. The self-reported moral behavior variable had also two indicators which were the two subscales of the MSOS.

In order to test the hypothesized model, a total of 9 paths were specified: one between HP and authentic pride, two between OP and both types of pride, two between hubristic pride and self-reported moral and immoral behavior, and one

Table 3 Means, standard deviations, and correlations involving all variables of Study 2 ($N = 296$)

	<i>M</i>	<i>SD</i>	2	3	4	5	6
Harmonious passion	4.82	0.79	0.27***	0.27***	0.15**	0.10 [†]	0.14*
Obsessive passion (2)	3.12	1.11		0.32***	0.42***	0.31***	0.01
Authentic pride (3)	5.15	0.95			0.29***	0.15**	0.07
Hubristic pride (4)	2.59	1.38				0.53***	-0.22***
Self-reported immoral behavior (5)	2.33	0.91					-0.39***
Self-reported moral behavior (6)	3.14	0.61					

[†] $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

between authentic pride and self-reported moral behavior. Three covariance paths were specified between HP and OP, between the residuals of authentic and hubristic pride, as well as between the residuals of self-reported moral and immoral behavior. The results showed that the model (Model 2.1) had an acceptable fit to the data, χ^2 ($df = 182$, $N = 296$) = 412.50, $p < 0.001$, $\chi^2/df = 2.27$, and the other fit indices were acceptable, CFI = 0.90, IFI = 0.90, NNFI = 0.87, SRMR = 0.08, RMSEA = 0.07 [0.06–0.07]. Modification indices suggested that no addition or deletion of any theoretically sound parameters could significantly improve model fit.

As shown in Fig. 2, the results revealed that HP positively predicted authentic pride ($\beta = 0.16$) while OP positively predicted both authentic pride ($\beta = 0.41$) and hubristic pride ($\beta = 0.55$). In turn, hubristic pride positively predicted self-reported immoral behavior ($\beta = 0.63$) and negatively predicted self-reported moral behavior ($\beta = -0.35$). Authentic pride only positively predicted self-reported moral behavior ($\beta = 0.30$). When age was included as a covariate, the model did not change significantly ($\Delta\chi^2$ (20) = 23.45, $p = 0.27$), modification indices did not suggest any addition of paths between age and other variables and betas suffered no significant change ($\Delta\beta \leq 0.03$ for all β s). However, when years of experience were included in the present model, model fit dropped significantly

($\Delta\chi^2$ (20) = 39.48, $p = 0.006$) and modification indices suggested adding links to authentic pride ($\beta = -0.15$), self-reported moral behavior ($\beta = -0.11$), and self-reported immoral behavior ($\beta = 0.16$). However, even after these additions in the model, all other betas suffered no significant change ($\Delta\beta \leq 0.02$ for all β s). Therefore, age or years of experience were not included in the present model because they did not affect the relationships between the main model variables in any substantive way.

Furthermore, the effect of gender on the present model was tested through multi-group analyses where all 9 paths were constrained to be equal across both the male and the female groups. Results showed that the constrained model did not differ significantly in model fit from the unconstrained model ($\Delta\chi^2$ (9) = 7.28, $p = 0.61$), suggesting that relationships in the model were not significantly different across gender. However, inclusion of the gender variable as an exogenous covariable (male = 1, female = 2) in the general model resulted in modification indices suggesting adding links from gender to hubristic pride ($\beta = -0.23$), self-reported immoral behavior ($\beta = -0.31$), and self-reported moral behavior ($\beta = 0.26$), indicating mean differences in these model variables between gender, such that females are less hubristic, report less immoral and more moral behavior. Although informative, these mean differences were not of interest in this study as they did not

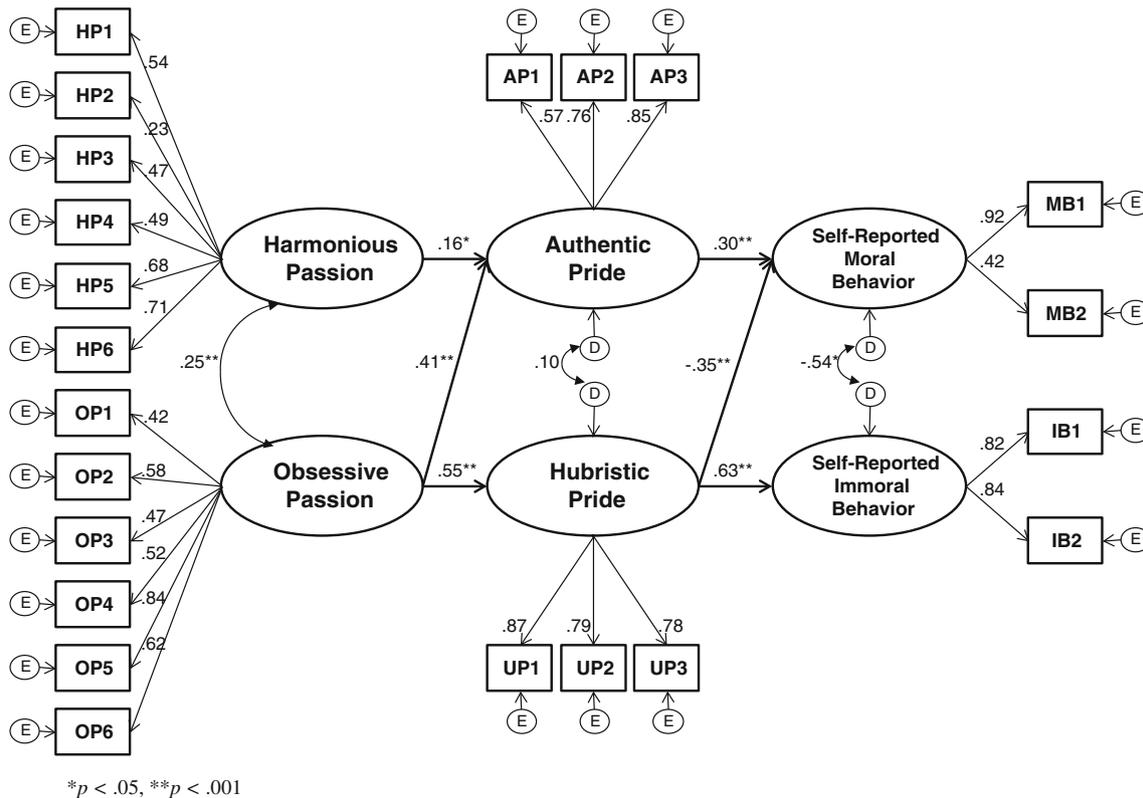


Fig. 2 Results of the structural equation modeling analyses of Study 2 ($N = 296$). * $p < 0.05$; ** $p < 0.001$

Table 4 Goodness-of-fit indices of the five models of Study 2 ($N = 296$)

Model	χ^2	<i>df</i>	χ^2/df	CFI	IFI	SRMR	RMSEA [95 %] CI	AIC
2.1	412.50	182	2.27	0.90	0.90	0.08	0.07 [0.06–0.07]	598.50
2.2	420.16	184	2.28	0.90	0.90	0.08	0.07 [0.06–0.07]	602.18
2.3	461.41	183	2.52	0.88	0.88	0.09	0.07 [0.06–0.08]	645.41
2.4	471.10	183	2.57	0.88	0.88	0.11	0.07 [0.07–0.08]	655.10
2.5	487.89	183	2.66	0.87	0.87	0.09	0.08 [0.07–0.08]	671.89

affect the pattern of relationships between the variables of the present model.

In order to test whether the hypothesized model provided the best fit indices, four meaningful alternative models were tested, in the same way as in Study 1. The first alternative model (i.e., Model 2.2) was one in which passion predicted self-reported immoral and moral behavior which, in turn, predicted pride. Based on modification indices, paths between HP and self-reported immoral behavior, as well as between OP and self-reported moral behavior were removed. The second alternative model (i.e., Model 2.3) was one in which pride predicted passion which, in turn, predicted self-reported immoral and moral behavior. Based on modification indices, the path between OP and self-reported moral behavior was removed. The third alternative model (i.e., Model 2.4) was one in which pride predicted self-reported immoral and moral behavior which, in turn, predicted passion. The fourth alternative model (i.e., Model 2.5) was one in which self-reported immoral and moral behavior predicted passion that, in turn, predicted pride. Based on modification indices, the path between HP and hubristic pride was removed. As can be seen in Table 4, all alternative models (Model 2.2–2.5) resulted in poorer fit indices than the proposed model. Thus, all alternative models were rejected.

Indirect effects

Indirect effects were investigated to further test the mediating role of hubristic pride between OP and self-reported immoral behavior and the mediating role of authentic pride between HP and self-reported moral behavior. Consequently, as in Study 1, bootstrapped confidence interval estimates of the indirect effect were calculated to confirm the significance of mediations. Results confirmed the mediating role of hubristic pride between OP and self-reported immoral behavior ($\beta = 0.35$; $CI = 0.29$ – 0.41). Results also confirmed the mediating role of authentic pride between HP and self-reported moral behavior ($\beta = 0.05$; $CI = 0.01$ – 0.11). It should be noted that pride did not significantly mediate the positive or negative indirect relationship between OP and self-reported moral behavior.

The present findings provided support for the extended model. As expected, both HP and OP positively predicted

authentic pride that, in turn, positively predicted self-reported moral behavior. On the other hand, OP was positively related to hubristic pride that, in turn, positively predicted self-reported immoral behavior and negatively predicted self-reported moral behavior. These findings basically replicate and extend those of Study 1 while including self-reported moral behavior in the model and testing the model in the realm of sports with United Kingdom athletes. Furthermore, results suggested that females were less likely to feel hubristic, less likely to engage in immoral behavior, and more likely to adopt moral behavior. In spite of correlational differences across gender, the model did not differ on its whole between males and females, nor was it affected by age or years of experience of participants.

General discussion

The main purpose of the present research was to investigate the role of passion in moral behavior in two studies and to identify some of the mediating processes in the relationship. Specifically, the purpose of the present research was to test an integrated model in which both HP and OP positively predict authentic pride that, in turn, positively predicts self-reported moral behavior. OP was also posited to positively predict hubristic pride that, in turn, positively predicts self-reported immoral behavior and negatively predicts self-reported moral behavior. This basic model was supported in two studies that took place in two different achievement settings and in two different cultures. These findings lead to some important implications.

Passion and moral behavior

A first implication is that passion matters with respect to moral behavior. While past research has shown that passion, and especially OP, is positively related to aggression (Donahue et al. 2009; Philippe et al. 2009c) and to less positive interpersonal behavior (e.g., Lafrenière et al. 2011, Philippe et al. 2010), the present findings are the first to show that passion needs to be taken into account as pertains to moral behavior. These findings were obtained in two studies that dealt with two different types of activities (paintball and

sports) in two different, yet similar, cultures (North America and the United Kingdom). Of major interest is that it seems that OP is mostly important if one wants to predict immoral behavior while HP seems to be more important for moral behavior. While this statement is generally true, a more in depth analysis reveals that the picture is more complex for OP. Indeed, the results showed that while OP is positively related to immoral behavior, it is still positively involved with moral behavior through its relationship with authentic pride. Thus, a more precise characterization of its link to morality would be that of a conflicted relationship. Because it can be positively related to both moral and immoral behavior, future research should seek to identify the conditions under which OP is related to either moral or to immoral behavior. As in past research on aggression (e.g., Donahue et al. 2009), it is possible that it is especially under ego threat that OP leads to immoral behavior.

Overall, the present findings provide support for the Dualistic Model of Passion as it further adds to the differential role of HP and OP as pertains to behavior. As in past research (see Vallerand 2010), HP was found to positively contribute to an adaptive form of behavior, namely moral behavior. However, OP revealed a much less adaptive form of relationship with moral and immoral behavior, being positively related immoral behavior and unrelated to moral behavior. Thus, while the present findings replicate past findings on the less adaptive moral aspects of OP, they also provide some important nuances as to its consequences. It is not as if OP were “all bad”. Rather, as indicated above, the picture with OP is somewhat more complex than that with HP. Clearly, future research on passion and moral behavior is needed.

Pride as a mediating process

Results of both studies revealed that the link between passion and moral behavior is mediated by pride. It would appear that OP leads people to feelings of arrogance and superiority over their opponents. This emotion then seems to make people focus compulsively on domination (Cheng et al. 2010), presumably through obsession with winning, and preventing them from experiencing empathy and making them adopt immoral behavior such as antisocial behavior and cheating. With respect to the mediating role of authentic pride between passion and moral behavior, results suggest that harmoniously-passionate as well as obsessively-passionate individuals come to feel authentic pride. Although authentic pride does not seem to play a role in self-reported immoral behavior (see Studies 1 and 2), it does predict self-reported moral behavior (Study 2). Thus, HP leads to moral behavior through its link to authentic pride. With OP, the indirect path to moral behavior is mediated positively by authentic pride and

negatively by hubristic pride. These two mediating process cancel each other out psychologically (and statistically), thus leaving OP with a less straightforward role in moral behavior. It would be interesting, however, to examine how moral behavior operates when it is the result of two conflicting types of pride (such as in the case of OP) as opposed to when it is the result of authentic pride only (such as in the case of HP). Furthermore, future research is needed to identify the conditions under which one of the OP-pride paths is triggered at the expense of the other and the ensuing consequences for moral/immoral behavior.

The present findings provide support for Tracy and Robins' (2007) position on the role of authentic and hubristic pride in adaptive and less adaptive behavior, respectively. Past research has shown that authentic pride leads to adaptive behavior such as better social interactions and prosocial behavior, while hubristic pride can lead to maladaptive behavior such as aggression and antisocial behavior (e.g., Tracy et al. 2009). The present research extends these findings in showing that they also apply to moral and immoral behavior that take the form of sportspersonship and cheating and antisocial behavior, respectively. Future research is needed in order to explore the processes involved in these relationships. As research by Cheng et al. (2010) points out, it may be that authentic pride leads to moral behavior through prestige-seeking while hubristic pride leads to immoral behavior through dominance seeking.

From a more general perspective, the picture that the present findings paint is that there are two roads to morality in achievement settings. The harmonious road is straightforward. It starts with HP that is associated with the experience of authentic pride that, in turn, predicts moral behavior. The second, more obsessive, road is more complex and involves both positive elements (through authentic pride) and maladaptive ones (through hubristic pride): Clearly, future research on passion and morality is needed in order to further chart the vicissitudes of these two roads to morality and assess their generality.

Limitations

Some limitations of the present research need to be underscored. First, the correlational design used in both studies does not allow us to make causal inferences. Therefore, it is impossible to determine the directionality of causality with respect to the proposed model. Consequently, researchers should try to replicate the present findings using experimental designs to clearly establish the directionality of the effect. Second, both studies were cross-sectional. It would be important to conduct future research using longitudinal or prospective designs to determine the role of passion in predicting changes in moral and immoral behavior over

time. Third, in the present research, all variables were reported by the participants. Future research should replicate the present findings while using objective measures or observer reports of moral and immoral behavior. Fourth, the measure of pride used was an abridged scale. Even though we carried out a validation study to further assess its validity and reliability in regards to Tracy and Robins' original scale, the short subscales still showed a higher intercorrelation than the original subscales. Thus, future research should replicate the present findings with the original scale. Finally, we need to extend the generality of the present findings by assessing the present model as pertains to other types of activities in non-achievement settings (e.g., environmental engagement) and in other cultures. Such research would go a long way in providing crucial information as to the validity of the proposed model and its potential application to a wide range of situations and people.

Conclusion

In sum, the findings from the present study suggest that passion matters with respect to moral behavior and that its link to moral and immoral self-reported behavior is mediated by authentic and hubristic pride, respectively. To return to the question posed in the Introduction section, it appears that highly-involved individuals may adopt either moral or immoral behavior as a function of the predominant type of passion that characterizes their relationship with the passionate activity. Future research on the role of passion in moral behavior should be pursued as it might yield important insights into the psychological processes at play in the moral (and immoral) behavior of highly-involved individuals.

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