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Verkade, Marion; Karsten, Julie; Koenraadt, Frans; Schalkwijk, Frans

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Article

Conscience as a Regulatory Function: An Integrative Theory Put to the Test

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Marion Verkade[1], Julie Karsten[2], Frans Koenraadt[1,3,4], and Frans Schalkwijk[5]

Abstract

The subject of this study is an integrative theory of the conscience. According to this theory, conscience is operationalised as a regulatory function of one's own behaviour and identity, resulting from an interplay of empathy, self-conscious emotions such as guilt and shame, and moral reasoning. This study aimed to evaluate conscience in an adult forensic psychiatric sample by assessing the underlying factors proposed by Schalkwijk. Offenders ($n = 48$) appeared to show less affective but not less cognitive empathy, less identification with others, less personal distress in seeing others' suffering, less shame and shame-proneness, and lower levels of moral reasoning than non-offenders ($n = 50$). In coping with self-conscious emotions, offenders used the same amount of externalising coping strategies, but fewer internalising coping strategies.

Keywords

conscience, empathy, guilt, shame, moral reasoning, offenders, delinquency

Introduction

In forensic mental health reports, descriptive diagnoses of conscience functioning are often formulated in vague terms such as "lacunary conscience functioning" or a "defective conscience" (Le Sage, 2006; Stapert, 2010). However, in the absence of a

[1]GGZ Drenthe, Assen, The Netherlands
[2]University of Groningen, The Netherlands
[3]Utrecht University, The Netherlands
[4]Netherlands Institute for Forensic Psychiatry and Psychology, Utrecht, The Netherlands
[5]Private Practice, Amsterdam, The Netherlands

Corresponding Author:
Marion Verkade, Forensic Psychiatric Hospital, GGZ Drenthe, P.O. Box 30000, 9400 RA Assen, The Netherlands.
Email: marion.verkade@ggzdrenthe.nl

clear definition of conscience, theoretical substantiation of these terms is lacking. Researchers face similar problems when operationalising conscience and relating conscience to offending: Some authors refer to shame and guilt (Spruit, Schalkwijk, Van Vugt, & Stams, 2016), whereas others refer to cognitive moral development (Gibbs, 2010), emotional moral development (Eisenberg & Fabes, 1998), or empathic capacity (Hoffman, 2000; Jolliffe & Farrington, 2004). Unambiguous definitions are hard to come by, and prevailing mono-aspective definitions provide only variable evidence when tested (Stapert, 2010). This situation hampers theoretically research-based diagnostics, assessment of criminogenic needs, and treatment planning. Schalkwijk (2006, 2009, 2015) effectively addressed this problem by proposing a theory which brings together the existing knowledge on self-conscious emotions, moral knowledge, and empathy to approach the operationalisation of conscience as a multidimensional construct.

Schalkwijk (2011, 2018) considers the conscience to be a psychological function which monitors the balance of self-esteem and identity. As long as self-esteem is in balance and the sense of identity is not threatened, the conscience remains inactive. In the case of a disruptive threat, however, it becomes active and starts to regulate the disruptive factors in order to restore balance. These disruptions, stemming from evaluation of concrete behaviour or internal behaviour such as feelings, thoughts, and fantasies, can pertain to both one's intrapersonal and one's social-relational sense of identity. This psychological function emerges and becomes more refined during the course of a child's development, initially manifesting itself in the capacity for empathy, followed by proneness to experience and regulate self-conscious emotions such as shame, guilt or pride and, lastly, the capacity for moral reasoning (Schalkwijk, 2015). The advantage of this developmental theory is its integration of the hitherto separate fields of knowledge on the relation between offending and empathy, self-conscious emotions and morality; all of these become meaningful in relation to one's sense of self-esteem and identity. The resulting integrative theory enables theoretically based diagnostics and treatment indications and is put to the test in this study.

In a comparative study involving delinquent and nondelinquent adolescents, Schalkwijk tested his integrative theory of the conscience to see whether the selected domains of the conscience do, in fact, enable to reveal differences in the developmental level of the conscience (Schalkwijk, Stams, Stegge, Dekker, & Peen, 2016). Results indicated that delinquents show lower levels of affective empathic capacity, are less prone to experience shame and guilt, more prone to experience pride, and more punishment-oriented than victim-oriented. This outcome paves the way for further exploration of the conceptual framework, to better evaluate the conscience and indicate for suitable interventions. The present study replicates this study for the first time in a population of adult patients, to test the validity and broad applicability of Schalkwijk's earlier results.

Although not studied in unison, the different domains that make up Schalkwijk's concept of conscience have been studied separately and associated with offending.

First, a lack of empathy is associated with offending (Jolliffe & Farrington, 2004; Van Langen, Wissink, Van Vugt, Van der Stouwe, & Stams, 2014) and aggressive

behaviour (Jolliffe & Farrington, 2004, 2006). Empathy, the ability to feel and understand another's emotions, leads to experiencing self-conscious emotions, which must then be regulated to prevent a person from becoming overwhelmed or swept up in the other (Nichols, Svetlova, & Brownell, 2009; Rogers, 1957). Some people develop a so-called empathic wall; empathising is blocked, thereby facilitating offending as the emotions of the victim are warded off (Nathanson, 1986). Empathy facilitates social interactions and social cohesion and is related to prosocial and altruistic behaviour (Eisenberg & Eggum, 2009; Ickes, 2009; McMahon, Wernsman, & Parnes, 2006; Mehabrian & Epstein, 1972). Empathic activity is characterised to a greater or lesser extent by cognitions or feelings, leading to the conceptual differentiation between cognitive and affective empathy. Affective empathy is operationalised in an openness to be emotionally affected and share observed feelings (Binder, 1999; Decety & Cowell, 2014), whereas cognitive empathy refers to the desire and ability to see things cognitively from the other's perspective (Hogan, 1969). On the neurobiological level, affective empathy involves a primitive, automatically activated, fast-firing neural circuit functioning ("empathic arousal"), whereas cognitive empathy involves a more developed, cognitive, relatively slow-firing circuit (Nummenmaa, Hirvonen, Parkkola, & Hietanen, 2008; Shamay-Tsoory, Aharon-Peretz, & Perry, 2009). In our research, affective empathy, cognitive empathy, and empathic arousal will be measured with the Interpersonal Reactivity Index (IRI; Davis, 1983).

Second, the degree to which people tend to experience self-conscious emotions differs greatly, both between individuals and within a single person over the course of time or per circumstance. The meta-analysis of Spruit et al. (2016) showed significant associations between offending and guilt and shame, indicating higher levels of guilt and shame to be related to less offending. Guilt has been found to regulate the sense of self, behaviour, and social relationships (Baumeister, Stillwell, & Heatherton, 1994; Cohen, Wolf, Panter, & Insko, 2011; Tangney, Stuewig, & Mashek, 2007). High guilt-proneness is associated with prosocial and moral behaviour (Cohen et al., 2011; Ent & Baumeister, 2015) and has an inhibitive effect on transgressive behaviour (Tangney, Stuewig & Hafez, 2011). The relationship between shame and offending, however, is equivocal. Mild, bypassing shame can have a positive regulating function (Deonna, Rodogno, & Teroni, 2011; Lewis, 1971), but a strong, chronic tendency to experience shame is maladaptive (Tangney & Dearing, 2002) and can lead to (an increase in) aggressive and transgressive behaviour (Stuewig, Tangney, Heigel, Harty, & McKloskey, 2010; Tangney et al., 2007) when the individual has a propensity for externalising coping (Elison, Lennon, & Pulos, 2006; Nathanson, 1992; Schalkwijk et al., 2016). In our research, we will measure the proneness to experience self-conscious emotions using the Test of Self-Conscious Affect (TOSCA; Tangney & Dearing, 2002) and the Compass of Shame Scale (CoSS; Elison et al., 2006). Using the TOSCA, Schalkwijk and colleagues (2016) found that in juvenile delinquents, guilt- and shame-proneness hardly differ, whereas in nondelinquents guilt-proneness dominates shame-proneness. Measuring internalising versus externalising coping with shame by means of the CoSS, Schalkwijk and colleagues (2017) found that in juvenile delinquents externalising dominates over internalising, whereas in non-delinquents internalising dominates over externalising.

Third, morality is indelibly linked with offending: Both are related to behaviour that impacts the rights and well-being of others (Turiel, 1983). Over the course of a child's development, morality becomes more and more differentiated, as the cognitive capacity for symbolisation and abstraction increases exponentially from the age of 7 years (Gibbs, 2010; Hoffman, 2000; Kohlberg, 1981). Delinquents have a lower level of moral reasoning than nondelinquents; youth with psychopathic traits score lowest (Stams et al., 2006). However, this same meta-analysis also showed that the level of moral reasoning appears to have less influence on offending than long thought. A possible explanation is that offenders, unlike non-offenders, attribute less value to their reasoning (Beerthuizen, 2012), possibly due to a lack of empathy. Our study will measure the level of moral development using the How I Think (HIT) Questionnaire (Nas, Brugman, & Koops, 2008).

This study investigates the conscience, a psychological function which monitors the balance of self-esteem and identity, by looking into its constituting domains of empathic capacity, proneness to experience self-conscious emotions, and the developmental level of morality. On all domains of conscience, gender was found to be a significant interaction factor (De Corte et al., 2007; Schalkwijk et al., 2016). We will therefore control for gender and search for possible interactions.

The Present Study

In this study, the integrative theory of conscience is put to the test. The different aspects of the conscience are measured together in a single group of offenders: empathy, proneness to experiencing self-conscious emotions (guilt and shame) and the way in which these emotions are dealt with (coping), and level of moral reasoning. We searched for both between- and within-group effects. Based on the literature on the individual components of conscience in offenders, the following hypotheses are tested.

The first two hypotheses pertain to between-group comparisons:

Hypothesis 1: Adult offenders are less empathic, less prone to guilt and shame, and exhibit a lower level of moral reasoning than adult non-offenders.
Hypothesis 2: In response to self-conscious emotions, offenders use more externalising coping and less internalising coping than non-offenders.

The next two hypotheses pertain to within-group comparisons, based on the assumption that an adult conscience is characterised by a relative dominance of guilt-proneness over shame-proneness and a dominance of internalising coping over externalising coping:

Hypothesis 3: Non-offenders exhibit a dominance of guilt-proneness over shame-proneness, while offenders do not.
Hypothesis 4: Non-offenders exhibit relatively more internalising coping, while offenders rely primarily on externalising coping.

Method

Population

The offender group consisted of 48 patients in a forensic psychiatric treatment institution, undergoing clinical ($n = 31$), part-time or outpatient (combined $n = 17$) treatment. Offences varied from property offences ($n = 8$), theft involving violence or extortion ($n = 4$), and assault ($n = 3$) to (threats of) homicide ($n = 5$) and sex offences ($n = 8$). About a third of the study group were found guilty of multiple serious offences in various categories ($n = 17$). Although for our study we were not able to collect data on individual diagnostics, based on non-published prevalence studies in the forensic psychiatric department of this institution, as well as on data from international research, we know that high percentages of offenders suffer from mental disorders and comorbidity. An international systematic review showed that 65% of male prisoners and 42% of female prisoners were diagnosed with one or more personality disorder (Fazel & Seewald, 2012), mostly antisocial and borderline personality disorder (Fazel & Danesh, 2002). Research in the Netherlands showed similar or even higher prevalence rates (Bulten & Nijman, 2009; Matthaei, Stam, & Raes, 2002). Aiming for a comparison group fairly comparable in mental problems, but not for the committed crimes, non-offenders ($n = 50$) were recruited in a department for part-time or outpatient treatment of patients suffering from personality disorders, with comorbidity (trauma, mood disorders, and/or substance abuse, and in a few cases a developmental disorder), at the same institution. Anyone with a psychotic disorder was excluded from the study. The total population consisted of 98 adult patients ranging in age from 18 to 70 years. Most of these patients were male and Dutch (Table 1). Although there was no significant difference in age distribution between the two groups, the difference in distribution between men and women was significant.

Procedure

All respondents were informed about the study within 3 months of registration, by means of a patient folder provided by the responsible medical specialist requesting their participation. This participation, based on informed consent, entailed one-time completion of a set of questionnaires.

Questionnaires

We used the same questionnaires as those used in the study by Schalkwijk et al. (2016), with the exception of the Moral Orientation Measure (MOM; Stams et al., 2006). As this questionnaire is not suitable for adults, it was replaced by the HIT Questionnaire (Brugman et al., 2011; Brugman, Rutten, Stams, & Tavecchio, 2006).

The IRI. The IRI (Davis, 1983) measures aspects of empathy: cognitive empathy, affective empathy, and empathic arousal. Davis defines empathy as the reactions of a

Table 1. Demographic Data: Age, Gender, and Country of Origin.

	Offenders (n = 48)	Non-offenders (n = 50)
Age (*M, SD*)	35.9, 11.5	35.8, 11.5
Gender (*n*, %)		
Male	45, 93.8%	18, 36.0%
Female	3, 6.3%	32, 64.0%
Country of origin (*n*, %)		
The Netherlands	43, 89.6%	49, 98.0%
Netherlands Antilles	2, 4.2%	—
Suriname	2, 4.2%	—
African country	1, 2.1%	—
Latin America	—	1, 2.0%

subject to the observed experience of another. Using a 5-point Likert-type scale, four 7-item subscales are scored, with the total score ranging from 0 to 28. Cognitive empathy is covered in the Perspective Taking (PT) scale, which refers to spontaneous attempts to cognitively put oneself in the place of another (De Corte et al., 2007; Joliffe & Farrington, 2004). Affective empathy is addressed in two scales: the Fantasy Scale (FS), measuring the tendency to put oneself into the emotions and actions of people in movies, novels, plays, and other fictitious situations, and the scale for Empathic Concern (EC), referring to feelings of warmth, compassion, or care for others (Batson, Early, & Salvarini, 1997; Joliffe & Farrington, 2004). Empathic arousal is covered in Personal Distress (PD), measuring self-oriented feelings of anxiety and discomfort caused by observing another's negative experience. The internal and test–retest reliability of the IRI are reasonable (.71–.77 and .62–.71 respectively; Davis, 1983). The Dutch translation of the IRI has the same stable four-factor structure and is, according to De Corte et al. (2007), valid and reliable.

Research into the structure of the IRI revealed two second-order factors: EC, FS, and PT representing the traditional notion of empathy (Stotland, Matthews, Sherman, Hansson, & Richardson, 1978) and PD being a separate finding (Cliffordson, 2002; Pulos, Elison, & Lennon, 2004). These second-order factors are in line with the findings of Batson (2004), who differentiated between altruistically motivated empathy, experienced when imagining how a person in need would feel, and a more egocentric motivated empathy, experienced when imagining how you yourself would feel when being in need.

The TOSCA. The TOSCA (Tangney & Dearing, 2002; Tangney, Wagner, & Gramzow, 1989; Dutch translation for adults: Fontaine, Luyten, De Boeck, & Corveleijn, 2001; Luyten, Fontaine, & Corveleyn, 2002) is an extensively studied and validated questionnaire frequently used in scientific research on shame and guilt. The TOSCA measures temporary, bypassing shame and the proneness to experience situational guilt,

defined as the tendency to experience guilt in different situations. Guilt is often specific and accompanied by an intention to engage in reparatory behaviour, whereas shame is more likely to be accompanied by a more general judgement of the self and reduced self-confidence. The test consists of 15 scenarios involving a positive or negative event, and thoughts are formulated regarding guilt, shame, externalisation, and detachment. Using a 5-point Likert-type scale, respondents then indicate the extent to which they tend to experience guilt or shame. There are also two subscales to measure coping: Externalisation of guilt and Detachment from the situation. Internal consistencies of the subscales of the Dutch translation are comparable with those of the original TOSCA (Cronbach's alpha Dutch/original: .76/.76, .66/.60, .60/.57, and .62/.59). The reliability of the guilt and shame subscales is .82 and .83, respectively, while the reliability for externalisation is .78 and for detachment .60 (Schalkwijk et al., 2016).

The CoSS. The CoSS (Elison et al., 2006, Dutch translation: Schalkwijk, Ellison, Dekker, Peen, & Stams, 2016) is a relatively new instrument that examines how individuals (mal)adaptively deal with shame. The CoSS was developed based on the shame theory put forward by Donald Nathanson (1992) and takes its point of departure from the assumption that a healthy, adaptive processing of shameful experiences requires one to recognise and acknowledge the shameful feeling as coming from within, to go in search of the source of the shame within, and to evaluate the shame using this knowledge. The various ways in which one can deal with shame are called "scripts," which can be either adaptive or maladaptive. Each script features a different combination of motivations, feelings, cognitions, and behaviours. It is possible for shame to be diminished, ignored, or increased without one having searched for and evaluated the source of the shame, although the latter is regarded as the healthy way of dealing with shame. The scripts are represented by the following subscales: "Attack Self," "Avoidance" (hiding or withdrawing from the situation), "Denial" (taking emotional distance or trivialising the situation), "Attack Other," and "Adaptive." According to the Adaptive script, the shame is acknowledged and evaluated, with reparatory behaviour as the action tendency. Internalising coping strategies are measured by "Attack Self" and "Avoidance," and externalising coping strategies in the scales "Attack Other" and "Denial." The script chosen depends, in part, on specific situational factors. A situation can activate several scripts, which can then be implemented either simultaneously or consecutively. The CoSS therefore consists of a number of potentially shame-inducing situations or variations of shame-associated emotions, followed by a number of possible ways of reacting; the respondent is asked to indicate on a 5-point scale, for each of these ways, whether he never, almost never, sometimes, frequently, or always reacts in this way. The construct validity is reasonable while the internal consistency and reliability are good (Elison et al., 2006; Schalkwijk et al., 2016). The internal consistencies (Cronbach's alpha) are .86 (Attack Self), .75 (Avoidance), .75 (Denial), .76 (Attack Other), and .77 (Adaptive) (Schalkwijk et al., 2016), and in an earlier study .91, .75, .75, .and 85 respectively (Elison et al., 2006).

HIT Questionnaire. The HIT operationalises a low level of moral reasoning as a stable style of externalising problem behaviour based on cognitive distortions. The assumption is that many offenders do, in fact, experience guilt or shame—an indication that they experience their own behaviour as morally incorrect. These self-conscious emotions are then neutralised by cognitive distortions, which enable them to see their own behaviour as acceptable or even justified. In this way, they reduce the cognitive dissonance between their own behaviour and their self-image. These self-serving distortions are called secondary cognitive distortions: "Blaming Others" (blaming external causes), "Minimizing/Mislabelling," and "Assuming the Worst" (attributing hostile intentions to others and regarding one's own behaviour as unavoidable or unchangeable) (Barriga, Gibbs, Potter, & Liau, 2001; Brugman et al., 2011). The one primary distortion is callous self-centering, motive for transgressive behaviour (Gibbs, 2010). The "Self-Centered" subscale indicates the degree to which someone places himself in the centre in moral reasoning. The higher the level of moral reasoning, the less of a focus on one's personal perspective; instead, a broader perspective provides the basis for weighing interests and forming moral judgements.

The HIT consists of 54 items, designed to be answered according to a Likert-type scale of 1 to 6. An additional eight items focus on uncovering implausible answers, while another seven items provide "positive filling" for the questionnaire, as a way of encouraging respondents to use the full range of answers. At the same time, these "fillers" serve to offset the negative weight of the large number of items related to cognitive distortions. The HIT has been reported to be a reliable and internal consistent measure with moderate to high predictive validity (Wallinius, Johansson, Larden, & Dernevik, 2011). The convergent, concurrent, and discriminant validity of the questionnaire have been found to be satisfactory for both adolescents and adults (Bacchini, De Angelis, Affuso, & Brugman, 2016; Barriga et al., 2001; Brugman et al., 2011; Nas et al., 2008; Van Leeuwen, Chauchard, Chabrol, & Gibbs, 2013).

Statistical Analyses

The hypotheses regarding between-group differences (Hypotheses 1 and 2) with respect to empathy, proneness to experience self-conscious emotions, coping styles for shame, and level of moral reasoning were tested using one-way independent *t* tests and analyses of covariance (ANCOVAs), with gender added as a covariate, based on previous literature (De Corte et al., 2007; Schalkwijk et al., 2016). The within-group differences (Hypotheses 3 and 4) with respect to the relationship between guilt-proneness and shame-proneness and the relationship between internalising and externalising coping were tested by means of paired *t* tests. This allowed for comparisons within both groups for guilt and shame as well as internalising and externalising coping (these scales were comparable in terms of number of items and scoring distribution). As with Hypotheses 1 and 2, analyses were corrected for gender by adding gender as a covariate. Prior to analyses, assumptions for independence of errors, outliers, homogeneity of variance, and normality were checked. Some deviations from normality were observed on a subscale level. However, given the robustness of ANCOVAs for these

types of violations (Ernst & Albers, 2017), ANCOVAs were chosen for the analyses. A total of five cases included outliers greater than three standard deviations; these cases were excluded from any analyses involving the affected scales.

Results

Means, standard deviations, and range on all measures are shown in Table 2. Correlations between the individual subscales contributing to the Schalkwijk's concept of conscience (Table 3) indicate that most scales were related, but not overly so, suggesting related but distinct aspects of conscience.

Without controlling for gender, independent *t* tests confirmed the first hypothesis, even after a post hoc Bonferroni–Holm correction (Armstrong, 2014). Offenders scored significantly lower on general empathy (EC, FS, and PT), Affective Empathy (EC, FS), and Personal Distress (PD) than non-offenders, but no significant difference was found with respect to cognitive empathy (PT). Furthermore, offenders were significantly less prone to experience TOSCA-Guilt, TOSCA-Shame, and CoSS-Shame. Offenders showed a higher level on HIT-Total and the four underlying scales for using cognitive distortions, indicating a lower level of moral reasoning (see Table 4).

Next, the significant findings between offenders and non-offenders were controlled for gender by adding gender as a covariate to analyses. Of the empathy measures, only the differences found for FS and PD remained significant after controlling for gender. The differences between offenders and non-offenders for general empathy (EC, FS, & PT) and EC were no longer significant. The initially significant difference for TOSCA-Guilt disappeared after controlling for gender, but for TOSCA-Shame and CoSS-Shame the differences between both offenders and non-offenders remained significant. From the measures for moral reasoning, group differences on the HIT-Total and all its subscales remained significant. In addition, some main effects for gender were found: Women reported significantly more EC, TOSCA-Shame and CoSS-Shame than men.

Our second hypothesis was partly confirmed: Even after controlling for gender, non-offenders indeed made significantly more use of internalising coping (Attack Self and Avoidance) than offenders. Gender itself also appeared to have an effect: Women exhibited more internalising coping than men. However, the groups did not differ in the degree to which they used the different forms of externalising coping (Denial, Attack Other, Detachment, and Externalisation) (see Table 5).

The third and fourth hypotheses pertained to within-group comparisons.

Our third hypothesis was not confirmed: Paired *t* tests which compared the Guilt and Shame scales of the TOSCA with each other within both groups showed guilt to be significantly dominant over shame among both offenders and non-offenders—offenders: $t(47) = -9.86$, $p < .001$, $d = 1.593$; non-offenders: $t(48) = -7.53$, $p < .001$, $d = 1.14$.

Our fourth hypothesis was, however, confirmed: Paired *t* tests which compared Internalising and Externalising coping with each other within both groups showed that non-offenders make significantly more use of internalising coping ("CoSS-Attack Self" and "CoSS-Avoidance") than externalising coping ("CoSS-Attack Other" and

Table 2. Means, Standard Deviations, and Range on the IRI, TOSCA, CoSS, and HIT Questionnaires.

	Offenders					Non-offenders				
	n	*M*	*SD*	Minimum	Maximum	*n*	*M*	*SD*	Minimum	Maximum
General Empathy (PT, EC, & FS)	48	44.96	11.79	18.00	63.00	50	51.24	13.92	12.00	76.00
IRI-Perspective Taking	48	15.63	5.42	2.00	26.00	50	16.02	6.35	2.00	27.00
IRI-Empathic Concern	48	17.13	5.00	8.00	26.00	50	19.52	5.13	3.00	28.00
IRI-Fantasy	48	12.21	5.88	0.00	23.00	50	15.70	6.97	1.00	26.00
IRI-Personal Distress	47	10.72	5.42	0.00	22.00	50	15.18	4.63	6.00	26.00
TOSCA-Guilt	48	3.56	0.58	2.20	4.40	49	3.85	0.49	2.58	4.73
TOSCA-Shame	48	2.50	0.73	1.33	4.40	49	3.18	0.65	1.53	4.67
TOSCA-Detachment	48	3.11	0.75	1.40	4.80	49	2.74	0.61	1.50	3.90
TOSCA-Externalisation	48	2.20	0.42	1.53	3.27	48	2.22	0.40	1.27	3.00
CoSS-Attack Self	48	2.36	0.96	1.00	4.75	50	3.60	0.97	1.50	5.00
CoSS-Attack Others	48	2.08	0.68	1.00	3.75	49	1.98	0.62	1.13	3.88
CoSS-Avoidance	48	2.16	0.81	1.00	4.25	50	3.14	0.90	1.25	4.75
CoSS-Denial	48	2.68	0.57	1.33	4.00	50	2.63	0.57	1.17	3.58
CoSS-Shame Proneness	48	2.78	0.92	1.00	4.50	50	3.85	0.84	1.75	5.00
HIT-Self-Centering	48	2.26	0.86	1.00	3.67	49	1.68	0.48	1.00	2.67
HIT-Blaming Others	48	2.25	0.83	1.00	4.40	49	1.68	0.48	1.00	3.10
HIT-Minimising/Mislabelling	47	2.13	0.85	1.00	4.11	49	1.69	0.51	1.00	3.33
HIT-Assuming the Worst	47	2.24	0.75	1.00	4.09	49	1.81	0.49	1.00	3.36
HIT-Total	48	2.28	0.80	1.10	4.21	48	1.70	0.40	1.03	2.51

Note. IRI = Interpersonal Reactivity Index; TOSCA = Test of Self-Conscious Affect; CoSS = Compass of Shame Scale; HIT = How I Think questionnaire.

Table 3. Correlation Matrix Spearman's Rho, From the Scales Contributing to the Components of Conscience.

	1	2	3	4	5	6	7	8	9	10	11	12	13
1	General Empathy												
2	IRI-Perspective Taking	.74***											
3	IRI-Empathic Concern	.71***	.43***										
4	IRI-Fantasy Scale	.73***	.25	.29**									
5	IRI-Personal Distress	.36***	.07	.28**	.39***								
6	TOSCA-Guilt	.59***	.39***	.60***	.34**	.30**							
7	TOSCA-Shame	.32**	−.04	.38***	.39***	.44***	.48***						
8	CoSS-Shame Proneness	.33**	.03	.41***	.32**	.42***	.40***	.68***					
9	HIT-Self-Centering	−.37***	−.28**	−.46***	−.15	−.14	−.39***	−.18	−.17				
10	HIT-Blaming Others	−.39***	−.32**	−.30**	−.27**	−.16	−.28*	−.11	−.16	.71***			
11	HIT-Minimising/Mislabelling	−.36***	−.27**	−.37***	−.19	−.09	−.34**	−.17	−.10	.73***	.79***		
12	HIT-Assuming the Worst	−.36***	−.36***	−.25*	−.22*	−.00	−.25*	.04	.01	.69***	.76***	.74***	
13	HIT-Total	−.40***	−.32**	−.39***	−.21*	−.13	−.35***	−.14	−.13	.86***	.89***	.90***	.88***

Note. IRI = Interpersonal Reactivity Index; TOSCA = Test Of Self Conscious Affects; CoSS = Compass of Shame Scale; HIT = How I Think questionnaire.
*$p < .05$. **$p < .01$. ***$p < .001$ (two-tailed).

Table 4. Differences in Empathy, Guilt, Shame, and Cognitive Distortions Between Offenders and Non-Offenders.

	Group			Controlling for gender					
	t	*d*	95% CI	F_{group}	*d*	95% CI	F_{gender}	*d*	95% CI
General Empathy	−2.406**	−0.486	[–0.888, –0.084]	1.783	0.270	[–0.128, 0.668]	0.940	0.196	[–0.201, 0.593]
IRI-Perspective Taking	−0.330	−0.067	[–0.463, 0.329]	0.002	0.009	[–0.387, 0.405]	0.261	0.103	[–0.293, 0.500]
IRI-Empathic Concern	−2.340**	−0.473	[–0.874, –0.071]	0.279	0.107	[–0.290, 0.503]	5.245*	0.463	[0.062, 0.864]
IRI-Fantasy	−2.674**	−0.540	[–0.944, –0.137]	5.273*	0.464	[0.063, 0.865]	0.082	0.058	[–0.338, 0.454]
IRI-Personal Distress	−4.364***	−0.887	[–1.304, –0.469]	7.851**	0.569	[0.163, 0.975]	1.350	0.236	[–0.164, 0.636]
TOSCA-Guilt	−2.659**	−0.540	[–0.945, –0.135]	1.444	0.244	[–0.156, 0.644]	2.183	0.300	[–0.100, 0.700]
TOSCA-Shame	−4.848***	−0.985	[–1.406, –0.563]	2.843*	0.342	[–0.059, 0.743]	15.466***	0.799	[0.385, 1.212]
CoSS-Shame Proneness	−6.041***	−1.221	[–1.652, –0.789]	10.263**	0.647	[0.241, 1.054]	9.093**	0.609	[0.204, 1.015]
HIT-Self-Centering	4.123***	0.837	[0.422, 1.252]	5.962*	0.496	[0.092, 0.900]	1.878	0.278	[–0.122, 1.678]
HIT-Blaming Others	4.100***	0.833	[0.418, 1.248]	6.872**	0.532	[0.127, 0.937]	1.049	0.208	[–0.191, 0.607]
HIT-Minimising	3.098**	0.633	[0.223, 1.043]	2.826*	0.343	[–0.060, 0.746]	1.725	0.268	[–0.134, 0.670]
HIT-Assuming the Worst	3.343**	0.683	[0.271, 1.094]	8.228**	0.586	[0.177, 0.994]	0.123	0.072	[–0.329, 0.472]
HIT-Total	4.491***	0.917	[0.496, 1.337]	8.520**	0.596	[0.187, 1.005]	1.110	0.215	[–0.186, 0.616]

Note. Adjusted alphas after Bonferroni–Holm ranged from $\alpha < .004$ to $\alpha < .05$. IRI = Interpersonal Reactivity Index; TOSCA = Test of Self Conscious Affect; CoSS = Compass of Shame Scale; HIT = How I Think questionnaire.
*$p < .05$. **$p < .01$. ***$p < .001$, one-tailed test.

Table 5. Differences in Internalising and Externalising Coping Between Offenders and Non-Offenders.

	Group			Controlling for gender					
	t	*d*	95% CI	F_{group}	*d*	95% CI	F_{gender}	*d*	95% CI
CoSS-Attack Self	−6.285***	−1.270	[–1.704, –0.836]	8.110**	0.576	[0.171, 0.980]	18.830***	0.877	[0.462, 1.292]
CoSS-Attack Other	0.688	0.140	[–0.259, 0.538]	1.803	0.273	[–0.127, 0.673]	1.686	0.264	[–0.136, 0.663]
CoSS-Avoidance	−5.674***	−1.147	[–1.574, –0.719]	8.685**	0.596	[0.191, 1.000]	8.486**	0.589	[0.184, 0.993]
CoSS-Denial	0.482	0.097	[–0.299, 0.494]	0.348	0.119	[–0.277, 0.516]	0.118	0.069	[–0.327, 0.466]
TOSCA-Detachment	2.694**	0.547	[0.142, 0.953]	2.160	0.299	[–0.102, 0.699]	1.141	0.217	[–0.182, 0.616]
TOSCA-Externalisation	1.617	0.330	[–0.073, 0.733]	2.308	0.309	[–0.092, 0.709]	0.146	0.078	[–0.321, 0.476]

Note. CoSS = Compass of Shame Scale; TOSCA = Test of Self Conscious Affect.
*$p < .05$. **$p < .01$. ***$p < .001$, one-tailed test.

"CoSS-Denial"), $t(48) = 8.20$, $p < .001$, $d = 1.511$. Within the group of offenders, we found no significant difference between internalising and externalising coping, $t(47) = -1.39$, $p = .172$, $d = 0.154$.

Discussion

This study compared offenders and non-offenders on different domains of conscience as defined by Schalkwijk. Our results correspond to a large extent with the findings of Schalkwijk and colleagues (2016) in an adolescent sample. It was possible to distinguish between offenders and non-offenders in the functioning of their consciences by looking for differences in their empathic capacities, proneness to experience self-conscious emotions, ways of coping with self-conscious emotions, and levels of moral reasoning.

Offenders did have weaker empathic capacities than non-offenders. After controlling for gender, FS and PD remained significant, showing that offenders experience less personal distress upon seeing the suffering of others and are less prone to identify with imaginary others in works of fiction like books or movies. Personal distress is associated with empathic arousal, a primitive form of empathy like emotional contagion. Neurobiological research shows that offenders with strong psychopathic traits are able to adequately perceive the other's pain, but they are not affected and therefore not inhibited by it (Blair, 2001; Cima, 2016).

The finding that offenders did not function at a lower level than non-offenders with respect to cognitive empathy is in line with the findings of the meta-analysis by Joliffe and Farrington (2004) and of research by Baron-Cohen (2012) and Beerthuizen (2012) into the antisocial perpetrator. Van Vugt et al. (2012) hypothesised that offenders use their available cognitive empathic abilities only for people close or valuable to them. Regarding their victims, although capable of considering what the negative consequences are for another, they just don't care. They might even use their cognitive empathy when committing offences, as they are not inhibited by affective empathy.

Concerning self-conscious emotions, offenders did not differ from non-offenders in guilt-proneness, and both groups had higher guilt scores than shame scores. This finding is remarkable, as Spruit et al.'s (2016) meta-analysis showed that adequate levels of guilt-proneness have an inhibitory effect on offending. We have no explanation for this finding, except that having been in treatment in a hospital setting may have sensitised the offenders for guilt. With respect to shame, the picture was more differentiated. Offenders were found to be less prone to experience shame, which may show that they are less inclined to self-evaluation and/or less likely to experience a difference between who they want to be compared to who they are. This hypothesis is supported by the fact that offenders were less likely than non-offenders to use internalising coping strategies to deal with shame (while no difference was found for the extent to which both groups use externalising strategies). Non-offenders showed a significant dominance of internalisation over externalisation, but the offenders did not. Although both over-internalisation and over-externalisation are clinically problematic, in the

end internalisation is seen as developmentally healthier than externalisation, as the self is under scrutiny.

Offenders had a lower level of moral reasoning in the sense of a stronger self-centeredness than the non-offenders. Also, just as they were less prone to use internalising shame coping strategies, they showed greater proneness than non-offenders to minimise (the consequences of) their own behaviour, to blame others, and to evaluate their own behaviour as unavoidable under the given circumstances. The assumption is that these cognitive distortions facilitate offending behaviour by enabling offenders to view their behaviour as acceptable or even justifiable, and by neutralising cognitive dissonance arising out of self-evaluative emotions. This finding underlines the theoretical assumption that as long as self-esteem is not threatened by internal evaluation, the conscience stays inactive. Externalising cognitive distortions protect the self from these "threats" and thereby keep the conscience on standby. The meta-analysis by Stams and colleagues (2006) showed that the level of moral reasoning appears to have less influence on offending than long thought. A possible explanation is that offenders and non-offenders differ in the importance they attribute to the value of their (moral) reasoning (Beerthuizen, 2012). Another possible explanation is the lack of personal distress when seeing others in need, as we found low levels of empathic personal distress.

With respect to moral reasoning, this study made it clear that the cognitive distortions used to neutralise the cognitive dissonance between self-image and behaviour should receive attention in treatment.

Implications for Treatment

Our study outcomes have implications for treatment. From the perspective of maturation, Schalkwijk (2011) expected a healthy functioning conscience to be characterised by cognitive and affective empathy, a slight dominance of proneness to experience guilt over shame, a slight dominance of internalising coping over externalising coping, and a higher level of moral reasoning. The expectation was that perpetrators of serious offences would have a less matured conscience in all of these domains. However, in both the present study and in Schalkwijk et al. (2016) it was found that offenders lag behind only in terms of affective empathy, not cognitive empathy. Based on the knowledge that empathy fluctuates considerably under the influence of many variables, including the closeness to the other (Watt, 2007), it is probable that cognitive empathy is suppressed or even used as an aid in committing an offence (Blair, 2001; Cima, 2016), while affective empathy is less developed and therefore lacking as an inhibitive force. Our research also implies that offenders' affective empathy may be underdeveloped due to an impaired proneness to be personally distressed upon seeing the (painful) emotions of another. Consequently, the treatment of offenders should perhaps focus not only on developing affective empathic abilities ("remedying a defect") but also on generalising existing (cognitive) empathic abilities so as to include people with whom the offender feels no direct connection ("expanding existing abilities"). Also, because externalising coping is so conspicuous, treatments often seem to focus on unlearning externalising coping. However, the

actual problem—that is, the treatment target—appears to be a lack of internalising coping, or the fact that offenders fail to withdraw sufficiently from a situation and fail to take sufficient responsibility for it.

In view of treatment implications, we recommend that any follow-up study determine whether there are differences with respect to domains of the conscience between offenders who have committed one serious offence (e.g., a sexual offence, violent crime, or property offence) and offenders who have committed several serious offences from more than one category. The conscience of offenders with multiple offences may be less developed than that of offenders with only one offence, and/or different domains may be affected. Insight into the affected domains would enable treatment to focus on the domains that are most lacking, and perhaps reduce risk of recidivism. Even though different types of offenders are represented in this study, the samples were too small to determine any differences. The same applies to the difference in the functioning of all domains of the conscience between, for example, antisocial and narcissist personality disorders and borderline personality disorders. Clinical practice would suggest, as Baron-Cohen states, that the former group will primarily exhibit cognitive empathy and be lacking in affective empathy, whereas the latter group of borderline personality disorders may perhaps possess sufficient affective empathy, but only within a narrow window of tolerance (Siegel, 1999) as a result of problems with emotion regulation.

Limitations

When interpreting the findings of this study, the following limitations must be taken into account. As already mentioned in the introduction, the functioning of the conscience is greatly determined by the situation and thus varies per situation. The question is therefore always what the facilitating or inhibiting influence of the conscience was in committing the particular offence: what were the *instigation, impellance*, and *inhibition* at that particular moment in time (Finkel & Hall, 2018). This consideration is also relevant to this study, where the sole use of self-reporting in the absence of collateral information—namely, observations by professionals or people in the respondents' social environment and recidivism rates—is clearly a shortcoming.

Another limitation of this study is the relatively small number of respondents (48 offenders and 51 non-offenders), which limits the generalisability of the results to the total offending population.

The generalisability of the results is further limited by the fact that the study group consisted of offenders who were sentenced to treatment on account of mental problems connected to the committed offences and the risk of recidivism (usually personality disorders, addiction, substance abuse, and sometimes developmental disorders). Even though the comparison group of non-offenders also consisted of mental healthcare patients it remains unclear to what extent the results of this study would also apply to offenders without mental problems. The fact that specific psychiatric diagnostics were not collected on an individual level somewhat complicates the discussion of generalisability.

Conclusion

Aim of this study was to test Schalkwijk's integrative theory of the conscience, which enables us to bring together already existing research on empathy, self-conscious emotions, and moral reasoning. Like in Schalkwijk's study involving adolescents, our study including adult offenders with mental problems shows that a "delinquent conscience" does not exist.

This study is a step forward in building evidence for an integrative approach to the conscience, which will enable more precise diagnostics and better treatment indications in forensic mental health-care practice.

Given the aforementioned limitations, follow-up research is needed to provide further substantiation. This can be achieved by broadening the scope to include offenders and non-offenders who do not have mental problems and by adding more female offenders and male non-offenders to the study population. From the perspective of preventing recidivism and risk to the children of adult offenders (Besemer, Ahmad, Hinshaw, & Farrington, 2017), devoting attention to the functioning of the conscience in female offenders would, in particular, seem to be of great importance. Especially considering the fact that female offenders were scarce in this study, research on female conscience functioning is desirable. Finally, ongoing research is necessary for investigating the relationship between the domains of conscience, their interrelatedness, and their relative contribution to the prediction of delinquency, to gain a better understanding of conscience functioning.

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ORCID iD


Marion Verkade https://orcid.org/0000-0003-1795-396X

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