Social Psychology

Self-Perception, Empathy and Moral Self-Concept Predict Moral Concerns in Adults[1]

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Abstract: Moral concerns are socio-intuitive processes comprising individual and collective aspects modulated by social cognition. In this sense, the objective of this study was to investigate the relationship among self-consciousness, empathy, and individualizing (IMC) and binding moral concerns (BMC). Therefore, outlined a quantitative study in which 341 Brazilian adults (63% female) answered the instruments: Self-Reflection and Insight Scale, Empathy Scale, Moral Self-Concept Scale, and Moral Foundations Questionnaire. Data were submitted to a multiple linear regression analysis. The results indicated a positive association among IMC, moral self-concept, empathic concern and personal distress. Regarding BMC, self-reflection and perspective-taking presented negative association, as moral self-conception and empathic concern were associated positively. It is concluded that affective components of empathy and moral self-concept are good predictors of moral concerns and that high-order metacognitive processes are not predictors of IMC, but negative predictors of BMC.

Keywords: self-perception, empathy, self-concept, morality, social cognition

Autopercepção, Empatia e Autoconceito Moral Predizem Preocupações Morais em Adultos

Resumo: Preocupações morais são processos socio-intuitivos que compreendem aspectos individuais e coletivos modulados pela cognição social. Neste sentido, o objetivo deste estudo foi verificar as relações entre autoconsciência, empatia e preocupações morais individualizantes (PMI) e vinculativas (PMV). Para tanto, delineou-se um estudo quantitativo, no qual 341 adultos brasileiros (63% mulheres), responderam à Escala de Autorreflexão e Insight, Escala de Empatia, Escala de Autoconceito Moral e Questionário de Fundamentos Morais. Os dados foram submetidos à análise de regressão linear múltipla. Os resultados indicaram uma associação positiva entre as PMI e as variáveis autoconceito moral, preocupação empática e angústia pessoal. Em relação às PMV, autorreflexão e tomada de perspectiva associaram-se negativamente, enquanto autoconceito moral e consideração empática associaram-se positivamente. Conclui-se que componentes afetivos da empatia e autoconceito moral são bons preditores de preocupações morais e que processos metacognitivos de alta-ordem não são preditores de PMI, mas preditores negativos de PMV.

Palavras-chave: autopercepção, empatia, autoconceito, moral, cognição social

Autopercepción, Empatía y Autoimagen Moral Predicen Preocupaciones Morales en Adultos

Resumen: Preocupaciones morales son procesos socio-intuitiva que incluyen aspectos individuales y colectivos modulados por la cognición social. En este sentido, el objetivo de este estudio fue investigar la relación entre la auto-conciencia, la empatía y las preocupaciones morales individualizantes (PMI) y vinculantes (PMV). Por lo tanto, se desarrolló un estudio cuantitativo en el que 341 adultos brasileños (63% mujeres), respondieron a Escalas de Auto-reflexión y Insight, de Empatía, de Autoimagen Moral y Cuestionario de Fundamentos Morales. Los datos fueron sometidos a análisis de regresión lineal múltiple. Los resultados indicaron una asociación positiva entre las variables autoimagen moral, preocupación empática y angustia personal y PMI. En cuanto a PMV, la auto-reflexión y la toma de perspectiva se asociaron negativamente, como autoimagen moral y preocupación empática se asociaron positivamente. Se concluye que los componentes afectivos de la empatía y autoimagen moral son buenos predictores de las preocupaciones morales y que los procesos metacognitivos de orden superior no son predictores de PMI, pero predictores negativos de PMV.

Palabras clave: autopercepción, empatía, autoimagen, moral, cognición social

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Human social nature can be defined as the human ability to share world views and self-views and to accumulate norms and beliefs (Barrett, Henzi, & Lusseau, 2012). The manner in which an individual cares about relationships established with others and with the groups to which they belong (Haidt, 2007) composes what is called moral concerns. These are socially shared values that include principles such as fairness, reciprocity, authority, in group (social belonging), and purity that are found in all human cultures (Graham et al., 2011). Although universal, these principles have different degrees of importance for different cultures. In this sense, moral concerns can be defined as automatic, socio-intuitive processes modulated by culture, experienced in the form of feelings of approval or disapproval in the face of any situation with moral content. They emerge from a sophisticated processing of social information (Haidt & Joseph, 2008), centered by a brain that is highly specialized in social interactions (C. D. Frith, 2007).

Studies on moral concerns show that there has been a significant shift in thinking in relation to the influence reason exerts on moral judgment, whereby moral reason has ceased to be viewed as a judgment, the triggering factor occupying a subsequent facultative stage. According to moral foundations theory (Graham et al., 2011), rationalization serves to justify intuitive feelings triggered automatically in the face of a moral context in which one's own well-being or the well-being of others may be affected. For the authors, although human beings are motivated first and foremost by self-interested, they also care about how they and others treat people and how they participate in groups (Haidt, 2007).

According to previous studies of the Moral Foundations Questionnaire (Graham et al., 2011), the hierarchical model of moral concerns suggests the existence of a distinctive dimension and one connective dimension. Both are considered to be significantly influenced by culture, possibly due to the human need to belong and for affiliation. In the distinctive dimension individual moral concerns (IMC) emphasize issues predominantly related to harm and fairness, that is, aspects related to fairness and the protection of rights. Binding moral concerns (BMC), in turn emphasize connective issues related to authority, a sense of social belonging, and purity, that is, aspects related to social norms and the moral concerns of the social group to which the individual belongs (Graham et al., 2011).

Although recent in comparison to the traditional view of moral psychology, which focuses on the central role of reason (Kohlberg, 1984), the new approach has gained strength and has been found to be in line with scientific studies in related areas (Adolphs, 2009; C.D. Frith, 2007; Molnar-Szakacs, 2011). Studies in the emergent field of social information processing suggest that both social cognitive and metacognitive processes contribute to the emergence of culture, upon which morality is grounded (Adolphs, 2009).

Social cognition involves the processing of social information, much of which occurs without the need of awareness (C. D. Frith & U. Frith, 2007). In turn, metacognition refers to the conscious monitoring of cognitive processes, which involves thinking about the thought, making it possible to reflect and justify one's behavior to others (C. D. Frith, 2012) and a high-order metacognition is not just thinking about the thought, but about the one who is thinking. In this sense, it could be said that moral concerns are related to three specific aspects of social cognition and metacognition: empathy, self-consciousness, and moral self-concept.

Empathy is being conscious of the thoughts and feelings of others (Davis, 1983; Sampaio, Guimarães, Santos, Formiga, & Menezes, 2011) and it is triggered by the social observation of other people's behavior (Leiberg & Anders, 2006). It plays a role in both social cognition and social adjustment, but it also depends on the ability to self-evaluate. The ability to perceive, share, and understand the emotional state of others gives meaning to interactions and is essential for survival (Carrera et al., 2013; Decety & Svetlova, 2012; Robinson, 2008). Furthermore, empathy deficits are related to personality disorders such as psychopathy (Hare, 1993), Machiavellianism, narcissism (Wai & Tiliopoulos, 2012) and even interpersonal deficits in autistic spectrum syndrome (aan het Rot & Hogenelst, 2014; Lombardo, Barnes, Wheelwright, & Baron-Cohen, 2007). It therefore comprises a complex, broad-spectrum construct that includes emotional contagion, feelings of concern, the experience of sharing emotional experience with others, and even the ability to know what the other is thinking or feeling (Decety & Svetlova, 2012; Todd & Burgmer, 2013). In this sense, empathy comprises socioemotional skills anchored in emotional, neurobiological, and cognitive subsystems that operate in parallel (Molnar-Szakacs, 2011; Reniers et al., 2012). Added to knowledge of the social world, such socioemotional skills added to the knowledge of the social world result in a mode of moral functioning that enables and compels individuals to produce responses to events that affect the well-being of others, whether near or far. Thus, mature moral functioning depends on the integration of emotion, intuition, and reason (Narvaez, 2010), which in turn means that understanding the emotional state of others is just as important as the activity of monitoring and evaluating one's own feelings, thoughts, and actions.

Self-consciousness implies high-order thought and metacognition together with an introspective evaluation of one's own feelings, thoughts, and behaviors (DaSilveira, DeCastro, & Gomes, 2012; Grant, Franklin, & Langford, 2002). Monitoring one's own actions and evaluating this monitoring are fundamental aspects of self-evaluation, which forms the basis of private self-consciousness (Silvia, Eichstaed, & Phillips, 2005; Trapnell & Campbell, 1999). According to Grant et al. (2002), private self-consciousness may be broken divided into two sub-factors: self-reflection, which is associated with monitoring one's own actions, and insight, which is associated with evaluating this monitoring. Self-consciousness entails the ability to differentiate between oneself and the other and includes a sense of awareness over one's experiences and a first-person perspective on the awareness of space, environment, emotions, and memory by

means of a specific neural integrative mechanism (Rochat, 2013; Webber, 2011). In this sense, the self or sense of agency may be defined as a self-attribution system that lies within a framework of social reference of shared representations (De Vignemont & Fourneret, 2004).

Finally, moral self-concept is a personal description in relation to self-evaluated moral characteristics (Stake, 1994). In turn, self-concept is the part of the self-attribution system formed by self-descriptions of self-evaluative contents (Stake, 1994). The findings of the study by Lu and Chang (2011) with university students suggest that moral self-concept is a function of self-consciousness, and later studies find a significant correlation between moral behavior and high moral self-concept scores (Cremer & Mulder, 2007; Young, Chakroff, & Tom, 2012). Furthermore, moral character is a major dimension with which one evaluates and is evaluated by others (Nowak, Page, & Sigmund, 2000), that is, it is safe and reliable for predicting potential partners and co-workers based on moral traits. Recent studies on the moral self state that moral traits are essentially what make a person who he or she is. Without this moral sensitivity, the person ceases to exist and becomes unrecognizable compared to who he or she used to be (Strohminger & Nichols, 2014). For moral self-researchers, the manner in which individuals monitor their suitable social standards is at the heart of personal identity. According to Haidt (2007), self-interest is followed by interest in the way one treats others and the groups to which one belongs. Together, these findings help explain the importance of moral self-concept to moral concerns.

In this sense, given that moral concerns are part of a process of intuition modulated by social cognition, the main objective of the present study is to explore the relationship between moral concerns and empathy, moral self-concept, and self-consciousness. Certain aspects of empathy are expected to be good predictors of both moral concerns and moral self-concept. Higher-order meta-cognitive skills such as self-consciousness and other factors that contribute to empathy factors, such as perspective-taking, are not expected to predict intuitive moral concerns, since high-order metacognition involves self-reflection and cognitive control, while intuitive moral concerns are an automatic and intuitive form of social cognition.

Method

Participants

A total of 341 adults answered the survey, the majority of whom were female (63%) and fell into the age groups 21 to 28 years old (37%) or 28 to 35 years old (26%); 63% of participants were female. The sample encompassed the regions of Brazil, with a predominance of participants from the Southeast Region (65.9%). Inclusion criteria were Brazilian and aged 18 years and over. Brazilian residents living abroad were excluded.

Instruments

Self-Reflection and Insight Scale - SRIS. The original SRIS (Grant et al., 2002) was adapted and validated for use in Brazil by DaSilveira et al. (2012), and it is composed of 20 items which should be evaluated using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Two subfactors evaluate different dimensions of the theoretical construct: self-reflection (SR) is the activity of inspecting and evaluating thoughts, feelings, and behaviors (for example, "I'm very interested in examining what I think."), and insight (IS) is an internal state of understanding one's thoughts, feelings, and behaviors (for example, "It is important to me to try to understand what my feelings mean."). This version exhibited satisfactory reliability, with Cronbach's alpha = 0.90 for self-reflection and 0.82 for insight.

Interpersonal Reactivity Index - IRI. The original IRI (Davis, 1983) was adapted for use in Brazil by Sampaio et al. (2011). The scale evaluates the cognitive and affective components of empathy. It consists of 4 dimensions that generate independent subscales measured on a 5-point Likert scale ranging from 1 (totally disagree) to 5 (totally agree), with a total of 26 items. The cognitive dimensions of perspective-taking (PT) and fantasy (FS) assess, respectively, the ability to put oneself in the place of others, imagining what they think or feel (for example, "I try to understand my friends, imagining how they see things") and the ability to put oneself in the place of film and/or book characters (for example, "I'm neutral when I watch films", which is an item with a reverse score). The affective dimensions of empathic concern (EC) and personal distress (PD) assess, respectively, the motivation to help people for whom one feels empathy (for example, "I put myself in the place of others if I worry about them") and the subjective feelings of discomfort or anxiety produced in the self when the individual is faced with a stressful situation or emergency (for example, "Usually I get nervous when I see injured people"). The translation and adaptation studies indicate the adequate reliability of the FS, EC, PD, and PT dimensions, with Cronbach's alpha = 0.81, 0.71, 0.76, and 0.71, respectively.

Moral Self-Concept Scale - MSCS. This is the Morality subscale from the Six-Factor Self-Concept Scale (SFSCS) (Stake, 1994), which was translated for use in the present study. The translation by experts of the MSCS was organized in 3 steps. First, a bilingual researcher translated the scale from English into Portuguese. Then, the translated version was reviewed by 2 bilingual researchers to verify semantic equivalence; and finally, 2 independent experts in moral psychology analyzed the revised version. The self-concept scale encompasses 6 dimensions that evaluate various aspects of one's feelings and thoughts about oneself. Morality is one of the 6 dimensions of the self-concept scale and measures the individual performance of adults in qualities of universal value, regardless of nationality, religion, or ethnicity: loyal, truthful, law-abiding, faithful, trustworthy, and honest. The 6 items are answered on a 7-point Likert scale ranging from 1 (never true of me) to 7

(always true of me). In the original validation study (Stake, 1994), the morality dimension exhibited satisfactory reliability among both graduate students and non-student adults, with Cronbach's alpha = 0.85 and 0.64, respectively. In the study adapting the scale to Brazil, reliability was established based on Cronbach's alpha = 0.82 in a Brazilian adult population.

Moral Foundations Questionnaire - MFQ. The MFQ (Graham et al., 2011) was adapted for Brazil using the same translation method applied to the Moral Self-Concept Scale, described previously. The instrument consists of 2 parts that assess moral relevance and moral judgment about moral concerns using a 7 point Likert scale ranging from 0 (not relevant/strongly disagree) to 6 (extremely relevant/strongly agree), with a total of 25 items. The adapted version for use in Brazil has 2 factors: IMC, which mostly includes items from the harm and fairness factors, and BMC, which includes items related to in group (social belonging), authority, and purity. The Cronbach's alphas for the Brazilian version were IMC = 0.89 and CMC = 0.84.

Socio-Demographic Information Questionnaire. Additionally, participants were requested to answer questions regarding gender, age, and geographic location.

Procedure

Data collection. Participants were recruited using the snowball sampling method. The sample was contacted through a standard message sent to email addresses registered in the contact list of the researcher and social networks (for example, Facebook) following the criteria of nationality (Brazilian) and age (over 18 years old). An electronic questionnaire was built with five different instruments, as described previously. Instruments were presented in a fixed sequence as forms in 5 virtual pages

in the order described above. Participants were allowed to review what they had filled out but could not move forward until all the items in a page were filled out. At the end of the questionnaire, the respondent had to click on the submit icon for the participation to be registered and computed for the study.

Data analysis. Data were analyzed using the statistical program Statistical Package for the Social Sciences (SPSS) for Windows, version 18.0. Descriptive and reliability analyses were performed. Correlations and multiple linear regressions were used to analyze the relationships between constructs. The significance level adopted was 5% with a 95% confidence interval.

Ethical Considerations

The research followed all ethical procedures required by Brazilian standards for research with human subjects. The research project was duly approved by the Ethics Committee in Research with Human Subjects affiliated to Brazilian National System of Research Ethics (SISNEP), under protocol number 29690314.3.0000.5542.

Results

As observed in Table 1, the score of individualizing moral concerns (IMC) was positively correlated to self-reflection (SR), moral self-concept (MC), perspective-taking (PT), empathic concern (EC), personal distress (PD), fantasy (FS), and binding moral concerns (BMC). Binding moral concerns (BMC) showed a positive correlation with insight (IS), moral self-concept (MC), fantasy (FS), and empathic concern (EC) and a negative correlation with perspective-taking (PT).

Table 1

Covariance of Self-Consciousness, Moral Self-Concept, Empathy, and Moral Concerns Constructs

	SR	IS	MC	PT	FS	EC	PD	IMC	BMC
Self-Consciousness									
Self-Reflection (SR)	-								
Insight (IS)	0.23***	-							
Moral Self-Concept (MC)	0.05	0.26***	-						
Empathy									
Perspective-Taking (PT)	0.15**	-0.29***	-0.03	-					
Fantasy (FS)	0.26***	0.18***	0.28***	0.10	-				
Empathic Concern (EC)	0.18***	-0.03	0.26***	0.40***	0.38***	-			
Personal Distress (PD)	-0.02	-0.47***	-0.04	0.50***	-0.02	0.40***	-		
Moral Concerns									
Individualizing Concerns (IMC)	0.13*	-0.01	0.26***	0.30***	0.20***	0.49***	0.29***	-	
Binding Concerns (BMC)	-0.09	0.12*	0.31***	-0.15**	0.13*	0.18***	0.03	0.30***	-

Note. ***$p < 0.001$; **$p < 0.01$; *$p < 0.05$.

As expected, self-reflection (SR) significantly correlated with insight (IS). In addition, self-reflection (SR) showed a positive correlation with perspective-taking (PT), empathic concern (EC), and fantasy (FS). Insight (IS), in turn, showed a positive correlation with moral self-concept (MC) and fantasy (FS). By contrast, it correlated negatively with perspective-taking (PT) and personal distress (PD). With regard to moral self-concept (MC), in addition to the above correlations, there was a positive correlation with fantasy (FS) and empathic concern (EC). Perspective-taking (PT) positively correlated with empathic concern (EC) and personal distress (PD). The variable of empathic concern (EC) had the highest number of correlations, correlating positively with all variables, but insight (IS).

Individualizing moral concerns and binding moral concerns were included as dependent variables in multiple linear regression analyses (Table 2). In relation to the IMC, three constructs explained 28.3% of the variance. The variables of moral self-concept (MC) ($p = 0.02$), empathic concern (EC) ($p < 0.001$), and personal distress (PD) ($p = 0.0047$) showed significant positive associations with IMC; therefore, as these three variables increase, so do individualizing moral concerns. The remaining variables were not relevant factors for individualizing moral concerns.

With regard to binding moral concerns, four variables explained 15.4% of its variance. Self-reflection (SR) ($p = 0.018$) and perspective-taking (PT) ($p < 0.001$) showed a negative association ($p < 0.05$) with BMC, whereas moral self-concept (MC) ($p < 0.001$) and empathic concern (EC) ($p = 0.006$) associated positively. That is, when self-reflection and perspective-taking increase, binding moral concerns decrease. By contrast, when moral self-concept and empathic concern increase, binding moral concerns also increase. The remaining variables were not relevant factors for binding moral concerns.

Table 2

Multiple Regression Analysis Predicting the Variables of Individualizing and Binding Moral Concerns (Method Enter)

Independent Variables	Individualizing			Binding		
	β	R^2	Adjusted R^2	β	R^2	Adjusted R^2
Self-Reflection	0.04			-0.22*		
Insight	0.04			0.11		
Moral Self-Concept	0.14*			0.33*		
Perspective-Taking	0.09	0.28	0.27	-0.28*	0.17	0.15
Fantasy	0.00			0.07		
Empathic Concern	0.34*			0.27*		
Personal Distress	0.09*			0.14		

Note. *$p < 0.05$.

Discussion

This study embraced the challenge of relating the variables of empathy, self-consciousness, and moral self-concept in an investigation of moral concerns. Results showed that despite their high affinity, the constructs present specificities in relation to moral concerns. The initial expectations that some aspects of empathy would be good predictors of moral concerns and that the higher-order metacognitive skills would not be predictive of moral intuitions were confirmed. The importance of the affective aspects related to moral concerns and moral self-concept which are positively associated with moral concerns, is emphasized. Higher-order metacognitive skills were negatively associated with binding moral concerns.

Empathic concern, moral concerns and moral self-concept not only appear together but also vary in the same direction, that is, when one is high, the others are high as well. This result suggests the relevance of a new synthesis of moral psychology that focuses on affective and social processes and relates motivation to moral intuition and self-interest (Haidt, 2007). And a possible explanation for this result comes from the theory of the moral mind (Haidt & Joseph, 2008), according to which moral functioning implies social-perceptual skills that allows people to perceive morally relevant information from both the context and their own emotions and actions. For Haidt and Joseph (2008), virtues exemplify this kind of social-perceptual skills.

In turn, perspective-taking was the only variable to covariate negatively with binding moral concerns and insight. In the case of insight, the negative covariance with perspective-taking may be explained by the fact that although both are high-order cognitive processes, they are psychological phenomena of opposite natures. In perspective-taking, the focus is on understanding the emotions of others, whereas in insight the focus is on understanding one's own emotions. According to Leiberg and Anders (2006), perspective-taking is a deliberate activation process, unlike emotional contagion, where a process of instant activation of the emotional representation of others occurs. Thus, as a high-order cognitive process, perspective-taking modulates the distress caused by emotional contagion. Therefore, with regard to insight, it is speculated that the orientation of the inference process directed toward the self might possibly occurs through the inhibition of the

perspective of the other and vice versa, which explains also the negative correlation with perspective-taking. Another distinctive quality of insight can explain its correlation with the variable of moral self-concept as opposed to the absence of correlation between the moral self-concept and self-reflection. Whereas self-reflection refers to the activity of inspecting and evaluating one's thoughts, feelings, and motives (without necessarily understanding them), insight refers to their internal understanding (Grant et al., 2002). In addition, according to Trapnell and Campbell (1999), it is necessary to distinguish between two types of reflection: the type motivated by an epistemic interest in the self and rumination, a process driven by perceived disadvantages in relation to the self. Therefore, it may be suggested that for moral self-concept, it is more important to be able to reach conclusive understanding (insight) about one's own thoughts, feelings, and motives than to be able to assess them. It would be possible to suggest that self-assessment without insight, therefore, becomes rumination, which prevents the development of moral self-concept.

As a good predictor of both individualizing and binding moral concerns, moral self-concept demonstrates the power that reputation has on the cohesion and cooperation of communities. This result is compatible with studies claiming that respect in relationships and satisfaction of the needs of belonging and reputation only exist when individuals have a positive self-concept (Cremer & Mulder, 2007). In addition, Silvia et al. (2005) suggest that private self-consciousness is more a measure of self-relevant motivation than a measure of self-focused attention. If these data may be extended to self-concept, then this phenomenon explains why high moral self-concept and moral behavior are significantly associated (Young et al., 2012).

Empathic concern as predictive of individualizing and binding moral concerns may be explained by the central role that automatic, affective psychological processes play in relation to moral concerns, according to the Moral Foundations Theory (Graham et al., 2011). This result confirms a trend noted by the scientific literature on the high importance of empathic affection for interpersonal relationships. The definition of empathic concern as motivation to help individuals for whom one feels empathy (Davis, 1983) predicts this relationship with pro-social attitudes, empirically confirmed by Robinson (2008). More recently, empathic concern has been identified as being able to elicit the guilt response and inhibit criminal behavior (Martinez, Stuewig, & Tangney, 2014). Furthermore, although the relationship between empathy deficits and psychopathy is controversial (Lishner et al., 2012), Hare (1993) presents data that support the existence of such a relationship. Moreover, aan het Rot and Hogenelst (2014) indicate that limitations in the capacity for empathic affect worsen the interpersonal deficits of autistic individuals.

It should be noted that personal distress appeared together with empathic concern as a good predictor of individualizing moral concerns; that is, the greater the distress or subjective sensitivity was when encountering a stressful situation or emergency, allied to the concern or motivation to help individuals for whom one feels empathy, the greater the individual moral concerns relative to harm and fairness. The data from the present study especially corroborate the findings of Carrera et al. (2013), who suggest that personal distress and empathy together comprise a dynamic emotional experience that is able to predict altruistic behaviors.

As expected, perspective-taking and self-reflection were negative predictors of binding moral concerns, which may be explained by the fact that moral concerns are intuitive social cognitions and that the presence of higher-order processes is able to change or even cancel out social intuition (Haidt, 2001). For example, the recent study by Todd and Burgmer (2013) notes that perspective-taking is able to combat the automatic expression of racial prejudice, that is, to the extent that the self is psychologically connected to the target group, culturally absorbed discrimination yields to other possibilities of intergroup contact. Together, these findings explain the negative association between perspective-taking and self-reflection and binding moral concerns, pointing a direction for efforts that intend to combat this type of harmful automatic expression.

Overall, the results suggest that the affective aspects of empathy and moral self-concept are significantly associated with moral concerns, whereas cognitive aspects that require higher-order processes do not significantly relate or negatively relate to moral concerns. That is, the manner in which individuals concern about others and about the groups to which they belong seems to be strongly related to the moral concept they have of themselves and the emotions they are able to process in everyday situations that involve moral issues (associated with affective social information processing).

The implications of these results for understanding moral concerns suggest empirical evidence in favor of the social-intuitionist moral model (Haidt, 2001). According to this model, moral judgments are motivated more strongly by social and emotional moral intuition than by conscious reason, as predicted by the rationalist theoretical model of morality (Kohlberg, 1984). However, results raised the question of the extent to which moral concerns, produced intuitively, can contribute to mature moral functioning. According to Narvaez (2010), metacognitive skills such as self-regulation, self-reflection, and locus of control are skills that need to be developed alongside emotions and moral intuitions for mature moral functioning to be possible. The results suggest that the use of conscious reason through self-reflection and perspective-taking can produce insights that are able to cancel out automatic assessments or socially produced intuitions (Haidt, 2001). That is, higher-order processes seem to play an important role in the evaluation and organization of knowledge derived from moral intuitions and in the promotion of mature moral functioning at the individual and broad social levels, in addition to enabling human moral evolution.

The study presented an up-to-date methodological strategy by focusing on self-reported measures in a virtual setting. Self-reported measures may contain limitations; however, the anonymity and distance from the eyes of the researchers may have made the answers even more reliable. In a future study, it would be important to correlate the variables to individual

characteristics that may be related to moral functioning, such as the number of siblings and membership in community groups.

Although this study found some (positive and negative) associations between the constructs, the analyses performed do not make it possible to make inferences with regard to how the constructs influence one another. Other methodological strategies may be necessary to understand how the relationships between constructs are organized. However, it is believed that the proposed design made it possible to illuminate Haidt's moral psychology social-intuitionist model, and concordance between theory and the results regarding the central role of social cognition related to affections in moral judgment was observed. In addition, it was possible to empirically analyze the understanding of the moral concerns of a sample of Brazilians. Given the importance and complexity of the phenomenon, it is fundamental that studies on the psychological mechanisms underlying moral concerns and mature moral functioning continue to advance with the continuity of studies on theorizations of human morality.

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