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I. MORAL VALUE EVALUATION

A Neglected Motivational Concept in Externalizing Behaviour Research

INTRODUCTION

For almost half a century, research into the development of one's morality has focused almost exclusively on the development of moral cognitive processes, stating that moral judgment (i.e., the evaluation of whether something is right or wrong, cf., Haidt, 2001) is founded in moral reasoning (i.e., the moral reasoning about *why* something is right or wrong, cf., Gibbs, 1979; 2010; Kohlberg, 1981, 1984). Not surprisingly, the research into the relationship between morality and both moral and immoral behaviour (e.g., respectively, pro-social and externalizing behaviour) focussed also on moral reasoning. However, while moral cognitive developmentalists were confident of an associative link between moral reasoning and (im)moral behaviour (e.g., Blasi, 1980), a causal explanatory relationship had (and has) yet to be confirmed. For instance, lower moral stage reasoning was more prevalent among delinquent individuals than among non-offending individuals (a phenomenon that has been thoroughly acknowledged, Stams et al., 2006). This suggests a negative association between moral reasoning and delinquent behaviour, though it offers no definitive proof in regards to causality. Subsequent research, inspired by the suggestion that there is more to the explanation of behaviour than moral reasoning (cf., Blasi, 1980; Kohlberg & Candee, 1984), therefore strived to investigate other moral characteristics besides moral reasoning.

For example, following the theoretical suggestion that the moral aspect of one's identity is related to behaviour as well (e.g., the moral self, Blasi, 1993), several studies examined and, indeed, confirmed this relationship between moral identity and moral behaviour. One of the first studies to investigate the link between moral identity and behaviour, found a positive relationship between the moral characteristics in one's identity and the occurrence of ethical behaviour (Arnold, 1993). Since then this relationship between moral identity and moral (or pro-social) behaviour has been widely established and acknowledged (cf., Hardy & Carlo, 2005). However, not only moral identity's relationship to moral behaviour was examined, as recent studies also investigated its relationship with immoral behaviour. In a similar sense, an increased moral identity was (either directly or indirectly) related to a relative absence of immoral (i.e., externalizing) behaviour (Barriga, Morrison, Gibbs & Liau, 2001; Johnston & Krettenauer, 2011).

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Other moral cognitive processes were investigated as well. One of these processes that recently received a lot of attention is the concept of self-serving cognitive distortions (as envisioned by Gibbs and Potter, 1992; often operationalized through the "How I Think"-Questionnaire [HIT-Q], Barriga, Gibbs, Potter & Liau, 2001). Self-serving cognitive distortions are biased or inaccurate cognitive processes that, if highly prevalent within an individual, facilitate externalizing behaviour (Barriga, Gibbs et al., 2001). Though clearly more an *immoral* motivator, rather than a *moral* motivator (cf., Rest, 1999), the notion that cognitive distortions are regarded as relevant in delinquents is nothing new (Sykes & Matza, 1957). For many decades, there have been reports of delinquents who blame others for their own externalizing behaviour (i.e., denying of responsibility), or say that their actions have little to no consequences (i.e., denying of injury). Such reports and attitudes have been interpreted as (the result of) distorted social information processes, now coined self-serving cognitive distortions. The claim that the high prevalence of such distortions would facilitate immoral behaviour has found empirical support (Barriga, Morrison et al., 2001; Helmond, Brugman, Overbeek & Gibbs, 2011; Nas, Brugman & Koops, 2008).

About one decade ago, a multi-process cognitive developmental model was suggested (Barriga, Morrison et al., 2001), with the intention to thoroughly bridge the gap between moral reasoning and externalizing behaviour (Blasi, 1980; Kohlberg & Candee, 1984). Between moral reasoning and externalizing behaviour, the above discussed concepts of moral identity and self-serving cognitive distortions were introduced as mediating processes. In Barriga, Morrison and colleagues' model, moral reasoning was hypothesized to contribute to shaping one's moral identity, as the use of higher stage reasoning (i.e., reasoning aimed at facilitating interpersonal accord on a micro- or macro-level) would be associated with an increased moral identity. Furthermore, both these processes would "buffer" against the use of self-serving cognitive distortions. More specifically, higher levels of moral reasoning and a moral identity would discourage (or motivate against) the use of immoral thoughts and attitudes to justify immoral behaviour. Lastly, these three so called moral cognitive processes (i.e., moral reasoning, moral identity and self-serving cognitive distortions) would each retain their respective direct influences on the occurrence of externalizing behaviour. While the theoretical implications of the moral motivational cluster held up fairly well, two major issues arose during the empirical examination – by Barriga, Morrison and colleagues – of the moral cognitive model for externalizing behaviour. First, no relationship was found between moral reasoning and moral identity. Second, the expected direct negative relationship between moral reasoning and externalizing behaviour was of marginal magnitude.

The arrival of the moral cognitive model (Barriga, Morrison et al., 2001) hardly brought any consensus to the field of externalizing behaviour research, as in the past decade the role of moral reasoning in behaviour was still disputed (cf., Brusten, Stams & Gibbs, 2007; Emler & Tarry; Tarry & Emler, 2007). As a result of this

dispute, somewhat unexpectedly, a relatively under-researched moral motivational concept emerged as a possible co-contender for the explanation of moral behaviour. It is this concept, namely moral value evaluation, which is the main focus of this chapter and its relationship with (im)moral motivation and externalizing behaviour.

MORAL VALUE EVALUATION

Owing to the novelty of the term in empirical research regarding externalizing behaviour, we will first introduce the moral motivational term on a conceptual level (the term made its initial appearance in Beerthuizen, Brugman, Basinger & Gibbs, 2011). We do this by dividing the concept into two parts (i.e., moral value[s], and evaluation) and then discussing how these two parts intertwine.

Moral Values

Moral values are frequently believed to be values based around harm, or rather, the absence of inflicting harm (Turiel, 1983). Nonetheless, recent perspectives on what constitutes a moral value exhibit more complex and non-harm characteristics, such as purity (Graham et al., 2011). In the current chapter, we focus on those harm-based moral values. In his classical moral reasoning research, Kohlberg identified a total of twelve types of moral values, which he coined moral value domains that are central to everyday life (Colby & Kohlberg, 1987a, p. 42). It is upon these values that the measurement of Kohlbergian moral reasoning is based. Five of these value domains (i.e., contract and truth, affiliation, life, property and law, and legal justice) have frequently found their way into moral reasoning research regarding externalizing behaviour (e.g., Tarry & Emler, 2007). When discussing the concept of moral value evaluation in the current chapter, it is also these five value domains about which we speak.

Evaluation

Moral value evaluation clearly concerns an evaluation of moral values. Moreover, it is an evaluation of the *importance* of those moral values. Even more specifically, moral value evaluation implies the attribution of importance to the adherence of behaviours that *directly* uphold moral values. In its essence, it is a bipolar evaluative process (of importance versus unimportance), similar to the fundamental evaluation dimensions by Osgood, Suci and Tannenbaum (1957; e.g., strong versus weak). The concept reflects an individual's general sense of how important moral values are in everyday life, and how important it is to uphold these moral values. Furthermore, when compared with the moral cognitive processes mentioned above (e.g., moral reasoning), moral value evaluation is much more affective, intuitive and impromptu. Individuals are able to quickly report on whether they believe something to be important or not as this attribution is founded on their emotions; by definition, these

are immediate, rather than mediated (Nunner-Winkler, 2007). Any reasoning about the substance behind one's intuitive judgment on the importance of moral values therefore has to come second (although one's reasoning might subsequently inform the importance).

As the concept of attribution of importance to moral values has barely existed before in externalizing behaviour research (Gregg, Gibbs & Basinger, 1994; Palmer & Hollin, 1998), little is known about moral value evaluation (Tarry & Emler, 2007). This sciolism includes its psychosocial origins and its developmental patterns, if any. When looking beyond the semantic label of moral value evaluation, however, its conceptual embodiment (i.e., immediate evaluations of importance) and operationalization[1] in previous literature does show overlap with another well-discussed moral concept, namely, moral judgment (according to Haidt, 2001). From a conceptual perspective, both are quick (i.e., they require little to no cognitive effort) and bipolar evaluations (i.e., good versus bad, important versus important) of actions, characteristics or values. Furthermore, both are expected to precede moral reasoning in everyday moral issues. In special issues, however, as elaborated by Haidt (2001), their role may differ. It could perfectly be the case that everyone agrees on the importance of moral values but does not agree on or is less sure about the decision to be taken, depending on the moral reasoning one is convinced to be the most adequate.

Previous Literature

Though moral value evaluation has been largely ignored in more "classical" externalizing behaviour research (e.g., only two out of a potential fifteen studies on juvenile delinquents' moral functioning examined by Stams and colleagues [2006], report peripherally on moral value evaluation), some recent studies do report on it more thoroughly. Two studies indicate that moral value evaluation is inversely related to self-reported, externalizing behaviour (Beerthuizen et al., 2011; Tarry & Emler, 2007). In other words, an increased attribution of importance to moral values is related to fewer self-reports of externalizing behaviour. Furthermore, the study by Beerthuizen and colleagues indicates that incarcerated delinquent adolescents exhibit lower levels of importance attribution when compared with non-incarcerated adolescents. These recent findings contrast with an assumption originating from two earlier studies (Gregg et al., 1994; Palmer & Hollin, 1998), the assumption being that both delinquents and non-delinquents attribute equal levels of importance to moral values, this as both groups rate most of the moral values as important (in contrast to unimportant). A critical difference between the earlier and recent studies, however, is that the recent two also incorporated the 'very important' indication within their scales of analysis, thus using the full range of the moral value evaluation operationalization, while the earlier two did not.

Even though it is now apparent that some empirical literature is available, fundamental literature on the specifics of moral value evaluation remains scarce. In other words, much room is left for speculation on *why* recent studies report a

negative relationship between moral value evaluation and externalizing behaviour. We intend to provide a (preliminary) answer to this question by combining the elaboration of the concept moral value evaluation above, its operationalization in the empirical literature so far (i.e., the SRM-SF in Gregg et al., 1994; Palmer & Hollin, 1998; Tarry & Emler, 2007; and the SRM-SFO in Beerthuizen et al., 2011), and the literature of the relationship between moral cognition and externalizing behaviour (Barriga, Morrison et al., 2001).

ELICITOR OF MORAL COGNITION

Moral value evaluation is in itself a potential associate of moral motivation, especially owing to its close proximity to the concept of emotions, as discussed above, and its moderate to strong relationship with empathy, as demonstrated by a secondary analysis of a data-set evaluating an intervention for juvenile delinquents (Brugman & Van den Bos, 2007). It is plausible that when an individual holds certain moral values dear, s/he is more likely to adhere to those same values because acting in any other way could be self-threatening. More specifically, acting in a way not in coherence with one's own perception on moral values, has the potential for causing emotionally distressing internal dissonance, such as moral guilt or shame (especially when such moral values are omnipresent, Gibbs, Basinger, Grime & Snarey, 2007). Given the notion that the experience of moral emotions is closely related to an absence of externalizing behaviour (Haidt, 2001), this would explain the negative relationship between moral value evaluation and externalizing behaviour in the previously discussed studies. Empathy based moral motivators are weak, however, as their positive effects on moral behaviour fade quickly when other processes come into play (Prinz, 2011). This notion is also reflected in previous studies wherein an initial substantial relationship between moral value evaluation and behaviour existed, but lost its magnitude when paired with other attitudinal or socio-moral processes (Beerthuizen et al., 2011; Tarry & Emler, 2007). Given moral value evaluation's distinct relationship with "stronger" moral cognitive processes (in relation to externalizing behaviour, i.e., moral reasoning, moral identity and self-serving cognitive distortions), we expect that moral value evaluation's relationship in such multi-process contexts is mediated, rather than deflated. Building upon the moral cognitive model of Barriga, Morrison and colleagues (2001), we will now introduce moral value evaluation into this model.

Moral Reasoning

Moral value evaluation should, according to analogies with Haidt's social intuitionist model (2001) and moral value evaluation's operationalization in several moral reasoning instruments, precede moral reasoning. One process preceding another does not however automatically imply an association. Nonetheless, the essence of the moral values of those that have been used to conceptualize and operationalize

moral value evaluation so far (i.e., Beerthuizen et al., 2011; Tarry & Emler, 2007), contain strong anti-harm elements, such as fairness and justice. In other words, these values represent facilitating factors for interpersonal accordance. As the higher stages of moral reasoning used in the present study embody reasoning embedded in a desire for interpersonal accordance (on a micro- and macro-level, contrasting the lower self-preservation stages), there is a strong similarity in moral content. We therefore expect the nature of the relationship between moral value evaluation and moral reasoning to be positive. That is, by analogy with the social intuitionist model, moral reasoning is (at least partially) influenced by one's evaluative stance on moral values. This positive relationship has been supported by previous empirical results (Beerthuizen et al., 2011; Tarry & Emler, 2007).

Moral Identity

Furthermore, its relationship with moral identity is expected to be of a similar nature as to moral reasoning (i.e., moral value evaluation preceding moral identity, and of a positive nature). We predict this as the process of self-reflection on one's identity resulting in the self-realisation of one's moral being is inherently founded in a review of personal moral values, goals and behaviour (Blasi, 1980). This identity process therefore plausibly incorporates evaluations of which (and if) moral values are important to the individual. We therefore believe that individuals who attribute increased importance to moral values will also perceive themselves to be more moral. Moral identity, just as moral reasoning, is a deliberate process and moral value evaluation is therefore expected to precede moral identity. Moreover, the preceding nature of moral value evaluation to moral identity is only "logical", as moral value evaluation is theorized to precede moral reasoning, which in turn precedes moral identity. The positive relationship claimed to exist between moral value evaluation and moral identity has been confirmed in a previous study (Beerthuizen et al., 2011), and was observed when performing secondary analyses on the data-set of an unpublished masters thesis (Tiebout, 2008).

Self-Serving Cognitive Distortions

Lastly, the relationship between moral value evaluation and self-serving cognitive distortions is expected to be of a negative nature[2]. We believe that cognitive distortions are more likely to occur if one attributes less or no importance to moral values, as the process of moral disengagement is less self-threatening when such moral values have less value to the self. In other words, if you do not care about upholding moral values, it is easier to assume a stance in which the violation of these values is facilitated. This is in line with the reasoning and empirical results of the relationship between moral value evaluation and moral identity discussed above, and previously established relationships between moral identity and self-serving cognitive distortions (Barriga, Morrison et al., 2001).

The Current Study

In sum, moral value evaluation is expected to precede the moral cognitive processes of moral reasoning, moral identity and self-serving cognitive distortions. Thereby it can be considered an influential elicitor of these moral cognitive processes. Its direct relationship to externalizing behaviour is expected to deflate to insignificance in the multi-process model, having its effect being mediated through the moral cognitive processes. To investigate these expectations, we have gathered empirical data concerning several moral and behavioural processes, similar to the processes as in the study by Barriga, Morrison and colleagues (2001). Besides the primary hypotheses discussed above, we also have some predictions (and exploration) of secondary importance. The relationships of the moral cognitive processes among each other, and self-reported externalizing behaviour are expected to change little, with two notable exceptions. First, we expect a positive relationship to emerge between moral reasoning and identity (something Barriga, Morrison and colleagues did hypothesize, but did not find). For the current study, an alternative operationalization of moral identity was applied, which showed improved validity in previous research in relationship to its theorized relationship with moral reasoning (Brugman, 2008). Second, the strength of the relationship between moral identity and self-reported externalizing behaviour is expected to be of a weaker nature than previously reported. Younger adolescents (as in the current study) are less likely to have construed a "full" moral identity, when compared to older peers as those participating in the study by Barriga, Morrison and colleagues. Therefore, moral identity's relationship with behaviour is not fully matured, which is expected to exhibit itself through a weaker relationship between the two (Hart, 2005). Lastly, the model will be explored for both males and females separately, to examine whether the null-findings reported by Barriga, Morrison and colleagues also hold up for a younger group of participants.

METHOD

Sample

For the current study, data from 191 Dutch adolescent participants were collected to investigate the relationship of moral value evaluation to moral cognitive and externalizing behavioural processes. To allow even relatively weak relationships to emerge within the model, these participants were combined with a similar adolescent sample of 351 Dutch participants from a previous methodological study (i.e., the non-offending sample from Beerthuizen and colleagues, 2011). The only major difference between the samples from the current and previous study was that the current sample consisted entirely of higher educated participants, while the sample from Beerthuizen and colleagues also contained lower educated participants.

This resulted in a total number of participants of 542 individuals, between 11 and 18 years of age (with an average age of 14.3 years, $SD = 1.4$) and evenly divided according

to gender (i.e., 49.3% of the sample consisted of males). Most of the participants (67.2%) were following a higher level of education in respect to the Dutch educational system (i.e., higher secondary education and secondary pre-university education; known in the Netherlands as, respectively, HAVO and VWO). The remaining participants were following education at a lower level (i.e., secondary pre-vocational and vocational education; known in the Netherlands as, respectively, VMBO and MBO). Participants were recruited from, and assessed at, their respective educational institutions, with data being collected at a single point in time, allowing for cross-referential analyses. During assessment, participants were presented with a booklet containing the four instruments and measurements described below, and a form for background information.

Measures

First, to assess *moral value evaluation* and *moral reasoning*, the Dutch translation of the Socio-moral Reflection Measure – Short Form Objective (SRM-SFO, Basinger, Brugman & Gibbs, 2007) was used. The SRM-SFO is a relatively novel recognition measure for moral reasoning, which also assesses moral value evaluation. Contrasting classical production measures of moral reasoning, such as the previously mentioned SRM-SF (Gibbs et al., 1992) and the MJI (Colby & Kohlberg, 1987b), where participants have to write down or provide an interviewer with their reasons, the SRM-SFO provides its participants with a list of reasons to choose from. In addition, before each item assessing moral reasoning, participants indicate how important they believe the moral issue or value to be. For instance, one item assesses how important participants believe it is, in general, to tell the truth. An example of a moral reason one can select is "because a lie will sooner or later always be detected" (i.e., stage 2 reasoning, Kohlberg, 1984). Previous research has shown that the SRM-SFO exhibits acceptable validity and reliability for use in adolescent samples (Beerthuizen et al., 2011). Averaging the item scores for the moral value evaluation items created the overall moral value evaluation score. For more information on the coding and scoring process of the moral reasoning scores, see Beerthuizen and colleagues (2011). The internal consistency of the moral value evaluation scale was acceptable (Cronbach's $\alpha = .70$); and for the moral reasoning scale it was borderline acceptable (Cronbach's $\alpha = .59$).

Second, to assess *moral identity*, the Good Self Assessment questionnaire (GSA, as in Barriga, Morrison et al., 2001) was used. The GSA consists of a list of characteristics that one can possess, both of a moral and non-moral, albeit not immoral, nature. Participants indicate for each of these characteristics how much they believe themselves to possess those characteristics. For example, moral characteristics in the GSA include honest and helpful, while it also contains traits such as funny and energetic as non-moral characteristics. As the newly collected sample used a slightly different version of the GSA than the sample from Beerthuizen and colleagues, the moral identity scores were transformed into Z-scores separately for both samples to account for these differences. Averaging the item scores for the moral characteristics

created the moral identity score, resulting in acceptable internal consistencies for both samples (Cronbach's α ranged from .70 to .73).

Third, to assess *self-serving cognitive distortions*, the Dutch translation of the "How I Think"-Questionnaire (HIT-Q, Barriga, Gibbs et al., 2001) was used. The HIT-Q measure consists of a list of statements one can relate to. Of these statements, the majority reflects a self-serving cognitive distortion, while other items assess one's anomalous responding (i.e., socially desirable and perfunctory responding) or positive statements to mask the purpose of the questionnaire. Self-serving cognitive distortion statements include "it is okay to tell a lie, if someone is dumb enough to fall for it" and "if you know you can get away with it, only a fool would not steal". The Dutch version of the HIT-Q has shown acceptable validity and reliability in samples similar to the ones in the current study (Nas et al., 2008). Averaging the item scores for the cognitive distortion items created the self-serving cognitive distortion score, resulting in an excellent internal consistency (Cronbach's α = .93). The anomalous responding scale was not used in the current study, as its discriminatory function has not been convincingly demonstrated among Dutch adolescents (Van der Velden, Brugman, Boom & Koops, 2009).

Lastly, to assess *externalizing behaviour,* the Self Report Delinquent Behaviour list (SRDB, as in Leenders & Brugman, 2005) was used. The SRDB consists of a list of (minor) acts of delinquency or externalizing behaviours, which are normative for the target population of the current study (i.e., Dutch young adolescents). Such behaviours and acts include, but are not limited to, aggression (e.g., hitting someone) and property offences (e.g., vandalism). Participants indicate for each of these acts how often they had engaged in such behaviour. As with the GSA, the SRDB was slightly different for the used samples, and Z-scores were created for externalizing behaviour scores to account for these differences. Averaging the item scores of the whole list created the self-reported externalizing behaviour score, resulting in acceptable internal consistencies for both samples (Cronbach's α ranged from .76 to .86).

RESULTS

Descriptives

Before we investigate the full-blown model on externalizing behaviour, as hypothesized above, we will first examine the respective variables (i.e., moral value evaluation, moral reasoning, moral identity, self-serving cognitive distortions and externalizing behaviour) on a smaller scale. The descriptives of the variables are shown, differentiated for males and females, in Table 1. When comparing the descriptives of the variables with those in similar studies with similar participants, no anomalies or extremities were detected. For instance, the moral value evaluation scores show (in respect to their scale) overall high scores (as was previously reported in Tarry & Emler, 2007), whereas the overall prevalence of self-serving cognitive distortions was well below the clinical level (as discussed in Nas et al., 2008).

Table 1: Means and standard deviations for moral value evaluation, moral reasoning, moral identity, self-serving cognitive distortions, and self-reported externalizing behaviour, differentiated for males and female

	Males		*Females*		
Variable	*M*	*SD*	*M*	*SD*	*RNG*
1. MVE	2.44	.30	2.53	.24	1-3
2. MR	2.90	.35	3.02	.31	1-4
3. MI_A	2.85	.57	3.08	.46	1-5
3. MI_B	2.79	.40	2.98	.32	1-4
4. SSCD	2.58	.72	2.20	.60	1-6
5. EB_A	2.03	.80	1.50	.41	1-5
5. EB_B	1.72	.40	1.55	.32	1-4

Note. As the current sample and the one imported from Beerthuizen and colleagues (2011) had slightly different operationalizations for moral identity and self-reported externalizing behaviour, the raw data for those variables are presented separately for each sample (A = current sample, B = Beerthuizen et al., 2011). MVE = Moral value evaluation; MR = Moral reasoning; MI = Moral identity; SSCD = Self-serving cognitive distortions; EB = Self-reported externalizing behaviour.

Correlations

Next, we investigated the zero-order Pearson correlations (i.e., without controlling for any factors) among the variables. The results, again differentiated for males and females, are shown in Table 2. As the operationalizations of both moral identity and self-reported externalizing behaviour differ slightly for different participants, Z-scores were used in the Pearson correlations to account for these differences.

Table 2: Zero-order correlations for moral value evaluation, moral reasoning, moral identity, self-serving cognitive distortions, and self-reported externalizing behaviour, differentiated for males and females

Variable	1	2	3	4	5
1. MVE	-	.13*	.23***	-.33***	-.14*
2. MR	.13*	-	.13*	-.23***	-.07
3. MI	.36***	.07	-	-.22***	-.20**
4. SSCD	-.41***	-.22***	-.28***	-	.50***
5. EB	-.21*	-.20**	-.21***	.52***	-

Note. As the current sample and the one imported from Beerthuizen and colleagues (2011) had slightly different operationalizations for moral identity and self-reported externalizing behaviour, Z-scores were used to account for these differences. Males are shown below the diagonal, females are shown above the diagonal; MVE = Moral value evaluation; MR = Moral reasoning; MI = Moral identity; SSCD = Self-serving cognitive distortions; EB = Self-reported externalizing behaviour; * $p < .05$; ** $p < .01$; *** $p < .001$.

Moral Value Evaluation

Table 2 indicates that the results for moral value evaluation in regard to its relationship with the other moral cognitive and behavioural processes are as expected. An increased attribution of importance to moral values is related to both higher levels of moral reasoning and an increased self-perception of moral characteristics. Furthermore, this increased attribution is also related to a lower prevalence of self-serving cognitive distortions and self-reported externalizing behaviour. Lastly, relations are roughly the same for both males and females.

Moral Reasoning

Furthermore, the results also exhibit most of the hypothesized relationships among the other moral cognitive and behavioural processes. Higher levels of moral reasoning were related to an increased self-perception of moral characteristics for females, as expected, but this was not the case for the male portion of the sample. On the other hand, as hypothesized, higher levels of moral reasoning were negatively associated with the prevalence of self-serving cognitive distortions, both for males and females. Such a similar negative association was also found between moral reasoning and self-reported externalizing behaviour for males, but not for females.

Moral Identity and Self-Serving Cognitive Distortions

Lastly, the expected relationships among moral identity, self-serving cognitive distortions and externalizing behaviour were all prevalent. An increased self-perception of moral characteristics was related to a lower prevalence of self-serving cognitive distortions, and less self-reported externalizing behaviour, in both males and females. Lastly, for both sexes, a higher prevalence of self-serving cognitive distortions was related to more self-reported, externalizing behaviour.

Model Path Analysis

To investigate the expectation of moral value evaluation's mediation through the other moral cognitive processes, a path model was constructed and analyzed with SPSS AMOS 16 (Arbuckle, 2007). To examine whether the relationships among the moral and behavioural variables differ for males and females, a multi-group approach was used, exhibiting the paths separately for both genders. The model is shown in Figure 1. The model itself is an untrimmed model, which means that all possible relationships between the variables are allowed to exist. More specifically, no paths are statistically removed, even if they are marginal or not significant. This approach was chosen to mirror as closely as possible the path model of Barriga, Morrison and colleagues (2001), which used a similar approach to allow for comparisons between the current model and theirs. As no parameters were excluded

from the model, this results in a population discrepancy value of near zero. As model fit analyses require a non-null population discrepancy value, model fit indexes are not appropriate to evaluate (or even provided by AMOS). Two participants did not report on externalizing behaviour, with no indication of any severe issues associated with missing values (cf., Scheffer, 2002), and were excluded from the analysis.

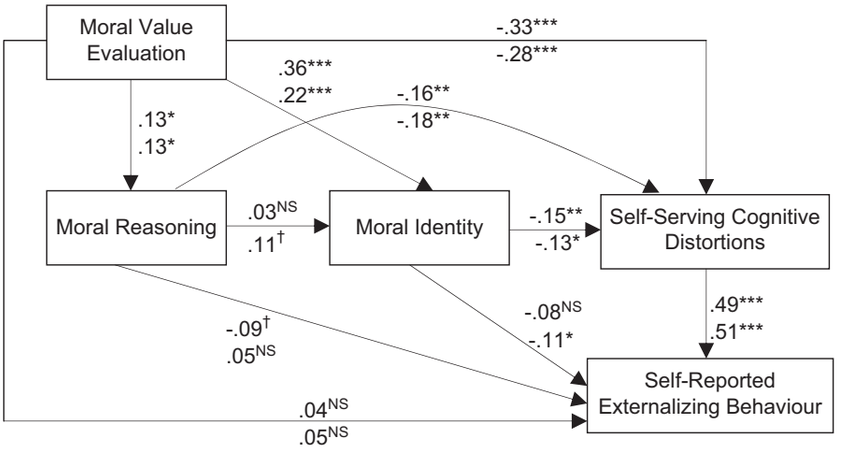

Figure 1. Path analysis of unrestrained multi-process model on externalizing behaviour for males and females.

Broadly speaking, the relationships among the model's variables show similar directional relationships compared to the zero-order correlations. There are some notable exceptions. Moral value evaluation is no longer directly related to self-reported, externalizing behaviour for both sexes. Furthermore, the relationship between moral reasoning and moral identity for females is now only marginally present, whereas it was originally of a stronger order. A similar phenomenon can be observed for the relationship between moral reasoning and self-reported externalizing behaviour for males. Moreover, the association between moral identity and self-reported externalizing behaviour is no longer statistically supported for males.

The primary association between moral value evaluation and externalizing behaviour was expected to be of an indirect nature. This association is confirmed by the results. The indirect effect of moral value evaluation on externalizing behaviour was the strongest indirect effect of all variables included in the model (the β value was, respectively for males and females, -.24 and -.19). This indicates that an increased attribution of importance is related to a lower prevalence of externalizing behaviour, but only through full mediation by moral reasoning, moral identity and self-serving cognitive distortions (as no direct effect remains for moral value evaluation). The remaining indirect effects of moral reasoning and moral identity

were of a weaker nature (β values ranged from -.07 to -.11). The multi-process model as presented, explained 28% of the variance in self-reported externalizing behaviour in males, and 27% in females.

DISCUSSION

The current chapter primarily intended to introduce the motivational concept of moral value evaluation, which is the attribution of importance to moral values. Although this concept is theoretically important in the field of externalizing behaviour, research on moral value evaluation is extremely scarce. Moral value evaluation was expected to negatively relate to externalizing behaviour. Subsequent expectations state however that if other processes were introduced in the relationship between moral value evaluation and externalizing behaviour, the relationship between moral value evaluation and externalizing behaviour would persist merely as an indirect one. More specifically, moral value evaluation was expected to influence moral cognitive processes (i.e., moral reasoning, moral identity and self-serving cognitive distortions) which, in turn shape behaviour. When empirically testing these predictions, they were largely confirmed.

Moral Value Evaluation and Externalizing Behaviour

Most important, the lessening of relational strength between moral value evaluation and externalizing behaviour occurred when moving from the zero-order context to that of the multi-process path model. This certainly strengthens the argument that moral value evaluation is an elicitor of "stronger" cognitive processes (e.g., self-serving cognitive distortions) which, in turn, demote (or promote) externalizing action, although there is an alternative explanation. The assessment of externalizing behaviour consisted purely of retrospective report, also without addressing the context within which such behaviours took place. It is plausible that, besides its indirect relationship with the general occurrence of externalizing behaviour, it has a stronger relationship with impromptu externalizing behaviour (i.e., when there is little to no time for cognitive processes between intention and initiation of externalizing behaviour, such as unplanned shoplifting). This is likely, as moral value evaluation has a strong emotional, intuitive and thus immediate component, making it possible for it to "intervene", while other moral cognitive processes struggle for similar effects (Haidt, 2001). Future research into the relationship between moral value evaluation and externalizing behaviour should incorporate different contexts of externalizing behaviour, or measure "light" impromptu transgressions of moral conduct (e.g., cheating) in an experimental setting, to investigate these expectations.

Moral Value Evaluation and Treatment

These results also have implications for the forensic clinical treatment of incarcerated adolescents. While major treatment programs (e.g., EQUIP, Gibbs, Potter & Goldstein,

1995; and ART, Goldstein, Glick, & Gibbs, 1998) focus on improving the delinquent's moral reasoning and cognitive distortions, the observed effects of these interventions on such cognitions range from negligible to modest (cf., Brugman & Bink, 2011; Nas, Brugman & Koops, 2005). As the current effect sizes of the treatments leave something to be desired, research into improving the effects of these programmes is needed. A worthwhile process to focus upon in these investigations would be moral value evaluation, as several moral cognitive processes are founded within it (according to the discussed model). Actually, the process is already stimulated in these programmes, but is not yet recognized as important. By studying moral value evaluation, and particularly how it can be enhanced, one can potentially augment other effects. For instance, by first enhancing one's attribution of importance to moral values, one could indirectly improve upon one's moral cognitions as well (probably more so in combination with treatment focussing on those moral cognitions). Furthermore, there is evidence that the attribution of importance to moral values regresses in an incarcerated setting for individuals who do *not* receive treatment containing a moral competence component (Helmond, Brugman & Overbeek, 2011), further highlighting the need to pay attention to moral values in institutionalized contexts.

Cognitive Distortions and Externalizing Behaviour

In regard to the observed relationships among the other moral and behavioural processes, one relationship stands out, namely that of the immoral motivational process (i.e., self-serving cognitive distortions) and externalizing behaviour. While the directional relationship is as expected (i.e., higher prevalence of cognitive distortions are related to higher prevalence of externalizing behaviour), its magnitude is beyond expectations. More specifically, few studies report such extremely strong associations (especially if multiple processes are involved, Cohen's $d = 1.15$, very large according to Cohen, 1988) between cognitive processes and behaviour, as is reported in the current study for cognitive distortions. Moreover, within the current model (and for the current sample), it seems as though self-serving cognitive distortions "swallow" the respective (moderately small) effects of the other moral predictors towards externalizing behaviour. By itself, it explains 25% of the variance in self-reported externalizing behaviour, with the additional predictors adding a mere 2-3%. While previous studies have indeed reported large positive relationships between self-serving cognitive distortions and externalizing behaviour (Helmond, Brugman, Overbeek & Gibbs, 2011), the current study's relational magnitude outmatches these previous findings. This increased contribution of cognitive distortions to the explanation of externalizing behaviour is plausibly caused by the current study's inclusion of younger adolescents (perhaps in combination with a relatively high level of education). This claim is further strengthened by a similar study with children (aged 7 to 12 years), which exhibited an even larger magnitude of the relationship between cognitive distortions and externalizing behaviour than those currently reported (Van de Bunt, Brugman & Aleva, 2010).

Morality Versus Immorality

As the current book's focus is on moral motivation, a moral motivational interpretation of these results is in order. As discussed in the introduction, the concept of self-serving cognitive distortions is clearly an agent of immoral motivation. The cognitive effects from distorted social information processes facilitate the engagement in externalizing behaviour. Contrasting this immoral motivation are the "forces of the good", a moral cluster consisting of moral reasoning, moral identity and moral value evaluation. These processes, if "properly" developed (i.e., overall stage 3 reasoning or higher; adequate possession [and self-perception] of moral characteristics; and sufficient attributed importance to moral values) should ideally buffer against the temptations of "easy" immoral motivational processes. It appears however that these "good" forces are not doing too well among regular young adolescents (and children). The three moral processes are less associated with immoral behaviour *combined*, than immoral behaviour's relationship with a single process of immoral motivation. The concept of immoral motivation is by far the strongest predictor of immoral behaviour. This is not entirely unexpected, given the knowledge of the "weak" nature of moral motivators among young individuals (Prinz, 2011). The influence of the moral cluster (including the moral motivator of moral self-perseverance, as discussed earlier) increases when individuals grow older, as is suggested when comparing the results of this chapter to the study by Barriga, Morrison and colleagues (2001). Once again, this is also not entirely unexpected, as even classic developmental psychologists already detected a maturation of the childrens' and adolescents' morality, as they grow older (Kohlberg, 1958; Piaget, 1932). Nevertheless, the dominant influence of immoral motivation (such as self-serving cognitive distortions) remains, even among highly educated older adolescent (as studied by Barriga, Morrison and colleagues, 2001).

Remaining Issues

While we acknowledge the substantial impact of immoral motivational factors on antisocial behaviour among young individuals, we want to address some issues concerning this observed relationship. The current (and predominant) operationalization of self-serving cognitive distortions (i.e., the HIT-Q, Barriga, Gibbs et al., 2001) into externalizing behaviour research is potentially "contaminated". That is, the items assessing self-serving cognitive distortions incorporate explicit externalizing behaviour (i.e., lying, stealing, physical aggression and oppositional defiance) similar to those used in externalizing behaviour measures. Therefore, the HIT-Q does not assess cognitive distortions "pur sang" (i.e., "inaccurate or biased ways of attending to, or conferring, meaning upon experiences"; Barriga, Gibbs et al., 2001, p. 1), but cognitive distortions based heavily within behavioural contexts. It is therefore no surprise that the current and previous studies (Barriga, Morrison et al., 2001; Nas et al., 2008; Van de Bunt et al., 2010) find strong relationships with

externalizing behaviour. The "inflated" nature of this relationship is further illustrated through a decrease in relational magnitude, when the behavioural component of self-serving cognitive distortions is neutralized (Berg, Meijer & Wouters, 2011). Again, we acknowledge the role of cognitive distortions regarding externalizing behaviour, but we do want to emphasize that behavioural context matters in the interpretation of such relations, also found with other moral cognitive processes (i.e., moral reasoning; cf., Beerthuizen & Brugman, 2012; Brugman & Aleva, 2004; Gregg et al., 1994; Palmer & Hollin, 1998).

On a final note, we want to address two issues associated with the current chapter's study. First, the collected data was of a cross-sectional nature, limiting us to associative relationships and *not* causal relationships (though we do hypothesize such relationships). It is entirely plausible and likely that the occurrence of immoral behaviour has a feedback loop back to the (im)moral cluster (as was demonstrated for moral reasoning, Raaijmakers, Engels & Van Hoof, 2005). With the current data, however, this cannot be confirmed or denied. Second, moral value evaluation is currently "handicapped". The width of the item indication span has always been limited to either two (i.e., unimportant and [very] important) or three (i.e., unimportant, important and very important) indication points. While it appears as a minor difference, its effect is notable, as the latter operationalization *did* produce significant results in the current study and previous research (Beerthuizen et al., 2011; Tarry & Emler, 2007), contrasting the studies using the former operationalization (Gregg et al., 1994; Palmer & Hollin, 1998). This indicates that the dyad in attribution between important and very important is crucial in determining moral value evaluation's relationship to externalizing behaviour, and *not* the dyad between unimportant and (very) important as previously studied (i.e., Gregg et al., 1994; Palmer & Hollin, 1998). Widening the item indication span (e.g., to a 7-point width, allowing for various degrees of importance attribution) in future research would allow moral value evaluation to be studied more extensively and, for example, be used in diagnostic assessments.

CONCLUSION

In conclusion, this chapter introduced the scarcely studied psychosocial concept of moral value evaluation, and its relationship with processes of moral reasoning and identity, and immoral motivation. The (preliminary) conclusion is that moral value evaluation is indirectly associated with externalizing behaviour, theorized to influence one's moral cognition which, in turn, shapes behaviour. Of these moral cognitive processes, the immoral motivators of self-serving cognitive distortions were by far the strongest associates with their behavioural counterpart of externalizing behaviour.

NOTES

[1] Moral value evaluation has been operationalized as an "elicitor of moral reasoning" in several successful measures of moral reasoning (e.g., SRM-SF, Gibbs, Basinger & Fuller, 1992; SROM-SF, Basinger &

Gibbs, 1987; and SRM-SFO, Beerthuizen et al., 2011). That is, the items of assessmentconcerning one's evaluation of moral values are presented first to the participant, with the moral reasoning items related to the moral value following. Moral value evaluation was originally meant as "just" an elicitor for moral reasoning and *not* as an autonomous measure (i.e., no registration protocols existed prior to the SRM-SFO, Beerthuizen et al., 2011; Gibbs et al., 1992).

[2] We want to note that from the more classical perspective on *why* self-serving cognitive distortions occur (i.e., to serve as a neutralizer of guilt/shame in individuals trespassing norms; Sykes & Matza, 1957), different relation valances can be expected. If one holds no value to morality, and trespasses them, then there is no need to distort one's own cognition to avoid guilt and shame. From this perspective, a positive relationship can be expected, as the presence of moral values creates the *need* for cognitive distortions when engaging in externalizing behaviour. However, such a positive relationship, also between similar moral concepts (i.e., moral identity), and self-serving cognitive distortions has yet to be found. This potentially might be because self-serving cognitive distortions do not necessarily have to neutralize moral shame (e.g., one regrets violating others), but also immoral shame (e.g., one regrets others discovering his/her immoral nature/actions and subsequent repercussions) and disequilibrium caused by implicit socialization processes on behavioural conduct.

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