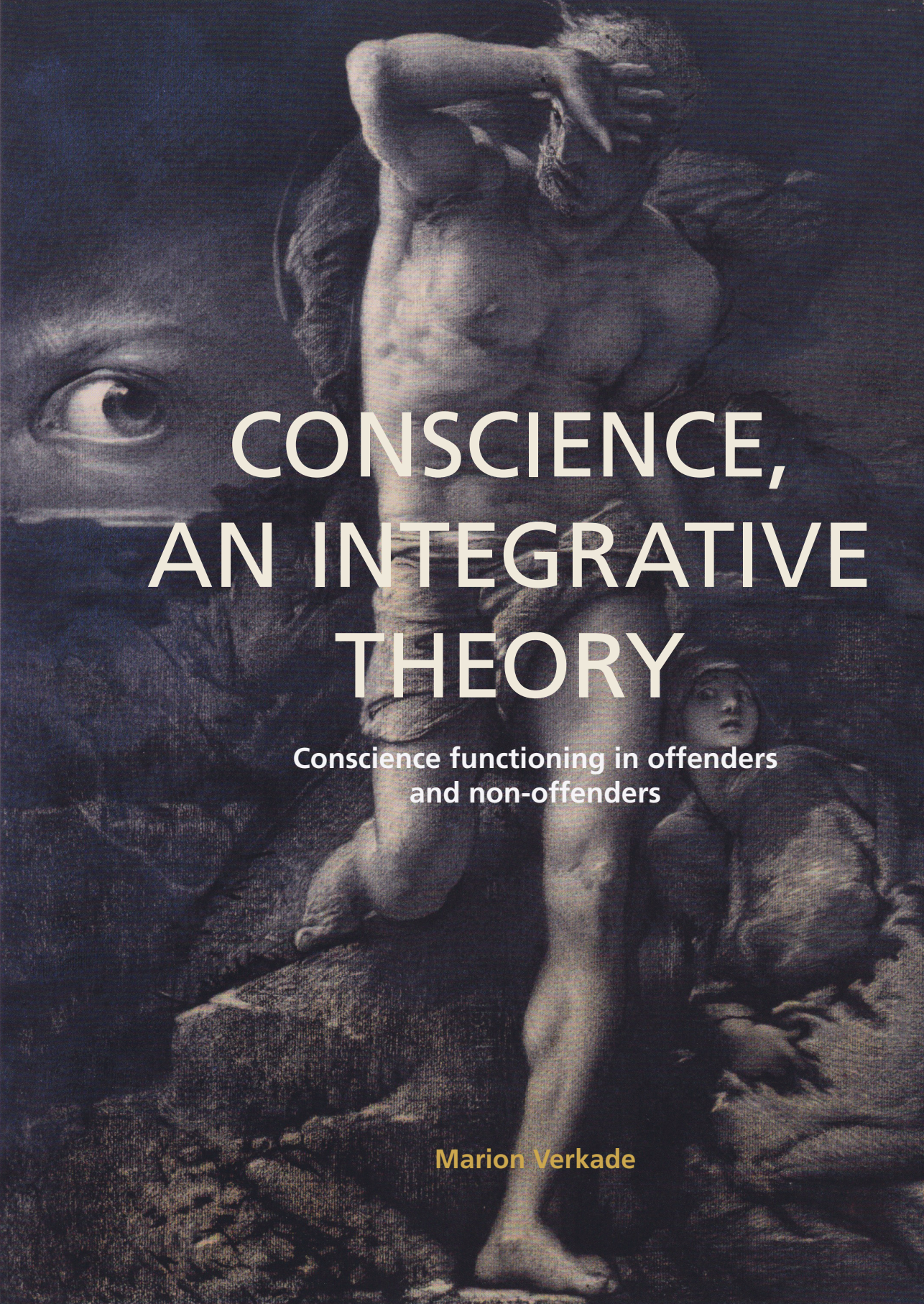

CONSCIENCE, AN INTEGRATIVE THEORY

Conscience functioning in offenders and non-offenders

Marion Verkade

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CONSCIENCE, AN INTEGRATIVE THEORY

Conscience functioning in offenders and non-offenders

HET GEWETEN, EEN INTEGRATIEVE THEORIE

Het functioneren van het geweten in delinquenten en niet-delinquenten

(met een samenvatting in het Nederlands)

Proefschrift

ter verkrijging van de graad van doctor aan de Universiteit Utrecht
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Conscience[1]

Once with the children adorned in hides,
discordant and lost in the heart of the storm
Cain stood facing Jehovah and defied
him, and as the night fell on the warm
mountain the shadow of a man crept onto
the plain;
Breathless and beat, the wife and kids of Cain
told him: "We will lie on this earth, and rest".
But Cain lifted his eyes and swiftly pressed
to the foothills, and in the ominous sky
noticed deep in its folds a gaping eye
That looked at him from its somber place
"I am ready", it said while trembling apace.
He woke up his wife and his sons and ran
eagerly away upon that golden span.
For thirty days and nights they walked
scarcely wavering from fear, they barely
talked
And without the slightest inkling to look
behind
they sleeplessly found that void that pined
for water since their stop in Assur.
"We'll stop here and rest," he said, "I'm sure
we've reached the ends of the earth."
But in that moment the sky cast a dearth
of crimson lightning at the horizon's edge
and within that void was that mortal ledge.
Cain pleaded to his song to be concealed
from that maddened face now revealed.
Then Cain, father of all exiled, desert barrens
Asked of Jabel, his son, a simple errand:
"Extend the ends of this feather tent for me
So safe and concealed we'll surely be."
But when they set down some weights of lead
Tsilla, the blond one, looked at Cain and
said:
"Do you not see him?" then Cain replied
from this auroral specter I'll never hide!
Jubal, father of transients in city slums
Who shot clarion calls and smacked his
drums,
Set around his idol a massive wall
so that the eye would never see him at all.
and Henoch Replied: "Yes, but only until
I build a tower so damn imposing
you foes will recoil before proposing
to besiege it and its fellow town
We'll build a great city and we'll lock it
down."
So Tubalcain, the father of all master smiths
built up a city of gargantuan widths
And while Tubalcain worked, his brothers
sought prey,
the kids of Seth and Enos had quickly run
away.
We guarded our great city from each and
every one
and bored, we launched arrows at the sun.
Granite replaced the tents made of flimsy
animal pelt
and iron, not manure, was all we'd smelt,
Our town thus grew dingy and infernal,
The overshadowing tower made night eternal
in the plains; And upon our mountain-thick
gate
we engraved: "God will not enter our city-
state."
And when the walls were caulked and dried
We put Cain, our ancestor, in a tower to hide
and he stayed there, haggard and old.
"Father," said Tsilla, "is that eye all gone?"
And Cain then told him, "son, you're still
wrong."
"Please," Cain said, "put me underground,
those men of solitude below don't bear the
sound
nor sight of anything around them anymore."
"But you'd be dead!" said Tsilla, and Cain
said:"forever more".
from a city of cloud to a city of bone
Cain walked down the tower steps, alone
And once in the dark of that eternal tomb
The eye stared back from the end of the room.

1 Hugo, Victor. 1859. from: *Légende des Siècles*. Translated by Phil James, 2015.
This poem was the basis for the cover illustration by François-Nicolas Chifflart.

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1 INTRODUCTION

Every now and then it makes the news. An individual confesses to a number of gruesome murders. In common parlance, such a criminal is soon called an unscrupulous villain. Is that correct? Do perpetrators really have no conscience?

That's what this thesis is about: about the conscience of criminals. Working in the field of forensic psychiatry for over 20 years, I found it almost inevitable to think about evil. What is evil, where does it stem from? How is it contained or regulated, and what role does conscience play in this? What is conscience anyway, and how does it work? Why does one person end up in prison as a prisoner and another as a psychologist, when both are fallible people and often seem not all that different in the end? Do demonstrable shortcomings exist in the functioning of conscience in the offender? And if so, what does this imply for the responsibility we can ascribe to him or her? Is it possible to bring a spark of change to the functioning and/or life of this other person? These questions resulted in the opening question of the research that ultimately led to this dissertation: What is conscience and how can it be conceptualised?

Halfway the nineteenth century, Victor Hugo, to whom is attributed the statement that conscience is God in man, wrote *La Conscience,* the poem that precedes this introduction and which was the basis for the cover illustration by François-Nicolas Chifflart.[1] In this poem, Hugo seems to place conscience outside the individual as an external function, in the all-seeing eye staring at Cain, reminding him of what he has done. It offers an implicit representation of what conscience might be.

According to the Stanford Encyclopedia of Philosophy, conscience is related to the Latin '*con-scientia*' and refers to the sharing of moral knowledge with oneself or with an internalised other within oneself. Conscience in this meaning is a function of self-knowledge and self-assessment, based on an internal sharing or reflecting along internalised social norms.[2] The Encyclopedia Britannica is more explicit, defining conscience as "a personal sense of the moral content of one's own conduct, intentions, or character with regard to a feeling of obligation to do right or be good".[3] The general idea is that a sound conscience is developed by upbringing, education

1 Hugo, 1859.
2 Bullens, 2006.
3 Britannica, 2013.

and acculturation, and that it can keep evil human inclinations more or less in check. In developmental psychology, conscience is regarded as the internalisation of social values and norms. These are, however, rather scant definitions. Is conscience a personal sense, a set of rules, or a regulatory function? How does it arise, how is it developed, and can its development be influenced in either negative or positive ways?

In this introduction I will briefly discuss some philosophical conceptions related to conscience. Departing from philosophy, I will then discuss the clinical problem of the lack of an unambiguous definition of conscience and conscience functioning. Next, I will describe the research project as it has been set up, as well as its context. Finally, I will include an outline of the thesis.

1.1 CONSCIENCE AND THE PHILOSOPHY OF FREE WILL

Thinking about human conscience and responsibility presupposes the existence of a (to a certain extent) free will and (albeit limited) freedom of choice, as well as the possibility of moral evil. Mooij elaborates on how free will has been discussed throughout the history of philosophy.[4] He positions Spinoza and Kant opposite each other. Spinoza stated that man lives in a naturally determined universe, is subject to an immanent causality, and lives under the illusion of an alleged free will. Kant, however, following Leibniz's concept of omnipresent evil in the sense of immanent imperfection, advocates free will. He distinguishes inevitable evil (das Übel) from chosen, and therefore moral, evil (das Böse). The first pertains to the immanent imperfection, and thus inherent evil, which are present in this imperfect reality marked by finitude and death (i.e., bodily pain or mental anguish such as fear, illness, or grief). The latter is evil that is chosen and therefore "wanted" by the actor. Loss of life or health is an example of the first. But when this loss is voluntarily inflicted by another, it is moral evil. Moral evil thus presupposes the existence of free will, which is connected to freedom of choice. The chosen evil act is 'wanted', motivated, and was one of possible alternatives of action.[5]

In Kant's view, a sound conscience may prevent one from doing moral evil in the sense of harming or inflicting violence on another, or in the more 'subtle' way of acting impurely or perversely.[6] Also, conscience is not only a faculty that issues moral evaluations of (types of) actions – as was thought in almost all traditional views of conscience, including Kant's own earlier account – but rather as a second-order capacity to evaluate one's own first-order moral judgments and choices.[7] By this, Kant meant that conscience evaluates not only our behaviour against the background of our internalised norms, but also our related motives, considerations and choices. For Kant, it is precisely our judgment of those motives

4 Mooij, 2007.
5 Walter, 2001.
6 Kant, 1793, according to Mooij, 2007.
7 Knappik & Mayr, 2019.

and considerations that precede our behaviour that distinguishes the moral from the legally correct. When this process of self-assessment makes us aware of an inconsistency between our actions, or possibly insufficient effort to act in a morally correct way on the one hand, and our identity on the other, this causes discomfort and has a negative effect on our self-image. According to Kant, it is this discomfort caused by internal conflict that motivates us to act according to our internalised norms and subsequent sense of duty.[8]

In contemporary philosophy, conscience is seen as a psychological function that motivates and regulates our behaviour, but is morally neutral in the sense that it has no inherent content of its own.[9] It is like an empty box that can be filled with any type of moral content. Also, by self-assessment, conscience offers self-knowledge and thereby has an epistemic function.

I subsequently leave behind the philosophical perspective on conscience, which intrigued me early on in this project, to move on to a psychological and psychiatric perspective. This thesis thus focuses on conscience from a psychological point of view: its definition, operationalisation and development.

1.2 CONSCIENCE FROM A PSYCHOLOGICAL PERSPECTIVE

About a century and a half after Kant, and half a century after Hugo's poem "La Conscience" and Spinoza's writings, Freud postulated the superego in his structural model of the mind. He conceptualised conscience as an intrapersonal, psychic function, the psychic being the processes of feeling, thinking, and wanting.[10] Since then, psychological definitions of conscience prevail in forensic psychiatric and psychological literature. These definitions, however, differ greatly, and unambiguous definitions are hard to come by.[11] Authors often emphasise either the cognitive or affective nature of conscience, and most definitions reduce conscience to a one-dimensional construct.[12] They focus either on the superego,[13] on cognitive moral development,[14] on emotional moral development,[15] or on empathic capacity.[16] Moreover, possibly due to these oversimplifications, the prevailing one-dimensional operationalisations show varying associations with offending.[17] This hampers research-based clinical diagnostics, assessment of criminogenic needs, and treatment planning. For example, in forensic mental health reports it is often said that offenders are "unscrupulous" or have "lacunary" or "defective" consciences,

8 Kant, 1797 [1991].
9 Giubilini, 2021.
10 Freud, 1915; Freud, 1933.
11 Stapert, 2010.
12 Stapert, 2010; Vujošević, 2015.
13 Carveth, 2015.
14 Gibbs, 2019.
15 Eisenberg & Fabes, 1998.
16 Hoffman, 2000; Jolliffe & Farrington, 2004.
17 Stapert, 2010.

which is supposedly related to the crimes committed. However, the theoretical underpinning of such statements is often inadequate, due to a lack of a clear and widely supported definition of conscience. This lack of clarity and specificity in diagnosing conscience functioning hinders targeted indication of treatment needs and treatment planning. Moreover, differences in the definition of conscience as a function can also lead to differing views about the causes of transgressive behaviour, and possibly also about accountability, and about the measures and/or interventions needed to prevent transgressive behaviour in the future.[18]

An unambiguous definition of conscience as a psychological and regulating function is thus needed. According to Giubilini, this definition should include both a cognitive and a conative component.[19] The cognitive component refers to *con-science* as 'knowing together',[20] that is, the awareness of and ability to distinguish between good and evil by means of internalised norms. The conative component refers to the intention to shape one's own will and behaviour in accordance with the aforementioned knowledge. Likewise for Le Sage, conscience consists of two components, with the difference that she speaks of a cognitive and an affective component. The intention to behave according to one's internalised norms would then lie in the emotional component, consisting of feelings of guilt, shame and/or empathy.[21] The individual functioning of conscience can falter on one or more aspects within both domains, aspects which should be specified in diagnostic formulations in order to properly initiate interventions or measures.[22]

Conscience as a psychological function is not infallible. It fluctuates in its day-to-day functioning and is, moreover, subjective in content.[23] Despite this, Hill argues that although a clear conscience is no guarantee that one has acted right, it is both necessary and sufficient for morally blameless conduct.[24] However, although indeed necessary, conscience's sufficiency can be debated. After all, there are other (internal and external) factors that influence our behaviour. For example, to be able to determine one's own behaviour in accordance with one's will, having sufficient self-control is a precondition, especially when one's environment is conducive to crime.[25] And in offenders, executive functioning may falter.[26] The present research project therefore focuses on conscience's conceptualisation, recognising that conscience is a necessary, but not complete or sufficient, condition for prosocial behaviour.

18 Stapert, 2010; Sage, Le, 2004.
19 Giubilini, 2021.
20 Bullens, 2006.
21 Sage, Le, 2004; 2006.
22 Sage, Le, 2004; 2006; Schalkwijk, 2018.
23 Hill, 2000; Schalkwijk, 2018.
24 Hill, 2000.
25 Wikström, 2009; Wikström & Treiber, 2009; Wikström & Svensson, 2010.
26 Meijers et al., 2017.

1.3 THE PRESENT RESEARCH PROJECT

The present thesis thus describes my research into the concept of conscience. The project starts with an orientation on conscience's previous definitions and its operationalisation in forensic psychiatric and psychological literature, followed by several empirical studies of differences between male and female offenders and non-offenders, when they are compared using the chosen operationalisation. Additionally, as prevailing knowledge suggests gender differences in the constituent aspects of conscience, differences between male and female offenders are studied. Further, because research on female offenders is scarce, conscience functioning in female offenders is studied separately, comparing them with women from the general population. Lastly, the interrelatedness of the aspects that in interplay make up conscience is investigated, as well as the relevance of the integrative definition of conscience for clinical practice.

1.3.1 Research questions

The research questions are formulated as follows:

1. How is conscience defined and operationalised in the psychiatric and psychological literature?
2. What differences exist in conscience functioning between offenders and non-offenders, given the chosen operationalisation of conscience as a regulatory function?
3. What are the differences in conscience functioning between male and female offenders?
4. How do female offenders differ from female non-offenders in their conscience functioning?
5. a) How do the constituent aspects of conscience together shape its functioning? and b) What differences exist between offenders and non-offenders in the interrelatedness of these aspects?

1.3.2 Research Methods

Different forms of both qualitative and quantitative research are combined, bringing together clinical practice and empirical research.

First, the literature (in English and Dutch) on the conceptualisation and development of conscience is discussed, resulting in a definition, and operationalisation thereof, to enable empirical research.

Second, with the chosen definition as starting point, empirical research is conducted in three studies of group differences in conscience functioning. These comparative studies are performed with the use of questionnaires, to allow comparison of the

groups regarding different aspects of conscience functioning. The comparative studies are followed by an integrative study into the interplay of all aspects of conscience functioning, using a combination of network analysis and regression analyses.

Lastly, the discussions of the literature and empirical research are combined with a personal reflection on current clinical practice in diagnosing conscience functioning. To that end, a case description is included. This case description is not an N=1 study, but serves to clinically illustrate the themes of the literature and empirical studies. Additionally, it offers an exercise in diagnosing conscience functioning when using the chosen operationalisation of conscience. For an extensive and more precise description of the methodology the reader is referred to the thesis outline and to the the relevant chapters.

1.3.3 Scientific and societal relevance

This research into the definition and operationalisation of conscience has scientific, clinical and societal relevance. Defining conscience as a multidimensional construct may allow for more accurate diagnostics of an individual's conscience, as it enables an understanding of the aspect(s) in which the functioning of conscience in a specific individual may be hindered. After all, conscience functioning is not an all-or-nothing phenomenon. Its daily functioning fluctuates, due to external circumstances or to internal factors like stress levels or substance (ab)use. It is dynamic and changeable.

More knowledge on the operationalisation of conscience and its functioning offers necessary underpinning for the diagnostics required in forensic mental health care assessments, aiming for a better understanding of an individual's transgressive behaviour under particular circumstances and at particular times. It also broadens the possibilities for personalised and specific indications of treatment needs in forensic mental health reports. This improvement in diagnostics and indication of treatment needs, both before and during treatment as well as in the (planning of) aftercare, may improve relapse prevention. Additionally, improvements in the forensic health assessments of conscience functioning can assist judges in their moral-ethical considerations regarding accountability and the legal measures needed.

Related to these clinical and societal implications, the research and further substantiation of the concept of conscience may contribute to a more nuanced view on offending and offenders, through an improvement of education at both colleges and universities, and in postgraduate courses for forensic psychologists and psychiatrists. This can, in turn, raise awareness among (future) professionals in forensic mental healthcare and (youth) mental healthcare, of important developmental factors and possible indications of skewed growth that can lead

to disruptions in the functioning of conscience. This may result in better primary prevention.

Hopefully, the outcome of this study will also allow further research into the maturation of conscience, or into the conscience functioning of different groups and their specific treatment needs, in order to prevent relapse, rather than only retribution.

All studies were conducted within the context of the Dutch law, penitentiary system, and forensic mental health care. As the Dutch law and penal system differ from those in other countries, this may have consequences for the generalisability of the current data and conclusions to situations in other countries. For this reason the Dutch situation, and some differences with other countries, are briefly elaborated here.

1.4 CONTEXT OF RESEARCH: DUTCH CRIMINAL LAW, LEGAL SYSTEM AND FORENSIC PSYCHIATRY

The distinction between offending and non-offending can be described as arbitrary, as punishable acts are in fact social constructs, resulting from agreements laid down in the national Penal Code, which may differ for different countries.[27] While certain acts (such as murder) are criminalised in almost all cultures, other offenses are more culturally determined. Examples of the latter are prostitution, abortion, or the use of specific substances.[28] Additionally, who is convicted under Dutch criminal law and who ends up in prison, partly depends on what is punishable according to the law, as well as the state of the criminal investigation and prosecution services; their selected priorities, resources and possibilities; the country's jurisprudence; potential biases in both criminal investigation and prosecution;[29] or maybe even (cr)immigration practices.[30]

Dutch legislation can be divided into civil law and public law. While civil law regulates the legal relationship between citizens (e.g., agreements and contracts), public law deals with the legal relationship between the citizen and the government. Criminal law (e.g., penalising of behaviour by the government) falls under public law. When the citizen commits a criminal offence, he is prosecuted by the police and public prosecutor, and tried and punished by the criminal court.[31] The basis of criminalisation is the protection of the autonomy and/or integrity of the citizen against fellow citizens who could harm him/her in the exercise of this autonomy or integrity. The aim is to mark and maintain a boundary in the right to self-determination when the latter leads to serious harm to another person.[32]

27 Koenraadt, 2010.
28 Wolters, 2012.
29 Wolters, 2012.
30 Di Molfetta & Brouwer, 2020.
31 Stevens et al., 2015.
32 Mooij, 2007.

Pursuant to the European Convention for the Protection of Human Rights and Fundamental Freedoms (ECHR), a suspect is innocent until proven guilty.[33] In the Netherlands, a suspect has legal rights and enjoys legal protection. During the investigations and during trial, the defendant is represented by legal counsel, a party relatively equal to the prosecution. The Netherlands has an inquisitorial or civil law system, which differs from the system of adversarial law, in that the judge is in active search of the truth based on the case file and questioning of both defendant and witnesses.[34] In order to classify an act as a crime according to the Dutch criminal law, there must be factual guilt (i.e., guilt of cause[35]) and intent or negligence (i.e., acting deliberately recklessly or carelessly). Without guilt or intent, there can be no question of liability or culpability, not even when causality is indicated. Intention consists of both wanting and knowing.[36] It refers to wrongdoings that were voluntarily chosen and therefore "wanted" by the perpetrator (das Böse). The judge decides on both the factual guilt and whether the actions merit punishment, as well as the question of culpability, before imposing a sentence.[37]

Dutch forensic mental health facilities provide treatment for individuals who have offended or are at risk of doing so, and who also suffer from a psychiatric condition. This happens within secure environments, in prison or in dedicated forensic-psychiatric institutions. Völlm and colleagues define the twofold purpose of forensic psychiatry as: "*care and treatment for the patient* (for their own sake as well as in order to reduce future risk) and protection of the public from harm from the *offender*".[38]

1.5 THESIS OUTLINE

Chapter 2 provides an orientation to the literature on conscience functioning, as preparation for the empirical studies that will follow. Literature research shows how, after years of one-dimensional operationalisations, conscience has more recently come to be defined as a multi-dimensional psychological function that regulates our behaviour and identity. This function results from an interplay of (affective and cognitive) empathy, self-conscious emotions and moral reasoning.[39] Chapter 2 ends with a definition of conscience and describes the course of its development as well as some knowledge gaps regarding conscience functioning in male and female offenders.

The following four chapters describe the empirical research that has been done into differences between groups of male and female offenders and non-offenders, using the operationalisation provided in the integrative theory of conscience. Statistically,

33 Van Bemmelen & Van Veen, 2003.
34 Bal & Koenraadt, 2007; Carozza et al., 2007.
35 Mooij, 2007.
36 Bal & Koenraadt, 2007; Mooij, 2007.
37 Bal & Koenraadt, 2007.
38 Völlm et al., 2018, p. 59.
39 Schalkwijk, 2015.

group comparisons are performed by means of (M)ANOVA's and t-tests, and where necessary by nonparametric variants thereof.

In *chapter 3*, conscience's operationalisation is put to the test by comparing groups of offenders and non-offenders, assuming that the differences in offending could be (partly) declared by differences in conscience functioning.[40] Then, as the first empirical study as well as previous research indicate gender differences for the constituent aspects of conscience, the conscience functioning in female offenders is further investigated in two additional studies.

In *chapter 4*, female offenders are compared to male offenders regarding the aspects of conscience functioning.[41] Gender is a strong predictor of criminal and violent behaviour,[42] with a far greater incidence of offending among men than women.[43] It is assumed that differences in socialisation and self-evaluation make the threshold to offending much higher for women than for men.[44] Additionally, gender differences in the constituent aspects of conscience functioning may also contribute to these differences. However, as yet, little is known about gender differences in the conscience of offenders, because previous studies have been based mainly on male samples, as the population of offenders is predominantly male.

In *chapter 5,* the conscience functioning of female offenders is further investigated in order to gain more insight into possible developmental delays and/or shortcomings. To this end, the conscience functioning of female offenders is compared to that of a group of female psychiatric patients, as well as that of a group of women from the general community.[45]

Subsequently, *chapter 6* describes an empirical study into the interrelatedness of the constituent aspects of conscience, shaping its functioning not in assembly but collaboratively and intertwined.[46] By means of network analysis and regression analyses, the interrelatedness of all constituents and the way they work together are visualised and investigated, both in their strength and in the direction of their interrelations within groups.

Chapter 7 has a slightly different character. It contains a case description, intended as a clinical illustration of the theoretical concepts of the literature and empirical studies. Additionally, it offers an exercise in diagnosing conscience functioning by using the chosen operationalisation of conscience. To this end, after introduction of a forensic psychiatric patient, his conscience functioning is described, applying

40 Published as: Verkade et al., 2019.
41 In Press as: Verkade, M., Karsten, J., & Koenraadt, F. (submitted). Gender differences in the conscience functioning of offenders.
42 Lilienfeld & Arkowitz, 2010.
43 Fergusson & Horwood, 2002; Nicholls et al., 2009.
44 Moffit et al., 2001; Ward & King, 2018.
45 Published as: Verkade et al., 2021.
46 Verkade, M., Karsten, J., Koenraadt, F. & Schalkwijk, F. (submitted). Conscience as a regulatory Function: the interrelatedness of its constituent aspects.

the knowledge gained from both the literature and the empirical studies. This is followed by a personal reflection on the added value of this method of diagnosing for clinical practice.

In *chapter 8* the research findings, as well as their implications for clinical practice in working with offenders, are integrated and discussed, followed by a summary in chapter 9, a summary in Dutch, and the references.

2 LITERATURE ON CONSCIENCE FUNCTIONING

2.1 INTRODUCTION

This chapter provides an orientation into English and Dutch literature in the field of forensic psychiatry and psychology regarding conscience functioning, as preparation for the empirical studies. This review is, however, not exhaustive.

Criminal law and forensic psychiatry seem indelibly connected with the questions of what is right or wrong, and conscience. After all, the involvement of criminal law and justice comes into play only when one person has inflicted harm on another. To determine whether this harmful act can be blamed on that person, the court must decide whether it was inflicted voluntarily and intentionally.[1] At this point, aside from other important factors that influence our behaviour and behavioural choices, the question of conscience arises, as conscience is a psychological function that regulates our behaviour through our will and deliberations.[2] Forensic mental health reports often state that crimes have been committed due to 'lacunary conscience functioning' or a 'defective conscience'.[3] However, in the absence of a clear definition of conscience such statements lack theoretical underpinning.[4]

This lack hinders good diagnostics and treatment indications aimed at relapse prevention. Specific, nuanced and personified diagnostic research is needed to enable a better understanding of what caused the person in question to offend, and of what the *instigation*, *impellance* and *inhibition* were at that particular moment in time and place.[5] Any adequate answer to this question, which should always also involve an assessment of the functioning of conscience, requires a substantiated definition of conscience. The current chapter discusses how the concept of conscience can be defined and operationalised. Other questions are: how does conscience develop, and as offenders are merely male, whether conscience is a matter of gender.

As a forensic psychologist reporting in pre-trial forensic mental health reports, I came across Le Sage's dissertation.[6] This dissertation became the starting point of

1 Mooij, 2007.
2 Le Sage, 2004.
3 Le Sage, 2006.
4 Stapert, 2010.
5 Finkel & Hall, 2018; Verkade, 2019.
6 Le Sage, 2004.

my literature search, first following up on Le Sage's references. Then, the computer-based search was continued using keywords such as *conscience, conscience functioning, morality,* and *moral behaviour*, followed by both backward and forward searches based on relevant references in the articles found. Subsequently, the same was done with keywords like *empathy*, *self-conscious emotions, shame, guilt* and *moral reasoning*, both separately or combined with words like *offenders, offending, perpetrators,* or *delinquency,* again following up on references. After the initial empirical study, performed from 2016 to 2018, gender differences in the functioning of conscience came into play. Therefore, in 2018 the search was repeated, this time in combination with words like *gender, male, female, male offenders, and/or female offenders*. During the process of reporting and publishing the empirical studies, I took note of new publications, and integrated them into the present discussion of the literature. As a clinician, I have tried to integrate newly acquired knowledge with my knowledge from clinical practice.

2.2 CONSCIENCE IN FORENSIC PSYCHIATRY/PSYCHOLOGY

According to Giubilini's review on the concept of conscience, conscience is a psychological function that motivates and regulates our behaviour, and has an epistemic function in that it generates self-knowledge through continuous self-evaluation. It is, however, morally neutral, in the sense that is has no inherent content of its own. Conscience is like an empty box that can be filled with any type of moral content.[7] It is thus an important regulating function, which by process of self-evaluation offers ongoing information about our identity, in turn motivating us to act according to the moral content we have internalised during our development.

However, the moral content of conscience, supposedly composed of internalised social norms, is subjective.[8] Moreover, conscience as a function is not infallible; it fluctuates and can falter in its day-to-day functioning.[9] Nevertheless, Hill argues that although a clear conscience is no guarantee that one has acted correctly, conscience is both necessary and sufficient for morally blameless conduct.[10] This argument, however, appears to be internally inconsistent. Moreover, although indeed necessary, the sufficiency of conscience can be debated. For example, in order to actually behave according to one's own wishes (i.e., in accordance with one's conscience), sufficient self-control is also necessary.[11] This chapter focuses on conscience as a necessary, though incomplete or insufficient, determinant of prosocial or antisocial behaviour; how conscience 'works'; and how conscience develops.

Until recently, researchers often operationalised conscience in uni-dimensional terms, which when tested in empirical research appeared to show only varying

7 Giubilini, 2021.
8 Bullens, 2006; Giubilini, 2021; Hill, 2000.
9 Hill, 2000; Schalkwijk, 2018.
10 Hill, 2000.
11 Wikström, 2009; Wikström & Treiber, 2009; Wikström & Svensson, 2010.

associations with offending.[12] Some refer to the superego as a dynamic structure for self-evaluation that offers moral guidelines to the ego,[13] others to cognitive moral development,[14] emotional moral development,[15] empathic capacity,[16] or shame and guilt.[17] Most definitions do not mention the intention to adhere to one's own morality or internalised norms.[18]

These operationalisations appear to follow two different conceptual lines, emphasising either the cognitive or the affective nature of conscience.[19] Representatives of these lines of thought are labelled by Vujošević respectively as rationalists or sentimentalists.[20] These views, also recognisable in my daily practice of forensic treatment, at times seemed to cause misunderstandings, disagreements or even polarisation between practitioners in their treatment indications.

Aiming at a better understanding of both lines of vision, as well as the issue of intentionality, the following paragraphs further elaborate on aspects of both the cognitive and affective domains of conscience.

2.2.1 The cognitive-ethical domain: the capacity for moral reasoning

Moral reasoning is the cognitive process of judging what is right or wrong according to formal criteria. It is based on both internalised norms and knowledge of the effect that one's behaviour has on (the well-being of) others, thus changing perspectives and balancing on the dimension of egocentrism and care for others.[21] Inner norms are internalised images of what is (un)desirable, (un)usual, good or bad, connected with object relations: the internalisation of the experienced quality of the relationship with significant others.

In his model of moral reasoning, based on Piaget's thinking, Kohlberg distinguishes three developmental phases: the preconventional, the conventional and the postconventional phase; each of these phases has two sub-stages.[22] In the first stage of the preconventional phase, the child's reasoning is guided by need satisfaction and external consequences, (fear of) punishment, and the presence of the norm-giving significant other. The actual presence of a significant other remains necessary for the child to adhere to norms that have yet to be internalised as rules. In the second stage of the first phase, the child learns that the quality of his/her relationship with this other depends, among other things, on his/her own behaviour. The child

12 Kochanska & Aksan, 2004; Stapert, 2010.
13 Carveth, 2013.
14 Gibbs, 2010.
15 Eisenberg & Fabes, 1998.
16 Hoffman, 2000; Jolliffe & Farrington, 2004.
17 Kochanska & Askan, 2006; Spruit, Schalkwijk, Van Vugt, & Stams, 2016.
18 Le Sage, 2004; 2006.
19 Le Sage, 2004; Vujošević, 2015.
20 Vujošević, 2015.
21 Gibbs, 2010; Kohlberg, 1981.
22 Kohlberg 1984.

notices that his/her behaviour affects or has meaning for (the well-being of) this important other, and learns to take this other into account in his behavioural choices, although the perspective is still mainly self-centred and focused on personal gain or loss. Once the relationship is internalised, the other is internally present, and this internal presence is enough to encourage the child to abide by the other's rules and expectations. The child thus reaches the first stage of the conventional phase at around age nine. Subsequently, in the second conventional stage, moral reasoning is based on social conventions, laws and regulations, and built on values such as reciprocity, mutual respect and trust. In the postconventional phase, the individual takes into account not only the wellbeing of important others, but also that of larger social systems and/or society. Universal ethical rules and expectations are differentiated and defined as personal principles and ideas.

As the highest level is often not reached, more recent adaptations of Kohlberg's theory emphasise immature and mature stages.[23] The first two (previously called preconventional) stages are seen as immature, and characterised by self-centredness and instrumentality. Over the course of a child's development, however, morality becomes more and more differentiated, involving the internalisation of different relations, a growing capacity to broaden one's perspective, and increasing cognitive capacities for symbolisation and abstraction.[24] In adolescents and/or adults, the once self-centred perspective of the child is broadened to a more social perspective, taking into account other people and their perspectives. With this broadening of the child's perspective, decentralisation takes place. In the more mature (previously referred to as conventional and postconventional) stages, the individual no longer experiences hem/herself as the centre of the universe, and his/her own perspective, wishes or needs are no longer the centre of his/her deliberations. A broadened, decentralised, and mutualistic social perspective makes it possible to weigh the interests of the self and the other, and to form moral judgments.[25]

However, beyond moral judgment (which on its own appears to have relatively little predictive value for delinquent behaviour), other related variables also influence moral behaviour, such as the degree to which moral values are considered important (i.e., moral value evaluation),[26] the degree to which these values are considered central to one's self-image (i.e., moral self-relevance), and self-serving cognitive distortions.[27] Research has indicated that high value evaluations are negatively associated with externalising (delinquent or antisocial) behaviour,[28] and that, in order to understand people's behaviour, one should know which values they consider important.[29] And conversely, self-serving cognitive distortions are

23 Gibbs, 2019.
24 Gibbs, 2010; Hoffman, 2000; Kohlberg, 1981.
25 Gibbs, 2019.
26 Beerthuizen & Brugman, 2011.
27 Barriga et al., 2001b.
28 Tarry & Emler, 2007.
29 Beerthuizen & Brugman, 2015.

associated with antisocial behaviour.[30] These cognitive processes may also interact. Although research did not confirm the expected mediation of the relation between moral judgment level and moral behaviour through moral self-relevance, secondary cognitive distortions did appear to mediate the relation of moral judgment and moral self-relevance with moral or antisocial behaviour.[31]

Although not the same, there is substantial conceptual overlap between moral reasoning/judgement and cognitive distortions. At very low levels of moral reasoning in adults, one's own perspective remains the central focus and starting point for making moral judgments. Self-centredness in adults, also seen as a stagnated decentralisation, is predictive of and a driving force for antisocial behaviour, and is also referred to as a primary cognitive distortion.[32] Moral deliberations are relatively absent at this level, as the balancing between self-centredness and care for others gives way in favour of the first.[33] When an individual's position on the dimension 'egocentrism – caring for others' is such that the (broadened) perspective takes other persons into account, negative self-conscious emotions can arise as a result of negative self-evaluations after or in anticipation of (c)overt behaviour that the individual knows is morally incorrect. At this point people can use secondary cognitive distortions: irrational or exaggerated thoughts that enable them to see their own behaviour as acceptable or even justified;[34] these involve: 'Blaming others' (blaming external causes), 'Minimising/Mislabelling', and 'Assuming the worst' (attributing hostile intentions to others and regarding one's own behaviour as unavoidable or unchangeable).[35] Although people regularly act at levels lower than their level of moral reasoning, and the use of cognitive distortions is quite common to protect the self from resulting guilt or shame,[36] high levels of such distortions may facilitate transgressive behaviour and are seen as indicating a low level of moral reasoning.[37]

High levels of moral reasoning have been found to be negatively associated with offending, regardless of ethnic background, age, or gender, especially for self-reported transgressions. Youth with psychopathic traits display the lowest levels of moral reasoning.[38]

However, although cognitive distortions are related to transgressive behaviour, they have but weak predictive value for offending, and explanatory power for more serious antisocial behaviour and criminal offending.[39] In forensic psychiatry, an offender is often observed to have engaged in transgressive behaviour despite an

30 Barriga et al., 2001; 2001b.
31 Barriga et al., 2001b.
32 Gibbs, 2010; Brugman et al., 2011.
33 Gibbs, 2010; Brugman et al., 2011.
34 Brugman et al., 2011.
35 Barriga et al., 2001; Brugman et al., 2011.
36 Glenn et al., 2010; Marshall et al., 2009; Marshall et al., 2011.
37 Barriga et al., 2001; Brugman et al., 2011; Maruna & Mann, 2006.
38 Helmond et al., 2015; Stams et al., 2006.
39 Stams et al., 2006.

existing awareness of social norms and an ability to distinguish right from wrong.[40] Literature offers several possible explanations for this phenomenon. First, offenders attribute less value to their morals as a base for their sense of personal identity than non-offenders.[41] This is especially true for individuals with psychopathic traits, who seem unable to connect their morals to their behaviour, presumably due to an inability for proper and realistic self-reflection/self-assessment of discrepancies occurring between morals and behaviour.[42] Second, given the importance of knowledge of the effect of one's own behaviour on others, the lack of influence of moral reasoning on offending may be due to a lack of empathy. Third, it is possible that the capacity for moral reasoning is intact in 'paper-and-pencil assessment situations' or when it concerns others, but that it is compromised in real life. In real life the offender's self-centred orientation may be so strong that it compromises the attention necessary for moral considerations, which is in turn necessary for weighing interests and making moral choices.[43] And last but not least, in their behavioural choices, offenders may be guided by a different set of internalised norms, the norms of their own criminal subculture.[44] To use Giubilini's image of conscience as an empty box, the box of these offenders may be filled with a different subjective and socially derived content, which may lead to different moral considerations.[45] As a result, they may lack the negative self-evaluations and resulting self-conscious emotions when violating more widely shared social norms.[46]

In short, using level of moral reasoning as a definition of conscience and as an explanation for differences in offending is clearly insufficient. It may, however, be a part of the puzzle.

2.2.2 The emotional domain: shame, guilt, and empathy

The emotional domain of conscience includes emotions such as shame and guilt, also called moral emotions, and empathy.[47] These will be elaborated on respectively.

Guilt and shame regulate our self-image, behaviour, and social relationships.[48] They are deeply relational emotions.[49] In my experience in forensic psychological practice, self-conscious emotions are fundamentally rooted in interpersonal relationships and our internalisations thereof. To my experience, the uprooted, detached person seems to have gone past shame. And in causing harm to another, without this rooting actual guilt apparently becomes easily and entirely legalised. As if both knowledge of the *guilt of cause* and consciousness of *guilt of settlement* are

40 Mariano et al., 2017.
41 Beerthuizen, 2012; Glenn et al., 2010.
42 Vujošević, 2015.
43 Vujošević, 2015.
44 Banse et al., 2013.
45 Giubilini, 2021.
46 Banse et al., 2013.
47 Le Sage, 2004.
48 Cohen et al., 2011; Tangney et al., 2007.
49 Buber, 1983.

present, but without *guilt by default,* which is the experience of having failed relative to one's own goals or internalised standards.[50] This may be due to a lack of moral self-awareness and of second-order evaluations.[51] In such cases the debt is settled as soon as it has been legally repaid. As one of my patients put it: "Being guilty is that you cross a line and accept the consequences. After that, all is back in balance."

In the literature, the operationalisations of guilt and shame are sometimes mingled, which may partly explain conflicting results in research into the relationship of guilt and shame with offending.[52] Following Helen Block Lewis,[53] Schalkwijk therefore distinguishes guilt and shame as follows: "guilt is connected with what you actually do, while shame is connected with who you feel you are". There is guilt when you say, "I *did* that awful thing"; and shame when you say, "*I* did that awful thing".

Guilt is thus about specific (c)overt behaviour (i.e., actual behaviour, thoughts and/or fantasies), whilst shame is about one's identity and stems mostly from a confrontation with our unwanted identity, with what we don't want to be.[54] Because self-conscious emotions seem to generate behaviour that promotes the stability of social hierarchies, and that allows for restoration of balance in one's self-image after a boundary has been crossed, Tangney and colleagues therefore speak of moral emotions.[55] The idea is that guilt and shame have a regulating effect on behaviour in the sense that they inhibit transgressive or deviant behaviour. The degree to which people tend to experience self-conscious emotions differs greatly, both between individuals as well as within a single person, over the course of time or per circumstance.

Guilt. Guilt is thus seen as a negative self-evaluation on the basis of (imaginary) norm-breaking behaviour. It is experienced only when the cause of failure is sought within the self or one's own behaviour. An individual experiences guilt when he/she is falling short in relation to the inner norm, or when he/she knows and feels his/her actions have had a negative impact on another. Guilt thereby serves to regulate the relationship with significant others, and later with others in general. It is a signal that something is wrong, that a boundary has been crossed, and it carries within it an action tendency toward reparative behaviour.

50 Mooij, 2010.

51 Around 1790 Kant added a new and unconventional view on conscience. According to him, conscience is not a faculty that issues moral evaluations of (types) of actions – as seen by almost all traditional views on conscience, including Kant's own earlier account – but rather as a second-order capacity. Second-order evaluations regulate one's own behaviour according to one's internalised norms *and* one's foregoing deliberations and choices (first-order evaluations). Kant, 1797 [1991]; Vujošević, 2015.

52 Schalkwijk, 2006; 2009.

53 Lewis, 1971.

54 Lindsay-Hartz, 1984.

55 Tangney et al., 2007.

Research indeed indicates that guilt regulates the sense of self, behaviour and social relationships,[56] as high guilt-proneness is associated with prosocial and moral behaviour,[57] and has an inhibitive effect on transgressive behaviour.[58]

Shame. Some American studies find shame also to be related to reduced crime, but this appears to be because these studies operationalise shame in a way that other studies on self-conscious emotions operationalise as guilt.[59] However, the relation of shame (corrected for guilt) with transgressive behaviour appears to be equivocal. Mild, temporary shame appears to be adaptive and regulating in positive ways.[60] A strong, chronic tendency to experience shame or non-mentalized shame is, however, maladaptive.[61] It can even lead to (an increase in) aggressive and/or transgressive behaviour,[62] especially when the individual has a propensity toward externalising coping with shame.[63] Also, a strong defence against feeling shame can lead to a (temporary) loss of empathic capacities, as it leads to an orientation that is so focused on the maintenance of the self that it leaves no possibility for orientation towards another.[64]

Deonna and colleagues have added a distinctive element to the discussion about aggression arising from shame. They argue that in the literature shame as emotion is often confused with shaming or humiliating as a verb. Shaming or humiliating is an act towards another, with the intent to incite shame in that other person. The authors find it very important to distinguish between the feeling of shame and the feeling of humiliation (being ashamed, having one's honour damaged).[65] In doing so, they refer to Elison and Harter, who, based on a systematic comparison between the two emotions, state that feeling humiliation is more painful than feeling shame, as the humiliated person often feels objectified by the other, who moreover seems to experience pleasure or lust from the humiliation. Additionally, humiliation is more strongly associated with public exposure, and furthermore reinforced by public confrontation, than shame. As a result, it evokes more anger and/or aggression than shame. A sense of humiliation arouses antagonism; the resulting anger, or even revenge, focuses on the other in order to protect the self-image (whether inflated or not).[66] Shame, however, is accompanied by feelings about the self and can therefore be very disruptive, often making the individual feel 'worthless' or 'small'.[67]

56 Cohen, 2011; Tangney, Stuewig, & Mashek, 2007.
57 Cohen, 2011; Ent & Baumeister, 2015.
58 Tangney et.al., 2011.
59 Schalkwijk, 2009.
60 Deonna, Rodogno, & Teroni, 2011; Lewis, 1971.
61 Fonagy et al., 2018.
62 Stuewig et al., 2010; Tangney & Dearing, 2002; Tangney et al., 2007.
63 Elison, Lennon, & Pulos, 2006; Schalkwijk et al., 2016; Stuewig et al., 2010.
64 Tangney et al., 2011.
65 Deonna, Rodogno and Teroni, 2011.
66 Elison and Harter, 2007.
67 Deonna, Rodogno and Teroni, 2011; Tangney et al., 2011.

Shame is seen as less adaptive than guilt,[68] as shame is a more self-focused emotion, associated with hiding or withdrawing, whilst guilt is related to making amends and reparative behaviour.[69] Also, when combined with tendencies to externalising shame-coping, shame can lead to an increase in anger and aggression,[70] or can lead to substance-abuse, and thereby initiate a feedback loop of shame, substance abuse, and offending.[71] The notion of guilt being more adaptive than shame is in line with findings in adolescents. In juvenile non-delinquents guilt proneness appears to dominate shame proneness, whereas guilt and shame proneness hardly differ in juvenile delinquents.[72] Additionally, related to the aforementioned effects of externalising shame-coping, the idea is that a dominance of internalising over externalising coping strategies within an individual is an indication of developmental maturity.[73] Measuring internalising versus externalising shame-coping by means of the Compass of Shame Scale (CoSS), Schalkwijk and colleagues found that in juvenile delinquents, externalising indeed dominated over internalising, whereas in non-delinquents internalising dominated over externalising.[74]

Empathy. Empathy seems to be the driving force and regulator of shame and guilt, and to influence the way they are dealt with.[75] Empathy was long thought of as vicarious experiencing of the emotions of others. Rogers, however, made a distinctive addition to this. He defined empathy as one experiencing the feeling as if it were one's own, but without losing the as-if quality.[76] Empathy not only requires the ability to empathise or to resonate experientially with another; to be truly empathic, an individual also needs to be able to distinguish between self and the other,[77] and to regulate one's own emotions to avoid becoming overwhelmed and/or drawn into the other.[78]

Empathy can thus be conceptualised as the ability to feel *and* understand another's emotions, *as if* one were the other, while maintaining the self/other distinction.[79] Empathic activity is characterised to a greater or lesser extent by cognitions or feelings. This leads to the conceptual differentiation between cognitive and affective empathy.[80] On the neurobiological level, affective empathy involves a primitive, automatically activated, bottom-up neural circuit functioning ('empathic arousal'), whereas cognitive empathy involves a more developed and cognitive, relatively

68 Schalkwijk et al., 2016a.
69 Tangney et al., 2011.
70 Lewis, 1971; Tangney et al., 2011; Wright et al., 2008.
71 Ferguson et al., 2000.
72 Schalkwijk et al., 2016a.
73 Schalkwijk, 2015.
74 Schalkwijk et al., 2016b.
75 Le Sage, 2004.
76 Rogers, 1957.
77 Eisenberg & Eggum, 2009; Ickes, 2009.
78 Nichols, Svetlova, & Brownell, 2009.
79 Cuff et al., 2016.
80 Cuff et al., 2016; Decety & Cowell, 2014.

slow-firing top-down circuit.[81] Emotional sharing or emotional contagion, also called empathic arousal, is a very preliminary form of empathy.[82] It eventually develops into affective empathy,[83] which is the openness to be emotionally affected by, and the propensity to share, observed feelings as if one were the other whilst maintaining the self-other distinction.[84] Empathic concern is a motivational form of affective empathy: the need or urge to care for the other in response to those shared feelings.[85] Cognitive empathy refers to the ability to see and understand things cognitively from the other's perspective; this is close to the Theory of Mind or mentalizing capacities.[86]

Although high levels of empathy are related to prosocial and altruistic behaviour,[87] the preliminary form of (affective) empathy, emotional contagion, is unrelated to prosocial behaviour. It can even lead to withdrawal from another's suffering, as the personal distress that comes from it is still merely self-oriented. Once there is sufficient self/other distinction, it can also lead to a helping gesture towards the other, although such a gesture serves mainly to lower one's own stress level.[88] A lack of empathy, on the other hand, is associated with offending and aggressive behaviour, with larger effect sizes for cognitive than for affective empathy.[89] Cognitive and affective empathy thus may relate to offending differently, but meta-analyses indicated that both the strength and direction of their associations with offending were affected by the questionnaires used, the age of the offender, or the type of offense.[90] And contrary to their earlier findings, a more recent (longitudinal) study by the same authors indicated that cognitive empathy is not more strongly related to offending than affective empathy: only affective empathy was found to be predictive of male convictions, and neither low affective nor low cognitive empathy appeared to be predictive of self-reported offending in men, yet both were predictive of self-reported offending in women.[91] Strikingly, in sexual offences empathy appeared unrelated to offending.[92]

2.2.3 The intention to adhere to one's internalised norms

We have seen that in the literature on conscience functioning, two lines of vision are found regarding the inclinations and/or potential to act conscientiously. Authors often focus on or emphasise either the cognitive or the affective nature of conscience. The intention to behave according to one's own morality appears not

81 Nummenmaa et al., 2008; Shamay-Tsoory et al., 2009.
82 Decety & Cowell, 2014; Hoffman, 2000.
83 Decety & Cowell, 2014.
84 Cuff et al., 2016.
85 Decety & Cowell, 2014.
86 Hogan, 1969; Decety & Cowell, 2014.
87 McMahon et al., 2006.
88 Eisenberg & Fabes, 1998.
89 Jolliffe & Farrington, 2004; Van Langen et al., 2014.
90 Van Langen et al., 2014; Jolliffe & Farrington, 2007.
91 Farrington & Jolliffe, 2021.
92 Mann et al., 2010.

to be included in these schools of thought, although this is of great importance, as offenders regularly offend despite their awareness of social norms. This intention would probably lie in the emotional domain of conscience.[93] However, another factor seems to impel the intention of most of us to adhere to our inner norms. For most people, morality is a very important pillar of their self-image/identity.[94] Since most people are aware that their behavioural choices shed long-term reflections on their personality, this awareness would motivate them to act in accordance with their self-image.[95] Glenn and colleagues argue that it is quite common for a difference to exist between the moral judgment people hold and what they actually do with it. In line with Kant, these scholars argue that due to the importance of morality for most people's sense of identity, it is often that dissonance between moral judgment and one's own actions that gives rise to internal conflict and discomfort; this motivates to do one's best to act in accordance with one's identity in the future.[96] Unless, of course, the dissonance is neutralised by the use of cognitive distortions.[97] Strikingly, however, the higher individuals score on psychopathic traits, the less they appear to self-identify with their morality. For psychopaths, morality seems not to be part of their identity, but independent of their intact (or sometimes even very high) levels of moral reasoning. This may enable them to act in contrast to their morality without experiencing dissonance. Because when morality is not a pillar of one's identity, behaviour that goes against one's own norms gives rise to less (negative) self-evaluations and the resulting self-conscious emotions, and will therefore be less inhibited.[98]

2.3 RETURN TO THE RESEARCH QUESTIONS

2.3.1 How can conscience be defined?

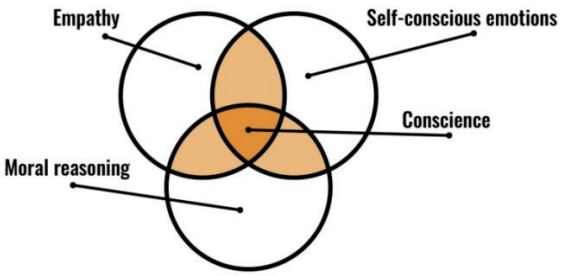
Considering the aspects of the cognitive and affective domains, and their relatedness to offending as well as their possible co-dependency, it seems important not to reduce conscience to either one domain or the other, but to build a bridge between the rationalists and sentimentalists when examining conscience.[99] Existing knowledge on both domains should be brought together and integrated to provide a more nuanced and multi-dimensional view of conscience functioning in individuals.[100] Though not the first to combine affective and cognitive domains in defining conscience,[101] Schalkwijk proposed an integrative theory which combines existing but hitherto separate fields of knowledge on morality, self-conscious emotions and empathy. He operationalises conscience as a multidimensional construct that results

93 Le Sage, 2006.
94 Glenn et al., 2010.
95 Sood & Forehand, 2005.
96 Glenn et al., 2010.
97 Brugman et al., 2011.
98 Glenn et al., 2010.
99 Kochanska & Aksan, 2004; Le Sage, 2006; Rueda & Lara, 2020; Vujošević, 2015.
100 Giubilini, 2021; Kochanska & Aksan, 2006; Schalkwijk, 2015; Thagard & Finn, 2011.
101 Kochanska & Aksan, 2006; Thagard & Finn, 2011.

from an interplay of constituent aspects of both domains.[102] Before him, several others proposed multidimensional models of conscience, albeit less fully, but they do not seem to have investigated whether and how the constituent aspects of their model interrelate within one individual.[103] To my knowledge, Schalkwijk was the first to study conscience and its constituent aspects in unison, starting with the comparison of delinquents and non-delinquents.[104] Schalkwijk defines conscience as a dynamic and changeable psychic structure that operates in reaction to external or internal situations.[105]

Following Schalkwijk, and in line with Giubilini, conscience can be defined and operationalised as a psychological function, regulating our behaviour and identity by means of self-reflection and (second-order) evaluation, resulting from an interplay of affective and cognitive empathy, self-conscious emotions (such as guilt and shame), and moral reasoning (see fig. 1). 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 a proneness to experience and regulate self-conscious emotions such as shame, guilt or pride and, lastly, the capacity for moral reasoning.

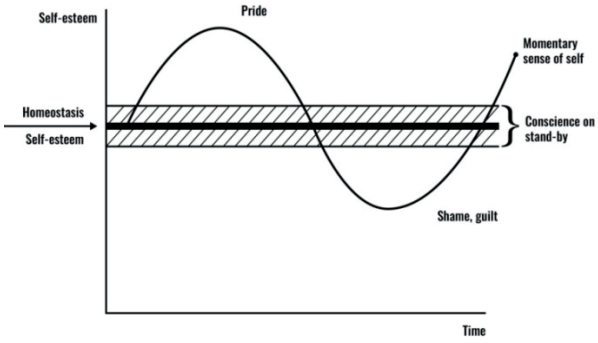
Figure 1.Conscience as an interplay of empathy, self-conscious emotions and moral reasoning.[106]



In a healthy individual and under normal circumstances, conscience cannot be switched on and off as one pleases. Yet as long as one's identity is in balance, conscience remains inactive, as if in standby-mode (see fig. 2). Self-evaluations and resulting self-conscious emotions then operate in the background to enhance the stability of the self, almost at a non-conscious level. However, when one's appraisal of a situation, action, thought or fantasy against the background of the internalised self-image poses a threat to the self, conscience becomes active. It then starts to regulate these disruptive factors in order to restore balance in one's self-image and identity.

102 Schalkwijk, 2011; 2015; 2018.
103 Kochanska & Aksan, 2004.
104 Schalkwijk, 2016a.
105 Schalkwijk, 2012; 2015.
106 With permission from Schalkwijk, 2018.

Figure 2. Functioning of the conscience.[107]



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. In a comparative study involving delinquent and non-delinquent adolescents, Schalkwijk tested his integrative theory of the conscience to see whether the selected domains of the conscience do, in fact, make it possible to reveal differences in the developmental level of the conscience.[108] Delinquents showed relatively lower levels of affective empathic capacity, were less prone to experience shame and guilt, more prone to experience pride, and more punishment-oriented than victim-oriented.

2.3.2 What is the course of development of conscience?

The development of conscience's constituent aspects empathy, self-conscious emotions, and moral reasoning are indelibly linked and mutually influence each other. Crucial for the development of these constituent aspects are a secure attachment, the development of object permanence, object constancy, theory of mind, mentalizing abilities, and the awareness of reciprocity in contact.[109] Moreover, experiencing self-conscious emotions arising from self-evaluation presupposes the capacity to self-evaluate. To be able to (subjectively) think about and/or to speak to oneself, one requires the capacity to experience oneself as an object, with a relatively stable identity.[110]

2.3.2.1 Early development of self

Early attachment relations are built-in ongoing intersubjective and interdependent interactions with primary caregivers in early childhood, through a perpetuating process of attunement, misattunement, and repair. Within these relations and

107 With permission from Schalkwijk, 2022.
108 Schalkwijk et al., 2016a.
109 Schalkwijk, 2015.
110 Schalkwijk, 2012.

through these interactions the child learns to see him/herself through the eyes of the other(s) and internalises these self-images, as well as images of the other and of his/her relational states.[111] All self-images taken together are called the *implicit self*, as it is pre-verbal and stored in implicit or nondeclarative memory.[112] Images of the child and caregiver's relational states together form internal working models that function as relational prototypes, containing relational expectations used to understand another's behaviour and to plan one's own behaviour towards others.[113] In the daily interactions with his/her primary caretakers, a pre-schooler learns what his/her behaviour brings about in another. The *self-as-agent* is established, which, with growing capacities to internalise important relations and to see the self through the eyes of another, develops into the *self-as-subject,* which is distinguishable from other objects outside him/herself. Subsequently, with a growing capacity to think verbally about the self, about one's own feelings, and about the thoughts and feelings of others, the child develops a *self-as-object.*[114]

2.3.2.2 Empathy

Within this intersubjective process of attachment, the infant tunes in to the caregiver to find safety and avoid discomfort. From the child's perspective no empathy is yet present, but a form of resonance also called empathic contagion: a sharing of the same emotion without the necessary *as-if* quality.[115] Subsequently, from the marked dyadic emotion regulation through attunement-misattunement-repair by a sensitive and attuned caregiver, the child learns to recognise and acknowledge emotional states within him- or herself. This dyadic affect regulation gradually evolves into a capacity for self-regulation, self-soothing, and empathy with the self.[116] At the age of 15-18 months, the child becomes capable of sensing the caregiver's emotion as not originating in him- or herself. The child learns to 'acknowledge' emotional states in the other, and the capacity for affective empathy starts to develop. Additionally, with growing theory of mind, cognitive empathy enables the preschooler to comprehend emotions from the other's perspective, or to understand another's emotions.[117] The following first steps into mentalization[118] and empathy are typically made well before the age of four, and this capacity develops and refines over the years that follow.[119] Although some authors refer to empathy as one of the moral emotions, it is not an emotion. Empathy is an attentive psychic activity of connecting to and sharing with/understanding another individual.[120]

111 Benjamin, 2018.
112 Schore, 2017.
113 Bowlby, 1988.
114 Stern, 1985.
115 Decety & Cowell, 2014.
116 Schore, 2001.
117 Cuff et al., 2016; De Corte et al., 2007; Van der Graaff et al., 2016.
118 Mentalization is the ability to understand the mental state of oneself and/or others that underlies behaviour. It is a form of imaginative mental activity that helps us to observe and interpret our own behaviour as well as that of others, in terms of intentional mental states, that is: motives, needs, desires, feelings, beliefs, goals, etc. (Bateman & Fonagy, 2016).
119 Schalkwijk, 2015.
120 Schalkwijk, 2012.

2.3.2.3 Rudimentary self-conscious emotions

Shame first develops from the experience of failure in the phase of practice and reunion, from the sudden awareness of one's inability and dependence. And later, when perspectives can change, it arises when considering oneself through the eyes of another.[121] Feelings of *guilt* usually manifest later, perhaps due to the development of verbal and analytical capacities as well as Theory of Mind that are prerequisites for reflection, as well as the later maturation of the linguistic and rational capacities of the left hemisphere.[122] Guilt- and/or shame-regulation also develops in the practice reunion phase, through internalisation of the external shame regulation offered by the caregiver. In this internalisation, the emotional brain and cortex work together, and as a result become integrated. Additional to this vertical integration, a horizontal integration between the left and right hemispheres of the brain takes place due to marked verbal responses of the caregiver, which offer the necessary language to comprehend and understand one's emotions.[123] Both are needed for the process of mentalization, and affect regulation.[124]

2.3.2.4 Moral reasoning and subsequent guilt and shame

Until the age of two, a child's norms are typically internalised in line with those of its primary caregivers and attachment figures. In order to adhere to the rules, the infant at first needs the presence of that attachment figure as an external referent. Between two and four years, the toddler further internalises the image of the norm-giving parents, and norms and rules also start to apply in their physical absence.

A longitudinal study into early predictors of conscience showed that the extent to which a child internalises these norms seems to be mediated by both his/her own temperament (in particular the degree of fearful- or fearlessness) and by whether or not the attachment figure's socialisation strategy is aligned with it. Children with a fearful temperament are predisposed to higher guilt-proneness than their fearless counterparts. Both need parental warmth in learning to self-evaluate. This, as recalled by Kochanska & Askan,[125] is in contradiction to Freud's assumption that threat of parental power promotes guilt, which is actually detrimental, especially in fearless children in whom it seems to undermine internalisation. However, whilst parental warmth appears to be enough for the fearful children to be both willing to internalise parental morality and to develop a sense of guilt after transgressions, the fearless child needs more. To internalise moral norms and rules, he/she depends on a positive interpersonal orientation: that is, an interpersonal orientation in which the consequences of specific behaviour for the feelings and/or well-being

121 Schalkwijk, 2015; 2018.
122 Schore, 2003; Schalkwijk, 2018.
123 Siegel, 2012.
124 Schore, 2001; Fonagy et al., 2018.
125 Kochanska & Askan, 2006.

of others are emphasised and explained, embedded in a secure and intersubjective attachment-relation.[126]

With the growing capacity for abstract and symbolic thinking from the age of seven, and based on the representation of the self in relationship with the other (self-as-object), the child subsequently learns to balance carefully between his/her own interests and those of others. The primary school child, developing diligence, discipline and perseverance, further experiments with this alternating prioritisation of morality and reciprocity, versus egocentrism. However, until puberty the child's moral thinking is mostly self-centred, focused on weighing individual gains and costs.[127] In addition, young children are not yet able to act consistently according to the norms and expectations of others because their self-regulation and self-control are still limited. Therefore, their immediate desires often still outweigh possible future consequences.[128]

Puberty and adolescence are associated with major physical changes and sexual development. In addition, important developments are taking place in the sense of a growing cognitive ability to reason hypothetically and deductively, and of identity development. The young person has a growing capacity to think abstractly and to both broaden and change perspectives. Thereby decentralisation takes place, ideally leading to an increasing balance between egocentrism and care for others.[129] In this balancing, the self is continually evaluated against the internalised representations of both the ideal and unwanted identity, and the representations of significant others.[130] When the sense of identity is threatened by a (sudden) awareness of a discrepancy between the young adolescent's morals and his/her own (c)overt behaviour, a reflection on both the behaviour and the pre-existing mental states and choices follows. Guilt and shame become more prominent in this phase: shame about one's own body and the way it changes, about parents, and/or about deviating from one's own ideals (from how things 'should be'). Guilt is often also present, as the adolescent, due to all the changes, turns more inward. Egocentrism can as a result temporarily dominate the longing and ability for connection and reciprocity, but somewhere within, the adolescent knows and feels that this is not quite right. Ambivalence and inner conflicts thus arise.[131]

2.3.2.5 Identity in adolescence

The child develops an identity: a stable and coherent image of one's own self, that is: a relatively stable configuration of self states,[132] with possibilities and impossibilities, qualities, thoughts and feelings. In this identity development, the adolescent must

126 Kochanska & Askan, 2006; Benjamin, 2018.
127 Kohlberg, 1981.
128 Thompson et al., 2006.
129 Schalkwijk, 2015.
130 Lindsay-Hartz, 1984.
131 Schalkwijk, 2015.
132 Schore, 2017.

learn to tolerate feelings of ambivalence about his/her own positive and negative sides. A stable self-image is necessary to be able to experience incongruities or inconsistencies between one's (internal) behaviour and identity, and to be able to perceive self-evaluative emotions without requiring the presence of a significant other as external referent. From that moment on, the self is evaluated by comparing the current self-image (based on one's behaviour in that specific moment in context and time) with the stable integrated Self, in addition to considering the current self through the eyes of the internalised other. Self-evaluation, and thus self-conscious emotions, are based on both intra- and interpersonal self-representation.[133]

2.3.2.6 Common interferences in the development of conscience

From the foregoing paragraphs it appears that for the development of conscience, the first four years of development and the attachment experiences within it are crucial. These experiences may positively or negatively affect the development of the self as agent, subject, and object, as well as the development of the identity in which these are all integrated, the capacity for empathy with self and/or others, and the possibility for self-reflection and the proneness to negatively self-evaluate. In line with the attachment relations, moral norms and rules are internalised. And in the internalisation of attachment relations, dyadic affect regulation may evolve to self-regulation and self-control.

However, offenders have often grown up in a context of a dysfunctional attachment system, and, moreover, often suffered more severe and accumulated interpersonal trauma and/or neglect (i.e., emotional, physical or sexual violence) than people from the general population. This appears to be the case even more for female offenders than for male offenders.[134] Victims of abuse and/or neglect who become offenders, or *victimising victims,*[135] have often been traumatised within attachment relationships, in a context without positive exceptions. There were no teachers or neighbours who saw them and helped them to regulate and understand their experiences. In the broad context of family, environment and school there was often a lack of reflection and sensitive, responsive reactions. It is not difficult to understand that this may have deleterious effects on the development of conscience.

For example, the early development of empathy is hindered and additional 'state factors', such as high stress levels due to a lack of dyadic affect regulation and subsequently self-regulation, can cause temporary failures in the already fragile empathic capacities.[136] Because experiences are mirrored insufficiently or unmarked, they retain a diffuse and threatening quality, without grip in the form of symbolisation. Consequentially, this non-symbolised experience is insufficiently

133 Schalkwijk, 2015: The author gives his view on the development of the conscience as a regulator of self-awareness, based on the developmental psychology of Erikson and the attachment theories of Winnicott, and Cassidy & Shaver.

134 De Vogel et al., 2016; Kerig & Becker, 2015.

135 Gilligan, 1996.

136 Bateman & Fonagy, 2016; Schore, 2001; Siegel, 2012.

accessible to thought processes such as mentalizing and reflection.[137] Feelings sometimes may not even be recognised as one's own, and therefore be wrongly attributed to another.[138] Moreover, the absence of marked mirroring and/or symbolisation may lead to developmentally insufficient stimulation for vertical and/or horizontal integration in the brain. As a result, primary emotions, reflexes and impulses from the 'lower brain' (i.e., the emotional brain) remain insufficiently regulated, as the 'upper brain' (i.e., the prefrontal cortex) is insufficiently stimulated. Consequentially, both the upper brain and the connective integrative tissues that provide both horizontal and vertical integration remain underdeveloped, and emotion regulation continues to fall short.[139]

The development of the mentalizing capacity may then lag behind. The individual's ability to understand his own or other people's behaviour from the inner world of thoughts, feelings and/or motivations, remains insufficient. Developmentally, the victimising victim's experience has remained in the phase of equivalence, in which reality is derived from and equal to one's own experience.[140] There often is confusion (which may not be acknowledged, as this would leave one vulnerable), and reality often does not extend beyond the here and now and one's own impulses. Also, there is often no, or at best a sparse and superficial narrative, partly due to a lack of symbolisation and language. Attribution falls short. However, sometimes a disapproval or dislike/aversion of others is observed, which the person may experience as being ashamed or humiliated. These experiences are often hard or impossible to regulate (and therefore often repelled), due to the aforementioned limitations.

At the same time, some children (victims) learn to hate and/or punish their own vulnerability. The aggressor (victimiser) is internalised. The core-belief often is something like: "I don't matter, I'm worthless, I'm bad, or no one can be trusted". Re-traumatisation occurs easily, as triggers in the here-and-now trigger working models in the implicit memory that initiate the behaviour and re-enactment of trauma-scenarios. Not infrequently, the resulting pain is warded off by self-inflating, sometimes even in an equally inflated body, as if it were a bunker.[141] Feelings of shame often become neutralised through self-serving cognitive distortions.[142]

Moreover, shortcomings in identity development and mentalizing abilities may also hinder self-reflection and self-evaluation, and thus reduce the tendency to experience self-conscious shame or guilt. Other individuals are, however, flooded by guilt or shame. The shame that cannot be mentalized may temporarily hinder their capacity to empathise with others, or may lead to aggressive behaviour when they are inclined to externalising shame-coping.[143]

137 Baljon & Verkade, 2015.
138 Schalkwijk, 2015.
139 Geuzinge, 2017; Siegel, 2012.
140 Bateman & Fonagy, 2016.
141 Verkade, 2017.
142 Brugman et al., 2011.
143 Ellison, Lennon & Pulos, 2006 ; Stuewig et al., 2010 ; Tangney et al., 2007.

Furthermore, different forms of psychopathology may be related to disturbances or limitations in the constituent aspects of conscience, such as psychopathy, ADHD or autism.[144] Additionally, offenders report more problematic substance use,[145] which is in turn associated with an increase in aggression and violence that may activate a feedback loop of shame and violence.[146]

2.3.3 Is conscience is a matter of gender?

Although over the last few decades the prevalence of female offending has been increasing, it is well known that prisons are mostly populated by men.[147] The incidence of offending is still much higher in men than in women.[148] What does this say about the functioning of conscience in men and women, apart from other important internal or external risk factors for offending (such as addiction,[149] limited executive functioning and/or self-control,[150] or poverty and/or marginalisation[151])? Surely, conscience is not a matter of gender?

Little is known about gender differences in the constituent aspects of conscience of offenders, as existing studies are based mainly on male samples (due to the predominantly male population of offenders). It is, however, assumed that gender differences in socialisation and self-evaluations, based on empathy and interpersonal functioning, make the threshold to offending higher for women than for men.[152]

In the general population, women indeed appear to be more empathic than men.[153] In general, women also report more shame and guilt than men, and show a dominance of shame over guilt.[154] They cope with shame by using more self-punitive and internalising coping styles, turning their anger resulting from shame against themselves and/or disconnecting from supportive relationships.[155] These coping styles make them vulnerable to dysfunctional and abusive relationships in which early childhood experiences may be re-enacted, often with partners who are involved in crime.[156] Men, on the other hand, generally tend to score significantly higher on externalising shame-coping. These differences in both shame-proneness and shame-coping could explain some of the gender differences in offending.[157] Further, women in general show higher levels of moral reasoning than men,[158]

144 Baron-Cohen, 2012; Vaughn et al., 2016.
145 Vaughn et al., 2016.
146 Kreiss et al., 2016; Sommer et al., 2017.
147 Heilbrun et al., 2008; Nicholls et al., 2009.
148 Fergusson & Horwood, 2002; Lilienfeld & Arkowitz, 2010; Nicholls et al., 2009a.
149 Vaughn et al., 2016.
150 Meijers et al., 2017.
151 Heilbrun et al., 2008; Joosen & Slotboom, 2015; Savolainen et al., 2010.
152 Moffit et al., 2001; Ward & King, 2018.
153 De Corte et al., 2007; Ward & King, 2018.
154 Ferguson & Eyre, 2000; Lutwak et al., 2001.
155 Ferguson & Eyre, 2000.
156 Kreis et al., 2016.
157 Rebellon et al., 2015.
158 You et al., 2011.

which is assumed to prevent them from offending even when exposed to delinquent peer influence similar to that of men.[159] Moreover, in women moral reasoning is driven by self-conscious emotions in response to doing harm, rather than cognitive evaluations of outcomes, as in men.[160] When women are instructed to adopt an unemotional perspective in moral dilemmas, they show more immoral intentions and make more immoral decisions on a level similar to that of men.[161]

The significant gender differences across the constituent aspects of conscience in the general population may indicate that the underlying patterns of conscience functioning in female offenders differ from those of their male counterparts.

2.4 CONCLUSIONS

Conscience can be defined and operationalised as a psychological function, regulating our behaviour and identity by means of self-reflection and (second-order) self-evaluation, resulting from an interplay of affective and cognitive empathy, self-conscious emotions (such as guilt and shame), and moral reasoning. 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 a proneness to experience and regulate self-conscious emotions like shame, guilt or pride, and, lastly, the capacity for moral reasoning.

When these aspects of conscience as a psychological function were first studied in unison in adolescent offenders, delinquents indeed showed relatively lower levels of affective empathic capacity, less inclinations to experience shame and guilt but higher propensities to experience pride, and lower levels of moral reasoning than non-delinquents.[162] Schalkwijk and colleagues also found in delinquents indications of a lack of maturation. However, further research in adults is necessary.

Additionally, although little is known about gender differences on the constituent aspects in offenders, women from the general population appear to more empathic and more shame- and guilt-prone than men. Unlike men, they show a dominance of shame over guilt, and a dominance of punitive and internalising shame-coping styles. However, research is needed into possible gender differences within an offender population, and into the conscience functioning of female offenders compared to that of women in the general community.

159 Mears et al. 1998.
160 Friesdorf et al., 2015; Fukushima & Hiraki, 2006.
161 Ward & King, 2018.
162 Schalkwijk et al., 2016a.

3 CONSCIENCE FUNCTIONING IN OFFENDERS VERSUS NON-OFFENDERS*

3.1 INTRODUCTION

In forensic mental health reports, descriptive diagnoses of conscience functioning are often formulated in vague terms such as 'lacunary conscience functioning' or 'defective conscience'.[1] However, in the absence of a 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,[2] while others refer to cognitive moral development,[3] emotional moral development,[4] or empathic capacity.[5] Unambiguous definitions are hard to come by, and prevailing unidimensional definitions provide only variable evidence when tested.[6] This situation hampers theoretically research-based diagnostics, assessment of criminogenic needs, and treatment planning. Schalkwijk 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.[7]

Schalkwijk considers the conscience to be a psychological function which monitors the balance of self-esteem and identity.[8] 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 the balance. These disruptions, stemming from evaluation of concrete behaviour or internal behaviour like 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

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1 Le Sage, 2006; Stapert, 2010.
2 Spruit et al., 2016.
3 Gibbs, 2010.
4 Eisenberg & Fabes, 1998.
5 Hoffman, 2000; Jolliffe & Farrington, 2004.
6 Stapert, 2010.
7 Schalkwijk, 2006; 2009; 2015.
8 Schalkwijk, 2011; 2018.

empathy, followed by proneness to experience and regulate self-conscious emotions like shame, guilt or pride and, finally, the capacity for moral reasoning.[9] 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 non-delinquent 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.[10] 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, in order to better evaluate the conscience and indicate 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,[11] and with aggressive behaviour.[12] Empathy, the ability to feel and understand another's emotions, leads to experiencing self-conscious emotions, which must then be regulated in order to prevent a person from becoming overwhelmed or swept up in the other.[13] Some people develop a so-called empathic wall; empathising is blocked, thereby facilitating offending, as the emotions of the victim are warded off.[14] Empathy facilitates social interactions and social cohesion, and is related to prosocial and altruistic behaviour.[15] 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,[16] whereas cognitive empathy refers to the desire and ability to see things cognitively from the other's perspective.[17] 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.[18] In this research,

9 Schalkwijk, 2015.
10 Schalkwijk et al., 2016.
11 Jolliffe & Farrington, 2004; Van Langen et al., 2014.
12 Jolliffe & Farrington, 2004; 2006.
13 Nichols et al., 2009; Rogers, 1957.
14 Nathanson, 1986.
15 Eisenberg & Eggum, 2009; Ickes, 2009; McMahon et al., 2006; Mehabrian & Epstein, 1972.
16 Decety & Cowell, 2014; Binder, 1999.
17 Hogan, 1969.
18 Nummenmaa et al., 2008; Shamay-Tsoory et al., 2009.

affective empathy, cognitive empathy and empathic arousal are measured with the Interpersonal Reactivity Index.[19]

Second, the degree to which people tend to experience self-conscious emotions differs greatly, both between individuals as well as within a single person over the course of time or per circumstance. The meta-analysis of Spruit and colleagues showed significant associations between offending and guilt and shame, indicating higher levels of guilt and shame to be related to less offending.[20] Guilt has been found to regulate the sense of self, behaviour and social relationships.[21] High guilt-proneness is associated with prosocial and moral behaviour,[22] and has an inhibitive effect on transgressive behaviour.[23] The relationship between shame and offending, however, is equivocal. Mild, bypassing shame can have a positive regulating function,[24] but a strong, chronic tendency to experience shame is maladaptive,[25] and can lead to (an increase in) aggressive and transgressive behaviour[26] when the individual has a propensity for externalising coping.[27] In this research, we will measure the proneness to experience self-conscious emotions using the Test of Self-Conscious Affect,[28] and the Compass of Shame Scale.[29] Using the TOSCA, Schalkwijk and colleagues found that in juvenile delinquents, guilt and shame proneness hardly differ, whereas in non-delinquents guilt proneness dominates shame proneness.[30] Measuring internalising versus externalising coping with shame by means of the CoSS, Schalkwijk and colleagues found that in juvenile delinquents, externalising dominates over internalising, whereas in non-delinquents internalising dominates over externalising.[31]

Third, morality is indelibly linked with offending: both are related to behaviour that impacts the rights and well-being of others.[32] 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 seven.[33] Delinquents have a lower level of moral reasoning than non-delinquents; youth with psychopathic traits score lowest.[34] 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,

19 Davis, 1983.
20 Spruit et al., 2016.
21 Baumeister et al., 1994; Cohen, 2011; Tangney et al., 2007.
22 Cohen, 2011; Ent & Baumeister, 2015.
23 Tangney et al., 2011.
24 Deonna et al., 2011; Lewis, 1971.
25 Tangney & Dearing, 2002.
26 Stuewig et al., 2010; Tangney et al., 2007.
27 Elison et al., 2006; Nathanson, 1992; Schalkwijk et al., 2016.
28 Tangney & Dearing, 2002.
29 Elison et al., 2006.
30 Schalkwijk, 2016a.
31 Schalkwijk et al., 2016b.
32 Turiel, 1983.
33 Gibbs, 2010; Hoffman, 2000; Kohlberg, 1981.
34 Stams et al., 2006.

attribute less value to their reasoning,[35] possibly due to a lack of empathy. Our study will measure the level of moral development using the How I Think questionnaire.[36]

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.[37] We will therefore control for gender, and search for possible interactions.

3.2 THE PRESENT STUDY

In this study the definition of conscience in the integrative theory of conscience is put to the test. The constituent aspects of conscience are measured together in a single group of offenders: empathy, both the proneness to experiencing self-conscious emotions (guilt and shame), the way in which these emotions are dealt with (coping), and the 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:

1. Adult offenders are less empathic, less prone to guilt and shame, and exhibit a lower level of moral reasoning than adult non-offenders.
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:

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

3.3 METHOD

3.3.1 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)

35 Beerthuizen, 2012.
36 Nas et al., 2008.
37 De Corte et al., 2007; Schalkwijk et al., 2016a.

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,[38] mostly antisocial and borderline personality disorder.[39] Research in the Netherlands showed similar or even higher prevalence rates.[40] 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), from 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 18-70. Most of these patients were male and Dutch (Table 1). While between the two groups no significant difference existed in age distribution, the difference in distribution between men and women was significant.

Table 1
Demographic data: Age, gender, 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, %)	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 %

3.3.2 Procedure

Within three months of registration all respondents were informed about the study 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.

38 Fazel & Seewald, 2012.
39 Fazel and Danesh, 2002.
40 Bulten & Nijman, 2009; Matthaei et al., 2002.

3.3.3 Questionnaires

We used the same questionnaires as those used in the study by Schalkwijk et al.,[41] with the exception of the Moral Orientation Measure (MOM).[42] As this questionnaire is not suitable for adults it was replaced by the How I Think questionnaire (HIT).[43]

The Interpersonal Reactivity Index (IRI) measures aspects of empathy: cognitive empathy, affective empathy and empathic arousal.[44] Davis defines empathy as the reactions of a subject to the observed experience of another. Using a 5-point Likert scale, four 7-item subscales are scored, with the total score ranging from 0-28. Cognitive empathy is covered in the Perspective Taking (Pt) scale, which refers to spontaneous attempts to cognitively put oneself in the place of another.[45] Fantasy Scale (Fs), measuring the tendency to put oneself into the emotions and actions of people in movies, novels, plays and other fictitious situations, is often not used in studies due to a lack of clarity.[46] Affective empathy is addressed in the scale for Empathic Concern (Ec), referring to feelings of warmth, compassion or care for others.[47] Empathic arousal is covered under 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).[48] The Dutch translation of the IRI has the same stable 4-factor structure and is valid and reliable.[49]

Research into the structure of the IRI revealed two second-order factors: Ec, Fs, and Pt, representing the traditional notion of empathy,[50] and Pd being a separate finding.[51] These second-order factors are in line with the findings of Batson, 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.[52]

The Test Of Self-Conscious Affect (TOSCA) is an extensively studied and validated questionnaire frequently used in scientific research on shame and guilt.[53] 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,

41 Schalkwijk et al., 2016a.
42 Stam et al., 2006.
43 Brugman et al., 2006; Brugman et al., 2011.
44 Davis 1983.
45 Joliffe & Farrington, 2004; De Corte et al., 2007.
46 Joliffe & Farrington, 2006; Van der Graaff et al., 2016.
47 Batson et al., 1997; Joliffe & Farrington, 2004
48 Davis, 1983.
49 according to De Corte et al., 2007.
50 Stotland et al., 1978.
51 Cliffordson, 2002; Pulos et al., 2004.
52 Batson, 2004.
53 Tangney et al., 1989; Tangney & Dearing, 2002; Dutch translation for adults: Fontaine et al., 2001; Luyten et al., 2002.

while shame is more likely to be accompanied by a more general judgment of the self and reduced self-confidence. The test consists of fifteen scenarios involving a positive or negative event, and thoughts are formulated regarding guilt, shame, externalisation, and detachment. Using a 5-point Likert 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, .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.[54]

The Compass of Shame Scale (CoSS) is a relatively new instrument that examines how individuals (mal)adaptively deal with shame.[55] The CoSS was developed based on the shame theory put forward by Donald Nathanson, 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.[56] 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 five-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.[57] The internal consistencies (Cronbachs alpha) are .86 (Attack self), .75

54 Schalkwijk et al., 2016.
55 Elison et al., 2006, Dutch translation: Schalkwijk et al., 2016b.
56 Nathanson,1992.
57 Elison et al., 2006; Schalkwijk et al., 2016b.

(Avoidance), .75 (Denial), .76 (Attack other) and .77 (Adaptive),[58] and in an earlier study .91, .75, .75, and .85 respectively.[59]

The How I Think questionnaire (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), 'Minimising/Mislabelling', and 'Assuming the worst' (attributing hostile intentions to others and regarding one's own behaviour as unavoidable or unchangeable).[60] The one primary distortion is callous self-centring, as motive for transgressive behaviour.[61] The 'Self-centred' subscale indicates the degree to which someone places himself in the centre in moral reasoning. The higher the level of moral reasoning, the lower the focus on one's personal perspective; instead, a broader perspective provides the basis for weighing interests and forming moral judgments.

The HIT consists of 54 items, designed to be answered according to a Likert scale of 1-6. An additional 8 items focus on uncovering implausible answers, while another 7 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 internally consistent measure with moderate to high predictive validity.[62] The convergent, concurrent and discriminant validity of the questionnaire have been found to be satisfactory for both adolescents[63] and adults.[64]

3.3.4 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 ANCOVA analyses, with gender added as a covariate, based on previous literature.[65] The within-group differences (hypotheses 3 and 4), with respect to the relationship between guilt-proneness and shame-proneness and the relationship

58 Schalkwijk et al., 2016b.
59 Elison et al., 2006.
60 Barriga et al., 2001; Brugman et al., 2011.
61 Gibbs, 2010.
62 Wallinius et al., 2011.
63 Brugman et al., 2011.
64 Barriga et al., 2001; Nas et al., 2008; Van Leeuwen et al., 2013; Bacchini et al., 2015.
65 De Corte et al., 2007; Schalkwijk et al., 2016a.

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 for 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 ANCOVA analyses for these types of violations, ANCOVA analyses were chosen for the analyses.[66] A total of five cases included outliers greater than three standard deviations; these cases were excluded from any analyses involving the affected scales.

3.4 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, page 40) indicate that most scales were related, but not overly so, suggesting related but distinct aspects of conscience.

Table 2
Means, standard deviations, and range on the IRI, TOSCA, CoSS, and HIT questionnaires

	Offenders					Non-offenders				
	n	*M*	*SD*	*Min*	*Max*	*n*	*M*	*SD*	*Min*	*Max*
General Empathy (PT, EC, & F)	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-Centring	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

66 Ernst & Albers, 2017.

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-Centring	-.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. *$p < .05$, **$p < .01$, ***$p < .001$ (two-tailed).

Without controlling for gender, independent t-tests confirmed the first hypothesis, even after a posthoc Bonferoni-Holm correction.[67] Offenders scored significantly lower on general empathy (Ec, Fs, and Pt), Affective Empathy (Ec), 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, page 42).

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 did 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, page 43).

The following two 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 '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 ($t(47)=-1.39$, $p=.172$, $d=0.154$).

67 Armstrong, 2014.

Table 4
Differences in Empathy, Guilt, Shame and cognitive distortions between offenders and non-offenders

	Group			Controlling for gender					
	t	*d*	*95% CI d (LL, UL)*	*F group*	*d*	*95% CI d (LL, UL)*	*F gender*	*d*	*95% CI d (LL, UL)*
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-Centring	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. *$p < .05$. **$p < .01$. ***$p < .001$, one-tailed test. Adjusted alpha's after Bonferoni-Holm ranged from $\alpha < .004$ – $\alpha < .05$.

Table 5
Differences between offenders and non-offenders in internalising and externalising coping

	Group			Controlling for gender					
	t	*d*	*95% CI d (LL, UL)*	*F group*	*d*	*95% CI d (LL, UL)*	*F gender*	*d*	*95% CI d (LL, UL)*
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. $*p < .05$. $**p < .01$. $***p < .001$, one-tailed test.

3.5 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 in an adolescent sample.[68] 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 affective empathy, which is also called 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.[69]

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, and of research by Baron-Cohen and Berkhuizen into the antisocial perpetrator.[70] Van Vugt and colleagues hypothesised that offenders use their available cognitive empathic abilities only for people close or valuable to them.[71] Regarding their victims, although capable of considering what the negative consequences are for another, they just don't care. They may 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 the meta-analysis by Spruit et al. showed that adequate levels of guilt-proneness have an inhibitory effect on offending.[72] We have no explanation for this finding, except that having been in treatment in a hospital setting may have sensitised the offenders to guilt. With respect to shame, the picture was more differentiated. Offenders were found to be less prone to experience shame, which may indicate that they are less inclined to self-evaluation and/or less likely to experience a dichotomy between who they want to be and 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 (whilst no difference was found for the extent to which both groups use externalising strategies). Non-offenders showed a significant dominance of internalisation over externalisation,

68 Schalkwijk et al., 2016a.
69 Blair, 2001; Cima, 2016; Cima et al., in press.
70 Baron-Cohen and Berkhuizen, 2012; Joliffe and Farrington, 2004.
71 Van Vugt et al., 2012.
72 Spruit et al., 2016.

but 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-centredness 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 stand-by. The meta-analysis by Stams and colleagues showed that the level of moral reasoning appears to have less influence on offending than long thought.[73] A possible explanation is that offenders and non-offenders differ in the importance they attribute to the value of their (moral) reasoning.[74] Another possible explanation is offenders' lack of personal distress when seeing others in need, as we found them to have 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.

3.5.1 Implications for Treatment

Our study outcomes have implications for treatment. From the perspective of maturation, Schalkwijk 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 offenses would have a less matured conscience in all of these domains. However, in both the present study and in Schalkwijk et al., it was found that offenders lag behind only in terms of affective empathy, not cognitive empathy.[75] Based on the knowledge that empathy fluctuates considerably under the influence of many variables, including the closeness to the other,[76] it is probable that cognitive empathy is suppressed or even used as an aid in committing an offense,[77] while affective empathy is less developed and therefore lacking as an inhibitive force.

73 Stams et al., 2006.
74 Beerthuizen, 2012.
75 Schalkwijk et al., 2016a.
76 Watt, 2007.
77 Blair, 2001; Cima, 2016.

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 – i.e., the treatment target – appears to be a lack of internalising coping, or the failure of offenders to withdraw sufficiently from a situation and to take sufficient responsibility for it.

In view of treatment implications we recommend that any follow-up study determine whether differences exists in 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 in 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, while the latter group, borderline personality disorders, may perhaps possess sufficient affective empathy, but only within a narrow *window of tolerance* as a result of problems with emotion regulation.[78]

3.5.2 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 therefore remains 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?[79] 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.

78 Siegel, 2012.
79 Finkel & Hall, 2018.

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 with mental problems, 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 at an individual level somewhat complicates the discussion of generalisability.

3.6 CONCLUSION

The 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. As in Schalkwijk's study involving adolescents, our study involving 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, devoting attention to the functioning of the conscience in female offenders would seem to be of particular importance.[80] Especially considering the fact that female offenders were scarce in this study, research on female conscience functioning would be 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, in order to gain a better understanding of conscience functioning.

80 Besemer & Farrington, 2017.

4 FEMALE OFFENDERS COMPARED TO MALE OFFENDERS*

4.1 INTRODUCTION

Crime has long been found to be associated with deficits in conscience functioning.[1] In the integrative theory of conscience by Schalkwijk,[2] conscience is a multidimensional construct, operationalised as a psychological function regulating behaviour and identity and resulting from an interplay of empathy, self-conscious emotions (e.g., guilt and shame), and moral reasoning. Once an unique individual, the child has developed a relatively stable conscience, whose daily functioning, however, is characterised by fluctuations. The conscience's guiding influence is not an all-or-nothing phenomenon for most people, but depends strongly on the interaction between stable factors such as the social context and temporary emotional states.[3] Research into the conscience of offenders by comparing them with non-offenders showed that offenders scored lower on measures for the constituent aspects of conscience: empathy, self-conscious emotions and moral reasoning.[4] Although the exact origin of these deficits in offenders is unknown, social context is likely to contribute. Offenders have suffered more, more serious and more accumulated interpersonal trauma and/or neglect in the sense of emotional, physical or sexual violence within the context of a dysfunctional attachment system, than people from the general population, female offenders even more than male offenders.[5] This lack of a safe and attuned environment may hinder a healthy development of the constituent aspects of conscience and deficits in empathy, self-conscious emotions and moral reasoning may become evident in adulthood.[6]

4.1.1 Empathy

Empathy is related to prosocial and altruistic behaviour, and has both affective and cognitive components.[7] Initially, an infant will tune in to the caregiver for safety

* In press as: Verkade, M., Karsten, J., & Koenraadt, F. (submitted). Gender Differences in the Conscience Functioning of Offenders.

1 Le Sage, 2006.
2 Schalkwijk, 2015.
3 Schalkwijk, 2018.
4 Schalkwijk et al., 2016a; Verkade et al., 2019.
5 De Vogel et al., 2016; Kerig & Becker, 2015.
6 Schore, 2001; 2015.
7 Cuff et al., 2016.

and avoiding discomfort. This so-called empathic contagion or resonance is not yet true empathy, but a sharing of the same emotion without the necessary *as-if* quality.[8] Then, out of marked dyadic emotion regulation by a sensitive and attuned caregiver, the toddler learns to 'acknowledge' emotional states in hem or herself and in the other. This dyadic affect regulation gradually evolves to auto-regulation, the capacity for self-regulation, self-soothing and empathy with the self.[9] At the age of 15 -18 months, the child becomes capable of sensing the caregivers emotion as not originating in him- or herself. The capacity for affective empathy starts to develop. Before the age of four, with growing theory of mind, cognitive empathy enables the pre-schooler to comprehend emotions from the other's perspective, or to understand others' emotions cognitively.[10] The following first steps into mentalisation and empathy are typically made well before the age of four, and this capacity develops and refines in subsequent years.[11] For mature empathic functioning a person must be able to distinguish properly between self and the other,[12] one must be prone to be emotionally affected by another's emotions, and be able to regulate one's (shared) emotions to avoid becoming overwhelmed or swept up in the other.[13] Trait empathy, the dispositional capacity to be empathic, can be differentiated from 'state empathy', the more transient affective reactions elicited in concrete situations,[14] empathy being the result of interaction between trait capacities and state influences.[15]

Attachment trauma has deleterious effects on the early development of 'trait empathy' and 'state factors' such as high stress levels can cause temporary failures in the empathic capacities in the present.[16] Low levels of empathy are associated with offending,[17] and aggressive behaviour.[18] Mariano and colleagues suggest that offenders, who appear able to judge and recognise behaviour as right or wrong and show no differences compared to non-offenders in self-reported cognitive empathy, may be less able to evaluate the gravity of their violations, due to deficiencies in affective empathy.[19] Moreover, their logistic regression analysis suggested that the greater these deficits in empathy, the greater the probability of offending. As yet, little is known about gender differences in empathy among offenders, but women in general exhibit higher levels of empathy than men.[20]

8 Decety & Cowell, 2014.
9 Schore, 2001.
10 Cuff et al., 2016; De Corte et al., 2007; Van der Graaff et al., 2016.
11 Schalkwijk, 2015.
12 Eisenberg & Eggum, 2009; Ickes, 2009.
13 Nichols et al., 2009.
14 Van der Graaff et al., 2016.
15 Cuff et al., 2016.
16 Bateman & Fonagy, 2016.
17 Jolliffe & Farrington, 2004; Van Langen et al., 2014.
18 Jolliffe & Farrington, 2004; Seidel et al., 2013.
19 Mariano et al., 2017.
20 De Corte et al., 2007; Ward & King, 2018.

4.1.2 Self-conscious emotions

Guilt and shame are considered self-evaluative or moral emotions, fuelled by one's empathy, regulating a person's sense of self and facilitating social adaptation.[21] They are experienced when the toddler has developed an internalised self-image with positive and negative aspects, and – based on internalised norms due to socialisation – an image of who he or she 'should be'. Guilt and shame differ in their focus of evaluation. Guilt is experienced after a negative evaluation of specific behaviour, resulting in a felt action tendency for reparative behaviour.[22] Higher levels of guilt are associated with more prosocial and moral behaviour,[23] better anger control,[24] and less offending.[25] Shame is experienced when the self is negatively evaluated. The relationship between the proneness to experience shame and offending is complex and equivocal. Mild levels of transient or 'state' shame appear to have a positive behavioural regulating function,[26] often leading to withdrawal.[27] However, intense and generalised 'trait' shame can be maladaptive. Combined with a tendency for internalising coping, intense shame can lead to withdrawal/avoidance, rage against the self, and/or other internalising problems. Combined with a tendency for externalising coping, however, it can lead to diminished empathy, denial, and/or an increase in aggressive behaviour.[28] Extreme internalisation can also put a shame-prone person at risk, as when accumulation of overcontrolled stress leads to an emotional explosion.[29]

Moreover, whilst guilt-proneness is inversely or not related to substance abuse, high levels of shame-proneness are positively correlated with substance abuse problems,[30] as a form of self-medication in the absence of auto-regulation.[31] Substance abuse is in turn strongly associated with impulsive behaviour and offending, especially in women.[32] A feedback loop can follow, wherein the increase of aggression arouses shame, in turn leading to maladaptive coping strategies and anger responses.[33]

In general, women report more shame and guilt than men and show a dominance of shame over guilt.[34] More than men, they have punitive internalising coping styles, turning against themselves and/or disconnecting from supportive relationships.[35] This in turn makes them vulnerable to dysfunctional and abusive relationships

21 Schalkwijk, 2015; Tangney & Dearing, 2003.
22 Cohen et al., 2011; Tangney et al., 2007.
23 Cohen et al., 2011; Ent & Baumeister, 2015.
24 Lutwak et al., 2001.
25 Spruit et al., 2016; Tangney et al., 2011.
26 Deonna et al., 2011.
27 Ferguson et al., 2000.
28 Elison et al., 2006; Stuewig et al., 2010.
29 Stuewig et al., 2010; Verona & Carbonell, 2000.
30 Dearing et al., 2005.
31 Padykula & Conklin, 2010.
32 De Vogel et al., 2016; Kreis et al., 2016.
33 Ferguson et al., 2000.
34 Ferguson & Eyre, 2000; Lutwak et al., 2001.
35 Ferguson & Eyre, 2000.

in which early childhood experiences are re-enacted, often with partners who are involved in crime.[36] Men generally tend to score significantly higher on externalisation of shame. These differences both in shame-proneness and coping with shame could explain some of the gender differences in offending.[37]

4.1.3 Moral reasoning

Moral reasoning has been conceptualised as a cognitive process by which one determines what is right or wrong and the effect of one's own behaviour on (the well-being of) others, and by which one balances egocentrism and morality, based on internalised norms.[38] Until the age of 2, a child's norms are typically internalised in line with those of the primary caregivers and attachment figures. In order to adhere to the rules, the child still needs the presence of that attachment figure as an external referent. Between 2 and 4 years, the toddler further internalises the image of the norm-giving parent. However, until puberty, moral thinking is mostly self-centred, focused on weighing individual gains and costs. In puberty and adolescence, when the capacity to think abstractly and to change perspectives grows, decentralisation takes place, ideally leading to a greater balancing of morality and egocentrism.[39]

Offenders have been found to show lower levels of moral reasoning than non-offenders: they show more egocentrism and less victim-based orientation, and they make more use of self-serving cognitive distortions to justify their behaviours.[40] Also, they often seem to attribute less value to this reasoning, possibly due to a lack of affective empathy.[41] Women showed higher levels of moral reasoning than men.[42] This is said to prevent them from offending, even when exposed to delinquent peer influence similar to that of men.[43] Moral reasoning in women is thought to be driven by affective responses to doing harm, rather than cognitive evaluations of outcomes.[44] When women are instructed to adopt an unemotional perspective in moral dilemmas, they show more immoral intentions and make more immoral decisions, on a level similar to that of men.[45] However, little is known about gender differences on moral reasoning specifically in offenders.

36 Kreis et al., 2016.
37 Rebellon et al., 2015.
38 Gibbs, 2019.
39 Schalkwijk, 2015.
40 Stams et al., 2006; Verkade et al., 2019.
41 Beerthuizen & Brugman, 2016; Gini et al., 2010.
42 Verkade et al., 2019; You et al., 2011.
43 Mears et al., 1998.
44 Friesdorf et al., 2015; Fukushima & Hiraki, 2006.
45 Ward & King, 2018.

4.1.4 Conscience functioning, a matter of gender?

Gender is one of the best predictors of criminal and violent behaviour,[46] with a far greater incidence of offending among men than women.[47] It is assumed that differences in socialisation and self-evaluations, based on empathy and interpersonal functioning, make the threshold to offending much greater in women than in men.[48] Aforementioned gender differences in all constituent aspects of conscience functioning, as found in the general population, may also contribute to these differences. However, little is known about gender differences in the conscience of offenders, as existing studies are based mainly on male samples, as the population of offenders is predominantly male. However, over the last few decades the prevalence of female offending has been steadily rising, and the gender gap is narrowing.[49] In this study, we want to address this deficit. Female offenders may not show the same levels or underlying patterns of conscience functioning as male offenders, for in the general population significant gender differences were found on all constituent aspects. Knowledge of the differences in conscience functioning between female and male offenders may increase our understanding of pathways to crime and lead to developing gender-sensitive interventions.

4.2 THE PRESENT STUDY

The present study therefore examines whether the gender differences in conscience functioning found in the general population, appear to manifest similarly in offender samples. Male and female offenders were compared on all underlying aspects of conscience, based on the integrative theory of conscience: empathy (affective and cognitive empathy), self-conscious emotions (guilt and shame), coping with shame (internalising or externalising), and moral reasoning. Given the lack of studies in offenders, based on the general population we hypothesised that:

1. female offenders report higher levels of empathy, shame, and guilt than their male counterparts;
2. female offenders show less self-centredness and higher levels of moral reasoning than male offenders;
3. female offenders report more internalising, and less externalising coping in response to self-conscious emotions than male offenders;
4. female offenders show a dominance of shame over guilt (expected contrary to their male counterparts) and of internalising coping over externalising coping.

46 Lilienfeld & Arkowitz, 2010.
47 Fergusson & Horwood, 2002; Nicholls et al., 2009.
48 Moffit et al., 2001; Ward & King, 2018.
49 Heilbrun et al., 2008; Nicholls et al., 2009.

4.3 MATERIALS AND METHODS

4.3.1 Sample

Our group of women consisted of 35 adult female offenders residing in a Dutch prison, with a mean age of 41.9 years (*SD* = 11.1), of whom four were in custody awaiting trial. The others had been convicted for property offences (*n* = 9), drug-related offences (*n* = 2), arson (*n* = 1), theft involving violence or extortion (*n* = 2), assault (*n* = 2), (threatened or attempted) homicide (*n* = 5), or undisclosed (*n* = 4). About a fifth of the women had committed offences in more than one of the aforementioned categories (*n* = 6). Of these offenders, 85.3% were Dutch or from another Western European Country (*n* = 29), 8.8% were from Suriname or the Netherlands Antilles (*n* = 3), 2.9% were from an Asian country (*n* = 1), and 2.9% from a Latin American country (*n* = 1).

The group of men consisted of 40 adult male offenders with a mean age of 35.1 years (*SD* = 11.3) residing in the same Dutch prison, slightly younger than the female sample ($t(70) = 2.567$, $p = .012$). Five were still awaiting trial. Others had been convicted for property offences (*n* = 4), drug-related offences (*n* = 6), theft involving violence or extortion (*n* = 2), assault (*n* = 1), (threats of) homicide (*n* = 4), sex offences (*n* = 1), or undisclosed (*n* = 2). Almost half of the male offenders had committed offences in more than one of the aforementioned categories (*n* = 15). Of the male offenders, 89.7% were Dutch or from another Western European Country (*n*=35), 7.7% were from Suriname or the Netherlands Antilles (*n* = 3), and 2.6% from an African country (*n* = 1). The total sample consisted of 75 adult respondents.

4.3.2 Procedure

All participants were recruited from two wards of a Dutch penitentiary. In four visits to the wards, researchers informed all (new) prisoners as a group (71 females and 72 males) about the study, gave each individual an information leaflet, and provided ample opportunity for questions. Participation was voluntary, and subjects with insufficient command of the Dutch language or active psychotic symptoms were excluded. Keeping the exclusion criteria in mind, 91 of the 143 informed offenders volunteered and were included. All participants signed an active informed consent form before filling in the questionnaires. Of the 91 participants, data from 16 participants were removed because they were incomplete, resulting in a final sample size of 35 female offenders and 40 male offenders. Given the small sample size and restriction of information on ethical grounds, female and male participants were not matched on disorder, offences, or judicial status. For this study, exemption was obtained from the Medical Ethical Review Committee of the UMCG and the Ethical Committee of the faculty of Behavioural and Social Sciences of the University of Groningen.

4.3.3 Measures

The Interpersonal Reactivity Index (IRI) measures trait empathy, empathy being defined by Davis as the reactions of an individual to the observed experience of another.[50] The measure consists of 28 items scored on a 5-point Likert scale, ranging from *1 (totally disagree*) to *5* (*totally agree*), evenly divided over four underlying subscales: Perspective Taking (PT: measures spontaneous attempts to put oneself cognitively in another's position), Fantasy (Fs: measures the tendency to empathise with people in movies, novels, plays, and other fictitious situations), Empathic Concern (EC: measures feelings of warmth, compassion or care for others), and Personal Distress (PD: measures self-oriented feelings of anxiety and discomfort caused by observing another's negative experience). Cognitive empathy was measured with the Perspective Taking scale.[51] Affective empathy was measured by Empathic Concern,[52] and empathic contagion or resonance was addressed in the Personal Distress scale.[53] Due to lack of clarity, Fantasy is often not used in studies.[54] In the present study, Cronbach's alpha reliabilities were low (α = .57) for Perspective Taking, modest (α = .64) for Fantasy, low (α = .53) for Empathic Concern, and acceptable (α = .79) for Personal Distress (the cutoffs used to label the reliability coefficients here and in other measures were obtained from George and Mallery.[55]

The Test of Self Conscious Affect (TOSCA) is a scenario-based instrument, measuring proneness to experience shame, guilt, pride, externalisation and detachment.[56] Respondents indicate their proneness on 60 items which are scored on a 5-point Likert scale, ranging from 1 *(not likely),* to 5 *(very likely)*. Subscales of the Dutch translation have comparable internal consistencies with those of the original TOSCA.[57] In the present study, internal consistency reliabilities for the scales used were good (α = .80) for Shame, and acceptable (α = .71) for Guilt.

The Compass of Shame Scale (CoSS) examines how individuals cope with shame.[58] These so-called 'scripts' are each characterised by a specific combination of motivations, feelings, cognitions, and behaviours. Scripts can be either adaptive or maladaptive. In the Adaptive script, the shame is acknowledged and evaluated, with reparatory behaviour as the action tendency. The 40 items and scripts are divided in one subscale Shame Proneness (four items), one scale that measures Adaptive coping (eight items), and four scales that measure maladaptive shame coping: Attack Self (four items), Avoidance (hiding or withdrawing from the situation, four items), Denial (taking emotional distance or trivialising the situation, twelve items), Attack Other (eight items). Specific situational factors can activate different scripts and

50 Davis 1983; Dutch translation: De Corte et al., 2007.
51 De Corte et al., 2007; Jolliffe & Farrington, 2004.
52 Jolliffe & Farrington, 2004; Van der Graaff, 2016.
53 De Corte et al., 2007; Hoffman, 2000.
54 Joliffe & Farrington, 2006; Van der Graaff et al., 2016.
55 George and Mallery 2003.
56 Tangney et al., 1989; Dutch translation for adults: Fontaine et al., 2001.
57 Fontaine et al., 2001.
58 Elison et al., 2006, Dutch translation: Schalkwijk et al., 2016b.

one situation can activate several scripts, which can be implemented simultaneously or consecutively. The CoSS therefore consists of four potentially shame-inducing situations or variations of shame-associated emotions, followed by a number of possible ways of reacting. The items are scored on a 5-point Likert scale, ranging from 1 (*never*) to 5 (*almost always*). The internal consistencies (Cronbach's alpha) are good (α = .86 / .87) for Attack Self, acceptable/good (α = .75/.82) for Avoidance, and acceptable (α = .75/ .78) for Denial, (α = .76/.86) Attack Other,[59] and (α = .77) Adaptive.[60]

The How I Think questionnaire (HIT) operationalises the level of moral reasoning as a stable style of using cognitive distortions to neutralise self-conscious emotions, prior to and/or after committing antisocial behaviour.[61] The HIT consists of four subscales measuring self-serving cognitive distortions (thinking errors): The primary distortion, Self-Centredness (nine items), and three secondary distortions, Blaming Others (blaming external causes: ten items), Minimising/Mislabelling (nine items), and Assuming the Worst (attributing hostile intentions to others and regarding one's own behaviour as unavoidable or unchangeable: eleven items). An additional eight items focus on uncovering implausible answers, and another seven items provide 'positive filling' for the questionnaire, to encourage respondents to use the full range of answers. Respondents score 54 items on a 6-point Likert scale, from *1 (very much disagree),* to *6 (very much agree)*. The HIT has been reported to be a reliable and internally consistent measure.[62] In the present study, internal consistencies (Cronbach's alpha) were good (α = .84) for Self-Centredness, good (α = .86) for Blaming Others, good (α = .87) for Minimising/Mislabelling, and good (α = .83) for Assuming the Worst.

4.3.4 Statistical analyses

Correlations between the individual subscales contributing to Schalkwijk's concept of conscience were checked for interrelatedness of individual subscales and aspects. Then, the overall effect of gender on conscience, including all its facets, was tested using MANOVA analyses. Thereafter, all hypotheses regarding gender differences with respect to empathy, proneness to experience self-conscious emotions, ways of coping with shame, and level of moral reasoning (the first three hypotheses) were tested in univariate ANOVAS with post-hoc Bonferroni-correction for multiple testing. The relative dominance of shame- over guilt-proneness and of internalising coping over externalising coping styles (hypotheses 4) were tested using paired t-tests.

59 Schalkwijk et al., 2016b / present study.
60 Schalkwijk et al., 2016b.
61 Barriga et al., 2001; Dutch translation: Brugman et al., 2011.
62 Wallinius et al., 2011.

4.4 RESULTS

Prior to analyses, assumptions of outliers, linearity, homogeneity of variance, and normality were checked. Regarding the latter: for one of the outcome-scales (HIT-Minimising/Mislabelling) the Shapiro Wilk was just below 0.9 ($w = .86$), indicating that the assumption of normality was violated for this subscale for women, but only marginally. All other outcome scales were normally distributed according to the Shapiro Wilk-test.[63] Prior to the MANOVA, homogeneity of covariance was tested using Box's test.[64] The Box's M (.162) indicated that the observed covariances were equal between groups. For means and standard deviations, see Table 1. The weak to moderate correlations between the individual subscales contributing to Schalkwijk's concept of conscience indicated that most scales were related, but not overly so. This suggests that all constituent aspects are related but distinct, and that each indeed makes its own contribution to the functioning of the conscience (Table 2, page 58).

Table 1
Means, standard deviations and gender differences between male and female offenders in Empathy, Guilt, Shame, Moral reasoning and Coping

	Men (n = 40)		Women (n = 34)		*Gender differences*	
	M	*SD*	*M*	*SD*	*F*	*pη²*
IRI-Perspective Taking	18.00	4.33	18.47	4.79	0.197	.003
IRI-Empathic Concern	17.08	5.24	16.44	4.19	0.326	.005
IRI-Fantasy	11.25	5.52	12.82	5.85	1.41	.019
IRI-Personal Distress	8.97	4.70	16.97	5.04	49.93***	.409
TOSCA-Guilt	3.41	0.51	3.65	0.55	4.111*	.045
TOSCA-Shame	2.25	0.67	2.78	0.61	12.650***	.149
CoSS-Shame Proneness	2.13	0.81	2.77	0.80	11.846***	.141
HIT-Self-Centredness	2.29	0.91	2.18	0.99	0.231	.003
HIT-Blaming Others	2.27	0.79	2.19	1.02	0.130	.002
HIT-Minimising / Mislabelling	2.23	0.77	2.11	1.10	0.285	.004
HIT-Assuming the Worst	2.33	0.77	2.37	0.93	0.037	.001
Internalising	3.29	1.10	4.79	1.74	20.141 ***	.219
Externalising	4.41	1.03	4.70	1.37	1.082	.015

Note. *p < .05. **p < .01. ***p < .001, one-tailed test. Adjusted alphas after Bonferroni-Holm ranged from α <.004 – α <.05.

First, we investigated the overall difference in conscience functioning between female offenders compared to male offenders, taking into account the interrelatedness of the underlying aspects. Pillai's Trace[65] indicated a significant effect of gender on the overall level of conscience functioning ($V = 0.579$, F (13, 60) = 6.340, $p < .001$),

63 Shapiro & Wilk, 1965.
64 Box, 1949.
65 Pillai, 1955.

Table 2

Combined correlation matrix, from all scales contributing to the components of conscience, correlations for both male and female offenders.

	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Perspective Taking		.46**	.2	.02	.30**	.18	.08	-.36**	-.37**	-.31**	-.27*	-.01	-.27*
2 Empathic Concern	.03		.29**	.37**	.50**	.42**	.32**	-.35**	-.2	-.24*	-.14	.27*	-.13
3 Fantasy	-.19	.19		.41**	.31**	.40**	.38**	.19	.14	.08	.16	.41**	.30**
4 Personal Distress	.03	-.11	.32		.33**	.42**	.49**	-.02	.04	-.05	.08	.54**	.24*
5 Guilt	.23	.22	-.2	-.42**		.49**	.27*	-.26*	-.30**	-.32**	-.24*	.11	-.17
6 Shame	-.31	.07	-.11	-.21	.22		.63**	0	.07	-.03	.05	.57**	.21
7 Shame Proneness	-.3	.21	.19	-.05	-.11	.51**		-.04	-.04	-.03	.03	.76**	.33**
8 Self-Centredness	-.38*	-.05	.32*	.21	-.35*	.05	.45**		.76**	.82**	.77**	.14	.62**
9 Blaming Others	-.31	-.07	.18	.28	-.36*	.14	.44**	.82**		.84**	.83**	.19	.57**
10 Minimising/Mislabelling	-.15	-.04	.16	.16	-.3	0	.39*	.85**	.90**		.81**	.18	.57**
11 Assuming the Worst	-.42**	-.07	.2	.29	-.36*	.09	.49**	.83**	.89**	.81**		.19	.54**
12 Internalising	-.44**	-.08	.18	.25	-.31	.43**	.80**	.56**	.58**	.48**	.62**		.54**
13 Externalising	-.50**	-.07	.24	.16	-.33*	.32	.52**	.68**	.74**	.67**	.74**	.73**	

Note: - * $p < .05$, ** $p < .01$ (2-tailed).

- Women are presented under the diagonal, men above the diagonal and in italics.

with a large effect size ($p\eta^2 = 0.579$).[66] To investigate the specificity of the gender differences found, we used univariate ANOVAS to test our first three hypotheses regarding the expected differences on empathy, self-conscious emotions, coping therewith, and moral reasoning. To control for the quantity of tests, we applied a post-hoc Bonferroni-Holm correction.[67]

In our first hypothesis, we expected female offenders to report higher levels of empathy, shame, and guilt than their male counterparts. Female offenders indeed scored significantly higher on Personal Distress when seeing others suffering or done harm, but not on Perspective Taking, Empathic Concern, and Fantasy. Further, they did score significantly higher on Tosca-Guilt, Tosca-Shame and CoSS-Shame Proneness (Table 1). Effect sizes were large for Personal Distress, TOSCA-Shame, and CoSS-Shame proneness, and small for Guilt.

Second, we expected female offenders to show less self-centredness and higher levels of moral reasoning than male offenders. However, we found no significant differences for Self-Centredness, Blaming Others, Minimising/Mislabelling, or Assuming the Worst (Table 1).

Third, regarding their way of coping with shame, we expected female offenders to report more internalising, and less externalising coping than male offenders. Because the assumption of homogeneity of variance for internalising coping was violated according to Levene's test, we decided to use a stricter alpha for this outcome variable, as suggested by Allen and Bennett.[68] Female offenders indeed showed more Internalising coping with shame than their male counterparts, with a large effect size. However, no difference was found for the amount of Externalising coping (Table 1).

In our fourth hypothesis, we expected female offenders to show a relative dominance of shame- over guilt-proneness (expected as contrary to their male counterparts), and of internalising coping over externalising coping. We tested these within group differences on Guilt- and Shame-proneness, and on Internalising and Externalising coping, by means of paired *t*-tests. Female offenders ($p < .001$), just as male offenders ($p < .001$) and contrary to our expectation, showed a dominance of Guilt over Shame (Table 1). The dominance of Guilt was, however, marginally stronger in men than in women (*mean difference* males = -1.157, *SD* = .0556; *mean difference* females = -.913, *SD* = .719; $t(73) = 1.652$, $p = .05$ (1 tailed)). For dominance of coping styles, we found a striking difference. Female offenders showed no significant difference in terms of reliance on Internalisation or Externalisation ($p = .725$), but male offenders showed a significant dominance of Externalisation over Internalisation ($p < .001$).

66 Cohen, 1988.
67 Holm, 1979; Armstrong, 2014.
68 Allen & Bennett, 2008.

4.5 DISCUSSION

This study adds to the existing knowledge on female offending, demonstrating significant gender differences in the conscience functioning of offenders. We found that female offenders show higher levels of personal distress (i.e., empathic arousal and personal discomfort in response to the perceived suffering of others), a stronger propensity to experience self-conscious emotions, and greater use of internalising strategies in coping with shame than male offenders.

These findings are an extension of our previous findings, comparing the conscience functioning of offenders to that of non-offenders of both sexes, indicating impairments for offenders in the constituent aspects of conscience, that is: (affective) empathy, self-conscious emotions and moral reasoning.[69] The current study seems to suggest that the impairments may be less in female offenders, as at least rudimentary empathic capacities and self-conscious guilt and/or shame are more strongly present in female offenders compared to their male counterparts.

The gender differences found for empathic arousal or contagion, i.e. the propensity to feel personal distress and discomfort in seeing others suffering from a negative experience, correspond with previous findings on gender differences in the general population.[70] However, contrary to findings in the general population we found no gender differences for the tendency to put oneself in another's shoes, or to experience feelings of warmth and compassion for others.[71] To be truly empathic, feelings should be more than just a form of emotional contagion. After all, empathy requires the capacity to distinguish between another's emotion and one's own, and the regulation of those co-experienced feelings.[72] High levels of personal distress, with deficits in emotion regulation, can lead to being overwhelmed or being swept up in the experience of another.[73] Also, high empathic arousal that is un(der) regulated, i.e. empathic overarousal upon seeing another's suffering, can often block recognition of the other's stress.[74] The overaroused individual often experiences the emotions of others as aversive, and distances himself from these emotions to alleviate his/her own distress, but not that of the other. Un(der)regulated personal distress therefore impairs empathy and is seen as a self-focused or egoistic reaction.[75] Thus, female offenders may appear to be affectively more empathic than their male counterparts, but in fact they are not. The empathy shown is not a mature form of true empathy, but rather a developmentally more rudimentary form of empathy, emotional contagion, which could even place offenders at greater risk of acting out as a result of the deleterious effect of overwhelming distress on empathic abilities.[76]

69 Verkade et al., 2019.
70 De Corte et al., 2007; Schulte-Rüther et al., 2008.
71 De Corte et al., 2007; Van der Graaff et al., 2016.
72 Eisenberg & Eggum, 2009; Ickes, 2009; Nichols et al., 2009.
73 Nichols et al., 2009.
74 Marshall et al., 2009.
75 Eisenberg & Eggum, 2009.
76 Decety & Cowell, 2014.

Regarding the more mature forms of (affective and cognitive) empathy, female offenders appear to resemble their male counterparts more than they resemble women from the general population.

The social context and life history of offenders likely contributed to these deficits, as the development of empathy with self and other, self-conscious emotions, emotion regulation and shame coping require a safe and responsive upbringing within the context of relatively secure attachment. These developments can be compromised by early (attachment) trauma, due to a lack of marked mirroring and dyadic affect regulation, leading to a lack of integration in the brain and fragile mentalizing abilities.[77] The fact that relational trauma and neglect are much more common and more severe in forensic populations than in the general population, in women even more than in men,[78] may make people in the forensic population more vulnerable to faltering in mentalizing, empathy and affect regulation, thus affecting (momentary) conscience functioning. Especially under great stress, whether it concerns poverty, poor housing, (psychological) health problems, incarceration or whatever. Therefore, professionals always need to consider offenders' history and the circumstances under which the offending occurred. Humanity cannot be dichotomised into offenders and non-offenders, or into people with or without conscience.

The higher levels of shame found in female offenders could be viewed in the same light as the differences in personal distress. The higher shame levels suggest that female offenders have less impaired conscience functioning than their male counterparts. However, equivocally related to offending, high levels of shame combined with externalising coping styles can lead to diminished empathy and more acting-out,[79] or, when combined with extremely high levels of internalising coping, to an accumulation of overcontrolled stress, leading in turn to an emotional explosion.[80] Following Kreis' argument, cases of high shame levels combined with externalising coping styles could also contribute to underregulated and insecurely attached women entering a feedback loop of shame, and again maladaptive shame-coping strategies, more dysfunctional emotion regulation by self-harm or substance abuse,[81] shame, and possibly aggression or (drug-related) offending.[82] This corresponds with findings that self-harm is a risk factor for future violence.[83]

Female offenders showed more internalising coping than male offenders. However, in order to prevent aggression, the shame coping must also be characterised by a substantial predominance of internalising over externalising coping. In male offenders, externalising coping strategies seem to predominate over internalising

77 Bateman & Fonagy, 2016; Schore, 2001.
78 De Vogel et al., 2016.
79 Stuewig et al., 2010; Tangney et al., 2007.
80 Stuewig et al., 2010; Verona & Carbonell, 2000.
81 Padykula & Conklin, 2010.
82 Kreis et al., 2016; Selenius & Strand, 2017.
83 De Vogel et al., 2014.

coping strategies, a maladaptive tendency. Female offenders, however, seem to rely as much on internalising as on externalising coping strategies. The difference in predominance of coping styles (in men for externalising shame-coping versus no difference in women), could account for some of the gender differences in the incidence of offending. It could also be argued that in female offenders, because of shortcomings in the development of adaptive coping skills and of internalising, their externalising coping will be stronger in moments of intense shame. That their adaptive and internalising strategies are not strong enough to prevent the shame from resulting in lashing out at others. This is in line with the findings of O'Shea and colleagues, that about 77% of forensic patients who engaged in repeated self-harm in coping with negative affect, were also engaged in aggression against others.[84] Strikingly, the overlap of engaging in both self-harm and violence reported in these studies was greater for women than for men, and greater for younger adults than for older adults. This hypothesis, of shortcomings in adaptive coping skills, should be subject of following research.

The gender differences found in shame may also be partly explained by gender bias in assessment measures, especially the TOSCA. Some authors argue that the TOSCA uses gender biased shame-inducing situations.[85] When those authors added to the TOSCA scenarios which were expected to be more shame-inducing for men (e.g., being extremely skinny, getting a flat tire and not being able to change it, crying during an emotional TV commercial in front of friends, etc.), the gender differences in shame proneness were diminished. In both genders, shame elicited anger. Men may be at greater risk of offending when threatened in their masculinity, by acting-out to restore their sense of identity. Females showed greater tendencies to take out on themselves the anger felt as a result of shame in reaction to morality, to control and contain their anger, to discuss the incident with the target, leave the situation, or to cognitively reappraise their own role in the situation.[86] While discussing, leaving, or reappraising an anger-provoking situation may be well-adapted responses, overcontrolled and pent-up anger may lead to emotional outbursts, possibly with criminal consequences. This profile of extreme internalising of controlled anger suddenly bursting out in a violent offence seems to be overrepresented in violent offences by women, but not in those by men.[87]

Regarding the finding that women in general show higher levels of moral reasoning, but that female offenders exhibit the same low level of moral development as their male counterparts, two possibilities must be considered. First, it is possible that intense and un(der)regulated shame can, like extreme stress, block other emotions, and especially empathic ones.[88] Given that in their moral reasoning women are, more so than men, driven by affective responses to or in anticipation of doing

84 O'Shea et al., 2014.
85 Ferguson & Eyre, 2000; Ferguson et al., 2000.
86 Tangney et al., 1996.
87 Verona & Carbonell, 2000.
88 Schalkwijk, 2016a; Tangney et al., 2011.

harm,[89] an emotional blockage could result in (temporary) less affective processing, and in the case of women, in lower levels of moral reasoning. This is in line with the finding that female violence is generally more reactive and/or relational, or in other words more emotionally driven and less instrumental, than male violence.[90] Second, women who display offending behaviour grave enough to involve the justice system, have been shown to have more serious psychopathology than male offenders.[91] Serious mental health problems may also have a transient negative effect on one or more aspects of day-to-day conscience functioning, again due to the deleterious effects of high stress levels on empathy, and on affective and cognitive information processing. However, for both male and female offenders, contrary to many treatment programs, treatment should not necessarily focus on their elevated levels of cognitive distortions. Marshall, Marshall, and Ware point out that those distortions help the self to deal with shame that either stigmatises or diminishes already fragile self-esteem, thereby enhancing risk of recidivism.[92] They conclude that most cognitive distortions are not predictive of recidivism (at least in sex offenders), but only of criminogenic attitudes (attitudes supportive of criminal behaviour), and that only those attitudes should be addressed in treatment. These authors argue that cognitive distortions that fence off the self from intense shame should be seen as normal and relatively healthy defences, unless they are criminogenic distortions.[93] The importance of the latter is emphasised by Ó Ciardha and Gannon, when they refer to 'aetiological cognitions'.[94] All this is in line with Tagney, Stuewig, and Hafez, who argue with Braithwaite that interventions should minimise shaming and be reintegrating, meaning that confrontations should be self-sparing.[95] Feelings of, and coping with, intense shame should be addressed in treatment, and shame-eliciting behaviour should be uncoupled from the self, and reparation encouraged.[96]

4.5.1 Implications for treatment

Taken together, the high levels of personal distress, higher levels of shame and shame-proneness, and the lacking of significant dominance of internalising over externalising coping strategies in female offenders, have several implications for treatment. First, we should help them to learn to acknowledge,[97] and regulate their emotions,[98] and to differentiate themselves from others when needed.[99] Only then it is possible to truly empathise. Further, women need to learn more adaptive ways of

89 Friesdorf et al., 2015.
90 Nicholls et al., 2009; Robbins et al., 2003.
91 McCabe et al., 2002; Zlotnick et al., 2008.
92 Marshall et al., 2009.
93 Marshall et al., 2009; Marshall et al., 2011.
94 Ó Ciardha & Gannon, 2011.
95 Braithwaite, 1989; Tagney et al., 2011.
96 Tagney et al., 2011; Rebellon et al., 2015.
97 Elison et al., 2006.
98 Eisenberg & Eggum, 2009; Nichols et al., 2009.
99 Eisenberg & Eggum, 2009.

coping with both shame and anger. Regarding the latter, especially women who are first offenders and/or violent offenders could profit from treatment interventions that help them to regularly express their feelings of shame and /or anger in an adaptive way, thereby preventing their accumulation to the point of an outburst, or a lashing out in shame.

4.5.2 Limitations and further research

The following limitations must be taken into account. First, our sample size was small, which has consequences for the power of our study. This could diminish the generalizability of the outcomes and reduces the chance of detecting a true effect. It is also possible that actual gender differences regarding for example cognitive or affective empathy, as found in the general population, were not found in this sample due to this non-optimal power. Therefore, replication in a larger sample is needed. However, this study was already extending on an earlier study in adults and on the study of Schalkwijk and colleagues in adolescents.[100] The fact that the results found are in line with those earlier studies, argues for the plausibility of our results. Limited statistical power may also hinder the interpretation of our non-significant findings. However, our findings do indicate notable differences in the most rudimentary form of empathy, namely the experience of personal distress when viewing someone suffering or being done harm, in the tendency to experience self-conscious emotions such as guilt and shame, and in shame-coping.

Second, two of the 11 subscales representing the constituent aspects of conscience were found to have low internal consistency (Perspective taking and Empathic concern), in contrast to earlier studies reporting moderate to high internal consistencies on these subscales.[101] As the remaining 9 subscales were found to have sufficient internal consistency, the two inconsistent findings may be due to chance. Alternatively, our sample may have been more homogeneous than those in the previous studies, which may have negatively affected Cronbach's alpha values to some extent and thus the power and effect size for those two scales, but not overly so.[102]

Third, of the offenders that were approached, some could not participate due to insufficient command of the Dutch language, and a considerable number were removed from the database because of missing data, for unknown reasons (this could reflect a lack of motivation to complete the questionnaires, time management difficulties, or uncomfortable feelings regarding the questions in the questionnaires). Therefore, results may be biased by including mostly motivated and possibly less sensitive or personally involved offenders.[103]

100 Schalkwijk, 2016a; Verkade et al., 2019.
101 Davis, 1983; Schalkwijk, 2016a.
102 Helms, 1999; Reinhardt, 1993.
103 i.e., volunteer bias: Salkind, 2010.

Also, although the various forms of trait empathy, as measured by the instruments used, are predictive of state empathy,[104] both empathy and conscience functioning can still vary per situation and over time.[105] In treatment, regardless of the offender's gender, the question is therefore always twofold: a) What facilitating or inhibiting role did constituent aspects of conscience play in a woman's committing of a particular offence at a particular moment in time, and b) What other dynamic risk factors, such as severe psychopathology, severe financial problems while being responsible for child-upbringing, and/or substance abuse, put the offender at risk?[106] Regarding external risk factors, research points to so-called gender specific risk factors that need gender specific rehabilitation strategies: criminality as alternative for hunger (especially when children are involved), financial marginalisation, prostitution, or the intertwining of victimisation and offending, dysfunctional relationships, and addiction.[107] Existing literature even suggests that the latter may be more substantial in women.[108] Female offenders are less often still single, more often divorced or widowed, and more often confronted with the risk of having a criminal partner,[109] or otherwise dysfunctional (intimate) relations, as well as family disconnection.[110] Moreover, (dysfunctional) relationships and financial problems or debts appear to have a stronger (negative) effect on women than on men.[111] Therefore, prison staff need to address social risk factors like financial problems, which appear to be an important factor in the pathways to crime of all female offenders.[112]

A further limitation of this study is that the use of self-report makes it vulnerable to issues such as social desirability, which can be different for men and women. Baez and colleagues for example, point to this issue in their research on gender differences in empathy.[113] In their study, although neuropsychological measures gave no consistent effect of gender on empathy levels, investigation by self-report clearly indicated greater empathy in women. When empathy was measured by an experimental task investigating empathy for pain however, gender differences were much smaller. They were still significant, but with minuscule effect sizes and therefore considered clinically irrelevant. The authors stated that the influence of assessment measure has to do with social norms and expectations, as well as social desirability. This leads to the question whether women possible overreport, or men underreport their own empathy.

Last, this study made the assumption that gender differences in delinquent behaviour can be at least partly attributed to differences in the functioning of the

104 Van der Graaff et al., 2016.
105 Covell & Scalora, 2002; Schalkwijk, 2014.
106 De Vogel et al., 2016.
107 Heilbrun et al., 2008; Joosen & Slotboom, 2015.
108 Kruttschnitt et al., 2019.
109 Heilbrun et al., 2008; Joosen & Slotboom, 2015.
110 model of relational pathways: Kreis et al., 2016.
111 Kruttschnitt et al., 2019.
112 Kruttschnitt et al., 2019.
113 Baez et al., 2017.

conscience. Wolters points to possible biases in both the propensity to suspect and prosecute women, and to possible biases in sentencing female transgressions, possible due to their higher propensity for and more explicit communication of self-evaluative emotions (e.g., female offenders seem more likely to express guilt and shame than male offenders).[114] This is in line with the findings of De Vogel and De Spa that female offenders are punished with shorter imprisonment for the same index offences as male offenders.[115] Additionally, Wolters points to the fact that the distinction between offending and non-offending can be described as arbitrary, for punishable acts are social constructs, i.e. the result of agreements laid down in the Penal Code. This is also the case for gender specific behaviours such as prostitution or abortion.[116] Such a bias could possibly explain the dark number in female offending.[117]

4.6 CONCLUSION

Previous research has indicated that offenders of both sexes differ from non-offenders in the aspects of conscience functioning, based on the integrated theory of conscience.[118] Aiming to extend the scarce literature on female offenders, this study focused on the difference of conscience functioning between male and female offenders. Female offenders appear to feel more empathic arousal when witnessing someone else suffering or harmed than their male counterparts. They are also more guilt and shame prone than male offenders and show more internalising coping strategies. This is in line with Ward and King, who state that women in general have lower inclinations to immoral behaviour, because due to higher empathy levels they seem to anticipate more guilt or shame in response to doing harm, and feel less positive affect in response to (anticipated) personal gain than men.[119] What has, in any case, made these women cross the threshold to offending remains unclear. The findings in this study suggest that female offenders appear to show slightly more affective empathy than male offenders, but in an early, rudimentary form, without the additional empathic concern or tendency to put themselves in another's shoes. Sharing vicariously and becoming overwhelmed, instead of sharing from an as-if perspective, suggests developmental delays due to insecure attachment or trauma.[120] Further research is, however, needed to investigate possible developmental deficits in female offenders, compared to non-offending women.

We argue, in line with Kreis and colleagues, that female offenders in their rehabilitation programs or treatment would benefit from learning more adaptive ways of regulating their emotions (including shame, anger or fear), rather than by

114 Wolters, 2012.
115 De Vogel & De Spa, 2015.
116 Wolters, 2012.
117 Slotboom et al., 2011; De Vogel et al., 2018.
118 Schalkwijk et al., 2016a; Verkade et al., 2019.
119 Ward and King, 2018.
120 Bateman & Fonagy, 2016.

repressing them, turning to self-harm, or injury by drug abuse, etc.[121] They especially need support to recognise and acknowledge their feelings as their own,[122] and to act on them in adaptive ways, thus becoming less vulnerable to relational discord and dysfunctional relations.[123]

121 Kreis et al., 2016.
122 Elison et al., 2006.
123 Kreis et al., 2016.

5 FEMALE OFFENDERS COMPARED TO FEMALE NON-OFFENDERS*

5.1 INTRODUCTION

Lack of conscience has long been found to be associated with offending.[1] In the integrative theory of conscience, conscience is operationalised as a regulatory function of behaviour and identity, resulting from an interplay of empathy, self-conscious emotions such as guilt and shame, and moral reasoning, which are assumed to vary per individual, context, and over time.[2] All of these underlying aspects are in their own way related to offending.

Empathy as a concept is not well defined. It is suggested that there are perhaps as many definitions as authors, and Cuff, Brown, Taylor, and Howat listed 43 of them in their review of the concept. Ultimately, they define empathy as an emotional response, dependent on the interaction of trait capacities and state influences, with both affective and cognitive components, which are distinct yet overlapping. Empathy is automatically elicited, but also shaped by top-down control processes in the brain.[3] Affective empathy, operationalised as an openness to be emotionally affected by and a propensity to share observed feelings,[4] thus concerns the experience of another's emotions, always in recognition that the source of the emotion is not one's own.[5] Cognitive empathy refers to the desire and ability to see things cognitively from another's perspective, and to understand another's emotions.[6] The most preliminary form of empathy, preceding the development of cognitive and affective empathy, is emotional contagion.[7]

Higher levels of empathy are related to prosocial behaviour,[8] and a lack of empathy is associated with offending,[9] and aggressive behaviour.[10] Offenders, though able to

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1 Le Sage, 2006.
2 Schalkwijk, 2015; 2018; Schalkwijk et al., 2016.
3 Cuff et al., 2016.
4 Decety & Cowell, 2014.
5 Cuff et al., 2016.
6 Cuff et al., 2016; Joliffe & Farrington, 2006.
7 De Corte et al., 2007.
8 Eisenberg & Eggum, 2009; Ickes, 2009; McMahon et al., 2006.
9 Jolliffe & Farrington, 2004; Seidel et al., 2013; Van Langen et al., 2014.
10 Jolliffe & Farrington, 2004; 2006.

judge behaviours as right or wrong, display less ability in mentalizing (i.e., perceiving and interpreting human behaviour in terms of mental states) and affective empathy than non-offenders. The more deficient these abilities are, the greater the risk of committing a crime.[11]

Empathic capacities may fuel self-evaluation and as a result self-conscious emotions such as guilt, shame or pride, that serve self-regulation, behaviour and maintenance in the social community.[12] Higher levels of guilt and shame are associated with less offending.[13] Guilt proneness has shown to serve prosocial behaviour,[14] and to have an inhibitive effect on transgressive behaviour.[15] For shame, however, this relation is more complex. Mild levels of shame are thought to be adaptive in regulating transgressive behaviour,[16] but high levels of intense shame are associated with internalising problems (e.g., anxiety, depression, etc.), substance abuse, and an increase in transgressive or aggressive behaviour when combined with externalising coping styles.[17] Clinically, a mature conscience is seen to be characterised by a relative dominance of guilt-proneness over shame-proneness and by a dominance of internalising coping (e.g. blaming oneself, or withdrawal) over externalising coping, such as blaming others.[18]

In low levels of moral reasoning, one's own perspective is still the central focus and starting point for making moral judgments ('callous self-centering'). This self-centredness is predictive of antisocial behaviour and is referred to as a primary cognitive distortion.[19] A broadened, decentralise d perspective provides the basis for weighing interests and forming moral judgments. It is assumed that many offenders are able to broaden or change their perspective and know that their behaviour is morally incorrect, and therefore experience guilt or shame, but that they neutralise these self-conscious emotions by using cognitive distortions. The use of irrational or exaggerated thoughts enables them to see their own behaviour as acceptable or even justified.[20] These so-called secondary distortions are self-serving distortions, as they protect the self from feelings of guilt or shame prior to and/or after committing transgressive behaviour.[21]

Previous studies based on the integrative theory of conscience found that (predominantly male) offenders showed less affective empathy, less shame and shame-proneness, and lower levels of moral reasoning than non-offenders.[22] While

11 Mariano, Pino, Peretti, Velenti, & Mazza, 2017.
12 Schalkwijk, 2015.
13 Spruit, Schalkwijk, Van Vugt, & Stams, 2016.
14 Cohen et al., 2011; Ent & Baumeister, 2015.
15 Spruit et al., 2016; Tangney, Stuewig et al., 2011.
16 Deonna et al., 2011; Ferguson et al., 2000.
17 Dearing et al., 2005; Elison et al., 2006; Schalkwijk et al., 2016; Stuewig et al., 2010.
18 Schalkwijk, 2015; 2016a.
19 Gibbs, 2010.
20 Brugman et al., 2011.
21 Barriga et al., 2001; Brugman et al., 2011.
22 Schalkwijk et al., 2016; Verkade et al., 2019.

women in general show higher levels of moral reasoning and are less utilitarian in their reasoning than men,[23] female offenders showed the same deficiencies as male offenders.[24] Female offenders seem as self-centred as male offenders, and seem to use as many self-serving cognitive distortions. However, as in the general population, among offenders females have shown higher levels of guilt, shame, and shame-proneness than their male counterparts.[25] These higher levels of self-conscious emotions in female offenders could be explained by higher levels of empathic arousal, in the sense that they reported more personal distress than male offenders in seeing someone else suffering or being harmed.[26] In addition, in response to self-evaluative feelings of guilt and shame, female offenders showed significantly more internalising coping strategies than male offenders, who were more likely to externalise their shame. This finding is in line with findings in the general population that women are more prone than men to internalising coping styles.[27] It also corresponds with the findings of Ferguson & Crowly, that although men and women report similar fantasised desires to engage in hostile responses to frustration, men report much more frequent actual expressions of hostility.[28] Tangney and colleagues also showed that women show a greater actual tendency to aggress against themselves, to hold in their anger, to discuss the incident with the target, to leave the field, or to cognitively reappraise their own role in the situation than men.[29]

While there appear to be differences in conscience functioning between male and female offenders, little is known about the difference in conscience functioning between women who offend and to those who do not. As yet, only one study has compared adult female offenders with women from the general population. In this study, in levels of empathy and moral reasoning, female offenders more closely resembled their male counterparts than women from the general population.[30] Another study, conducted with adolescents, found that female offenders score higher than female non-offenders on personal distress, or empathic arousal, and use more externalising strategies in coping with shame.[31]

To address this lack of research and knowledge on female conscience functioning and offending is necessary because globally the numbers of female offenders are rising, and the gender gap in offending seems to be narrowing.[32] Female offenders should be studied not only in comparison to male offenders, as in most studies, but also in comparison to controls of their own gender. All too often it has been

23 Fukushima & Hiraki, 2006; Schalkwijk et al., 2016a; Verkade et al., 2019; You et al., 2011; Youssef et al., 2011; Ward & King, 2018.
24 Verkade et al., submitted.
25 Ferguson & Crowly, 1997; Ferguson & Eyre, 2000; Lutwak et al., 2001.
26 Verkade, Karsten, & Koenraadt, submitted.
27 Ferguson & Eyre, 2000.
28 Ferguson & Crowly, 1997.
29 Tangney et al.,1996.
30 Watt et al., 2000.
31 Schalkwijk et al., 2016a.
32 Bartlett & Hollins, 2018; De Vogel et al., 2016; Stevens et al., 2011.

assumed that male and female offenders deviate in the same way from their non-offending counterparts.[33] It has also been assumed that "what works" in treatment and prevention programs for male offenders is also effective for female offenders. Although interventions based on research in males are indeed shown also to be effective in female offenders,[34] gender-informed interventions appear to have significantly more effect on prevention of recidivism.[35] Therefore, this study aims to increase knowledge on the specifics of female conscience functioning, based on female offenders compared to non-offenders. This could ultimately enable customisation of treatments to the specific needs of female offenders, thus lead to better prevention.

The present study investigates conscience functioning in female offenders. Female offenders are compared to female non-offenders on all underlying constructs of conscience: empathy (cognitive empathy and affective), self-conscious emotions (guilt and shame), shame coping (internalising or externalising), and levels of moral reasoning. The international literature shows that approximately 65% of male prisoners and 42% of female prisoners are diagnosed with at least one personality disorder.[36] Research in prison populations in the Netherlands showed similar or even higher prevalence rates and comorbidity.[37] Therefore, two control groups were used: non-offenders from the general population (further mentioned as community controls), and a group of non-offending patient controls.

Based on the literature comparing offenders to non-offenders on the individual components of conscience, the following was hypothesised:

1. Female offenders report less empathy, less guilt and shame, and lower levels of moral reasoning than female patient controls and community controls;
2. In response to self-conscious emotions, female offenders report less adaptive coping, more externalising coping and less internalising coping than female patient controls and community controls;

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

3. Female offenders and patient controls are more prone to shame than guilt, while female community controls are more prone to guilt than shame;
4. Female patient controls and community controls rely relatively more on internalising coping, while female offenders rely primarily on externalising coping.

33 Murdoch et al., 2012.
34 Dowden & Andrews, 1999.
35 Gobeil et al., 2016.
36 Fazel & Seewald, 2012.
37 Bulten & Nijman, 2009; Matthaei et al., 2002.

5.2 METHOD

5.2.1 Sample

The study group consisted of 38 adult female offenders detained in a Dutch prison, with a mean age of 41.73 (*SD* = 10.70). They were convicted for property offences (*n* = 10; 30.3 %), drug-related crimes (*n* = 2; 6.1 %), arson (*n* = 1; 3.0 %), theft involving violence or extortion (*n* = 2; 6.1 %), maltreatment (*n* = 2; 6.1 %), (threats of or attempted) homicide (*n* = 7; 21.2 %), or for offences in multiple categories (*n* = 6; 18.2 %), and 8 were still awaiting trial (9.1 %). For confidentiality reasons, we could not collect data on individual diagnostics, but drug-related problems were self-reported in 16.7% of the offenders.

Non-offending patient controls (*n* = 37) with a mean age of 36.62 (*SD* = 12.03), were recruited in an outpatient and day care clinic at a mental health care institution. They reported no convictions. Community controls (*n* = 77), with a mean age of 35.01 (*SD* = 13.66), were recruited online from the general population and reported that they had never been convicted of any crime. None of the controls self-reported drug related problems. Offenders appeared to be significantly older than community controls: $t(112) = 2.63$, $p = .01$. They did however not differ in age from the patient controls, nor did the patient controls and community controls differ significantly in age. Participation was voluntary, and subjects with insufficient command of the Dutch language or active psychotic symptoms were excluded. The total population consisted of 152 adult respondents (Table 1). For this study, exemption was obtained from the Medical Ethical Review Committee of the UMCG and the Ethical Committee of the faculty of Behavioural and Social Sciences of the University of Groningen.

Table 1
Demographic data: Age, educational level, country of origin

		Offenders (*n* = 38)	Non-offenders (*n* = 114)	
			Patient controls (*n* = 37)	Community controls (*n* = 77)
Highest educational level (%)	primary school	13.2 %	-	-
	secondary school	52.5 %	21.6 %	26.0 %
	vocational training	15.8 %	37.8 %	7.8 %
	Bachelor's degree	10.5 %	27.0 %	44.2 %
	Master's degree	-	8.1%	20.8 %
Country of origin (%)	Netherlands/ Western Europe	86.5%	100%	94.8%
	Surinam / Dutch Caribbean	8.1%	-	-
	Asian country	2.7%	-	2.6%
	Latin America	2.7%	-	2.6%

5.2.2 Measures

For the sake of comparability of the studies in conscience functioning, the current authors chose to use the same questionnaires as much as possible as those used in

the first study by Schalkwijk and colleagues.[38] However, their instrument for the measurement of moral reasoning was not suitable for adults. For this reason, in the present study the How I Think questionnaire (HIT) was the instrument of choice.[39]

Empathy. The Interpersonal Reactivity Index (IRI) measures various aspects of empathy, or 'trait empathy'.[40] It consists of 28 items rated on a 5-point Likert scale, divided over four subscales of seven items, with higher scores representing higher levels of empathy. Perspective Taking (PT) measures the tendency to spontaneously attempt to cognitively put oneself in another's position and is seen as cognitive empathy.[41] Affective empathy was measured by Empathic Concern (EC), referring to feelings of warmth, compassion or care for others.[42] Empathic arousal, or emotional contagion, as the most rudimentary form of affective empathy, is addressed in Personal Distress (PD), measuring self-oriented feelings of anxiety and discomfort caused by observing another's negative experience.[43] Fantasy (Fs) measures the tendency to put oneself into the emotions and actions of people in (fictitious) situations, and is due to lack of clarity, often not used in studies.[44] Cronbach's alpha coefficients for the subscales of the Dutch translation are good for Fantasy ($\alpha = .83$) and acceptable for Perspective taking ($\alpha = .73$), Empathic concern ($\alpha = .73$) and Personal Distress ($\alpha = .77$).[45] In the present study, internal consistencies were good for Perspective Taking ($\alpha = .80$) and Personal Distress good ($\alpha = .841$), and acceptable for Empathic Concern ($\alpha = .76$) and Fantasy ($\alpha = .86$).

Proneness to shame and guilt, and coping. The Test of Self Conscious Affect (TOSCA) measures the proneness to experience temporary shame and guilt in different situations.[46] Fifteen scenarios, each involving a positive or negative event and thoughts regarding Guilt (15 items), Shame (15 items), Externalisation (15 items), and Detachment (10 items), are scored on a 5-point Likert scale. Higher scores represent higher levels of guilt or shame. Respondents thereby indicate the extent of their tendency to experience guilt or shame. Two subscales measure the way of coping with these self-conscious affects: Externalisation of guilt, and Detachment from the situation. In the previous study of Schalkwijk and colleagues, the internal consistencies for all subscales were comparable with those of the original TOSCA (Cronbach's alpha: Guilt $\alpha = .82$, Shame $\alpha = .83$, Externalisation $\alpha = .78$, and Detachment $\alpha = .60$).[47] For the scales used in the present study, we found that Cronbach's alphas were moderate for Guilt ($\alpha = .67$) and acceptable for Shame ($\alpha = .78$).

38 Schalkwijk et al., 2016.
39 Brugman et al., 2006; Brugman et al., 2011.
40 Davis, 1983; Van der Graaff et al., 2016.
41 Joliffe & Farrington, 2004; De Corte et al., 2007.
42 Joliffe & Farrington, 2004; Van der Graaff et al., 2016.
43 De Corte et al., 2007; Hoffman, 2000; Schalkwijk et al., 2016a.
44 Joliffe & Farrington, 2006; Van der Graaff et al., 2016.
45 De Corte et al., 2007.
46 Tangney et al., 1989; Tangney & Dearing, 2002; Dutch translation for adults: Fontaine et al., 2001; Luyten et al., 2002.
47 Schalkwijk et al., 2016a.

The Compass of Shame Scale (CoSS) examines how individuals cope with shame. The 40- item CoSS consists of four potentially shame-inducing situations, followed by ten possible ways of reacting to these situations.[48] The respondent is asked to indicate on a five-point scale whether she: *1 (never), 2 (almost never), 3 (sometimes), 4 (frequently),* or *5 (almost always)* reacts in the given ways. The items and scripts are divided into one scale, Shame Proneness (four items), and five scales that measure shame coping: In healthy Adaptive coping scale (eight items), the shame is acknowledged and evaluated, with reparatory behaviour as the action tendency.[49] Scales for maladaptive coping are divided into the internalising coping strategies Attack Self (four items) and Avoidance (hiding or withdrawing from the situation: four items), and the externalising strategies Denial (taking emotional distance or trivialising the situation: twelve items) and Attack Other (eight items). For the Dutch translation, the internal consistencies (Cronbach's alpha) are good for Shame-proneness (α =.87) and Attack Self (α =.86), and acceptable for Avoidance (α = .75), Denial (α = .75), Attack Other (α =.76) and Adaptive (α =.77).[50] In the present study, internal consistency reliabilities were excellent for Shame-proneness (α = .902) and Attack Self (α = .933), good for Denial (α = .84), Attack Other (α = .86), and Adaptive (α = .82) and acceptable/good for Avoidance (α = .80).

Moral reasoning. In the How I Think questionnaire (HIT) a low level of moral reasoning is operationalised as a stable style of externalising problem behaviour, using cognitive distortions.[51] For this questionnaire, 54 items are rated on a 6-point Likert scale, with higher scores representing more cognitive distortions. The primary cognitive distortion is addressed under Self-centredness (nine items). In addition, the HIT contains three subscales for secondary and self-serving cognitive distortions: Blaming others (blaming external causes: ten items), Minimising/ Mislabelling (nine items) and Assuming the Worst (attributing hostile intentions to others and regarding one's own behaviour as unavoidable or unchangeable: eleven items). Cronbach's alpha coefficients for the four scales reflecting the cognitive distortions in the Dutch translation vary from .74 to .80.[52] Internal consistencies in the present study were good for all subscales (α = .814 for Self-Centredness, α = .85 for Blaming Others, α = .83 for Minimising/Mislabelling, and α = .85 for Assuming the Worst).

5.2.3 Procedure

All respondents were informed about the study by means of a leaflet requesting their participation, which entailed the one-time completion of a set of questionnaires. Written informed consent was obtained from all participants prior to participation.

48 Elison, Lennon, & Pulos, 2006, Dutch translation: Schalkwijk et al., 2016b
49 Elison, Lennon, & Pulos, 2006; Nathanson, 1992.
50 Schalkwijk et al., 2016b.
51 Barriga, Gibbs, Potter, & Liau, 2001; Brugman et al., 2011.
52 Nas et al., 2008.

The study was approved by the Ethics Committee of the Psychology Department of the University of Groningen.

5.2.4 Statistical analyses

Prior to analyses, assumptions of linearity, homogeneity of variance, and normality were checked. Normality and homoscedasticity were violated for most of the outcome scales. Therefore, for the first two hypotheses the nonparametric Kruskall-Wallis test was used for those outcome scales that showed violations, and ANOVA's with simple contrasts for those outcome scales that had no violations, controlled for age. A posthoc Bonferoni-Holm correction was added to correct for multiple testing.[53] For the third and fourth hypotheses in within-group comparisons, Wilcoxon signed rank tests were used.

5.3 RESULTS

Correlations between the subscales representing the constituent aspects of conscience indicate that most scales were weakly related, suggesting related but distinct aspects of conscience (Table 2).

In the first hypothesis, female offenders were expected to show less empathy, self-evaluative emotions, and lower levels of moral reasoning expressed as higher self-centring and more use of secondary distortions than non-offending controls. This hypothesis was partly confirmed. Offenders scored lower then community controls but higher then patient controls on cognitive empathy (PT), but neither to a significant degree. They did, however, as hypothesised, show significantly less affective empathy (EC) than both non-offending groups, with large effect sizes. Remarkably, offenders showed higher levels of Personal Distress (PD), or empathic arousal, upon seeing someone else suffering or harmed than did the community controls (with medium to large effect size), but levels of offenders and patient controls were comparable. Offenders also showed significantly less Fantasy than both non-offending groups, with medium effect sizes (Table 3). These significant differences found for affective empathy remained intact after controlling for age: $F(2, 148) = 10.97$, $p < .001$, $\eta^2 = 0.13$ and there was no age effect $F(1, 149)$ 0.87 p = .35. The absence of group differences in cognitive empathy (PT) stayed the same: $F(2, 148) = 2.58$, $p = .08$, also with no age effect $F(1, 149) = 2.47$, $p = .18$.

53 Armstrong, 2014.

Table 2

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
1	PT											
2	EC	.315**										
3	Fs	.166*	.374**									
4	PD	-.004	.047	.146								
5	Guilt	.196*	.430**	.160*	.007							
6	Shame	-.153	.237**	.124	.097	.499**						
7	Shame Proneness	-.137	.315**	.190*	.189*	.259**	.569**					
8	Self-Centredness	-.288**	-.236**	-.013	.172*	-.296**	-.073	.025				
9	Blaming Others	-.176*	-.187*	.002	.215**	-.298**	-.031	.033	.794**			
10	Minimising/Mislabelling	-.180*	-.197*	-.021	.155	-.247**	-.057	.052	.789**	.837**		
11	Assuming the Worst	-.336**	-.228**	-.077	.284**	-.285**	.025	.116	.762**	.845**	.764**	

Note. * $p < .05$, ** $p < .01$, *** $p < .001$ (2-tailed).

Table 3

Descriptives and differences between female offenders and patient controls in Empathy, Guilt, Shame, coping with shame, and moral reasoning

	Offenders (*n* = 38)		Patient controls (*n* = 37)		Community controls (*n* = 77)		Differences overall		Differences Offenders vs. Comm.-controls		Differences Offenders vs. Patient controls	
	M / Mdn	*SD / IQR*	*M / Mdn*	*SD / IQR*	*M / Mdn*	*SD / IQR*	*Test statistic*	*η2*	*Contrast Estimate / U*	*Effect size*	*Contrast Estimate / U*	*Effect size*
IRI-PT	18.05	5.01	16.30	5.01	18.60	5.12	F = 2.39	0.03	0.55	0.10	-1.755	0.33
IRI-EC	16.63	4.32	21.00	4.45	19.44	4.08	F = 10.45 ***	0.12	2.81***	0.63	4.37***	0.97
IRI-Fs§	11.00	9.00	17.00	8.00	17.00	8.00	H = 12.90**	-	2,070.50***	0.34	925.00*	0.27
IRI-PD§	17.00	6.50	15.00	7.00	12.00	7.50	H = 24.91***	-	771.00***	-0.38	668.50	-0.04
Guilt§	3.67	0.73	4.00	0.60	3.87	0.53	H = 6.34*	-	1,671.00	0.12	926.00*	0.27
Shame§	2.87	0.63	3.53	0.80	3.07	0.77	H = 14.62***	-	1,627.00	0.09	1,030.50***	0.40
Shame-proneness	2.87	0.84	4.10	0.74	3.06	0.97	F = 22.07***	0.23	0.19	0.19	1.23***	1.22
Internalising	4.94	1.89	4.96	1.95	4.96	1.95	F = 23.24***	0.24	0.02	0.01	2.38***	1.14
Externalising§	4.96	1.93	4.63	1.25	4.63	1.25	H = 2.30	-	-	-	-	-
Adaptive coping	3.37	0.76	3.02	0.55	3.67	0.55	F = 14.21***	0.16	0.30**	0.45	-0.35**	0.52
Self-centredness§	2.11	1.72	1.44	0.89	1.44	0.72	H = 9.13**	-	985.50**	-0.27	473.50*	-0.28
Blaming Others§	2.20	1.25	1.60	0.60	1.50	0.85	H = 14.95***	-	854.50***	-0.34	412.50**	-0.36
Minimising§	1.78	1.50	1.44	0.67	1.56	0.78	H = 3.55	-	-	-	-	-
Assume Worst§	2.27	1.18	1.55	0.64	1.45	0.73	H = 24.99***	-	667.00***	-0.44	421.00**	-0.35

Note.
- *p < .05, ** p =< .010, *** p =< .001 (2-tailed). Adjusted alpha's after Bonferoni-Holm ranged from α <.004 – α <.05.
- *M* = Mean, *SD* = standard deviation, *Mdn* = Median, *IQR* = interquartile range.
- § For these scales, the non-parametric Kruskall-Wallis test was used, we report *Mdn*; *IQR*, *H*, *U* and effect size *r*.
- For the other scales we used ANOVA, and report *M*, *SD*, *F*, *η2*, contrast estimate, and effect size *d*.

Contrary to our expectations, no differences were found between offenders and community controls on Guilt and Shame. Offenders however did score lower than patient controls, on Guilt, Shame (both with small to medium effect sizes) and Shame proneness (with large effect size), as did community controls (Table 3). The findings regarding Shame proneness remained intact after controlling for age: $F(2, 148) = 21.77$, $p < .001$, $\eta^2 = 0.23$, and age did not have an effect $F(1, 149) = 2.41$, $p = .12$.

In moral reasoning however, female offenders did show more cognitive distortions than both groups of female non-offenders. They showed more Self-Centredness than both control groups. On visual inspection, some of the offenders showed levels comparable to those of non-offenders, but a substantial subset showed high levels of callous self-centredness. Female offenders also used more secondary distortions: they showed more Blaming Others and Assuming the Worst than both control groups. No significant differences were found for Minimising/Mislabelling. Effect sizes for all of these differences in moral reasoning were medium to large (Table 3).

The second hypothesis, addressing the ways women cope with shame, was also partly confirmed. Offenders showed fewer adaptive coping strategies than both patient controls and community controls, with large effect sizes. No significant differences were found for the tendency to use Externalising coping styles, and offenders did not differ from community controls in the amount of Internalising. However, they did show less Internalising than the patient controls, with large effect size (Table 3). The differences found for both Adaptive coping and Internalising remained intact, without an effect of age. Respectively for Adaptive coping $F(92,147) = 14.71$, $p < .001$, $\eta^2 = 0.17$, and age $F(1, 149) = 0.30$, $p = .80$ and for Internalising $F(2, 148) = 23.20$, $p < .001$, $\eta^2 = 0.24$, and age $F(1, 149) = 0.02$, $p = .88$.

The next two hypotheses, concerning mature conscience functioning, were tested by within-group comparisons, using the Wilcoxon signed rank test. The third hypothesis that female offenders and patient controls are more prone to shame than guilt, while female community controls are more prone to guilt than shame, was not confirmed (Table 4). Within all three groups Guilt was significantly dominant over Shame, with large effect sizes.

Table 4
Relative dominance of Guilt over Shame in offenders, patient controls and community controls, using Wilcoxon signed rank test.

	n	*Mdn*		*T*	*z*	*r*
		Guilt	Shame			
Offenders	38	3.667	2.867	680.000***	4.490	0.728
Patient controls	37	4.000	3.533	649.000***	4.968	0.817
Community controls	77	3.867	3.067	2,926.000***	7.577	0.863

The fourth hypothesis was that female patient controls and community controls would use relatively more internalising than externalising coping, and female offenders would rely primarily on externalising coping. This was not confirmed. Wilcoxon signed rank test comparing Internalising and Externalising coping within all groups, showed in female offenders no difference between internalising and externalising coping strategies. Similar results were found for the non-offending community controls. Only patient controls showed the expected dominance of internalising over externalising ($t = 11.000$, $p < .001$, $r = -0.844$).

5.4 DISCUSSION

The purpose of this study was to gain more insight into female conscience functioning and offending, by comparing female offenders to female non-offenders. Female offenders indeed appeared to differ in conscience functioning from female non-offenders; this is in line with the findings of Watt, Frausin, Dixon, and Nimmo, that female offenders resembled their male counterparts more than women from the general population.[54] They showed lower levels of the mature forms of affective empathy, i.e. empathic concern, and they put themselves less in another's position emotionally than did non-offenders. Instead, they experienced the more rudimentary and self-oriented form of affective empathy (i.e., empathic arousal or emotional contagion) in levels comparable to patient controls. This corresponds with the findings of previous studies, and suggests that female offenders differ from female non-offenders in their development of emotion- and self-regulation.[55] This possible lack of maturation is also in line with the findings of Hawk and colleagues that early adolescents score lower on fantasy and empathic concern, and higher on personal distress than late adolescents.[56] Female offenders appear to differ from female non-offenders in that their affective empathy is stagnated at the developmental level of preliminary affective empathy: the feeling of another's sufferings as one's own, without the essential as-if quality. Self and other seem still to be merged, insufficiently separated, and one's feelings of personal distress in seeing other's suffering are overwhelming and under regulated; because the offender is swept up in the other, she cannot be truly empathic.[57] In addition, a subgroup of female offenders is highly self-centred. This group of female offenders may most resemble male offenders.[58]

Female offenders showed comparable levels of guilt and shame as community controls, but without the underlying levels of fantasy or empathic concern present in the latter. They also did not differ from controls in cognitive empathy. Taken together, this could suggest that the guilt or shame felt after transgressive behaviour is fuelled merely by cognitive empathy or theory of mind, rather than by affective

54 Watt et al., 2000.
55 Schalkwijk et al., 2016; Mariano et al., 2017.
56 Hawk et al., 2013.
57 Eisenberg & Eggum, 2009; Ickes, 2009.
58 Dehart, 2018.

empathy. However, offenders did show less guilt, shame, and shame-proneness than patient controls. That patient controls scored significantly higher on shame and shame-proneness than did both offenders and community controls, aligns with the finding that high or intensive shame levels are associated with internalising pathology.[59] In addition, offenders appeared not only to be more self-centred than non-offenders, possibly hindering self-evaluation and therefore regulation by self-conscious emotions, but they also use more secondary cognitive distortions to neutralise feelings of shame in anticipation of or reflection on transgressions. It is possible that potential shame after transgressing is neutralised by using cognitive distortions as a shield. The same shield would not be needed for the community controls, who are less affected by shame and who cope with it using adaptive strategies. And this shield is also not used by patient controls, who feel more shame but seem to internalise it more. This is in line with our findings that offenders and community controls internalise shame significantly less than patient controls, and that offenders use adaptive coping strategies significantly less than both control groups.

5.4.1 Implications

We found that female offenders show levels of cognitive empathy or theory of mind comparable to those of non-offenders, but lower propensities to affective empathy. They also show more under regulated empathic arousal, which puts them at risk of emotional merging and of overwhelming personal distress, both of which hinder true empathy. These findings have important implications for the treatment of female offenders. Treatment and prevention programs should focus on helping female offenders to see the self, differentiated from another person with his or her own perspective, feelings and cognitions. The higher self-centredness in offenders indicates that female offenders need to learn to differentiate from another, and to decentralise . Female offenders, in sum, need help to own their own feelings and to learn to think about and understand them, but to also mentalize the thoughts and feelings of others who come from other perspectives and backgrounds.[60] Capacities to empathise and self-regulate can prevent them from becoming swept up in another. Offending in females further seems to be associated with a lack of adaptive coping, rather than with an excessive externalisation of shame, as is the case in male offenders.[61] This suggests a need for a slightly different focus in treatment.

5.4.2 Limitations and further research

When interpreting the findings of this study, the following limitations must be taken into account. First, the small sample size may diminish the generalisability of the outcomes. Generalisability can also be compromised because of the lack of

59 Dearing et al., 2005.
60 Bateman & Fonagy, 2016.
61 Verkade et al., submitted.

collateral information on (history of) offending for all groups, which may make it possible that, despite the self-reported differences in offending, there is an actual overlap between samples that is not being controlled for. Also, a possible limitation of the study is that offenders and community controls differed significantly in age. It is thus a possibility, that the differences found are not due to group membership, but an effect of age. However, due to multiple violations of the assumptions for ANOVAS, non-parametrical analysis were used for nine of the fourteen scales reflecting the constituent aspects of conscience. As these analyses do not lend themselves to the use of covariates, possible effects of age could not be tested in those scales. However, of the aspects of conscience that were analysed controlling for age, none were significantly influenced.

A second limitation is that the functioning of the conscience can vary greatly per situation or context.[62] The question, therefore, should always be what the facilitating or inhibiting influence of the conscience was in committing the particular offence, in the particular context and point in time. As Finkel and Hall stated in their I^3 theory: we need to analyse what the *instigating*, *impelling* and *inhibiting factors* were at that particular moment in time.[63] Moreover, we must always consider other criminogenic risk/need factors such as the central eight,[64] or other dynamic risk factors which may have put the particular offender at risk. Such as severe psychopathology, or severe financial problems whilst being responsible for raising children.[65] Research literature points to so-called gender-specific risk factors, such as criminality as alternative for hunger (especially when children are involved), financial marginalisation, prostitution, or the intertwining of victimisation and offending, which must be taken into account.[66]

A third limitation is that the use of only self-report measures on the aspects of both conscience functioning and offending. Due to privacy regulations, neither could be verified through collateral information such as official records on offending, or observations of their empathic abilities. As an objective method of verification, future research could include the additional use of those data, or of direct assessments of the aspects of conscience functioning. For example, Mariano and colleagues used both self-report measures and assessments to evaluate empathy in (predominantly male) offenders and non-offenders.[67] Rather than in the questionnaires, deficits were more clearly shown in assessments using the Eyes task, a revised version of the Reading the Mind in the Eyes Test (which identifies emotions or mental state in another's eyes), and emotional attribution tasks (which revealed deficits in the recognition of sadness and fear).

62 Schalkwijk, 2015; 2018; Schalkwijk et al., 2016a.
63 Finkel & Hall, 2018.
64 Andrews et al., Wormith, 2006.
65 De Vogel et al., 2016.
66 Ferranti et al., 2013; Heilbrun et al., 2008; Joosen & Slotboom, 2015; De Vogel et al., 2016.
67 Mariano et al., 2016.

Finally, these outcomes may not generally apply to all kinds of female offenders. Offending may include severe transgressions warranting detention, but also less severe transgressions, which can be punished by other means. Findings based on the first group may not apply to the second group. Additionally, acts defined as criminal in the laws of one nation may differ in other countries.[68] The state of the investigation and prosecution services, their selected priorities, resources and possibilities, and potential biases also play a role in who is ultimately considered an offender. Therefore, although the participating female offenders were representative of the Dutch offending population, these findings may not apply to female offenders in general, on an international level.

Due to the small sample size, especially of the offender group, it was not possible to investigate whether the differences found are similar across different types of offenders (e.g., offenders involved in property crimes versus violent crimes, or drug-abusing offenders versus non-using offenders). This suggests an interesting avenue for future research.

5.5 CONCLUSION

In this study, female offenders showed levels of cognitive empathy comparable to female non-offenders. They experienced levels of self-conscious emotions comparable to community controls, but much lower than non-offending patients. Female offenders showed significant deficits in affective empathy, self- and emotion-regulation, as well as in the use of adaptive strategies in coping with shame. They appeared to be more self-centred and instrumental than non-offenders, and to make more use of secondary cognitive distortions in fencing off feelings of guilt or shame. Interventions should therefore focus on helping offenders to own their own feelings, to learn to mentalize them, to decentralise, and to learn to empathise and self-regulate.[69] In addition to striving for behavioural change and alleviating possibly related complaints, the treatment of female offenders will then focus more on underlying, basic skills that are inadequate and that are related to their transgressive behaviour.

68 Koenraadt, 2010.
69 Bateman & Fonagy, 2016.

6 EXTENSION OF THE INTEGRATIVE THEORY: THE INTERRELATEDNESS OF ALL ASPECTS*

6.1 INTRODUCTION

According to Giubilini's review of the concept of conscience, conscience is a psychological function that motivates and regulates our behaviour, and has an epistemic function in that it generates self-knowledge from continuous self-evaluation. It is, however, morally neutral in the sense that, in itself, it has no inherent content. Conscience is like an empty box that can be filled with any type of moral content.[1] Hill argues that although a clear conscience is no guarantee that one has acted 'right' in an objective sense – because the content of conscience, composed of internalized norms, is subjective and because conscience as a function is also not fool proof – it is nonetheless both necessary and sufficient for morally blameless conduct.[2] Although indeed necessary, the sufficiency of conscience is debatable, as it is also necessary to have sufficient self-control and executive functioning to be able to determine one's behaviour in accordance with one's own wishes, especially when one lives in an environment that is conducive to crime.[3] The present study focuses on conscience, recognising that it is a necessary, though not complete, determinant of prosocial or antisocial behaviour.

The mechanism by which conscience 'works' remains unclear, as unambiguous operationalisations of conscience in relation to delinquency are scarce.[4] Prevailing definitions were until recently mainly uni-dimensional, focusing on individual aspects such as shame and guilt,[5] cognitive moral development,[6] emotional moral development,[7] or empathic capacity.[8] Many authors emphasise the cognitive or affective nature of conscience, and are categorised by Vujošević as rationalists or sentimentalists. This fragmented and sometimes polarised way of thinking about conscience has hindered the development of clinically useful diagnostic

* In press as: Verkade, M., Karsten, J., Koenraadt, F., & Schalkwijk, F. (submitted). Conscience and its interrelated constituent aspects: a network and regression analysis in (non)-offenders.

1 Giubilini, 2021.
2 Hill, 2000.
3 Wikström, 2009; Wikström & Treiber, 2009; Wikström & Svensson, 2010.
4 Le Sage, 2006; Stapert, 2010.
5 Spruit et al., 2016.
6 Gibbs, 2010.
7 Eisenberg & Fabes, 1998.
8 Hoffman, 2000; Jolliffe & Farrington, 2004.

instruments, as well as subsequent treatment planning and evaluation.[9] Not either, but both, cognitive and affective aspects are necessary for an adaptive conscience that motivates prosocial behaviour.[10] Existing knowledge regarding these aspects was therefore integrated, operationalising conscience as a psychological function that monitors the evaluation of the self and regulates one's (c)overt behaviour and, based on an interplay of empathy, one's self-conscious emotions and moral reasoning.[11] All of these aspects are related and have been previously studied, both separately and in association with offending. After briefly elaborating on all aspects of conscience and their relation to offending, the present study will investigate both their interrelated and distinct roles in the conscience functioning of (non)-offenders.

6.1.1 Aspects of conscience: Empathy

Empathy can be conceptualised as the ability to feel and understand another's emotions *as if* one were the other. It is an emotional response, with both affective and cognitive components, which overlap and yet remain distinct.[12] The most rudimentary form of empathy is emotional contagion or empathic arousal, which precedes and develops into affective empathy.[13] Affective empathy, the openness to be emotionally affected by observed feelings,[14] involves experiencing another's emotions while simultaneously maintaining the self/other distinction,[15] and empathic concern, the motivational component of empathy.[16] Cognitive empathy refers to the desire and ability to understand another's emotions and to see things cognitively from another's perspective.[17] Empathy involves both automatically activated and fast-firing bottom-up circuits (affective empathy), and top-down processes (cognitive empathy) in the brain.[18] It facilitates social interactions, attachment and cohesion. It is related to prosocial and altruistic behaviour, but its relation to morality is equivocal, because empathy can also interfere with moral deliberation: it can cause partiality in favour of those with whom we sympathise or whom we resemble the most.[19]

A lack of empathy has been associated with offending and aggressive behaviour in both men and women, with larger effect sizes for cognitive than for affective empathy.[20] However, meta-analyses indicated that the strength and direction of the association of offending with cognitive and affective empathy were affected by

9 Schalkwijk, 2014; Vujošević, 2015.
10 Giubilini, 2021; Kochanska & Aksan, 2006; Le Sage, 2004; Thagard & Finn, 2011.
11 Schalkwijk, 2014; 2018.
12 Cuff, Brown, Taylor, & Howat, 2016; Decety & Cowell.
13 Decety & Cowell, 2014; De Corte et al., 2007.
14 Decety & Cowell, 2014.
15 Cuff et al., 2016.
16 Decety & Cowell, 2014.
17 Cuff et al., 2016; Joliffe & Farrington, 2006.
18 Nummenmaa, Hirvonen, Parkkola, & Hietanen, 2008; Shamay-Tsoory, Aharon-Peretz, & Perry, 2009.
19 Decety & Cowell, 2014; Eisenberg & Eggum, 2009; Ickes, 2009; McMahon, Wernsman & Parnes, 2006.
20 Jolliffe & Farrington, 2004, 2006; Van Langen et al., 2014.

the questionnaires used, the age of the offender, or the type of offense.[21] Of those committing any offense, male offenders showed lower cognitive and affective, but especially affective, empathy than non-offenders, whereas these differences were not found in women. However, in the group of violent or high-rate offenders, both males and females scored lower on both cognitive and affective, especially affective, empathy than non-offenders.[22] Also, a longitudinal study found that only affective empathy was predictive of male convictions, and neither low affective nor cognitive empathy appeared to be predictive of self-reported offending in men, yet both were predictive of self-reported offending in women. In short, in contrast to the findings of the authors' previous meta-analyses, cognitive empathy was not found to be more strongly related to criminal behaviour than affective empathy.[23] Moreover, individuals with elevated levels of psychopathy showed intact levels of both cognitive empathy and capacities to distinguish between right and wrong, but lower inclinations to affective empathy. In sexual offences, empathy appeared unrelated to offending.[24]

Previous studies within our research project have indicated that offenders display comparable levels of cognitive empathy, but lower levels of affective empathy, than non-offenders.[25]

Empathy is regarded as a driving force behind feelings of guilt and shame when internalised norms are transgressed, especially in moral decision making and in interpersonal situations.[26] A lack of empathy has been found to be related to a decreased propensity to self-conscious emotions and lower levels of moral reasoning in the sense of more utilitarian deliberations.[27]

6.1.2 Aspects of conscience: Self-conscious emotions

Self-conscious emotions regulate our self-esteem, behaviour, and social relationships.[28] In their meta-analysis, Spruit and colleagues found higher levels of guilt and shame to be associated with less offending.[29] However, while guilt-proneness is associated with prosocial and moral behaviour and with inhibition of transgressive behaviour,[30] the effect of shame on offending is equivocal. Mild transient shame appears to be adaptive and regulating in positive ways;[31] intense and non-mentalized shame is maladaptive,[32] and can increase the likelihood of

21 Van Langen et al., 2014.
22 Jolliffe & Farrington, 2007.
23 Farrington & Jolliffe, 2021.
24 Mann et al., 2010.
25 Verkade et al., 2019; Schalkwijk et al., 2016a.
26 Schalkwijk, 2014; Trivedi-Bateman, 2021.
27 Decety & Cowell, 2014.
28 Cohen, Wolf, Panter, & Insko, 2011; Tangney, Stuewig, & Mashek, 2007.
29 Spruit et al., 2016.
30 Cohen et al., 2011; Ent & Baumeister, 2015; Tangney et al., 2011.
31 Deonna, Rodogno, & Teroni, 2011.
32 Fonagy et al., 2018.

transgressive or aggressive behaviour,[33] especially when the individual tends toward externalising coping.[34] Schalkwijk notes that some studies do indicate a relationship between high shame sensitivity and reduced crime, but that this is because these shame studies operationalise shame in a way that other studies on self-conscious emotions regard as guilt.[35] Guilt focuses on actual or imagined behaviour, and is linked to an action tendency toward reparative behaviour. Shame, however, focuses on the self, is strongly related to identity,[36] and mostly stems from a confrontation with our unwanted identity.[37] Guilt is, therefore, seen as more adaptive than shame, as shame can easily lead to negative effects. For example, shame often disrupts the present abilities for empathy,[38] is positively related to tendencies to externalise blame and anger,[39] or can lead to maladaptive behaviour such as substance-abuse, thereby initiating a feedback loop of shame, substance abuse, and offending.[40]

Although our recent study among adult offenders found no differences in guilt between offenders and non-offenders, offenders exhibited lower levels of shame than non-offenders.[41] When capacities for affective empathy fall short, interpersonal shame and /or guilt may also be hampered;[42] this may be the case in male offenders.[43] However, in contrast, in female offenders cognitive empathy appears to compensate for the deficit in affective empathy, with the result that guilt and shame can still function as regulatory emotions.[44]

6.1.3 Aspects of conscience: Moral reasoning

Moral reasoning is the cognitive process of determining what is right or wrong, based on internalised norms and the effect that one's behaviour has on (the well-being of) others, thus balancing egocentrism and altruism.[45] High levels of moral reasoning have been found to be negatively associated with offending, regardless of ethnic background, age, or gender, especially for self-reported transgressions.[46] A lack of moral reasoning is operationalised as a stable style of externalising behaviour, based on primary and secondary self-serving cognitive distortions.[47] The primary distortion, self-centredness, is seen as a stagnated ego-centrism and a driving factor for antisocial and transgressive behaviour: moral deliberations are relatively absent, as the balancing between self-centredness and caring for others is in favour

33 Braithwaite, 1989; Stuewig et al., 2010; Tangney et al., 2007.
34 Elison, Lennon, & Pulos, 2006; Schalkwijk et al., 2016b; Stuewig et al., 2010; Tangney & Dearing, 2002.
35 Schalkwijk, 2009.
36 Lewis, 1971; Luyten et al., 2002; Tangney et al., 2011.
37 Lindsay-Hartz, 1984.
38 Tangney et al., 2011.
39 Lewis, 1971; Tangney et al., 2011; Wright et al., 2008.
40 Ferguson et al., 2000.
41 Verkade et al., 2019.
42 Decety & Cowell, 2014; Trivedi-Bateman, 2021.
43 Verkade et al., 2019.
44 Verkade et al., 2021.
45 Gibbs, 2010; Kohlberg, 1981.
46 Helmond et al., 2015; Stams et al., 2006.
47 Brugman, et al., 2011.

of the first.[48] When the individual's position on this dimension is such that in the (broadened) perspective there is also care for another person, negative self-conscious emotions can arise as a result of negative self-evaluations, after or in anticipation of, transgressive behaviour. Secondary distortions or cognitive distortions are thoughts that protect the self from these feelings of guilt or shame due to negative self-evaluations based on internalised norms, and thereby facilitate transgressive behaviour.[49] However, although these cognitive distortions are associated with transgressive behaviour, their predictive value for offending, and their explanatory power for more serious antisocial behaviour and offending, are weak.[50] Possibly, the more hardened criminals may not need such cognitive distortions, because they have internalised the norms of their criminal subcultures and therefore lack negative self-evaluations, and the resulting self-conscious emotions, when transgressing more widely shared social norms.[51] This is in line with the finding that in their moral reasoning, offenders seem to attribute less importance to general moral values.[52] Another possible explanation is that, although offenders are able to judge behaviours as right or wrong, they have no need for cognitive distortions to protect the self from feeling guilt or shame, as such emotions do not even arise. This may be either because offenders tend to weigh their own interests above those of others, or because their knowledge of right and wrong lacks emotional meaning, perhaps due to deficits in affective empathy.[53] These conclusions are in line with the observations of Ward and King, who considered immoral behaviour in males to be moderated by lower levels of empathy and consequently lower levels of proneness to, and actually experienced, guilt and shame.[54] They also related this stronger propensity to immoral behaviour in men to gender specific thinking in moral reasoning, stating that in moral situations, men are generally driven more by utilitarian motives, whilst women show more deontological thinking, and therefore expect a stronger aversive affect (i.e., guilt and/or shame) when anticipating causing harm to others.[55]

6.1.4 Integration

The above suggests that for (male or female) conscience functioning, the capacity for empathy, the tendency to experience self-conscious emotions, and the level of moral reasoning must work together, or in other words, be well integrated.[56]

The integration of the constituent aspects of conscience has been indicated in previous research; correlation matrices have shown that these constituent aspects are weakly

48 Gibbs, 2010; Brugman et al., 2011.
49 Barriga, Gibbs, Potter, & Liau, 2001; Brugman et al., 2011; Maruna & Mann, 2006.
50 Stams et al., 2006.
51 Banse et al., 2013.
52 Beerthuizen, 2012; Beerthuizen & Brugman, 2016.
53 Mariano et al., 2017.
54 Ward & King, 2018.
55 Ward & King, 2018.
56 Schalkwijk, 2014; 2018.

associated, suggesting related but distinct aspects, each specifically contributing to the functioning of conscience.[57] However, network analysis in a population of adolescents indicated that the constituent aspects of conscience were less integrated in adolescent offenders than in healthy non-offending adolescents.[58] The authors concluded that conscience functioning is not an "all-or-nothing phenomenon", that is, a function that is either present or not; it is a matter of maturation and integration.

6.2 THE PRESENT STUDY

Previous research has demonstrated both the distinctive character of the constituent aspects of conscience, and their intertwinement.[59] In the current study we investigate the interrelatedness of all constituent aspects of conscience. How are they interrelated? And how do they distinctly contribute to conscience functioning in (non)-offenders?

First, based on findings of De Brauw et al. that the constituent aspects of conscience were less integrated in offenders than in non-offenders,[60] we hypothesise that in offenders all aspects will be less, and possibly differently, interrelated in offenders than in non-offenders.

Second, based on the assumption that high levels of self-centredness indicate stagnated egocentrism,[61] suggesting that decentralisation has not taken place and thus one's own perspective is still the central focus and starting point for making moral judgments,[62] we hypothesise that higher levels of self-centredness will predict lower levels of (cognitive or affective) empathy.

Third, because of the above, and because empathy is regarded as the driving force behind self-evaluation and self-conscious emotions,[63] we hypothesise that high levels of empathy and low levels of self-centredness will predict higher tendencies to experience self-evaluative guilt and/or shame as a result of negative self-evaluations after or in anticipation of transgressive behaviour. Hereby, we expect that affective empathy will have stronger predictive power than cognitive empathy.

Lastly, because secondary cognitive distortions are used to neutralise guilt and/or shame in anticipation of and/or in reflection on transgressing, we hypothesise that more use of secondary cognitive distortions will predict lower levels of guilt and/or shame(-proneness).

57 Verkade et al., 2019; 2021.
58 De Brauw et al., submitted.
59 Verkade et al., 2019.
60 De Brauw et al., submitted.
61 Gibbs, 2010.
62 Brugman et al., 2011.
63 Schalkwijk, 2014.

6.3 METHOD

6.3.1 Sample

Our study group (*N* =281) consisted of 123 adult offenders residing in either a Dutch prison (*n*=75) or a forensic treatment institution (*n*=48); 85 were male and 38 female. Their ages ranged from 18-70 years, with a mean age of 37.38 (*SD* =11.58). Participants had been convicted for property offences (*n* = 21), violations of the opium act (*n*=10), arson (*n*=1), theft involving violence or extortion (*n*=8), maltreatment (*n*=6), (threats of) homicide (*n*=14), sex offences (*n*=9), or serious offences in multiple categories (*n*=38); 8 were still awaiting trial, and 8 did not report on this matter. Of the offenders, 107 were Dutch or from another Western European country, 10 were from Suriname or the Netherlands Antilles, and 6 were from other countries. For confidentiality reasons, data on psychiatric diagnostics were not available. However, based on international systematic reviews, we know that high percentages of offenders suffer from mental disorders and comorbidity: 65% of male prisoners and 42% of female prisoners were diagnosed with one or more personality disorder, mostly antisocial and borderline personality disorders.[64] Research in the Netherlands showed similar or even higher prevalence rates and comorbidity.[65] Aiming for a comparison group fairly comparable in mental health problems, we therefore decided to recruit both community controls and people diagnosed with psychiatric disorders. The latter were recruited at a department for part-time or outpatient treatment of patients suffering from personality disorders with comorbidity (i.e., trauma, mood disorders, substance abuse, and/or neurodevelopmental disorders).

The non-offending controls (*n*=158; 44 male and 114 female), were aged between 19 and 80 years, with a mean age of 35.44 (*SD*=13.96). They were recruited either from a psychiatric facility (*n*=59) or online from the general population (*n*=99). Of the non-offenders, 152 were Dutch or from another Western European country, and 6 were from other countries. Excluded were respondents with insufficient command of the Dutch language or who suffered from a psychotic disorder. For this study, exemption was obtained from the Medical Ethical Review Committee of the UMCG and the Ethical Committee of the faculty of Behavioural and Social Sciences of the University of Groningen.

6.3.2 Procedure

All respondents were recruited upon intake (in detention or treatment) or online, on a voluntary basis. They were informed about the study by means of a folder requesting their participation; this entailed one-time completion of a set of questionnaires. Written informed consent was obtained from all participants prior to participation.

64 Fazel and Danesh, 2002; Fazel & Seewald, 2012.
65 Bulten & Nijman, 2009; Matthaei, Stam, & Raes, 2002.

6.3.3 Measures

For all constituent aspects several measures were available, each with its own pros and cons. For example, for empathy: the Basic Empathy Scale (BES) or the Adolescent Measure of Empathy and Sympathy (AMES);[66] for self-conscious emotions: the Guilt and Shame Proneness scale (GASP);[67] and for moral reasoning: the Moral Orientation Measure, which is not suitable for adults (MOM) or the Sociomoral Reflection Measure (SRM-SFO).[68] To promote the comparability of different studies into the functioning of conscience according to the integrative theory, the current authors used the same questionnaires as those used in the first study by Schalkwijk et al.[69] However, their instrument for the measurement of moral reasoning was not suitable for adults. For this reason, in the present study the "How I Think questionnaire" (HIT) was the instrument of choice.[70]

Empathy. The Interpersonal Reactivity Index (IRI), consisting of 28 5-point Likert scale items in four subscales, measures various aspects of empathy.[71] Empathic arousal or contagion is measured by Personal distress (Pd): self-oriented feelings of anxiety and discomfort caused by observing another's negative experience.[72] Affective empathy is measured by Empathic Concern (Ec): the tendency to experience feelings of warmth, compassion or care for others. Cognitive empathy is measured in Perspective Taking (Pt): the tendency to spontaneously attempt to put oneself cognitively in another's position. The Fantasy scale (Fs), which measures the tendency to empathise with people in fictitious situations, is hard to position on the affective-cognitive dimension.[73] In their second-order factor analysis, Pulos and colleagues found two principal factors in the IRI: the first, Empathic Concern, Perspective Taking and Fantasy, together representing the concept of empathy; and second, Personal distress.[74] The latter is seen as a precursor to true empathy.[75] In the current study, Cronbach's alpha reliabilities were good for Perspective Taking (α=.80), Fantasy (α=.82), and Personal Distress (α=.85), and acceptable for Empathic Concern (α=.77).

Proneness to shame and guilt, and shame coping. "The Test of Self-Conscious Affect" (TOSCA) assesses a person's proneness to experience temporary shame and guilt in different situations.[76] On a 5-point Likert scale, respondents scored their reactions to fifteen scenarios involving positive or negative events and their thoughts regarding guilt, shame, externalisation and detachment. We used only two

66 BES: Jolliffe & Farrington, 2006; AMES: Vossen, Piotrowski, & Valkenburg, 2015.
67 GASP: Cohen et al., 2011.
68 MOM: Stams et al., 2008; SRM-SFO: Beerthuizen et al., 2012.
69 Schalkwijk et al., 2016.
70 HIT: Brugman, Rutten, Stams, & Tavecchio, 2006; Brugman et al., 2011.
71 IRI: Davis, 1983; Dutch translation: De Corte et al., 2007.
72 Decety & Cowell, 2014.
73 Baron-Cohen & Wheelwright, 2004; Decety & Cowell, 2014.
74 Pulos et al., 2004.
75 Decety & Cowell, 2014; Schalkwijk et al., 2016a.
76 Tangney, Wagner, & Gramzow, 1989; Tangney & Dearing, 2002;
Dutch translation for adults: Fontaine et al., 2001.

scales from the TOSCA, and measured the tendency to experience shame and guilt. In this study, internal consistencies were good for Shame (α=.82), and moderate for Guilt (α=.69).

The Compass of Shame Scale (CoSS) examines the ways in which individuals cope with shame.[77] Possible adaptive or maladaptive ways of dealing with shame are called "scripts". Each script can be characterised by different combinations of motivations, feelings, cognitions, and behaviours. In the healthy Adaptive script, the individual recognises and acknowledges the shameful feeling as coming from within, searches for the source of this shame, and uses this knowledge to evaluate the shame, resulting in an action tendency toward reparatory behaviour. Maladaptive scripts are: 'Attack self' (inward-directed anger and/or self-blame), 'Avoidance' (hiding or withdrawing from the situation), 'Denial' (taking emotional distance or trivialising the situation), and 'Attack other' (outward-directed anger). Different situations can activate different scripts, and several scripts can be used simultaneously or consecutively. After reading descriptions of a number of potentially shame-inducing situations and/or shame-associated emotions, respondents indicated on a five-point scale whether they 1 *(never),* to 5 *(almost always)* act according to several possible scripts.[78] In the present study, internal consistency reliabilities were excellent for Shame (α=.90) and Attack Self (α=.92), good for Denial (α=.82) and Attack Other (α=.83), and acceptable for Avoidance (α=.79) and Adaptive coping (α=.79).

Moral reasoning. In the "How I Think questionnaire" (HIT) the level of moral reasoning is operationalised as the extent to which cognitive distortions are used in the evaluation of behaviours.[79] On the lowest level of moral reasoning, 'callous Self-centering', one's own perspective is the central focus and starting point in moral judgments.[80] Self-centredness, also called a primary cognitive distortion because decentralisation (i.e., the process of broadening the self-centred perspective to others) did not take place in early development, is thriving antisocial behaviour.[81] In decentralisation the perspective broadens, enabling one to weigh the interests of oneself and others in moral dilemmas. However, although many offenders do know that their behaviour is morally incorrect, they still experience no guilt or shame. It is assumed that they neutralise these self-conscious emotions by using so-called secondary cognitive distortions to justify their behaviour and make it acceptable.[82] These distortions are: 'Blaming others' (blaming external causes), 'Minimising/ Mislabelling' (playing down and justifying their own behaviour), and 'Assuming the Worst' (attributing hostile intentions to others, and consequently regarding one's own behaviour as unavoidable/unchangeable given the circumstances). Respondents scored 54 items on a 6-point Likert scale.[83] In the current study,

77 Elison et al., 2006; Dutch translation: Schalkwijk et al., 2016b.
78 Elison et al., 2006; Schalkwijk et al., 2016b.
79 Barriga et al., 2001; Dutch translation: Brugman et al., 201.
80 Brugman et al., 2011.
81 Gibbs, 2010.
82 Brugman et al., 2011.
83 Barriga et al., 2001; Brugman et al., 2011.

internal consistencies (Cronbach's alpha) were good for all scales: Self-Centredness (α=.83), Blaming Others (α=.85), Minimising/Mislabelling (α=.84), and Assuming the Worst (α=.85).

6.3.4 Statistical analyses

We tested our first hypothesis, regarding the interrelation of all aspects of conscience, using a network analysis of partial correlations, the most commonly used network analysis in psychological sciences.[84] In network analysis, it is assumed that variables directly relate to and influence each other, rather than being caused by an unobserved latent variable. This is in line with the integrative theory's vision on conscience and conscience functioning: several constituent aspects, collaborative and intertwined, shape conscience functioning. Although they are hard to interpret and do not offer causal inference, networks of partial correlations have several pros, such as the fact that they offer a way to discover unique interactions between variables, and/or that they may highlight the presence of latent variables unexpected or unforeseen in the visualisations of clusters. Also, they allow for the discovery of predictive mediation or indirect relations between variables (e.g., A-B-C indicates that A and C may be correlated, but the predictive effect from A to C or vice versa is mediated by B). Network analysis of partial correlations are highly explorative, a-theoretical and hypothesis generating. The other side of this may be seen as a con: this exploration is also highly intuitive; for further information, we refer the interested reader to Epskamp and Fried.[85] It is actually not yet possible for network analysis to estimate a priori the required sample size. According to Constantin, however, an N between 250 and 300 with <20 nodes is generally enough to observe moderate sensitivity, specificity and stability.[86]

To analyse the correlation structures in different groups and the centrality of the constituent aspects, we used *qgraph* in *R*.[87] In this analysis, (patterns) of controlled correlations between the subscales representing the constituent aspects of conscience, are shown in a Gaussian Graphical Model (GGM).Because in our analysis the number of observations (n=158 and n=123) was large in relation to the number of included variables (p=14), we used a non-regularised model, with a threshold of 0.1 to include correlations into the network.[88] On page 95 we supply Table 1 with medians, interquartile range, and confidence intervals to enable verification of possible floor or ceiling effects, and thereby skewedness in the data. We performed post hoc permutation tests to gain insight into the accuracy and stability of the network parameters, based on the estimated network structures (i.e., centrality indices). After visual comparison of networks we also performed a network comparison test to check for significant differences. We expected the non-

84 Epskamp & Fried, 2018; Epskamp et al., 2012.
85 Epskamp & Fried, 2018.
86 http://arno.uvt.nl/show.cgi?fid=149724.
87 Epskamp, et al., 2012.
88 Williams & Rast, 2019.

Table 1
Descriptives: Mdn, IQR and confidence intervals

	Men (125)								**Women** (146)							
	Offenders (85)				**Non-offenders** (40)				**Offenders** (37)				**Non-offenders** (109)			
	Mdn	*IQR*	*p25*	*p75*	*Mdn*	*IQR*	*p25*	*p75*	*Mdn*	*IQR*	*p25*	*p75*	*Mdn*	*IQR*	*p25*	*p75*
1. Perspective Taking	18.00	7.00	13.00	20.00	17.00	8.00	13.00	21.00	18.00	6.00	15.00	21.00	18.00	7.50	14.50	22.00
2. Fantasy scale	13.00	9.00	7.00	16.00	13.00	10.00	10.00	20.00	11.00	9.00	8.00	17.00	17.00	9.00	12.00	21.00
3. Empathic Concern	17.00	8.50	13.00	21.50	18.00	6.50	13.50	20.00	16.00	6.00	13.00	19.00	20.00	6.00	17.00	23.00
4. Personal Distress	11.00	8.00	5.00	13.00	11.50	8.50	7.25	15.75	17.00	6.50	13.00	19.50	13.00	7.00	9.00	16.00
5. Shame	2.38	0.97	1.80	2.77	2.60	0.80	2.33	3.13	2.87	0.63	2.63	3.27	3.13	0.93	2.67	3.60
6. Guilt	3.53	0.80	3.07	3.87	3.70	0.72	3.28	4.00	3.67	0.73	3.33	4.07	3.87	0.53	3.60	4.13
7. Shame-Proneness	2.50	1.67	1.58	3.25	3.00	1.69	2.25	3.94	2.75	1.00	2.50	3.50	3.25	1.38	2.63	4.00
8. Self-Centredness	2.22	1.50	1.50	3.00	1.89	0.72	1.58	2.30	2.11	1.72	1.28	3.00	1.44	0.78	1.22	2.00
9. Blaming Others	2.20	1.30	1.50	2.80	1.70	0.88	1.40	2.78	2.20	1.25	1.50	2.75	1.50	0.75	1.10	1.85
10. Minimising/Mislabel.	2.11	1.15	1.56	2.71	1.89	0.72	1.58	2.30	1.78	1.50	1.33	2.83	1.56	0.78	1.22	2.00
11. Assuming the Worst	2.18	1.32	1.59	2.91	1.91	0.63	1.55	2.18	2.27	1.18	1.73	2.91	1.55	0.73	1.18	1.91
12. Internalising coping	3.75	2.17	2.58	4.75	4.50	2.94	3.31	6.25	4.75	2.75	3.63	6.38	5.75	3.63	3.88	7.50
13. Externalising coping	4.54	1.52	3.81	5.33	4.92	1.31	3.95	5.26	4.96	1.90	3.83	5.73	4.63	1.29	3.75	5.04
14. Adaptive coping	3.63	0.63	3.25	3.88	3.31	0.72	3.00	3.72	3.38	1.13	2.75	3.88	3.50	0.81	3.06	3.88

Table 2
Combined correlation matrix (Spearman's rho), from all scales contributing to the components of conscience.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Perspective Taking		.31**	.39**	.03	-.03	.24**	-.03	-.29**	-.28**	-.34**	-.41**	-.17*	-.26**	.44**
2. Fantasy scale	.05		.38**	.21**	.22**	.27**	.17*	-,14	-.13	-.13	-.11	.10	-.02	.15
3. Empathic Concern	.31**	.25**		.25**	.30**	.53**	.33**	-.28**	-.23**	-.31**	-.21*	.28**	-.20*	.14
4. Personal Distress	.02	.31**	.16		.34**	.28**	.40**	.01	.02	.06	.10	.39**	.19*	-.34**
5. Shame	.06	.24**	.27**	.37**		.60**	.62**	-.14	-.11	-.09	.04	.69**	.07	-.22**
6. Guilt	.27**	.16	.41**	.17	.51**		.43**	-.24**	-.24**	-.21**	-.20*	.39**	-.11	-.03
7. Shame-Proneness	-.06	.30**	.25**	.39**	.61**	.22*		-.06	-.02	-.06	.14	.85**	.14	-.41**
8. Self-Centredness	-.43	.25**	-.27**	.02	-.00	-.34**	.09		.76**	.75**	.67**	.02	.49**	-.10
9. Blaming Others	-.40**	.19*	-.16	.08	.06	-.30**	.07	.77**		.77**	.75**	.09	.44**	-.15
10. Minimising/ Mislabel	-.31**	.15	-.17	-.06	-.06	-.35**	.03	.83**	.83**		.69**	.05	.48**	-.14
11. Assuming the Worst	-.35**	.18*	-.13	.13	.06	-.26**	.14	.76**	.82**	.77**		.26**	.41**	-.27**
12. Internalising coping	-.17	.35**	.15	.53**	.58**	.08	.79**	.26**	.26**	.21*	.29**		.24**	-.45**
13. Externalising coping	-.36**	.26**	-.15	.23*	.20*	-.22*	.36**	.64**	.65**	.64**	.60**	.57**		-.14
14. Adaptive coping	.34**	-.06	.09	-.16	-.08	.16	-.12	-.19*	-.21*	-.09	-.22*	-.20*	-.07	

Note: - * $p < .05$, ** $p < .01$ (2-tailed).
! Offenders under the diagonal, Non-offenders above the diagonal.

offender network to be denser and have thicker edges than the offender network. Finally, because the gender distribution across groups was skewed, we visually checked for possible gender effects by creating gender-related GGMs instead of adding gender as a covariate.

The following hypotheses, regarding the predictive value of: 2) the level of self-centredness for the level of empathy, 3) the degree of self-centredness and empathy for the proneness to experience self-conscious emotions, and 4) the use of secondary cognitive distortions for the degree in which guilt and/or shame are felt, were tested by means of regression analyses in SPSS. In these analyses, the dependent variables were self-centredness, empathy and self-centredness, and the sum of secondary cognitive distortions, respectively.

6.4 RESULTS

Prior to analyses, missing values (less than 1%) were imputed using group means. Also, assumptions for correlations, network analysis, and regression analysis were checked. Because assumptions for Pearson's correlations were violated for 10 of the 14 scales, we used the non-parametric Spearman's *rho* for all correlations. Table 2 shows, as in earlier studies,[89] that most of the scales correlated weakly to moderately with each other, representing slightly related, but still distinguishable, concepts.

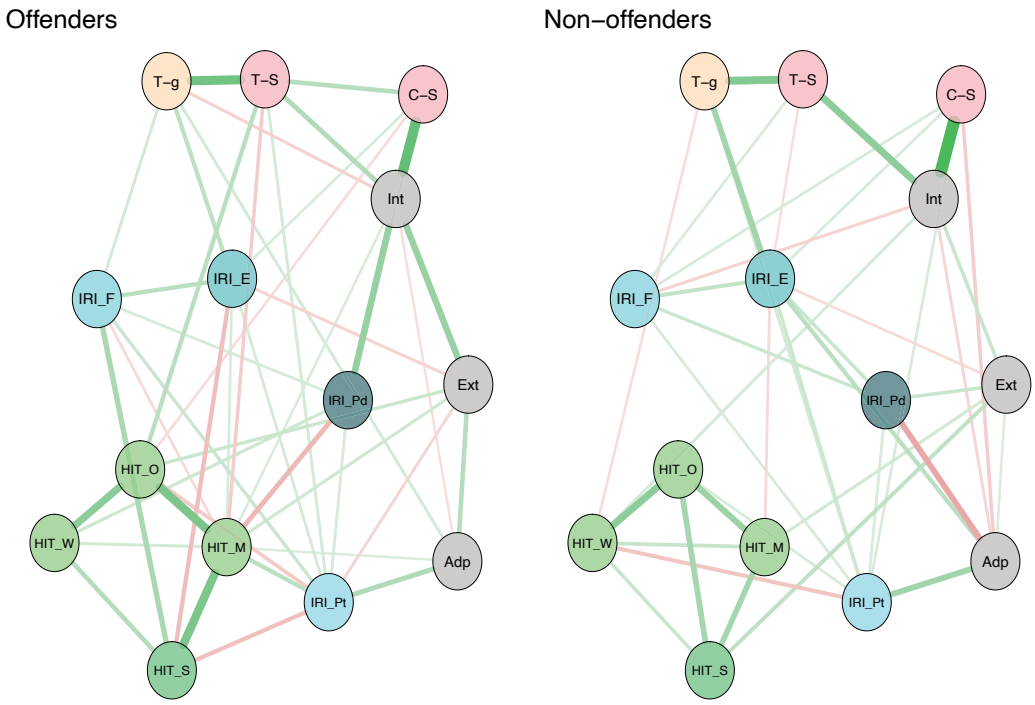
6.4.1 Are aspects of conscience less, or differently, related in offenders than in non-offenders?

To test our first hypothesis that all aspects and domains would be less, and possibly differently, integrated in offenders (n=123) than in non-offenders (n=158), we first made the GGM of the non-offender group, and then compared this GGM visually to the offender GGM (see Figure 1, page 98, for the GGMs of both groups).

The GGMs consist of nodes and edges, respectively representing subscales and their shared partial correlations. Green edges indicate positive, and red edges negative, correlations. The absence of an edge between two nodes indicates that they are conditionally independent. Each node (i.e., the sum of the partial correlations of that specific node), represents the strength of the given variable in the network, indicating which aspect most 'loads' conscience in terms of variance. In addition to strength, two other centrality indices are calculated: Closeness indicates how close a node is to all other nodes in the network, calculated as the average length of the shortest path from the node to every other node; Betweenness indicates the importance of a node in the network. It measures which nodes are 'bridges' between other nodes, by identifying all the shortest paths and then counting how many times each node falls on one of these.

89 Verkade et al., 2019.

Figure 1. Gaussian Graphical Model (GGM): offenders compared to non-offenders



Note:

IRI_Pt	= Perspective Taking	HIT_S	= Self-Centredness
IRI_F	= Fantasy scale	HIT_O	= Blaming Others
IRI_E	= Empathic Concern	HIT_M	= Minimising/Mislabelling
IRI_Pd	= Personal Distress	HIT_W	= Assuming the Worst
T-s	= Shame	Int	= Internalising coping
T-g	= Guilt	Ext	= Externalising coping
C-s	= Shame-Proneness	Adp	= Adaptive coping

In the non-offender GGM, all aspects of conscience were part of an interconnected network, indicating that the constituent aspects were interrelated, but each contributing differently to the functioning of conscience. Within the domain empathy, cognitive and affective empathy showed differentiation as constructs, as indicated by their different relations to the other domains of conscience. Affective empathy (Ec) clearly related positively to experiencing self-conscious emotions, as indicated by a thick green edge. Cognitive empathy (Pt) appeared strongly related to Adaptive coping (Adp). However, the developmentally more rudimentary form of affective empathy, Personal distress (Pd), showed a negative relation with Adaptive coping, and a positive relation with maladaptive shame coping style Externalising (Ext).

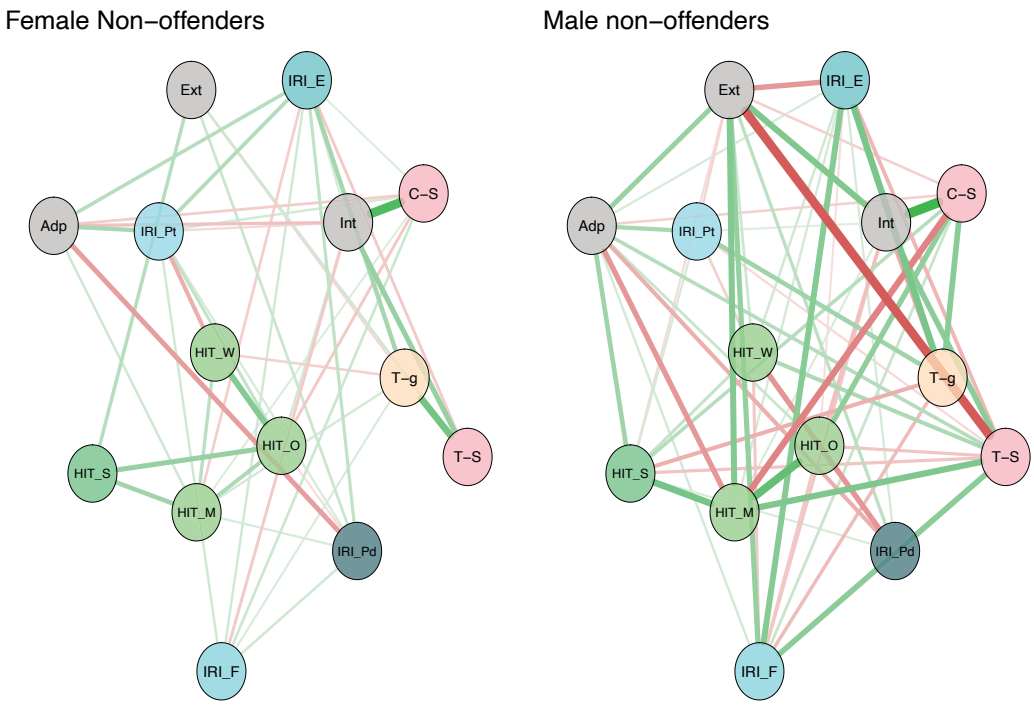
In the domain of self-conscious emotions, the tendency to experience shame (T-s and C-s) strongly related to higher inclinations toward Internalising shame coping (Int), while being independent of maladaptive Externalising, and negatively related to Adaptive shame coping.

Concerning the domain of moral reasoning, Self-centredness (HIT_S), Blaming others (HIT_O) and Assuming the worst (HIT_W) were conditionally independent from empathy, as indicated by the absence of edges. Only the aspect Minimising/Mislabelling (HIT_M) showed a weak (negative) relation with Empathic concern. Self-centredness was, however, strongly related both to the use of secondary cognitive distortions – as indicated by the green edges with Minimising/Mislabelling, Blaming Others and Assuming the Worst – and to Externalising shame coping.

Offenders compared to non-offenders. Contrary to our expectations, neither visual comparison of the GGM of non-offenders with that of offenders, nor the post hoc permutation test, indicated any significant differences in density or integration. Nevertheless, visual inspection did seem to suggest some substantive differences in the nature of the interrelationships of constituent aspects between the GMMs of offenders and non-offenders. Contrary to the non-offenders, in the network of offenders, empathy and Self-centredness were not independent: affective empathy (Ec) and cognitive empathy (Pt) both correlated negatively with the primary distortion Self-centredness, and cognitive empathy (Pt) was negatively related to the secondary distortion Blaming others.

Gender as covariate. We then checked for possible confounding variables. To investigate possible gender influences, we made GGMs for both female and male non-offenders (Figure 2, page 100), and for female and male offenders (Figure 3, page 101).

Figure 2. Gaussian Graphical Model (GGM): female and male non-offenders

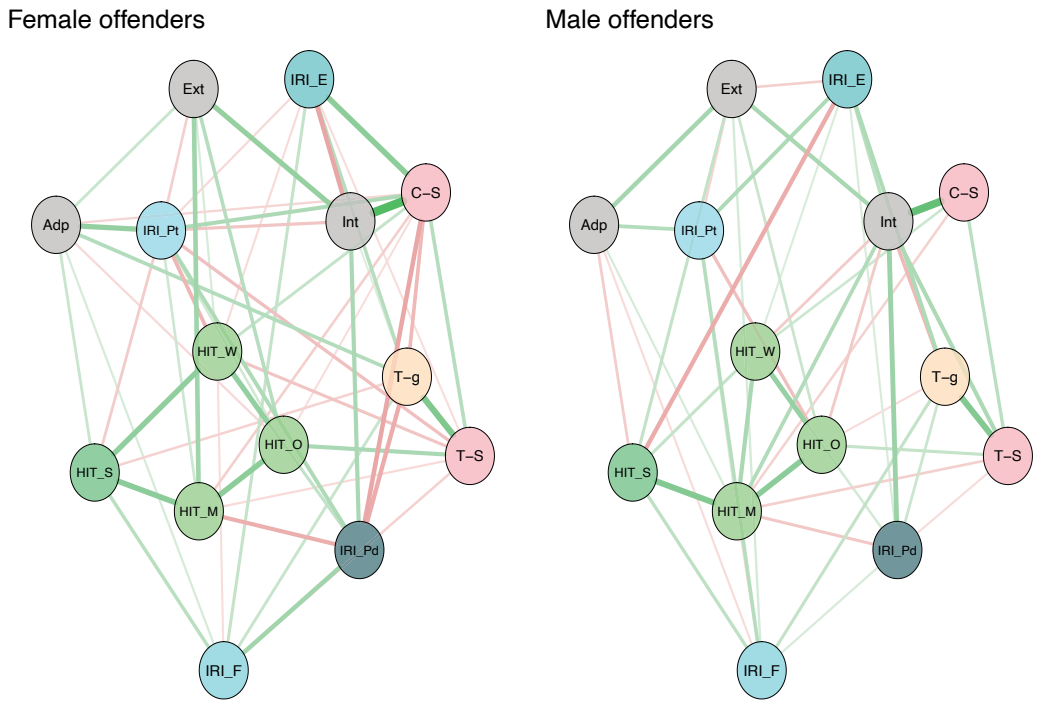


Note:

IRI_Pt	= Perspective Taking	HIT_S	= Self-Centredness
IRI_F	= Fantasy scale	HIT_O	= Blaming Others
IRI_E	= Empathic Concern	HIT_M	= Minimising/Mislabelling
IRI_Pd	= Personal Distress	HIT_W	= Assuming the Worst
T-s	= Shame	Int	= Internalising coping
T-g	= Guilt	Ext	= Externalising coping
C-s	= Shame-Proneness	Adp	= Adaptive coping

In the group of non-offenders, the GGMs suggested no gender differences in the correlation structures. One exception was for shame and its subsequent reactions: in women shame is associated with internalising shame-coping, whilst in men shame is negatively related to externalising shame-coping, but also strongly and negatively related to the use of neutralising cognitive distortions to justify their behaviour.

Figure 3. Gaussian Graphical Model (GGM): female and male offenders.



Note:

IRI_Pt	= Perspective Taking	HIT_S	= Self-Centredness
IRI_F	= Fantasy scale	HIT_O	= Blaming Others
IRI_E	= Empathic Concern	HIT_M	= Minimising/Mislabelling
IRI_Pd	= Personal Distress	HIT_W	= Assuming the Worst
T-s	= Shame	Int	= Internalising coping
T-g	= Guilt	Ext	= Externalising coping
C-s	= Shame-Proneness	Adp	= Adaptive coping

Next, we studied the centrality measures Strength, Closeness, and Betweenness, to investigate the relative importance of the different aspects (nodes) in the total structure of conscience. Post hoc permutation tests revealed no significant differences in the centrality indices between offenders and non-offenders, nor were there any influences of gender as possible confounding variable.

In conclusion, the constituent aspects and domains of conscience are integrated neither less nor differently in offenders than in non-offenders.

6.4.2 Predictive value of self-centredness, empathy and secondary cognitive distortions

Hypotheses two to four were analysed by means of regression analyses. First, we expected that high self-centredness would predict low cognitive and affective empathy. This was largely confirmed. The linear regression coefficient of self-centredness on empathy, using the sum of Fantasy, Empathic concern, and Perspective taking,[90] was -4.33 and significant, $F(1,270)=24.24$, $p<.001$. About eight percent of the variance in empathy was explained by self-centredness ($R=0.287$, $R^2=0.082$). When the effects of self-centredness on cognitive and affective empathy were split, the regression coefficient of self-centredness on cognitive empathy (Pt) was -2.04 and significant: $F(1,270)=29.24$, $p=<.001$. Ten percent of the variance in cognitive empathy was explained by self-centredness ($R=0.31$, $R^2=0,1$), and about eight percent of the variance in affective empathy (Ec) was explained by self-centredness: $F(1,270)=24.24$, $p<.001$). Stagnated self-centredness thus indeed predicts lower (cognitive and affective) empathy.

Second, we expected that high levels of empathy and low levels of self-centredness would predict higher tendencies to experience self-evaluative emotions as guilt and/or shame; this was also confirmed. Empathy[91] and self-centredness explained about ten percent of the variance in shame ($F(2,269)=16,11$, $p=<.001$), and no less than twenty-eight percent of the variance in guilt ($F(2,269)=51.44$, $p<.001$). When these results were split for cognitive and affective empathy, cognitive empathy appeared to have relatively little influence on guilt. The predictive value of cognitive empathy (Pt) on shame was significant but clinically irrelevant (explaining only 3% of the variance in shame), but sixteen percent of the variance in shame was explained by the combination of cognitive empathy and self-centredness: $F(2,269)=25.67$, $p<.001$. However, the predictive value of affective empathy (Ec) with self-centredness on guilt and shame was stronger. Empathic concern and self-centredness explained thirteen percent of the variance in shame: $F(2,269)=19.35$, $p<.001$), and no less than thirty percent of the variance in guilt: $F(2,269)=55.09$, $p<.001$. In conclusion, high levels of empathy and low levels of self-centredness predict higher tendencies to experience self-evaluative emotions as guilt and/or shame, as expected.

Third, we expected that the use of secondary cognitive distortions in dealing with self-evaluative emotions would predict lower levels of guilt and/or shame. However, the predictive value for shame was not significant. For guilt, thirteen percent of the variance was explained by the use of secondary cognitive distortions ($\beta=-0.08$, $F(1,270)=39.24$, $p<.001$). Whilst shame appears not to be neutralised by the use of cognitive distortions, the level of guilt is negatively affected by these self-serving thoughts.

90 conform Pulos et al., 2004.
91 Pulos et al., 2004.

6.5 DISCUSSION

This study aimed to provide more understanding of conscience functioning. We found no significant differences between offenders and non-offenders in the integration of conscience. Regression analysis indicated that stagnated development in self-centredness comes with low levels of affective and cognitive empathy. Affective and cognitive empathy appear in turn to be crucial for adaptive conscience functioning, as they fuel self-evaluation and self-conscious emotions, and support adaptive shame coping.

Regarding the first finding, based on findings in adolescents we expected the GGM of offenders to be less dense, or to show less integration than that of non-offenders.[92] Contrary to our expectations, however, in the current adult study we found no differences in density or integration of the domains of conscience. This is in contrast with the clear differences in density and integration found in adolescents by De Brauw et al., and may substantiate their suggestion that the degree of integration may be a matter of maturation.

Further, previous research has indicated that within the network of conscience functioning, offenders exhibit different levels of the constituent aspects. That is, they show lower levels of affective empathy, shame, adaptive shame-coping, and moral reasoning than non-offenders.[93] Based on the co-dependency of all constituent aspects and their intertwined functioning in all conscience networks, it seems plausible that, even though the networks and integration of the constituent aspects do not differ, failure of one or more constituent aspects of the network would negatively affect the functioning of the conscience as a whole.

Additionally, visual inspection of the non-offender network, and regression analyses, seem to indicate that both affective and cognitive empathy play an important role in conscience functioning. Affective empathy indeed fuels self-evaluation and thereby self-conscious emotions, and high propensities for affective empathy show negative relations to the use of self-serving cognitive distortions. This may indicate that people with strong affective empathy, leading to guilt and/or shame resulting from negative self-evaluations, do not need these cognitive distortions to justify their behaviour, as they can own their failures and empathise with their subsequent feelings of guilt and/or shame. Cognitive empathy also appears to be important, as it seems to contribute to adaptive shame-coping and inhibit the use of cognitive distortions to shield the self from shame.

Whilst conditionally independent in non-offenders, for offenders being self-centred was inversely related to both cognitive and affective empathy. This seems to indicate that decentralisation is associated with more empathy and less use of secondary cognitive distortions. This is in line with the outcomes of the regression

92 De Brauw et al., submitted.
93 Verkade et al., 2019; Verkade et al., 2021.

analyses, which affirmed that a person's level of self-centredness (i.e., the level of decentralisation) is indeed predictive of their capacity for (affective and cognitive) empathy.

The findings that non-offenders showed higher levels of affective empathy, and that the relation of affective empathy with self-conscious emotions was stronger for them than for offenders, seem to suggest that a certain threshold of affective empathy may be needed to serve the adaptive function of conscience as a whole. Therefore, in order to improve conscience functioning in offenders, it seems appropriate to invest in developing their capacity for (especially affective) empathy.

Regarding shame-coping and its function within conscience: in both offending and non-offending women, high levels of shame seem to be associated with a tendency to internalising shame-coping. Non-offending men, however, seem to address their shame not through internalising shame-coping, but by using self-justifying cognitive distortions. The fact that both male offenders and non-offenders make use of such cognitive distortions is in line with the findings of Maruna and Mann, who state that post-hoc neutralisations or excuses for offending show no clear association with future crime.[94] They argue that outside of the criminal context, post hoc use of cognitive distortions is widely viewed as normal, healthy, and often socially rewarded behaviour. Both internalising and neutralising are, however, maladaptive. For adaptive shame-coping, one also appears to need cognitive empathy. At the same time, this adaptiveness seems to be undermined by the more rudimentary form of empathy, emotional contagion, which is instead associated with externalising coping styles.

In conclusion, as expected, higher levels of self-centredness indeed predict lower levels of (affective and cognitive) empathy, and both high levels of empathy and low levels of self-centredness predict higher tendencies to experience self-evaluative guilt and/or shame. Also, affective empathy has a stronger predictive power on self-evaluative guilt and/or shame than cognitive empathy. These findings argue for the developmental theory of conscience: first, decentralisation from self-centredness to a broadened and social perspective needs to take place, followed by the development of affective empathy. Subsequently, feelings of shame, and later guilt, arise in reaction to negative self-evaluations. These emotions are followed by the development of cognitive empathy. Interestingly, secondary cognitive distortions, supposed to neutralise guilt and/or shame before or after transgressing, do not seem to predict lower levels of shame. However, they do seem to suppress feelings of guilt.

6.5.1 Implications for treatment

It is important to note that while this study aims for a better understanding of the functioning of conscience, there are many other explanatory or risk factors for offending. These include social factors, like (the stress of) financial or social

94 Maruna & Mann, 2006.

marginalisation,[95] and more individual or psychological factors, such as addiction,[96] or the lack of executive functioning or self-control.[97] These factors must certainly be assessed and covered in individual cases and diagnostics. After all, not all offending comes from a lack of conscience, although the aforementioned factors may lead to a (temporary) lack in one or more of the constituent aspects and thereby to a (temporary) lack in conscience functioning.

Although we found no differences between offenders and controls in the integration of conscience, our findings on the importance of affective empathy correspond with those of Mariano et al., who found that it is not a lack of cognitive empathy, but merely a lack of affective empathy, that hampers offenders in their regulation of self, behaviour, and social position.[98] Without affective empathy, empathic functioning is incomplete, and mentalizing abilities are comprised or imbalanced.[99] However, capacities for cognitive empathy also appear to be vital, as their lack seems to hamper adaptive shame-coping, making the individual vulnerable to temporary loss of normally available mentalizing abilities and possible acting-out in moments of interpersonal stress.

Further, the integrated findings seem to suggest the value of targeting treatment to broaden the self-and-other perspective of offenders, helping them to decentralise. To accomplish this, guidance for offenders should focus not on imposing different perspectives on them, but on promoting self-empathy rather than self-centredness,[100] and at broadening the scope of the self-centred individual to the world and others, through validating their self-experience, and through attuned but marked responses. Treatment should also focus on improving their awareness that another person has his/her own inner world, with thoughts and feelings with which one can empathise both cognitively and affectively, without contagion or being swept up. Aiming for these improvements, practitioners need to offer a specific kind of relation, without the complementary dynamics that often prevail in the field of (forensic) psychiatry; a relation in which the individual (maybe for the first time) can discover that not just one way of experiencing can be true; a relation wherein not only one person can 'win', and wherein it is possible to broaden one's perspective to that of another without sacrificing one's own. This kind of relation, which is hard work and a constant dance of attunement, misattunement and repair, is called intersubjective.[101]

The finding that personal distress, the rudimentary form of affective empathy, seems to hamper adaptive coping with shame, implies that those who show high levels of emotional contagion or arousal may need to learn to differentiate the self from

95 Heilbrun et al., 2008; Joosen & Slotboom, 2015; Savolainen et al., 2010.
96 among many others, Vaughn et al., 2016.
97 among many others, Meijers et al., 2017.
98 Mariano et al., 2016.
99 Bateman & Fonagy, 2016; Bateman et al., 2016.
100 Maruna and Mann, 2016.
101 Benjamin, 2018.

another and to self-regulate, to avoid emotional flooding, and to truly empathise.[102] Since in this group cognitive empathy is associated with adaptive coping with shame, it is possible that those showing high levels of personal distress may experience low cognitive empathy. However, this should be further investigated.

6.5.2 Limitations

The following limitations must be taken into account. The most important limitation seems to be that the day-to-day functioning of conscience varies over time due to circumstances, the amount of one's (inter)personal stress at the time, and other dynamic risk factors. Conscience functioning cannot be dichotomised as an on-or-off-phenomenon. However, in some it may appear to be more vulnerable to faltering than in others, perhaps due to biological and/or developmental vulnerability or the presence of psychopathology, which may directly or indirectly influence one or more of the constituent aspects.

Another limitation is related to this possible relatedness of psychopathology to the constituent aspects, either directly or indirectly through a shared underlying vulnerability (such as attachment problems, deficient mentalizing abilities, etc.). The fact that psychiatric diagnostics could not be collected at an individual level may negatively affect the generalisability of our outcomes. We have, however, tried to account for this by recruiting controls not only from the general population, but also among subjects with psychiatric problems which were as comparable as possible to those common among offenders, according to prevalence research.

Another limitation is that respondents were recruited on a voluntary basis (and, unfortunately, the percentage of participants among the people approached is unknown); this involves a risk that results may be biased by including more motivated, and possibly less sensitive or personally involved, offenders (i.e., volunteer bias[103]).

Additionally, only self-report measures were used to investigate empathic capacities, shame-coping, and moral reasoning, without possibilities for verification through direct measures or observations. For further research we therefore recommend the use of other sources of information on the constituent aspects; these could include staff observations or observations by close relatives on all aspects; or performance-based measures of the constituent aspects of conscience functioning, such as – among others – the "Reading the Mind in the Eyes Test" which identifies emotions or mental state in another's eyes,[104] the "Emotional Attribution task",[105] or the use of Virtual Reality.[106] Also, choices were made among self-report measures, while other measures are also available. For instance, critics of the IRI argue that

102 Nichols, Svetlova & Brownell, 2009.
103 Salkind, 2010.
104 Baron-Cohen et al., 2001.
105 Blair & Cipolotti, 2000.
106 Rueda & Lara, 2020.

its definitions of empathy were flawed, implying that the measure has inadequate validity. It would not measure affective empathy, for example, but aspects related to affective empathy, such as empathic concern, which according to the critics equates sympathy with affective empathy.[107] Although, for the sake of comparability of research results, the current authors chose to use the same measures as in the original study by Schalkwijk et al.,[108] the findings on all scales should indeed be interpreted with caution, bearing such considerations in mind.

A lack of collateral information on (the history of) offending for all groups can compromise the comparison of offender and non-offender GGMs. After all, despite self-reported differences in offending, it is possible that the control group includes respondents who have had a history of offending without reporting it. The possible overlap resulting from this could challenge our finding that networks of conscience do not differ between offenders and non-offenders. However, this possible limitation would have no implications for our findings from regression analysis.

Furthermore, the comparison of groups in our network analysis may be somewhat contrived. Offending can include both severe offences warranting detention, and less severe offences, as two ends of a continuum. The offenders in our study group were recruited in a detention centre, and therefore probably reflect the higher part of the continuum, while the consciences of individuals on the lower part of the continuum may actually be more similar to those of the non-offending control group. Moreover, countries may differ in what they legally define as criminal acts.[109] The state of their investigation and prosecution services, their selected priorities, resources and possibilities, and their potential biases also affect who they ultimately consider to be offenders. Therefore, although the respondents in our study were representative of the Dutch offending population, our findings may not apply in general to offenders at an international level.

Although outside the context of null hypothesis testing the term power is less relevant, also for network analyses, accuracy is of great importance to determine with how much certainty the correlations, or interrelations (i.e., edge weights) can be estimated. The accuracy of this estimate is determined by the sample size. Findings from small studies (in network analysis or other statistical tests) are often not replicated in other (larger) studies because their parameter estimates are not accurate, and therefore not easily repeatable. In the method section, we describe our assumptions regarding this issue, as this is an ongoing research question for the relatively new use of network analysis in psychological sciences.[110] Based on what is known, our sample size of 281 (123 and 158) by 14 nodes should suffice. However, due to the relatively limited sample size, the networks may not be an accurate representation of reality, and may therefore not be replicable (as is the case for any

107 Jolliffe & Farrington, 2006; Vossen et al., 2015.
108 Schalkwijk et al., 2016a.
109 Koenraadt, 2010.
110 Epskamp et al., 2018.

outcome of any statistical test). Taking this into account, we chose a conservative approach for our network analysis. In reality, more differences may exist between the groups than were shown in the current study. A less conservative approach involving different choices regarding thresholds and/or pruning, for instance by showing only significant correlations in the GGMs, may have led to different outcomes with greater differences. Further research with larger sample sizes, and perhaps a less conservative approach, is recommended.

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7 BLUE EYES TO BE TRUSTED: A CASE DESCRIPTION

In this chapter a case is presented. Not as an *N*=1 study, but with the aim of clinically illustrating the themes of the literature and the empirical studies. The case is briefly introduced from my own clinical point of view, followed by an exercise in using the chosen definition of conscience, as well as insights gained from empirical studies regarding the relative differences in conscience functioning between offenders and non-offenders.

In the following case study, I will illustrate the diagnosing of conscience functioning in an individual, followed by a reflection on the added value of the chosen definition of conscience for clinical practice.

7.1 CASE INTRODUCTION

Adam is a 25 year old man, born in the early nineties, sentenced with both a prison sentence and a psychiatric hospital placement order. He is charged with, but denies, an armed robbery from several undocumented immigrants. His criminal record includes involvement in several street fights with friends while going out, assault on a baseball field, and dealing drugs. The latter started in his early teens, when his mother was sick and parental guidance was lacking. He was on the streets, and looking for suspense and easy money.

Still denying the armed robberies, he was seen by a psychiatrist for a pre-trial forensic mental health report and was diagnosed with attention deficit and hyper impulsivity disorder (ADHD) and substance abuse disorder (cannabis and alcohol). For enhancement of his empathic abilities, reduction of his impulsivity and aggression regulation problems, and abstinence from drugs and alcohol, a mandatory inpatient treatment was advised.

Adam was placed in the forensic psychiatric hospital whilst still denying that of which he was accused and awaiting appeal, and I was assigned to be his psychotherapist. Upon admission, Adam was told that the first three months after admission would be mainly focused on getting to know him – to assess his abilities, personality, and the possible presence of a mental disorder related to the criminal offenses of which he was accused. All this would be done in order to estimate the risk of recidivism

and the possible danger to society, as well as to come to an indication of treatment needs to prevent recidivism.

7.1.1 Observations

When we meet for the first time, Adam claims to be innocent of the charges and does not want to discuss them. However, he also claims wanting to take responsibility for his life now. He wants to get his life back on track and does not want to disappoint his parents anymore.

Adam is a fairly well-groomed, broad shouldered young man, with an explicit dressing style. He always wears a tracksuit and sneakers of a specific brand, his head is shaved with only a tuft on top, as if it were a toupee. He is pale, barely bearded, and has very light blue eyes. Eyes that look at me but seem to see little and in which for me there is little to read. Not necessarily cold, but rather uninterested or bored and under-aroused. His facial expression is flat when listening, but lively when speaking.

In the following weeks, Adam meets the psychiatric nurses of the ward and other therapists, like the psychiatrist, the art and psychomotor therapists, and the occupational therapist. In these encounters as well as in our individual sessions, his involvement in creating a good image of himself is striking. He is polite, always puts his best foot forward. He denies any possible negative feeling or thought. When confronted with negative qualities or (patterns of) behaviour(s) that cannot be ignored, he rushes to emphasise that the opposite usually is the case. For example, when confronted with my observation that he seems to be able to lie well, even to his parents, Adam replies: "Yes… yes, no, but… look! No really, normally I'm really very honest. It hurts me not being able to speak the truth to them about this!", his eyes open wide and shining brightly.

Adam never expresses criticism to staff or group members directly, but compliments others. However, when relaxing in a group of peers or when he thinks he is unobserved by staff members, he presents himself as the clown in the group, mocking others by making non-verbal jokes about them or by quietly commenting on a practitioner's clothes or physique. He is the life of the party, apparently liked but not taken seriously. When having fun, his pale eyes shine baby blue.

During his first months of attunement to treatment, Adam is still awaiting his appeal hearing. This complicates his commitment and accessibility for diagnostics and treatment, because he is, of course, very aware of his legal position and the possible consequences of his own statements for his co-offenders. He is keen not to be a snitch, never saying anything about his co-offenders, whom he sees as friends. Adam refuses to speak about the robberies, regardless of the therapist's confidentiality agreement. He claims to be innocent, but in an uninvolved manner that suggests opportunistic considerations about his protection in court.

Nonetheless, after he has been observed for a few months and constantly confronted with his own denial and inconsistent and seemingly manipulative behaviours, something seems to open up in our sessions, while Adam is still awaiting his appeal. He is giving away more and more, but only in our one-on-one conversations, in which his life story is initially the central focus and in which I am careful not to be too eager or curious about his crime story. He shares his feelings of insufficiency, his regrets at failing in school, and in his rather promising baseball career, thereby comparing himself to his beloved younger brother and former (slightly older and non-criminal) friends. They are all successful in their studies or jobs, have partners and an apartment or house, while he is stuck. Figuratively stuck in his life and literally stuck as a prisoner.

The emotions Adam reports, like regret, sometimes remorse, anger at himself, and shame of falling short, are perceptible in these moments. At times, he seems to have an urge to share information regarding his offenses, his retrospective thoughts, and perhaps justifications. Few but rare moments of shame arising from self-evaluation can be felt as genuine, when he talks about the suffering he inflicted on his mother by failing at school, causing her stress and grief. He seems to think that the only solution is to not bother her with his problems, negative feelings, or failures. He struts his stuff and plays nice.

From then on, moments of overwhelming emotions more often occur, moments in which he sometimes seems to experience shame and the desire to do things differently. However, these feelings do not arise when he is talking about his alleged victims. In fact, when he appears to feel stigmatised as a perpetrator, he seems to respond by again repelling all responsibility and feelings. During all this time, Adam exhibits no empathy for his victims at all.

Many therapists within the team report feeling some kind of therapeutic relationship, which, however, seems based mainly on their own compassion and/or sympathy. They feel Adam is kind and friendly. They like his soft tone and little jokes and are, at times, caught by surprise when he shows interest in their lives. However, the contact remains superficial and for a long time lacks self-awareness. The deepening of contact and the inducement of self-reflection require great effort from all team members.

7.1.2 Life story

Adam's life story is obtained from personal conversations with him as well as from interviews with his parents. He is the eldest son of a military family with two children. His father was a submarine technician from an introverted and modest family with strong moral values and rules. His mother is a housewife, from an extravert and loud Roma family made up of strong personalities, characterised by big mouths, loud voices and hard work. In both families Christianity is practiced, but from very different perspectives. The fact that mother married a 'Gadjo'

(non-Roma), was accepted on both sides. The family's credo is helpfulness and community involvement, with a strong emphasis on integration: 'Participate, be good, work, do not talk, act, do not complain.'

When pregnant with Adam, his mother stopped drinking and smoking, and worked until close to her due date. As is usual in the Netherlands with normal deliveries, mother and child were discharged immediately after giving birth. The family's running joke is that they then went straight to a music festival. There were never any complications in Adam's development and there is no family history of psychiatric diseases or vulnerabilities. Life was good and safe. Adam loved his younger brother and was a proud older brother, helping and caring for him. His mother's and father's families were always in close proximity and life was characterised by social and religious happenings, parties, and storytelling. However, talking about the negative aspects of life was taboo.

A joyful and funny toddler, in his early schoolyears Adam was a slightly shy boy – soft spoken, socially involved, with a lot of playmates, and often the teacher's favourite – until, when Adam was eight years old, his mother was diagnosed with an incurable form of cancer. She was operated on and received chemotherapy, was very sick and spent a long time in hospital. In the hospital, Adam was the soft and sweet boy from before. He remembers his mother's kind and caring nurses, and the games he and his brother played while his father spent time with his mother. At school, however, he became more interpersonally sensitive and irritable. He refused to speak about his mother's pain, which he noticed but could not put into words, nor about his fear of losing her. A few times, in a frenzy, he would attack classmates or even his close playmates who used the 'C-word' when swearing. Strangely, these aggressive incidents led to reprimands, but nothing more. No one seemed to have thought to sit down with Adam and talk with him about his feelings.

In these years, while his mother survived but remained sick with painful moments of organ failure, Adam learned that storytelling was permitted only for stories from the bright side. Mother's severe illness was never an object of conversation; it was not discussed, let alone explained. His mother travelled by bicycle to the hospital for her life-extending chemotherapy. Going by car, let alone being accompanied, would be seen as weakness or whining. Adam felt it was better to play outside and manage on his own, so as to not burden his mother. The extent of her suffering was hidden from the children, and for years the daily hassles of two children growing up were hidden from her by their father. The children were told that stress could be fatal for her and needed to be avoided at all costs.

Over the years, Adam came more and more to live under the radar. In his puberty, Adam and his father co-created a façade of a well-oiled family-machine, hiding Adam's aggravating transgressions from his mother. Starting with the fights with his classmates, and later his skipping of classes, worsening backlogs at high school, a minor theft, the first joint, and heavy drinking while underage, structural use of hash… the story of everyone doing fine was increasingly played up. Father's

involvement, possibly because of his own stress regulation problems, an increasing need to sleep/stay in bed when stress levels increased, as well as worsening alcohol abuse, seemed to revolve around keeping up their story, instead of helping to co-regulate or set boundaries to guide his son. Honesty, thus concluded Adam, is 'not telling lies'. One can hide a life and at the same time maintain integrity. One can live under the radar and be 'a good boy' at the same time.

Adam received his high school diploma, but did not know what to do next. He started a military education, but could not handle the authoritarian top-down regulations. Following his parents' advice, but without any intrinsic motivation, he switched to a technical education. When he could not keep up with the required mathematics, he felt like a failure but told no one about this. His daily substance abuse made him less connected with his own feelings and desires, and his natural drive was gone, except for playing baseball. His passive and procrastinating behaviour became a disabling pattern. When an aggressive incident on the baseball field led to his suspension from the team, he lost the last of any sense of belongingness and perseverance.

Until then, Adam had had a girlfriend, whom he claims to have loved and continues to love. According to him, she was sweet, disciplined and persevering, intelligent and pursuing higher education, and most importantly, cheerful. He describes her as if as if she has all the qualities that he himself lacks. However, she is also a serious girl, who wants to commit herself and also wants him to commit. In the months before his suspension, she had warned him several times that she could not live forever with his impulsive behaviour, the recurring incidents and police contacts. After the major aggressive incident she left him.

Adam let go. He did not go to school, but only to parties with drugs and alcohol; he failed his exams and was expelled, lost his job, and decided to make fast money by running drugs. There was little to lose anymore. He got into street fights on a regular basis, always under the influence of alcohol, and was convicted for driving under influence. Adam's father was aware of these developments. When Adam was 16 the police even brought him home in the middle of the night, but as always, his father told him not to tell his mother. They went to sleep and thereafter did not speak about these incidents or their aggravating pattern.

This went on until Adam's mother found out, when Child Support got in touch with her and asked her about her son's behaviours. Then everything became clear, but it was too little too late. Adam wanted to stop his behaviours, but he was in too deep. He could not stop drinking on his own and he had large debts. He also had secret financial debts in the underworld, which he could not pay back by working a legal job, as his legally earned money would be taken to pay off known debts. Therefore, besides working a job in waste management, he kept running drugs, hoping to pay his criminal debts and change his life. He planned to start school again the next season. When one of his three colleague drug-runners came up with the plan for an armed robbery, he thought this 'one time major offence' would be his way out of debt.

7.1.3 Offense for which Adam was charged

The robbery was planned within two to three hours after the idea came up. Looking back, Adam thinks he would not have taken part in the robbery had it been planned to take place a few days later, because than he would have been able to think things over. However, the plan was to be executed immediately. He agreed, on impulse. Second thoughts did arise in the brief run-up to the crime, but he dismissed all thoughts of aborting the plan or no longer participating, based on his self-ideal of being a friend who is trustworthy and reliable, and on his longing for a way out of debt.

Adam and the others obtained a knife and a car. They then phoned the intended victims, made an appointment to see them, parked the car close to their home and walked the rest of the way. Because of his baby-blue eyes and soft tone of voice, the group decided Adam would be the one to ring the bell. The lady who answered observed the young man in the doorway before she opened it. At that moment, Adam went inside, immediately grabbed her by her arms, turned her over and put his hand over her mouth. He pushed her through the hallway into the room, making space for his fellow perpetrators. They tied her up and gagged her, searched for the other women present, and for their money. Their bags filled, they left the house, with no remorse or feeling for the women inside. They divided the loot and went their separate ways. They did not reflect on how the robbery must have affected the women they had attacked or on how they must have felt. Instead, Adam displayed many cognitive distortions when discussing the facts during the early months of therapy, such as labelling the undocumented women as fellow criminals whom they could consequently rob, as this is how criminals do business among themselves.

7.1.4 Summary of psychological assessment

From observations during the assessments performed by the research assistant, Adam is described as a well-groomed young man, 25 years of age but looking a bit older. He appears adequately attuned to the assessor and shows that he has sufficient verbal expression skills. His mood is neutral. He is slightly hesitant and seems alert, and provides little information on his own initiative. He answers questions but does not expand beyond answering the question. His thinking is coherent in form and content, and both consciousness and orientation appear to be normal. Adam wants to perform well and has already in advance asked the assessor about the purpose of the psychological assessment, but he shows up much too late for the first appointment.

During the assessment, Adam is calm and shows no signs of increased tension. Although he predominantly shows good effort during the assessments, he tends to give up easily on tasks that test his memory. He works through all tasks at a fairly brisk pace and is occasionally impulsive in his response. His fast pace sometimes leads to a less critical working method, resulting in mistakes.

Cognitive abilities & executive functioning. According to extensive intelligence testing, Adam's cognitive performance shows a fairly balanced profile of subtest scores, ranging from below average to average cognitive ability. An exception is the subtest Verbal Fluency, on which Adam scores above average.

Neuropsychological tests for executive functioning show that Adam is moderately able to focus his attention and to ignore irrelevant information. However, he shows great difficulty in sustaining attention. His attention greatly fluctuates, but this does not significantly affect accuracy. Adam's ability to process, store, and retrieve both coherent and non-coherent verbal or visuospatial information is relatively weak compared to that of others with comparable cognitive abilities. No indications were found of a lack of mental flexibility or problems in planning and internal organisation. In fact, Adam's abilities to think ahead and to control his own actions appear to be well developed.

Personality and coping. From his answers on several personality questionnaires, such as the MMPI and others, Adam emerges as a person with a fairly stable temperament and adequate tolerance for anxiety or ambiguity, who is currently experiencing considerable distress, in the sense of feeling depressed, angry, dissatisfied and/or frustrated. Adam seems to tolerate stress fairly well, but his awareness of and contact with his own inner world of thoughts and feelings is underdeveloped and his impulse control is clearly lacking. He is strongly oriented towards positive stimuli and affects, and has a strong tendency towards impulsivity and externalisation. He seeks instant satisfaction of needs that are at the same time hard to acknowledge, and seems to avoid confrontation with his own vulnerability.

Consequently, Adam appears to avoid intimacy, and tries to gain interpersonal control. In the face of problems, he seems inclined to avoid his problems or to seek distraction by focusing on something else (such as eating, drinking, smoking). He neither shares his problems nor seeks help from others. He needs external guidance and structure, but finds it difficult to tolerate both these needs and the required closeness of others. Adam is verbally very fluent and has a smooth chat, but lacks the social skills to mobilise and trust or endure real supportive contact, and is resistant to involving others (counter-dependence). Within him, denied and split off negative feelings can accumulate, resulting in growing dysphoria.

7.1.5 First considerations on relevant factors in Adam's history and personality development

From the observations, private therapy sessions, and psychological assessment, Adam appears to be young man of average ability, with a moderately extravert temperament and a dysphoric state of mind. He seems to suffer from feelings of frustration, regret, anger, dissatisfaction, and insufficiency, but seems able to experience these emotions only when alone or perhaps in the company of someone

close to him. His attachment style is reserved (A-strategy[1]). He keeps his feelings at a distance, and does not share them with others. The ability to ask for or mobilise (social) support seems to be lacking, presumably partly due to his reserved attachment strategy of counterdependency and his low level of experiencing. This is easily overlooked, however, due to his (apparent) sociableness and easy-going presentation, the ongoing jokes, his involvement in the activities of others, and his helpfulness. Or, in other words, due to his splendid social façade.

Developmentally, certainly from his 8th year but probably even before, he seems to have taken on the family defence mechanism of being strong and denying vulnerabilities. This basic defence appears to have increased greatly during the years of his mother's severe illness and the anxiety-driven norm, for the purpose of her survival, to spare her any disturbance or negative feelings. After all, Adam was told that he could lose his mom if he were to show his real self, including his sorrow, anxiety or anger. In those years, when the fear of losing her could not be contained and therefore not fully experienced, his inner 'vulnerable child' had to be split off from his 'adapting self'. Uncontained and unrecognised powerlessness and aggression remained unregulated, and were channelled through acting out, whilst a criminal self with the narcissistic defence of fantasies about grandeur ("I can do anything and get away with it") was split off. When faced with problems or inner conflicts, Adam dealt with them by means of denial, seeking distraction in fun or thrills, or in palliative (ab)use of alcohol and cannabis. This substance abuse seems to have aggravated his impulsiveness and irritability, though when abstinent under controlled clinical circumstances he rarely showed a tendency for aggressive behaviour.

Adam himself, denying any involvement in the incidents he is charged with, asks help in dealing with his feelings of insufficiency and failure, which he believes are due to a lack of discipline and perseverance. He sees himself as weak. When negative self-evaluations distress him he seeks the comforting proximity of his mother, but without sharing his inner world. Instead, he tells her stories about having fun with friends, creating an image of being healthy, happy, and in control, out of concern for his mother and fear of disappointing her. He seems to feel bad and guilty towards her for the negative feelings he himself experiences. He needs to be strong for her.

To emotionally grow or to achieve something, Adam now needs external support and structuring, but he can hardly bear it. He sometimes asks for support, but at the same time undermines what is offered, thereby reiterating his own failures and

1 Crittenden and her colleagues (Crittenden & Landini, 2011; Baim & Morrison, 2011) have developed a dynamic maturational model of attachment, which provides more understanding of patients with disorganised attachment patterns and builds on Bowlby's attachment theory and the theory of disorganised attachment of Solomon and George (2011). They use the letters A, B and C to indicate the attachment patterns, in line with Ainsworth (Crittenden & Ainsworh, 1989). Therein, *B* stands for a secure attachment, *A* for a reserved attachment pattern in which affects are avoided and cognitive information processing is paramount, and *C* for an anxious ambivalent pattern in which affective information processing is dominant. Interested readers are referred to: Baim, C. (2015).

consequential self-blame, resulting in moments of shame, immediately fenced off by externalising excuses and cognitive distortions. He then hardens in a pose that seems to communicate: "I am fine, I will manage, just leave me alone". His fenced-off negative affects then mount, without him experiencing anything, let alone mentalizing what is going on internally, and are expressed in heightened impulsivity and outbursts of anger.

From the perspective of his violent acts, his use of violence to achieve material gain, and the lack of critical self-reflection when speaking about both his actions and his victims, Adam seems unscrupulous, instrumental, and calculating. However, when we get to know Adam, a different picture emerges.... Is he unscrupulous? What about the functioning of his conscience?

7.2 EXERCISE

7.2.1 Diagnosing Adam's conscience functioning using the chosen definition

The following serves as a clinical illustration, and an exercise in using the insights gained from the foregoing empirical studies, based on the definition of conscience as a psychological function that regulates our behaviour and identity by means of self-reflection and (second-order) evaluation, resulting from an interplay of affective and cognitive empathy, self-conscious emotions (such as guilt and shame), and moral reasoning.

Aiming for a better understanding of what may be distorting Adam's conscience functioning, his empathic abilities, his tendency to experience self-conscious emotions, and his propensity towards internalising or externalising shame-coping, as well as his level of moral reasoning, will be systematically examined and described.

This is done first by means of a file examination (including personal and collateral information on his life, criminal offences, and test diagnostics) and our individual therapy sessions about the information obtained from this examination, as discussed in the paragraphs above.

Second, Adam filled in the questionnaires that were used in the current research project. His affective and cognitive empathy were thus measured using the Interpersonal Reactivity Index,[2] his tendency to experience self-conscious emotions by means of the Test of Self-Conscious Affect,[3] his shame-coping with the Compass of Shame Scale,[4] and his level of moral reasoning in the How I Think questionnaire.[5]

2 IRI: Davis, 1983.
3 TOSCA: Tangney & Dearing, 2002.
4 CoSS: Elison et al., 2006.
5 HIT: Nas et al., 2008.

7.2.2 Diagnostic descriptions of the constituents of Adam's conscience

Capacity for empathy. Descriptions of his offence history and the conversations about his actions suggest that Adam's capacity for empathy is limited. Theory of Mind appears to be present, but Adam exhibits affective empathy only for people who are of interest to him, and only when his attention is pointed explicitly to their possible feelings. At such moments he can also act accordingly, and thereby surprise or sometimes even move the other. When it comes to the victims, however, affective empathy seems completely absent, although he seems to be able – at least at a socially desirable level – to empathise cognitively with his victims when explicitly stimulated to do so. For example, he can talk about how fearful these women must now be in their own homes, to let a stranger in or to trust men in general, but followed by an argument that they probably are not actually affected, as they were hardened women who were used to living in illegality. His mentalizing can be characterised as merely at the level of non-mentalizing equivalence, primarily cognitive with a lack of affective experience, and focused on himself more than on others.[6]

Adam's inclinations towards self-conscious emotions and method of shame-coping. Adam shows little tendency to experience feelings of shame, guilt, or pride. Shame sometimes appears to be triggered, mostly when he is reminded of and dwells on how his own doings and failures may affect his mother. He feels that she will never leave him, no matter what, although he has disappointed, frightened, and shamed her. These moments of shame appear to be sincere. However, they also appear to depend on the virtual presence of, or explicitly recalled internalisation of, his mother as an external referent, more than on confrontations with the internalised undesired self. The significant other seems not to be fully internalised nor represented in his mind unless he is explicitly stimulated to focus on her. The self-as-subject does not seem to be (fully) developed; both the experiencing and the observing self seem to be lagging behind.

Moreover, when threatened to feel shame, Adam's shame-coping appears to be maladaptive. Except for moments in which his attention is directed to both his own behaviours and his mother, he avoids confrontation with shame-inducing situations or thoughts. Most of the time, he neither acknowledges the shame, nor actively evaluates its source. Instead, he so rigorously buries his shame feelings and thoughts that both the feelings and the self-aspects that they represent are split off, as if they do not exist and have never existed. And when this avoidance fails, he seems to externalise the shame primarily by seeking distraction in arousal and thrills, or palliation[7] by substance abuse. Only when this is no longer possible and he can no longer avoid facing the effects of his own doings on his self-evaluation, he seems to internalise the shame in a self-punishing way ("I am weak, I lack perseverance. Compared to my brother or my peers, I am a failure"). Strikingly, he is never seen to

6 Bateman & Fonagy, 2016.

7 In palliative coping an individual distances him/herself from the problem and flees emotionally by seeking comfort in distracting activities or the use of substances.

use the externalising strategy of blaming others. Guilt is not observed, nor an action tendency towards reparatory behaviour.

Moral reasoning. Adam's moral reasoning seems to be characterised by a utilitarian orientation toward profit and loss, or penalty. In deciding whether thoughts, plans, or actions are right or wrong, he seems to base his evaluations not on the rightness or wrongness of an action itself, but on possible personal costs or benefits and the possible reactions of others. Regarding the latter, Adam seems able to mentalize possible reactions of others only in the actual presence of his mother or a mother figure as external referent. Norms seem to be internalised only at the preconventional level,[8] as Adam can react very indignantly to the transgressive behaviour of others. These norms, however, do not seem to transcend the level of a set of rules that one may obey, bend, or shut down, depending on the situation and the consequences.

Given his focus on possible costs or benefits, he seems to lack decentralisation. Adam is still predominantly self-centred and his (internal and external) behaviour is still strongly driven by his own desires or impulses, without regard for the possible interests of others. His feeling of being isolated from prosocial peers unjustly when suspended from baseball possibly hardened this self-centredness, and this specific memory may symbolise more diffuse experiences of feeling excluded. This self-centredness (the primary cognitive distortion) seems to be the main drive of his lust-driven, comfort- and thrill-seeking lifestyle, in which unease and hardship are avoided or split off. It is a life in which education is repeatedly started, neglected, and then stopped, due both to boredom at school and to partying, going out, binge drinking and fighting 'for fun', as well as looking for easy jobs to make a quick buck, all to avoid the pain of either his mother's suffering or his own fear and sadness.

Whenever feelings of shame or guilt reach and puncture Adam's self-centredness, for instance due to the close proximity or thought of an important other or loved one to which his attention is actively drawn, those feelings are neutralised by means of cognitive distortions. He evaluates his own behaviour as unavoidable given the (extreme) circumstances, and minimalises the (negative) consequences of his own behaviour for others.

7.2.3 Test diagnostics on constituents of conscience, based on questionnaires

Unfortunately, as yet no integrative test or questionnaire exists to measure conscience functioning. Therefore, although some questionnaires used for this research (as discussed in the empirical studies) were not developed for clinical use and lack the necessary norms, Adam filled them in. We compared his scores with those of groups of offenders and non-offenders, using their means and standard

8 Preconventional morality is the first stage of moral development (< 9 years). Adam seems to be developing at the end of this phase, which includes somewhat internalised norms that are still dependent on the presence of an external referent, black-and-white reasoning and splitting as a defence mechanism, and as yet deficient mentalizing capacities. Kohlberg, 1981.

deviations for empathy, shame, shame-coping and guilt, and the validated norms of the HIT for moral reasoning. Adam appeared to lag relatively behind in several constituent aspects of conscience functioning.

He scored more than a standard deviation higher on cognitive empathy for both male offenders and non-offenders, but showed less empathic arousal in the form of personal distress at seeing another's suffering, and less affective empathy for others, than non-offenders.[9] He also reported less tendency to experience shame than non-offenders, though his guilt levels were not significantly lower (i.e., not more than one standard deviation). In coping with (moments of) shame, he exhibited a much lower tendency towards internalising strategies and much higher and clearly deviant tendencies towards externalising coping strategies, and an apparent failure in adaptive coping strategies. His moral reasoning was characterised by a clinical level of self-centring, and also clinical levels of using cognitive distortions to neutralise arising feelings of guilt or shame, both by hindsight or in anticipation of transgressive behaviour.[10]

7.2.4 Summary and integration

Adam is a young man with a relatively stable, moderately extravert temperament and an adequate tolerance for anxiety, who lacks sufficient contact with his own inner world of thoughts and feelings. He is insufficiently attuned to his own or another's needs, does not consciously experience rising inner tensions, and is not able to mobilise and/or endure external support due to his counterdependency and his illusion of control. Lacking decentralisation, Adam is stagnated in self-centredness. His mentalizing and affective empathic abilities fall short, seeming easily overpowered by his need for arousal and search for personal gain or satisfaction of needs. Possibly due in part to his self-centredness and lack of capacity for affective empathy, his inclination to experience feelings of guilt or shame is weak, and remains dependent on the actual presence of a significant other, or the virtual presence of that significant other, brought about by explicitly drawing his attention to his relation with this person. When Adam experiences that a significant other is present as an external observing ego, feelings of shame or guilt may break through. However, though in these moments the shame is briefly felt, it is immediately fenced off by means of cognitive distortions.

This illustrates how the faltering of one or more of the constituents of conscience hinders conscience functioning as a whole. Adam's antisocial behaviours and choices, driven by his hardened self-centredness or the self in illusionary control, and possibly strengthened by his impulsiveness, are insufficiently inhibited either

9 Scores that differ more than one *SD* form the group-mean are labeled as 'higher'/'more' or 'lower'/'less' than the referred group, and as deviant from the group of non-offenders. Scores that differ more than 2 *SD* are labeled as 'much higher' or 'much lower' than the referred group, and as 'clearly deviant' from non-offenders / 'failing'.

10 The HIT has clinical norms, which are used here for the interpretation of Adam's scores.

by affective empathy or by self-conscious emotions, and are justified by cognitive distortions. Also, this lack of inhibition may become even worse when Adam is using cannabis and/or alcohol in a palliative search for his nirvana, to avoid deleterious intrapersonal shame and frustration about his failures in both his educational and sportive careers, as well as negative feelings arising from his self-comparison with former friends.

On the basis of Adam's relatively deficient inclinations for affective empathy, his stagnated self-centring, deficient propensity to self-evaluate and feel shame, and at the same time propensity to externalise or neutralise shame when it does break through his defence, it is safe to say that Adam's conscience functioning is very fragile. His habit of palliative substance abuse hinders his already weak functioning of conscience, as it enhances his self-centredness and negatively affects his inhibition and self-evaluation.

7.3 CONCLUSION

This case description offers an illustration of the themes in the empirical studies and an exercise in using the insights gained from these studies about the relative differences in the functioning of conscience.

For me personally, this exercise has clearly indicated that the chosen definition of conscience, as well as the integrative theory behind it, has added value for diagnosing conscience and its functioning. The multidimensional definition concretises this complex and dynamic psychological function, making it accessible for systematic observation and testing. Systematic observation, assessment and description of the constituent aspects of conscience functioning, as shown in paragraph 7.2.1, provides a more specific, as well as nuanced and personified, insight into the conscience functioning of the assessed person. It offers specific information about those faltering constituents that hamper conscience functioning as a whole, and suggests how this process may be (positively or negatively) influenced by internal and/or external circumstances. It offers the information necessary for targeted treatment interventions and/or possible (judicial) measures. In the case of Adam, it points to a need for more affect-oriented interventions, aimed mainly at improving his affective mentalizing abilities, self-regulation and self-soothing skills, and for interventions that focus his attention on how his actions affect others.

The second part of the exercise also indicates the value of the additional use of questionnaires in diagnosing conscience and its functioning: even if assessed only through self-report measures, as has been the case in current empirical studies and exercises, the outcomes strongly resemble those of comprehensive observations and (diagnostic) assessments, and yet are much less labour intensive. Although the use of questionnaires cannot replace clinical observations and conversations, it can help to further objectify them. It provides a means to assess the functioning of

conscience by comparison with offender and non-offender groups, in addition to the assessor's clinical impressions and observations.

The development of a single instrument would therefore add great value to clinical work with offenders. It would theoretically substantiate the diagnosis of conscience functioning, presumably offering a higher inter-rater reliability and making the diagnosis of conscience more widely accessible and more time- (and possibly cost-) efficient.

8 RECAPITULATION OF FINDINGS, AND DISCUSSION

Violence is often studied from the compartmentalised perspective of specialised researchers, often reducing the understanding of violence to two basic questions: How do we distinguish the good ('victims') from the bad ('victimisers'), and how do we distinguish between the guilty ('the bad') or the insane ('the mad')?[1] Gilligan argues that we should approach violence as a tragedy in which individual, familial, social, and institutional factors play a role, and we should really examine violence at the level of its meaning, because even the most 'insane' violence has a rational meaning for the one who commits it.[2] Indeed, in order to understand individual crime, one should look for the triggering, driving, and inhibiting factors (i.e., *instigation*, *impellance* and *inhibition)*[3] within the individual, familial, social, and institutional domains, at a specific moment in time and place. Clinical experience shows that this often involves a complex interplay of factors. Even if we limit ourselves to the category of individual factors, conscience is an important, but by no means the only, explanatory factor. Executive functioning and self-control, for example, necessary to direct one's own behaviour according to one's own will and conscience, are also very important.[4] The research underlying this thesis focuses on the definition, operationalisation and investigation of conscience and its function in relation to offending. A definition of conscience as a regulatory function of our behaviour and identity is needed to enable research-based diagnostics, substantiated treatment indications, and planning of interventions. In addition, reframing conscience serves to refine our understanding of crime and of the idea that there are two categories of people: victims and victimisers, or conscientious and conscienceless;[5] this can prevent stigma.[6]

To define also means to delineate, and to operationalise means to limit. Every operationalisation is also immediately a reduction. This applies to all concepts of the constituent aspects of conscience, but proves to be particularly difficult for the concept of moral reasoning. In preparation for this research project (2014), an

1 Gilligan, 1996. *Violence: Reflections on a national epidemic* (p. 320). New York: Vintage Books.
2 Gilligan, 1996.
3 Finkel & Hall, 2018.
4 Wikström, 2009; Wikström & Treiber, 2009; Wikström & Svensson, 2010.
5 Edith Eger: "We are all victims of victims", Jacobine op 2: https://www.npostart.nl/jacobine-op-2/24-10-2020/KN_1717125; Gilligan, 1996.
6 Larsen et al., 2020; Meffert, 2012.

attempt was made to approach the constructs, the constituent aspects of conscience, as closely as possible within the possibilities of a self-report questionnaire. When possible, for the sake of replication the same questionnaires were used as in previous research in adolescents.[7] In the adolescent study, however, the Moral Orientation List was used (MOL).[8] The MOL measures whether a respondent is guided in his behavioural choices mainly by the estimated negative consequences (in the sense of punishment) for the perpetrator himself, or by the estimated negative consequences for the victim. This is referred to as a punishment or victim orientation, and can be compared to a preconventional, or (post)conventional level of moral reasoning.[9] The MOL also provides a developmental profile, which shows the developmental stages of moral development. However, as the MOL is unsuitable for the measurement of moral reasoning in adults,[10] a replacement was needed. At the time of the start of this research project, the available alternatives in the sense of self-report and recognition measures were the Sociomoral Reasoning Measure – Short Form Objective (SRM-SFO),[11] or the How I Think questionnaire (HIT).[12] The SRM-SFO aims to integrate the cognitively oriented research on moral reasoning (which indicates that although offending is associated with a low level of moral reasoning, the level of moral reasoning is not a predictor of delinquent behaviour[13]) with more emotionally oriented research into moral intuition and emotion, also called moral value evaluation.[14] At the time, the SRM-SFO was a relatively newly developed recognition instrument made suitable for administration to groups of participants, and used mostly with adolescents, though with insufficient validity in the sense that it could not differentiate between adolescent delinquents and non-delinquents.[15] For this reason the HIT was chosen, operationalising a low or immature level of moral reasoning as pronounced primary and secondary cognitive distortions. In the primary distortion, callous self-centering, the individual places himself at the centre in his moral reasoning; this is seen as a motive for transgressive behaviour.[16] The higher the level of moral reasoning, the less the focus on one's personal perspective; instead, a broader perspective becomes the basis for weighing interests and forming moral judgments. However, many offenders do experience guilt or shame, indicating that they experience their own behaviour as morally incorrect. The assumption is that these self-conscious emotions are then neutralised by the use of secondary cognitive distortions, which enable them to see their own behaviour as acceptable, or even justified. They thus reduce the cognitive dissonance between their own behaviour and their self-image.[17]

7 Schalkwijk et al., 2016a.
8 Brugman et al., 2006; Hendriks et al., 2006.
9 Kohlberg, 1984.
10 Stams et al., 2006.
11 Basinger et al., 2007.
12 Barriga et al., 2001; Dutch translation: Hoe Ik Denk questionnaire (HID, Brugman et al., 2010).
13 Tarry & Emler, 2007.
14 Stams, Brugman, Dekovic, Van Rosmalen, Van der Laan & Gibbs, 2006.
15 Beerthuizen et al., 2011.
16 Gibbs, 2019.
17 Barriga et al., 2001; Brugman et al., 2011.

Strictly speaking, the HIT does not reflect the level of moral reasoning, but the degree of self-centring and the degree of use of cognitive distortions. Concepts that are closely related to moral reasoning, but are not the same. However, self-centredness is a key concept in the developmental levels of moral reasoning. The low (pre-conventional or immature) levels of moral development are characterised by self-centredness, and decentralisation is a key concept in the development of moral reasoning from the pre-conventional level to the more mature levels.[18] Although not the same, a high degree of self-centredness can be seen as an indication of a low level of moral development. Additionally, frequent use of cognitive distortions to morally disconnect, that is, to disable moral reasoning and neutralise feelings of guilt or shame, may also indicate functioning at a lower level of moral development. Everyone makes use of these cognitive distortions now and then, including people with high levels of moral reasoning; people generally function morally at a lower level than they think.[19] But research has clearly indicated that cognitive distortions correlate positively with a positive attitude towards delinquent behaviour, and with punishment or offender orientation as measured by the MOL, and negatively with victim orientation of the MOL.[20] Therefore, although cognitive distortions and moral reasoning are not the same, a high degree of self-serving cognitive distortions in our studies was seen as an indication of a low level of moral development. However, this will be further discussed in the methodological considerations, the limitations.

8.1 RECAPITULATION OF FINDINGS, AND DISCUSSION, AGAINST THE BACKGROUND OF AVAILABLE LITERATURE

The current research project aimed to define and investigate conscience and its functioning, to gain more insight into offending, and to enable substantiated and specific diagnostics of conscience functioning in individuals.

First, aiming for a definition and operationalisation of conscience to enable empirical research, we studied the conceptualisations of conscience in the forensic psychiatry and psychology literature. The first research question was:

1. How is conscience defined and operationalised in the psychiatric and psychological literature?

This resulted in a definition of conscience, followed by three empirical studies of group differences in conscience functioning, with the following research questions:

2. What are the differences in conscience functioning between offenders and non-offenders, given the chosen operationalisation of conscience as a regulatory function?

18 Kohlberg, 1984; Gibbs, Potter & Goldstein, 1995.
19 Schalkwijk, 2022.
20 Brugman et al., 2011.

3. What are the differences in conscience functioning between male and female offenders?

4. How do female offenders differ from female non-offenders in their conscience functioning?

Lastly, a fourth empirical study was conducted into the interrelatedness of the constituent aspects of conscience and how they together shape conscience functioning.

5. a) How do the constituent aspects of conscience together shape its functioning?
   b) What differences exist between offenders and non-offenders in the interrelatedness of these aspects?

In the following paragraphs, the respective outcomes will be briefly recapitulated and discussed.

8.1.1 Conscience defined: a regulatory function with multiple facets

In answer to the first research question, the literature research indicated two lines of vision in thinking about conscience, emphasising either its cognitive or affective nature.[21] From the elaboration on the aspects within both (cognitive and affective) domains and their relatedness to offending, as well as their possible co-dependency, it seems important not to reduce conscience to either one domain or the other, but to integrate these fields of knowledge. Conscience is then defined as *a psychological function, regulating our behaviour and identity by means of self-reflection and (second-order) evaluation, resulting from an interplay of affective and cognitive empathy, self-conscious emotions (such as guilt and shame), and moral reasoning.* 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 a proneness to experience and regulate self-conscious emotions such as shame, guilt or pride and, finally, the capacity for moral reasoning.[22] As a function, conscience is morally neutral, having no inherent content of its own. It is like an empty box that can be filled with any type of moral content, that is, the values and the norms based on that which one internalises during one's development.[23]

Because offenders regularly offend despite their awareness of social norms, Le Sage wondered whether unscrupulousness is knowledge without feeling. Based on her philosophical reflections on the cognitive and emotional domains of conscience, she concluded that the intention to behave according to one's internalised norms would reside in the emotional domain.[24] However, this appears a little too simplistic, because the cognitive also appears to be needed for this intention, as for most

21 Kochanska & Aksan, 2004; Le Sage, 2006; Rueda & Lara, 2020; Vujošević, 2015.
22 Schalkwijk, 2018.
23 Giubilini, 2021.
24 Le Sage, 2004.

people morality is an important pillar of their identity.[25] And for most people, it is dissonance between one's own internalised norms and one's actions that gives rise to internal conflict and discomfort, which in turn motivates to do one's best to act in accordance with one's identity in the future.[26] Except for some individuals, whose identity is not based on their morality. For them, it seems possible to behave contrary to social and/or personal norms and rules, without experiencing any dissonance.[27] Without this dissonance and self-evaluation, self-conscious emotions are unlikely to arise to inhibit norm-breaking behaviour.

The chosen definition and integration of knowledge take a few steps forward compared to earlier, mostly one-dimensional conceptualisations, because the integration of hitherto separate fields of knowledge does more justice to the complexity of conscience as a function that regulates our behaviour and identity. First, aspects of both the cognitive and emotional domains are needed, and the distinction between emotional and cognitive domains is artificial, for emotional and cognitive aspects are strongly intertwined. Knowledge (including internalised values and norms) is often emotionally charged. Also, empathy, an aspect of the emotional domain, includes both affect and cognition.[28] Furthermore, the cognitive is also involved in self-conscious emotions, as they are the result of self-evaluation against the background of one's own standards and the degree to which the individual self-identifies with his/her own behaviour and morality. Second, the intention to behave according to one's norms is now included. However, this intention turns out to be located not only in the emotional domain. Again, both emotional and rational aspects appear to be important for this intention. Last but not least, the new definition describes conscience as a multi-dimensional function, a dynamic assembly of constituent aspects which depend on each other, together shaping conscience functioning. Since all constituent aspects can falter over time or under (internal or external) circumstances, and since the faltering of one aspect negatively affects conscience functioning as a whole, any individual may experience temporary disturbances in conscience functioning. During such a temporary disturbance one can behave in violation of one's own internal standards, without immediately experiencing this as a threat to or disruption of one's own identity.

This can lead to a more nuanced view regarding offenders. Recognising the conscience as a dynamic and changeable function also provides insight into possibilities for positive change, through more specific diagnostics and more targeted interventions or (non-punitive) measures.

25 Glenn et al., 2010.
26 Glenn et al., 2010; Kant, 1797 [1991].
27 Glenn et al., 2010.
28 Cuff et al., 2016.

8.1.2 Empirical studies of group differences in conscience functioning

The development of all constituent aspects of conscience is influenced by both biological predispositions and (early) attachment experiences.[29] Due to differences in these predispositions and attachment experiences, some individuals may be more susceptible than others to glitches in conscience functioning. Offenders appear to have suffered more, more severe, and more accumulated interpersonal or attachment trauma than non-offenders, and women who offend even more than men who offend.[30] It can therefore be argued that, due to deleterious effects of these developmental influences on the constituent aspects of conscience,[31] the conscience of offenders has become more fragile and vulnerable to temporary disturbances.

Several empirical studies were conducted to answer the question of whether differences can be found in the conscience functioning of offenders, non-offenders, males or females. The results of these four studies are described below.

First: The conscience functioning of offenders versus non-offenders. Regarding empathy, or the ability to feel and/or understand another's emotions as if one were the other while maintaining the self/other distinction, the hypotheses were largely but not completely confirmed. Contrary to the expectations but in line with Baron-Cohen and Berkhuizen,[32] offenders exhibited no failures in cognitive empathy in the sense of taking the perspective of the other. However, in line with our expectations, they did indeed show lower levels of empathy in the sense of an inclination to identify with others, less empathic arousal or personal distress in seeing others' suffering, and less empathic concern. In the literature, the associations of different types of empathy with offending have also been under debate. Previous studies seemed to indicate that, in association with offending, effect sizes were larger for cognitive than for affective empathy.[33] However, both the strength and direction of cognitive and/or affective empathy's associations with offending appeared to be affected by the questionnaires used, the age of the offender, or the type of offense.[34] Moreover, the idea of cognitive empathy being more importantly related to offending than affective empathy has been refuted in a recent longitudinal study by Farrington and Jolliffe. Their study found only affective empathy to be predictive of convictions in men, and neither low affective nor low cognitive empathy appeared to be predictive of self-reported offending in men. Yet, both low affective and cognitive empathy were predictive of self-reported offending in women.[35] The findings of the current research project are thus in line with this recent study. They indicate that offenders are as able as non-offenders to see and understand the world from another's perspective. However, offenders may use these cognitive empathic

29 Schore, 2001; 2015.
30 De Vogel et al., 2016; Kerig & Becker, 2015.
31 Schore, 2001; 2015.
32 Baron-Cohen & Berkhuizen, 2012.
33 Jolliffe & Farrington, 2004; Van Langen et al., 2014.
34 Van Langen et al., 2014; Jolliffe & Farrington, 2007.
35 Farrington & Jolliffe, 2021.

abilities only for people close or valuable to them.[36] Further, although offenders are capable of considering negative consequences for another, they may not be affected or hindered by this because they are not inhibited by affective empathy. This conclusion is also in line with the recent findings of Farrington and Jolliffe.[37] Due to this lack of inhibitory affective empathy, which also seems to cause existing cognitive (empathic) knowledge to lack emotional meaning, offenders may even exercise their cognitive empathy to commit their crimes.[38]

As expected, offenders showed lower propensities to shame and lower levels of moral reasoning than non-offenders. In shame-coping, offenders surprisingly used externalising coping strategies to the same extent as non-offenders, but (also as expected) they exhibited fewer internalising coping strategies and a lack of dominance of internalising over externalising shame-coping. However, the finding that offenders did not differ from non-offenders in guilt-proneness, and that both groups had higher guilt scores than shame scores, is remarkable, as adequate levels of guilt-proneness previously appeared to have an inhibitory effect on offending.[39] We had no explanation for this finding, other than that being caught, confronted in trial, and treated in a hospital setting may have sensitised the tested offenders to guilt. The third study, comparing female offenders in a detention centre to both patients and women from the general population, also indicated no differences in guilt proneness between offenders and non-offenders. However, in both studies the group of offenders consisted of people living in detention, either in a clinic or in a detention centre. It is thus possible that being away from life with its day-to-day worries and being confronted with society's limiting response to transgression, sensitised the groups of offenders to (report) feelings of guilt that they would not have felt had they not been caught and stopped.

Taken together, these findings on guilt- and shame proneness, and shame-coping, may indicate that although offenders do evaluate their behaviour and know that it was wrong, they are less inclined to connect this knowledge to an evaluation of their self. This is in line with the findings of Glenn and colleagues, that for people who scored higher on psychopathic traits, morality does not seem to be a pillar of their identity and that these individuals therefore do not connect their transgressive behaviour to their self-image.[40] Consequentially, when knowledge of their own behaviour that transgresses their own internalised norms is not connected to their self-image and identity, offenders will be less likely to experience a dissonance between who they are and who they want to be. This hypothesis is supported by the fact that offenders were less likely than non-offenders to use internalising coping strategies to deal with shame (whilst no difference was found for the extent to which both groups use externalising strategies). Non-offenders showed a significant dominance of

36 Van Vugt et al., 2012.
37 Farrington & Jolliffe, 2021.
38 Damasio, 1994.
39 Spruit et al., 2016.
40 Glenn et al., 2010.

internalisation over externalisation, but the offenders did not. Although extreme levels of internalisation and extreme externalisation are both clinically problematic, internalisation is seen as more adaptive than externalisation, as it places the self under scrutiny.[41] Although offenders exhibited no more externalising than non-offenders, their lack of internalising shame-coping may indicate that they lag behind non-offenders in this respect.

Finally, the finding that offenders exhibited more self-centredness than non-offenders suggests a lack of decentralisation. That is, the self is still the centre and point of departure in moral considerations, and lacks a broadened, more social perspective which takes others and their perspective into account.[42] In line with Gibbs, this self-centring seems to be a driving force in the direction of antisocial considerations and behaviour. Moreover, offenders appear to make more use of self-serving cognitive distortions in anticipation of or reflection on their wrongdoings, which enables them to neutralise possibly arising guilt or shame in anticipation of or reflection on their behaviour, and/or to view their behaviour as acceptable or even justifiable.[43] Such distortions can serve to keep the conscience on 'stand-by-mode' or inactive in the background.

Second: Female offenders compared to male offenders. In the second study, female offenders as a group appeared to both resemble and differ from their male counterparts. They exhibited levels of moral reasoning, cognitive empathy, fantasy, and empathic concern comparable to those of male offenders. However, the finding that female offenders apparently felt more empathic arousal than their male counterparts when witnessing someone else suffering or harmed, seems to indicate higher levels of rudimentary affective empathy, or vicarious and overwhelmingly shared feelings as one's own personal distress (emotional contagion).[44] This seems to suggest that female offenders have the 'catalyst' needed as precursor for (affective) empathy, which male offenders appear to lack. However, the fact that this catalyst is only preliminary and still underregulated may still hinder their adaptive conscience functioning because their experiences are so overwhelming that they need to fence them off. After all, true (affective) empathy requires the ability to share feelings from an as-if perspective,[45] and to regulate one's emotions to avoid becoming overwhelmed or drawn into another.[46] Additionally, these higher levels of self-involved personal distress in female offenders appear to be present without the more mature tendency to put themselves in another's shoes, and/or empathic concern.[47]

41 Schalkwijk, 2016a; 2018.
42 Gibbs, 2010.
43 Brugman et al., 2011.
44 Decety & Cowell, 2014.
45 Eisenberg & Eggum, 2009; Ickes, 2009, Rogers, 1957.
46 Nichols, Svetlova, & Brownell, 2009.
47 Decety & Cowell, 2014.

Taken together, these findings suggest developmental delays in female offenders, possibly due to insecure attachment or trauma.[48] Further, as expected based on earlier findings from the general population,[49] female offenders appear to be more guilt and shame prone than male offenders, and show more internalising shame-coping than their male counterparts. This is in line with Ward and King, who state that women in general have lower inclinations to immoral behaviour because, due to higher (preliminary) empathy levels, they seem to anticipate more guilt or shame in response to doing harm to another, and feel less positive affect in response to (anticipated) personal gain than men.[50] This may indicate that female offenders are more inclined than male offenders to self-evaluate, and to do this more in relation to their interpersonal functioning. This may be due to gender differences in socialisation, which are assumed to make the threshold to offending much higher in women than in men.[51]

Third: Female offenders compared to female non-offenders. Compared to women with and without psychiatric problems from the general community, female offenders scored lower on affective empathy, a finding in line with Farrington and Jolliffe.[52] Contrary to the findings from the same study of the latter, however, they did not differ in their levels of cognitive empathy. Taken together with the findings that female offenders showed stagnated self-centring and made more use of self-serving cognitive distortions than women from the general population, this may indicate, in line with Watt and colleagues, that female offenders more resemble their male counterparts than women from the general population.[53] This may be especially true of a subgroup of female offenders who are highly self-centred.[54]

Additionally, female offenders appeared to show lower levels of the mature forms of affective empathy, thus being less likely than the community women to put themselves in another's position emotionally; to the contrary, they experienced higher levels of the more rudimentary and self-oriented form of affective empathy (i.e., their levels of empathic arousal or emotional contagion were comparable to patient controls). These findings correspond with those of previous studies, and are in line with findings in adolescents. They may indicate that female offenders lag behind female non-offenders in their development of emotion- and self-regulation.[55] As mentioned in the previous paragraph, the (affective) empathy of female offenders seems to be at the developmental level of preliminary affective empathy: the feeling of another's sufferings as one's own, without the essential

48 Bateman & Fonagy, 2016.
49 Ferguson & Eyre, 2000; Lutwak et al., 2001; Rebellon et al., 2015.
50 Ward & King, 2018.
51 Moffit et al., 2001; Ward & King, 2018.
52 Farrington & Jolliffe, 2021.
53 Watt et al., 2000.
54 Dehart, 2018.
55 Hawk et al., 2013; Schalkwijk et al., 2016; Mariano et al., 2017.

self/other-differentiation. Overwhelmed by emotional contagion or swept up in the other, they cannot be truly empathic.[56]

However, in their levels of guilt or shame female offenders did not differ from women in the general population. The fact that these high levels of self-conscious emotions does not seem to stop them from offending, can be explained in part by their intense use of self-serving cognitive distortions, which neutralise self-conscious emotions prior to or after transgressive behaviour.[57] Also, high levels of shame that cannot be mentalized may temporarily hinder their capacities for empathy for others, or may lead to aggressive behaviour when they are inclined to externalising shame-coping.[58] Regarding the latter, female offender controls appeared to use significantly less internalising shame-coping, and perhaps more important, to use significantly less adaptive shame-coping than non-offending women.

In all studies taken together, the group differences regarding personal distress or emotional contagion give extra food for thought. According to Hoffman, personal distress is a precursor not only to affective but also to cognitive empathy, and Le Sage argues that it is a necessary but insufficient precondition for empathy.[59] The latter finding appears to correspond with the results of our women's study, as just described. However, although the male offenders are deficient in personal distress, they do not show deficits in cognitive empathy, at least, not when it comes to perspective taking. The IRI, however, also contains the Fantasy scale, which measures how strongly people are inclined to put themselves actively in the shoes of (fictional) others. As explained earlier, this scale has not been included in the interpretations, because it is hard to position on the affective-cognitive dimension.[60] However, on this scale, which may contain both cognitive and affective elements, both male and female offenders clearly fall short. A further elaboration of the concept of cognitive empathy may help to clarify this. Cognitive empathy requires the ability to cognitively take the perspective of another (to imagine what another person sees or experiences and understand that this is something different from what you see/experience yourself), the ability to imagine what another does or does not know, regardless of whether you know it yourself, and the ability to recognise and understand emotions in another.[61] Given the results of the present studies, it is possible that in offenders both the abilities to take perspective and to estimate what another person knows or may know (i.e., Theory of Mind) do not differ from those in non-offenders, but that offenders fall relatively short in the ability to attribute emotions to a person not known to them. Another possible explanation could be that personal distress is a precondition for affective, but not so much for cognitive, empathy. And that, provided the person is not overwhelmed by it,[62] it produces

56 Eisenberg & Eggum, 2009; Ickes, 2009.
57 Brugman et al., 2011.
58 Ellison, Lennon & Pulos, 2006 ; Stuewig et al., 2010 ; Tangney et al., 2007.
59 Hoffman, 2000; Le Sage, 2004.
60 Baron-Cohen & Wheelwright, 2004; Decety & Cowell, 2014.
61 Cuff et al., 2016.
62 Eisenberg & Fabes, 1998; Hoffman, 2000.

an action tendency toward prosocial behaviour, behaviour aimed at alleviating the suffering of the other. Or, again, that in order to experience a prosocial action tendency, knowledge alone is insufficient – it needs to be accompanied by 'being affected'.[63] It may thus be the case that personal distress is not only a preliminary form of affective empathy, but also functions as a catalyst for empathy as a whole.

Fourth: Empathy, guilt, shame, and moral reasoning shape conscience collaboratively. The last research question was how the constituent aspects of conscience interrelate to shape conscience functioning. To that end, the fourth empirical study focused on the interrelatedness and mutual influence of the constituent aspects of conscience. Contrary to expectations based on previous findings in adolescents, that the structure of conscience would be different for offenders than for non-offenders,[64] no significant differences in the structures nor density of their conscience networks were found. Other than in adolescents, the conscience networks in this study did not appear to work differently for offenders than for non-offenders. In both groups the constituent aspects were equally co-dependent, and similarly cooperated in shaping conscience functioning. This may help to refute the idea that offenders are unscrupulous. Their consciences do not appear to lack integration or density; however, aspects of their consciences appear relatively flawed, which hinders adaptive conscience functioning as a whole.

The additional finding that conscience functioning appears to depend strongly on the development of the self, on decentralisation, and to a greater extent on capacities for affective than for cognitive empathy, are again in line with the findings of Farrington and Jolliffe,[65] as well as the findings of Narvaez, that moral motivation rests more at the level of affectivity than of cognitivity.[66] However, both knowing ánd feeling are needed for adaptive conscience functioning.[67]

8.2 METHODOLOGICAL CONSIDERATIONS

Within this research project, various populations were analysed by means of diverse methods. This led to various considerations about possible biases and/or limitations.

The first is that generalisability of findings depends on the population used in the studies. The study groups of offenders were recruited from a detention center and a forensic mental health center. However, offending may involve not only severe transgressions warranting detention, but also less severe transgressions, often followed by other sanctions. Findings based on the first group may not apply to the second group. Moreover, acts defined as criminal in the laws of one nation may differ in others, and factors like the state of the investigation and prosecution

63 Damasio, 1994.
64 De Brauw et al., submitted.
65 Farrington and Jolliffe, 2021.
66 Narvaez, 2013.
67 Le Sage, 2004.

services, their selected priorities, resources and possibilities, and potential biases also play a role in who is ultimately considered an offender.[68] Therefore, although the participating offenders were representative of the Dutch offending population, these findings may not apply to offenders in general at an international level.

Second, inclusion was completely voluntary. Of the offenders who were approached, some could not participate due to insufficient command of the Dutch language, and a considerable number had to be removed from the database because data were missing for unknown reasons (which could reflect a lack of motivation to complete the questionnaires, time management difficulties, or uncomfortable feelings regarding the questions in the questionnaires). Together, this may mean that results may be biased by the inclusion of more motivated and possibly less distrustful offenders.[69]

Third, in all studies in this project, only self-report measures were used to investigate the aspects of both conscience functioning and offending. Due to privacy regulations, neither could be verified by means of collateral information, like official records on offending or observations on the constituents of their conscience functioning. The fact that for all groups no collateral information was available on (their history of) offending, means that, despite the self-reported differences in offending, between samples there may be an actual overlap that has not been investigated. This may compromise the generalisability of findings. Additionally, the use of self-report makes the current research vulnerable to issues like social norms, expectations, and social desirability.[70]

Fourth, but related to this, the fact that research was done by means of self-report measures limited the possibilities for operationalisation and measurement of moral reasoning. At the time, to my knowledge, the only recognition (instead of production) measure available for and applicable to administration in groups, was the Sociomoral Reasoning-Short Form Objective (SRM-SFO).[71] As mentioned earlier in this chapter, for pragmatic reasons and because of insufficient validity, we had to turn to the How I Think questionnaire (HIT).[72] However, although a high degree of self-centredness and frequent use of self-serving cognitive distortions can be seen as an indication of a low level of moral development, cognitive distortions and moral reasoning are not the same and relate to antisocial behaviour differently.[73] Therefore, during this research project, and especially during the last sub-study, I have increasingly come to see this chosen operationalisation as unfortunate. It seems that we have measured the self-centred attitude and coping with the effect of moral reasoning rather than moral reasoning itself. By focussing on the cognitive distortions, we may have bypassed moral judgement, the degree to which moral

68 Koenraadt, 2010.
69 volunteer bias: Salkind, 2010.
70 Baez et al., 2017.
71 Basinger et al., 2007.
72 Brugman et al., 2011.
73 Barriga et al., 2001.

values are considered important (i.e., moral value evaluation), and the degree to which these values are considered central to one's self-image (i.e., moral self-relevance), as well as their possible interaction.[74] Thus, in hindsight and eight years after having started this project, I would reconsider my initial operationalisation of the moral aspect of conscience. For further research, I would therefore recommend the use of the newly validated (also in adults) Sociomoral Reasoning Measure–Short Form Objective (SRM-SFO).[75] For clinical use in individual diagnostics and crime prevention, the predecessor of this measure, the production version (SRM-SF), should be considered, as it has shown more predictive value for delinquent behaviour. Similarly, in such contexts it may be preferable to diagnose empathic capacities by means of performance-based tests instead of self-report measures.[76]

Lastly, further on in this chapter several implications for treatment will be presented. However, as this project focused only on the Dutch situation, in the context of Dutch law and forensic mental health, and because laws, recommendations, and methods for forensic mental health assessments as well as treatment facilities differ between countries, these implications may not be easy or even possible to translate to countries with other jurisdictions.

8.3 CONCLUSIONS

The results of these studies indicate that adaptive conscience functioning requires both cognitive and affective aspects; this is in line with Gibbs's statement that moral cognition and emotional aspects are interrelated in daily functioning.[77] In line with expectations based on literature regarding the constituent aspects of conscience in the general population and in association with offending, offenders exhibited lower levels of (affective) empathy, self-conscious emotions, and moral reasoning. However, the general picture for male and female offenders (as groups) appears to differ slightly, which offers some more understanding of their possibly different trajectories to crime.

Regarding male offenders, findings seem to indicate that they are more self-centred than non-offenders. Although they are capable of cognitive empathy, they do not seem to be inhibited by affective empathy. They experience guilt at normal levels, which seems to suggest they know that they have chosen and acted wrongly by doing harm to another, but do not seem to connect this to their own self and identity, and thus experience lower levels of shame. When shame arises, male offenders lack adaptive shame-coping as well as a dominance of internalising over externalising shame-coping. Instead, they seem to use cognitive distortions to neutralise their shame and to hush their conscience, keeping it in stand-by mode. Although they

74 Barriga et al., 2001b; Beerthuizen & Brugman, 2011.
75 Basinger et al., 2007; Brugman et al., 2021.
76 Van Vugt et al., 2011.
77 Gibbs, 2010.

evaluate their behaviour, they also justify it and do not seem to evaluate their selves; this seems to leave open the way to crime.

Female offenders appear to be as self-centred as their male counterparts. They exhibit higher levels of personal distress, the preliminary form of affective empathy, but without sufficient self/other-distinction, in levels comparable to women with mental health problems (yet higher than women from the general population without such problems). The fact that this preliminary form of (affective) empathy does not prevent them from committing crimes, corresponds with findings by Eisenberg & Fabes and Hoffman.[78] After all, this stress experienced by seeing another's suffering is a self-oriented and personally experienced discomfort, that can cause one to close off from others or withdraw. Furthermore, we now know that female offenders, just like male offenders, lack the further developed affective empathy, whilst it is precisely this form of empathy that is important to achieve prosocial behaviour. This may further indicate that female offenders do experience the empathic stress necessary to lead to an action tendency based on their existing cognitive empathic knowledge,[79] but at the same time they lack or lose the self/other-distinction, and possibly also the emotion-regulation skills, that are needed to convert these into actual empathetic actions. Instead, they may become either overwhelmed or drawn into the other. Failure to perform the attuned action may then result in feelings of guilt or shame. Female offenders indeed scored higher on self-conscious emotions than male offenders, comparable to women from the general community. Although this could suggest better conscience functioning, unfortunately female offenders lack the coping skills to deal adaptively with these (self-conscious) emotions. Due to a lack of self-regulation they seem to become overwhelmed by both their personal distress and their feelings of guilt and/or shame, which may negatively affect their capacities for empathy, mentalizing, and moral reasoning. It may additionally put them at risk of entering a feedback loop of (externalised) shame and offending. Like their male counterparts, female offenders neutralise their shame, using cognitive distortions to protect the self from negative self-evaluations and possibly resulting discomfort. All in all, conscience is a dynamic function that fluctuates in its daily functioning, due to the mutual influence of its constituent aspects, whereby the faltering of one aspect seems to negatively affect the functioning of conscience as a whole. Both knowing and feeling are necessary to maintain the balance in conscience as a function in one's identity and in relation to the community. Within the affective domain, empathy appears to be the motor of self-conscious feelings, which also influences how one deals with these feelings as a result of negative self-evaluations. And within empathy, personal distress or emotional contagion appears to be the catalyst needed to get the process going. Without decentralisation or self-regulation, however, this empathic arousal will remain self-oriented and likely increase internal discomfort, eventually causing the individual to shut down.

78 Eisenberg & Fabes, 1998; Hoffman, 2000.
79 Le Sage, 2004.

Most important, conscience as a regulatory function is not only dynamic and changeable, but also highly individual. As all of its constituent aspects are influenced by both internal and external, developmental and temporary influences, conscience as a whole may function very differently in each person, due to their personal development and current life and self within-community. Despite the knowledge on group differences derived from these studies, one must consider that nomothetic findings can never simply be applied to individuals.

The case description was therefore added to illustrate both the terms and themes of this research, and to provide a way way in which systematic and descriptive diagnostics of the functioning of the conscience could be performed. This exercise has indicated that the chosen definition of conscience, as well as the integrative theory behind it, have contributed not only insight into conscience and its functioning, but also clinical value. The multidimensional definition concretises this complex and dynamic psychological function, making it accessible for systematic observation and testing. The diagnosis of conscience thus becomes more specific as well as nuanced, and more personified, thereby enabling more targeted indications for treatment and/or measures.

8.4 IMPLICATIONS FOR TREATMENT AND CLINICAL PRACTICE

Although no differences in their structure or density of conscience were found, male and female offenders appear to exhibit relative defects in the constituent aspects of conscience functioning compared to non-offenders. However, relative defects in one constituent aspect appear to have a negative effect on the functioning of conscience as a whole because of the mutual interdependence of all its aspects.

Given the fact that offenders lack merely affective empathy, at least for people outside their inner circle, and given the importance of affective empathy for the functioning of conscience as a whole, it seems opportune to focus treatments on the development of affective empathic abilities ('remedying a defect') and maybe generalising existing empathic abilities to include people with whom the offender feels no direct connection ('expanding existing abilities'). Further, the high levels of personal distress or emotional contagion in female offenders (compared to both male offenders and to female non-offenders) seem to imply that gender sensitive treatment programs should focus on teaching them to decentralise, mentalize, and self-regulate.

Because externalising coping is so conspicuous, treatments often seem to focus on unlearning externalising shame-coping. However, the actual problem – i.e., the treatment target – appears to be a lack of both adaptive and internalising coping. In line with Kreis and colleagues, we argue that female offenders (but likely not only females) would benefit from learning adaptive ways of regulating their emotions (including shame, anger, or fear), rather than by repressing them, turning to self-

harm, or injuring themselves by drug abuse, etc.[80] Offenders, and especially female offenders, seem to need support to learn to recognise and acknowledge their feelings as their own,[81] and to act on them in adaptive ways, thus becoming less vulnerable to relational discord and dysfunctional relations.[82] In male offenders the balance between externalising and internalising shame-coping needs to be optimised, not so much by counteracting externalisation, but above all by promoting internalisation and adaptive coping.

In conclusion, the research findings call for a critical review of our treatment centres, their culture, and the interventions used to bring offenders' stagnated development back into progress. Moral or conscience development does not take the road of coercion, as this leads to compliance in the face of external referents but occasional defiance when those referents are 'out of sight'.[83] Treatment aiming for the development of more mature conscience functioning requires conversations about how both appropriate and inappropriate behaviour affect people's feelings, with the intention to learn to understand both one's own feelings and intentions and those of others. Moreover, conscience development is fostered when therapists provide rich understanding of the causes and consequences of interpersonal conflict, without unduly arousing a patient's feelings of defensiveness or threat.[84] This is in line with Benjamin, who emphasises the importance of a safe relation in which the patient is offered true recognition of his/her experiencing (i.e., thoughts and feelings), wherein the complementary dyadic dynamic is broadened to a relation in which free reflection is possible,[85] a relation wherein the patient can learn, understand, and trust that more than only one individual can live and survive. This requires a safe attachment with another person who is willing to take responsibility for momentary losses of attunement. Only within such a safe and intersubjective relation, a perpetuating dance of attunement, misattunement and repair, can one come to know and trust that relational ruptures may occur but can be repaired.[86] Moreover, recognising and acknowledging relational ruptures, as well as following reparative actions, accelerate therapeutic effects and reduce drop-out from therapy.[87]

This approach has far-reaching implications for treatment. Patients, especially forensic patients, often meet practitioners or therapists who seem to know what is best, tell them how they should or should not be thinking or behaving, and who in their reflection on behaviour(al choices) refer to moral or societal roles. All of these behaviours, according to the research, instil compliance as well as occasional

80 Kreis et al., 2016.
81 Elison et al., 2006.
82 Kreis et al., 2016.
83 Laible & Thompson, 2000.
84 Laible & Thompson, 2000.
85 Benjamin, 2018.
86 Benjamin, 2018; Fonagy, 2016.
87 Safran & Muran, 2000.

defiance.[88] Moreover, in criminal behavioural analyses, the patient's behavioural choices, acts and even intentions are often interpreted by a 'knowing' – because professional – therapist. This 'knowingness' instils complementarity and breaks down the possibility for real reflection.[89] Such interactions may even perpetuate what they aim to control in "a ping-pong" of projective identification and of "blame and shame". These interactions can cause the patient to feel again that only one can survive, and life is kill or be killed, or to experience a flooding shame at the confrontation with unrecognised parts of (him/her)self and intense dysregulation, which may be fenced off by aggressive behaviour.[90]

When aiming for conscience development, practitioners and therapists must invite the patient to join with them to investigate what has happened, to come to understand the patient's experience, where needed to acknowledge experienced failures or violations of expectations, and to "mark" these.[91]

From my clinical experience with patients who have early developmental damage and personality disorders, such interactions may put the therapist at risk of having the dyadic complementary dynamic reversed, so that the therapist is 'done to', feels victimised, violated or abused by the patient, and possibly even lashes out in helplessness or shame. The way out of this is to try to restore the mutual reflection process, as described above. In this search for reflection, however, it is vital not to lose one's congruence, and to set boundaries to the patient's unacceptable behaviour by a marked response. Session research indicates that successful responses by therapists to patient hostility usually contain both supportive and critical aspects, in which acceptance of the other remains intact.[92]

8.5 FURTHER RESEARCH

Findings in the present research project give rise to several questions for further research. First, as the present research was based on self-report measures, continued research using collateral information as objective methods of verification, and/or performance-based tests, are needed to better understand and substantiate relative flaws in the constituent aspects of conscience. Those tests, such as the 'Reading the Mind in the Eyes Test',[93] or the 'Emotional attribution task'[94] for empathy, or the production measure of moral judgment 'Sociomoral Reflection Measure – Short Form',[95] may be more sensitive to factual differences, less flawed by respondents'

88 Laible & Thompson, 2000.
89 Benjamin, 2018; Fonagy, 2016.
90 Benjamin, 2018; Warner, 2000.
91 Benjamin, 2018; Fonagy, 2016.
92 Safran & Muran, 2000.
93 In the 'Reading the Mind in the Eyes Test', the respondent is asked to identify emotions or mental states in another's eyes. Baron-Cohen et al., 2001.
94 The Emotional attribution task tests for possible deficits in the recognition of emotions. Blair & Cipolotti, 2000.
95 Gibbs et al., 2013 (first published, 1992).

lack of self-understanding, less prone to factors like social desirability, and more predictive of delinquent behaviour.[96]

Second, due to relatively small sample sizes of the offender groups, it was not possible to investigate whether the differences found are similar across different types of offenders (e.g., offenders involved in property crimes versus violent crimes, or drug-abusing offenders versus non-using offenders). This suggests an interesting avenue for future research.

Third, the fact that no differences in guilt were found between both male and female offenders and non-offenders, whilst guilt has been found to be protective of offending, may indicate that the instrument used (i.e., the TOSCA) is not sensitive enough to differentiate between intrinsic guilt, or sensitised guilt as an effect of confrontation in detention and/or treatment; or, the instrument may be too susceptible to social desirability. Further, it could be helpful to investigate whether guilt further develops during detention or treatment, whether it persists after release, and how the development of perceived guilt is affected by relapse.

Follow-up research is also needed to provide more understanding of differences in conscience functioning related to psychopathology, such as psychopathy or antisocial personality disorder, other personality disorders, autism, acquired brain injury, and the influence of more temporary psychiatric conditions or substance abuse on (the constituent aspects of) conscience functioning.

Lastly, treatment indications should be person-sensitive. They should be personalised where possible, based on the individual's specific lacks in constituent aspects of conscience functioning, self-regulation, and/or other relevant risk factors. The separate functioning of all constituent aspects and their interplay can vary per circumstance and over time, as both internal and external factors can influence all of the constituent aspects and their effect on each other. It is therefore useful and important to be specific in our diagnostics regarding the assemblage of (affective and cognitive) empathy, guilt, shame and moral reasoning, and consequently to provide specific treatment indications or instructions for necessary measures. This calls for (a) measure(s) that can be used in more substantive and objective diagnosis of conscience functioning and its prerequisites. Such a measure is currently being developed.[97]

96 Van Vugt et al., 2011.
97 Schalkwijk et al., in press.

9 SUMMARY

During my twenty years of work as a psychologist in forensic psychiatry I was inevitably and repeatedly confronted with questions about evil and its regulation. The general idea is that evil tendencies are present in each of us, but are more or less controlled or regulated by conscience. Offenders are often said to have 'lacunary functions of conscience', or even to be unscrupulous – a statement that lacks empirical support, partly because a precise definition of conscience is lacking, whilst a judgment of a lacunar functions of conscience strongly influences one's life and gives rise to stigma. This thesis addresses this lack of an unambiguous definition, with its consequences for the imposition of punishments or non-punitive measures, as well as for treatment indications and (relapse) prevention.

The current research project aimed to define and investigate conscience to gain more insight into its functioning, and to enable theoretically and empirically substantiated descriptive diagnostics of conscience functioning in individuals. Specific diagnostics will enable targeted measures and/or treatment indications, and can contribute to more nuanced views on offenders who may need interventions before being able to fully reenter and reintegrate into society.

9.1 LITERATURE RESEARCH AND DEFINITION OF CONSCIENCE

Firstly, it was investigated how conscience has so far been defined and operationalised in English and Dutch forensic psychiatric and psychological literature. This literature indicated two lines of thinking about conscience, emphasising either its cognitive or affective nature; each of these offered merely one-dimensional operationalisations. Based on the relation of the aspects in these previous one-dimensional operationalisations with offending, and on their interrelatedness and co-dependency, it seemed important not to reduce conscience to either one domain or the other, but to integrate these fields of knowledge to formulate one multi-dimensional definition of conscience, as follows:

Conscience is a psychological function, regulating our behaviour and identity by means of self-reflection and (second-order) evaluation, resulting from an interplay of affective and cognitive empathy, self-conscious emotions (such as guilt and shame), and moral reasoning. This psychological function emerges and becomes more refined during the course of a child's development, initially manifesting itself

in a capacity for empathy, followed by a proneness to experience and regulate self-conscious emotions such as shame, guilt or pride and, finally, a capacity for moral reasoning. It is, however, morally neutral, in that is has no inherent content of its own. Conscience is like an empty box that can be filled with any type of moral content, that is, norms and values which we internalise during our development.

9.2 EMPIRICAL RESEARCH

This integrative definition of conscience has been used in four empirical studies and has been illustrated in a case description.

Respondents for the empirical studies were recruited within a penitentiary institution in Zwolle, and at both the Forensic Psychiatric Clinic and Forensic Outpatient Clinic of GGZ-Drenthe in Assen, at the general GGZ of the same institution, and through social media in the general population (N = 281, for sub-studies respectively: n = 98, n = 75 and n = 152). All respondents were informed about the study by means of a folder, given ample time to ask questions, and subsequently asked to participate on the basis of informed consent. Respondents were asked to fill in a set of questionnaires one time; for this, exemption was obtained from the Medical Ethical Review Committee (METC) of the UMCG and the Ethical Committee of the faculty of Behavioural and Social Sciences of the University of Groningen.

For the sake of comparability with earlier integrative research among adolescents, where possible the same questionnaires were used. Different forms of cognitive and affective empathy (perspective taking, fantasy, empathic concern, and experiencing personal stress when seeing another's suffering) were measured using the Interpersonal Reactivity Index (IRI). The propensity to experience guilt and shame was measured by means of the Test Of Self-Conscious Affect (TOSCA). Finally, the way by which respondents cope with shame was investigated using the Compass of Shame Scale (CoSS). In adaptive coping with shame, the shame is recognised and evaluated, often resulting in an action tendency towards reparatory behaviour. Shame coping can, however, also involve internalising ('attacking the self' or 'avoiding') or externalising ('denying' or 'attacking the other'). Further, as the Moral Orientation List (MOL) was found unsuitable for measuring moral reasoning in adults, it was replaced by the How I Think Questionnaire (HIT), which measures a person's level of moral reasoning based on primary and secondary cognitive distortions. The primary distortion is hardened self-centredness, in which one's own perspective and desires remain the centre and starting point of one's choices. Secondary distortions are irrational or exaggerated thoughts that neutralise feelings of guilt and shame that occur in anticipation of or after transgressive behaviour; these distortions enable an individual to see his/her own behaviour as acceptable or even justified.

In the first three comparative studies, hypotheses were tested using (M)ANCOVAS, and both independent and paired t-tests (when the assumptions for those tests were

met). When assumptions were violated, non-parametric alternatives (Kruskall-Wallis and/or Wilcoxon Signed Rank test) were used. Post-hoc Bonferroni-Holm corrections were added to correct for multiple testing. For the fourth study, regarding the co-dependence and mutual influence of the underlying aspects of conscience, network analyses and regression analyses were used.

First, results of the first study indicated that offenders indeed fall relatively short on the underlying aspects of conscience. Regarding empathy, offenders were not found to score lower on cognitive empathy than non-offenders, but they did show less affective empathy, identified less with another person, and experienced less personal stress at seeing another's suffering . They were also less likely to experience shame than non-offenders, and exhibited lower levels of moral reasoning. Offenders were more self-centred, and made significantly more use of self-protective cognitive distortions to facilitate their own delinquent behaviour: they were more likely than non-offenders to blame others, or to judge their own behaviour as unavoidable given the circumstances. These findings are largely consistent with those of the adolescent study. The latter suggested that female delinquents may be more disturbed than male delinquents, and our research also seemed to point cautiously in that direction. However, the group of female delinquents was too small to make any assertions about this.

In view of findings of gender differences as reported in the literature, and because female detainees have seldom been studied even though their ratio within the total detainee population has been increasing, we have studied female delinquents separately as a group. Knowledge of the differences in conscience functioning between female and male offenders can increase our understanding of their trajectories to crime, and help in the development of gender-sensitive interventions. To this end, in the second study female offenders were compared to male offenders on all constituent aspects of conscience. Women were found to exhibit levels of moral reasoning, cognitive empathy, and empathic concern similar to those of men, but scored higher on personal stress at seeing other people's suffering (emotional contagion or empathic arousal), and higher on shame and guilt and on the use of internalising shame-coping.

Third, a comparison of female delinquents with non-delinquent women from the general population and from mental health care also indicated that female delinquents to some extent lacked decentralisation. Delinquent women were more self-centred and made more use of cognitive distortions than non-delinquent women.

Finally, the fourth study focused on the interrelatedness and co-dependence of the constituent aspects of conscience, with the expectation that the structure of conscience would be different for delinquents than for non-offenders, as was the case in adolescents. However, contrary to this expectation, network analyses of partial correlations indicated no significant differences in the structure nor density of conscience networks between offenders and non-offenders. This seems to refute the idea that offenders are unscrupulous. However, aspects of their conscience

appeared relatively flawed, which hinders adaptive functioning of conscience as a whole. As the results of regression analyses indicated, the functioning of conscience depends strongly on the development of the self, on decentralisation, and more on capacities for affective than for cognitive empathy.

9.3 CONCLUSIONS AND IMPLICATIONS FOR TREATMENT

In conclusion, conscience is a dynamic psychological function that regulates our behaviour and identity through self-reflection and -evaluation, in an interplay of affective and cognitive empathy, self-conscious emotions, and moral reasoning. It has a regulatory and epistemic function, which is neutral in itself and whose content is made up of the norms and values one internalises during one's development. This function can therefore differ between groups in terms of moral content, but it also appears to manifest differences in its functioning. Although no differences were found between offenders and non-offenders in the interrelatedness and co-dependence of the conscience's constituent aspects, the functioning of conscience in delinquents appears to be hindered by relative shortcomings in (affective) empathy, shame propensity, adaptive and internalising shame-coping, and moral reasoning (a hardened self-centring/lack of decentralisation and more use of cognitive distortions to neutralise any guilt or shame). These relative deficits appear to be comparable for male and female offenders when compared to non-offenders of their own sex, but they differ in nuance, a finding which can have implications for treatment.

The finding that, contrary to expectations, offenders do not externalise more than non-offenders, but clearly internalise less and have fewer adaptive coping strategies than non-offenders, has implications for treatment. Treatments often seem to focus on stopping or unlearning externalising coping because it is so conspicuous. However, the real problem and target for treatment seems to lie in the lack of adaptive and internalising coping, or in other words, in the inability of offenders to withdraw from the situation and to seek the cause of shame within themselves, or 'own' their guilt.

The high levels of self-centring and lower levels of moral reasoning in offenders compared to non-offenders, as well as the higher levels of emotional contagion, shame, and lack of adaptive shame-coping in female offenders compared to both male offenders and female non-offenders, also appear to have several implications for treatment. Vicariously experiencing emotions and becoming overwhelmed by them, rather than sharing from an *as-if* perspective, suggests a delay in emotional development, possibly due to insecure attachment or related to trauma. Female offenders as a group seem to need to learn to distinguish their own self from the other, and subsequently to recognise and regulate their emotions. Only then is true empathy, unlike the rudimentary contagion of feeling, possible. Subsequently, for female offenders it seems important to focus interventions on learning more adaptive ways of coping with shame and anger. With regard to the latter, especially

female first offenders could benefit from interventions that help them to regularly express their feelings of shame/anger in an adaptive way, thereby preventing an accumulation to the point of an outburst or aggressive response, like lashing out in shame.

Our research findings also give rise to a critical review of our treatment centres and the interventions used to reactivate development of the (stagnated) conscience. Patients, especially forensic patients, often meet therapists who think they know what's best and who tell them how to think or behave. In crime analyses, the patient's behavioural choices, actions, and even intentions are often interpreted by an 'all knowing' or even 'normative' therapist. Benjamin argues that this must change, because interpretation is an act of subject to object, making the patient feel reduced to an object as a result of normativity and/or interpretations. In this way the encounter between two subjects is ruptured, and real reflection hindered. According to Benjamin, such interpretations and interventions risk perpetuating precisely what they attempt to change or control. Conscience development does not follow the path of coercion or persuasion, leading to apparent compliance in the presence of external referees, but to defiance when those referees are 'out of sight'. Treatment aimed at developing a more mature functioning of conscience requires conversations about both appropriate and wrong actions, referring to how others feel as a result of either behaviour, with the aim to understand one's own feelings and intentions and those of others in order to broaden the self-centred perspective to a more social one.

To do this, the practitioner must authentically engage in contact. This is not easy; it must be done without inducing fear or defensiveness out of feelings of threat or extreme shame in the other person. This requires an intersubjective relationship, with free space for reflection – a relationship between two subjects without the harmful dynamics of the knowing versus the ignorant, making the patient feel objectified by a normative and 'knowing' subject. Within such a secure and intersubjective relationship, through a constant dance of attunement, misattunement and repair, the patient can learn to trust that more than one person can survive, which enables him/her to learn from the other. In addition, recognising and acknowledging the reality of relational ruptures and subsequent repairs can accelerate therapeutic effects and reduce therapy dropout.

Finally. The present research project has focused on conscience. It is important to keep in mind the limited scope of this research, for although conscience as a psychological function is a necessary, but not complete nor even sufficient, condition for prosocial behaviour. Other (internal and external) factors also affect our behaviour. For example, to be able to determine one's own behaviour by one's own will, one must have sufficient self-control, and it is precisely among delinquents that executive functioning appears more often to falter. This is all the more true when their environment encourages crime.

10 DUTCH SUMMARY | NEDERLANDSE SAMENVATTING

Meer dan 20 jaar werken als psycholoog in de forensische psychiatrie stelde mij onvermijdelijk en herhaaldelijk voor vragen over het kwaad en de regulatie daarvan. De algemeen geldende gedachte is dat kwade intenties in ieder van ons aanwezig zijn en door het geweten min of meer in bedwang gehouden of gereguleerd worden. Over delinquenten wordt vaak gezegd dat ze over 'lacunaire gewetensfuncties' beschikken of zelfs dat zij gewetenloos zijn. Dit zijn uitspraken die op onvoldoende empirische onderbouwing kunnen rekenen, omdat een eenduidige definitie van het geweten ontbreekt, terwijl het oordeel van een lacunair geweten van grote invloed kan zijn op iemands leven en stigmatiserend kan zijn. Er bestaat een gebrek aan kennis, dat gevolgen heeft voor overwegingen in straf- en maatregel-opleggingen, indicatiestelling, en/of (terugval)preventie.

Het onderzoek in dit proefschrift beoogt de kennis over het geweten als regulerende psychologische functie te vergroten. Dit alles met de bedoeling dat daarmee zowel theoretisch als empirisch onderbouwde, beschrijvende diagnostiek van het functioneren van het geweten mogelijk wordt gemaakt. Dit kan bijdragen aan een meer genuanceerd beeld van de daders die op indicatie behandeling of maatregelen behoeven voordat zij volledig kunnen terugkeren en re-integreren in de samenleving.

10.1 LITERATUURONDERZOEK, DE DEFINITIE VAN HET GEWETEN

Als eerste is onderzocht hoe het geweten tot nu toe in de Engels- en Nederlandstalige (forensisch) psychiatrische en psychologische literatuur werd gedefinieerd en geoperationaliseerd. Daarin zijn twee stromingen te onderscheiden, die elk de cognitieve dan wel de affectieve aspecten van het geweten benadrukken en waarin de vigerende definities veelal uni-dimensioneel zijn. Op basis van de relatie van de aspecten in deze eerdere uni-dimensionele definities met delinquentie, alsook hun onderlinge samenhang en onderlinge afhankelijkheid, bleek het van belang om het geweten niet te reduceren tot het ene of het andere domein of aspect, maar om de kennis hieromtrent samen te brengen in één definitie en theorie van het geweten. Deze multi-dimensionele definitie luidt: Het geweten is een psychologische functie, die ons gedrag en onze identiteit reguleert door middel van zelfreflectie en (tweede-orde) evaluatie, in een samenspel van affectieve en cognitieve empathie, zelfbewuste emoties (zoals schuld en schaamte), en moreel redeneren. Deze psychologische

functie manifesteert zich in de ontwikkeling van het kind aanvankelijk in het vermogen tot (affectieve en cognitieve) empathie, gevolgd door de neiging om zelfbewuste emoties zoals schaamte, schuld of trots te ervaren en reguleren, en tenslotte het vermogen tot moreel redeneren. Het geweten is echter moreel neutraal, in die zin dat het zelf geen intrinsieke inhoud heeft. Het is als een lege doos die gevuld kan worden met elke vorm van morele inhoud, dat wil zeggen normen en waarden die we internaliseren tijdens onze ontwikkeling.

10.2 EMPIRISCH ONDERZOEK

De gekozen definitie van het geweten werd gebruikt in een viertal empirische studies en geïllustreerd in een casusbeschrijving.

Respondenten werden geworven in een penitentiaire inrichting in Zwolle en, bij de Forensisch Psychiatrische Kliniek en Forensische polikliniek van GGZ Drenthe in Assen, bij de algemene GGZ van dezelfde instelling, en via sociale media in de algemene bevolking (N = 281, voor deelstudies respectievelijk: n = 98, n = 75 en n = 152). Zij werden allen door middel van een folder geïnformeerd over het onderzoek, hebben ruim de tijd gekregen hierover vragen te stellen, en zijn vervolgens verzocht op basis van *informed consent* deel te nemen. De respondenten vulden daartoe eenmalig een set vragenlijsten in, hetgeen ongeveer een half uur tot een uur in beslag nam en waarvoor vrijstelling is verkregen van de Medisch Ethische Toetsing Commissie (METC) van het UMCG en de Ethische Commissie van de Faculteit Gedrags- en Maatschappijwetenschappen van de Rijksuniversiteit Groningen.

Met het oog op de vergelijkbaarheid met het eerder verricht integratief onderzoek bij adolescenten zijn zo veel mogelijk dezelfde vragenlijsten gebruikt als in dat onderzoek. De verschillende aspecten van cognitieve en affectieve empathie (perspectief nemen, fantasie, empathische betrokkenheid en het ervaren van persoonlijke stress bij het zien van andermans lijden) werden gemeten met behulp van de Interpersoonlijke Reactiviteits Index (IRI). De geneigdheid tot het ervaren van schuld en schaamte werd gemeten met de Test Of Self Conscious Affect (TOSCA). De wijze van omgaan met schaamte werd ten slotte in kaart gebracht door middel van de Compass of Shame Scale (CoSS). In adaptieve coping met schaamte wordt de schaamte (h)erkend en geëvalueerd, wat veelal resulteert in een actietendens tot reparatiegedrag. Schaamte-coping kan echter ook internaliserend ('aanvallen van het zelf' of 'vermijden') of externaliserend ('ontkennen' of 'aanvallen van de ander') zijn. De Morele Oriëntatie Lijst (MOL) is niet geschikt voor volwassenen en werd daarom vervangen door de Hoe Ik Denk-vragenlijst (HID) die het niveau van moreel redeneren meet op basis van primaire en secundaire cognitieve vertekeningen. De primaire vertekening is zelfcentrering, waarbij het eigen perspectief en verlangen nog het centrum en uitgangspunt zijn in iemands morele overwegingen. Secundaire vertekeningen zijn zelfbeschermende denkfouten die worden ingezet om gevoelens van schuld en schaamte die optreden in anticipatie

op, of na afloop van het overschrijden van de eigen normen te neutraliseren en zo het eigen gedrag te rechtvaardigen.

In de eerste drie vergelijkende onderzoeken werden hypothesen getest met behulp van (M)ANCOVA S en zowel onafhankelijke als gepaarde t-tests. Dat wil zeggen, wanneer aan de assumpties voor (M)ANCOVAS en t-toetsen werd voldaan. Wanneer assumpties werden geschonden, werden niet-parametrische alternatieven voor de gekozen tests (Kruskall-Wallis en/of Wilcoxon Signed Rank-test) gebruikt. Post-hoc Bonferroni-Holm-correcties werden toegevoegd om te corrigeren voor meervoudig testen. Voor de vierde studie, betreffende de onderlinge relaties en wederkerige beïnvloeding van de onderliggende aspecten van het geweten, werd gebruik gemaakt van netwerkanalyses en regressieanalyses.

De eerste studie liet zien dat delinquenten inderdaad relatief gezien tekort schieten op de onderliggende aspecten van het geweten. Met betrekking tot empathie bleek dat delinquenten niet lager scoorden op cognitieve empathie, maar wel minder affectieve empathie lieten zien, zich minder identificeerden met een ander en minder persoonlijke stress of mee-lijden met een ander ervoeren dan niet-delinquenten. Ook waren zij minder geneigd tot het ervaren van schaamte dan niet niet-delinquenten en hadden zij een lager niveau van moreel redeneren. Delinquenten bleken meer egocentrisch te zijn en meer gebruik te maken van zelfbeschermende cognitieve vertekeningen om het eigen delinquente gedrag mogelijk te rechtvaardigen of goed te praten: zij waren sterker dan niet-delinquenten geneigd anderen de schuld geven, of het eigen gedrag als onvermijdelijk, gezien de omstandigheden, te beoordelen. De bevindingen komen grotendeels overeen met die uit het onderzoek bij adolescenten. Waar de gegevens uit het adolescentenonderzoek suggereerden dat vrouwelijke delinquenten met meer psychische problemen kampen dan mannelijke delinquenten, leek ook dit onderzoek voorzichtig in die richting te wijzen, doch de groep vrouwelijke delinquenten was te klein om hier uitspraken over te kunnen doen.

Gezien de in de literatuur gevonden indicaties voor genderverschillen en omdat vrouwelijke gedetineerden nauwelijks onderzocht zijn terwijl zij een steeds groter aandeel van de totale gedetineerdenpopulatie zijn gaan vormen, zijn vrouwelijke delinquenten als groep onderzocht. Immers, kennis van de verschillen in functioneren van het geweten tussen vrouwelijke en mannelijke daders kan ons begrip van trajecten naar criminaliteit vergroten en daarmee helpen in het ontwikkelen van gendersensitieve interventies waar dit nodig blijkt. Zij zijn daartoe in de tweede studie op alle aspecten van het geweten vergeleken met mannelijke delinquenten. De vrouwen vertoonden niveaus van moreel redeneren, cognitieve empathie en empathische bezorgdheid vergelijkbaar met die van de mannen, maar scoorden hoger op persoonlijke stress bij het zien van andermans lijden (gevoelsbesmetting), op schaamte- en schuldgevoelens en op het gebruik van internaliserende coping strategieën om met deze schaamte om te gaan.

Uit de derde studie, een vergelijking van vrouwelijke delinquenten met niet delinquente vrouwen uit de algemene bevolking en uit de GGZ, bleek verder dat vrouwelijke delinquenten achterblijven in decentralisatie. De zelfcentrering was bij de delinquente vrouwen hoger dan bij de niet-delinquente vrouwen, en daarnaast maakten de delinquente vrouwen meer gebruik van secundaire cognitieve vertekeningen dan niet-delinquente vrouwen.

De vierde studie richtte zich tenslotte op de onderlinge samenhang en wederzijdse beïnvloeding van de constituerende aspecten van het geweten, in de verwachting dat de structuur van het geweten voor delinquenten anders zou zijn dan die voor niet-delinquenten, zoals dit bij adolescenten het geval was. In tegenstelling tot onze verwachting lieten netwerkanalyses van partiële correlaties geen significante verschillen zien in de structuren of dichtheid van gewetensnetwerken tussen delinquenten en niet-delinquenten. Dit lijkt bij te dragen aan de ontkrachting van het idee dat daders gewetenloos zouden zijn. Aspecten van hun geweten bleken echter relatief gebrekkig, wat een gezond functioneren van het geweten als geheel belemmert. Want resultaten van regressieanalyses hebben laten zien dat het functioneren van het geweten sterk afhangt van de ontwikkeling van het zelf, van decentralisatie en in sterkere mate van capaciteiten voor affectieve dan voor cognitieve empathie.

10.3 CONCLUSIES EN IMPLICATIES VOOR BEHANDELING

Concluderend is het geweten een dynamische psychologische functie die ons gedrag en onze identiteit reguleert door middel van zelfreflectie en -evaluatie, in een samenspel van affectieve en cognitieve empathie, zelfbewuste emoties en moreel redeneren. Een regulerende en epistemische functie, die in zichzelf neutraal is en waarvan de inhoud gevormd wordt door de normen en waarden die het individu gaandeweg internaliseert. Een functie die voor wat betreft de inhoud tussen groepen kan verschillen, maar ook in de wijze van functioneren verschillen vertoont. Hoewel in de onderlinge samenhang en wederzijdse beïnvloeding van de constituerende aspecten van het geweten geen verschillen zijn gevonden tussen delinquenten en niet-delinquenten, wordt het functioneren van het geweten bij delinquenten wel gehinderd door relatieve tekortkomingen in (affectieve) empathie, schaamtegeneigdheid, gebrek aan adaptieve en internaliserende coping met schaamte, en moreel redeneren (verharde zelfcentrering / gebrek aan decentralisatie, en gebruik van cognitieve vertekeningen om eventuele schuld of schaamte te neutraliseren). De relatieve tekorten blijken voor mannelijke en vrouwelijke delinquenten ten opzichte van niet-delinquenten van hun eigen sekse vergelijkbaar, maar in nuance verschillend, met enkele behandelimplicaties tot gevolg.

Dat delinquenten tegen de verwachting in niet meer externaliseren dan niet-delinquenten maar wel duidelijk minder internaliseren en over minder adaptieve copingstrategieën beschikken dan niet-delinquenten, heeft implicaties voor de

behandeling. Behandelingen richten zich vaak richten op het stoppen of afleren van externaliserende coping, doordat deze zo in het oog springt. Het daadwerkelijke probleem en richtpunt voor behandeling lijkt echter gelegen in het gebrek aan adaptieve en internaliserende coping, ofwel in het gegeven dat delinquenten zich onvoldoende terugtrekken uit de situatie en de schuld onvoldoende bij zichzelf zoeken.

De hoge niveaus van gestagneerde zelfcentrering en achterblijvende ontwikkeling van het moreel redeneren bij delinquenten vergeleken met niet-delinquenten, alsook de hogere niveaus van gevoelsbesmetting, schaamte, en het tekortschieten van adaptieve copingstrategieën bij vrouwelijke delinquenten vergeleken met zowel mannelijke delinquenten als vrouwelijke niet-delinquenten, lijken eveneens verscheidene implicaties voor behandeling te hebben. Het vanuit besmetting ervaren van emoties en daardoor overspoeld raken, in plaats van te delen van gevoelens met behoud van zelf/ander-onderscheid, suggereert een emotionele ontwikkelingsachterstand, mogelijk als gevolg van onveilige gehechtheid of samenhangend met trauma. Vrouwelijke delinquenten als groep lijken dan ook te moeten leren om het eigen zelf van dat van de ander te onderscheiden, en vervolgens om hun emoties te (h)erkennen en te reguleren. Pas dan is echte empathie, anders dan de rudimentaire gevoelsbesmetting, mogelijk.

Vervolgens lijkt het voor vrouwelijke delinquenten nodig dat interventies gericht worden op het leren van meer adaptieve manieren om met schaamte en woede om te gaan. Wat dit laatste betreft, zouden vooral vrouwelijke 'first offenders' baat kunnen hebben bij interventies die hen helpen hun gevoelens van schaamte of woede regelmatig op een adaptieve manier te uiten, waardoor een accumulatie tot het punt van een uitbarsting of een agressief uithalen uit schaamte kan worden voorkomen.

De onderzoeksresultaten geven aanleiding tot een kritische beschouwing van onze behandelcentra en de interventies die worden ingezet om de gestagneerde (gewetens)ontwikkeling weer op gang te brengen. Want patiënten, vooral forensisch psychiatrische patiënten, ontmoeten vaak behandelaars die menen te weten wat het beste is en die hen vertellen hoe ze wel of niet moeten denken of zich gedragen. Ook worden in delictanalyses de gedragskeuzes, handelingen en zelfs intenties van de patiënt vaak geïnterpreteerd door een 'alwetende' en soms ook normerende therapeut. Benjamin stelt dat dit moet veranderen, omdat interpretatie een daad is van een subject naar een object, die zorgt voor complementariteit. De patiënt voelt zich door de normativiteit en/of interpretaties tot een object gereduceerd. Daardoor wordt de ontmoeting tussen twee subjecten verbroken en wordt echte reflectie belemmerd. Volgens Benjamin riskeren dergelijke interpretaties en interventies precies datgene te bestendigen, wat zij pogen te bestrijden of beheersen. Gewetensontwikkeling volgt namelijk niet de weg van dwang of overreding, die leidt tot ogenschijnlijke naleving ten overstaan van externe referenten maar tot het weerstaan daarvan wanneer diezelfde referenten 'uit het zicht' zijn. Behandeling gericht op de ontwikkeling van

een meer volwassen functioneren van het geweten vereist gesprekken over zowel gepast als wangedrag, verwijzend naar de gevoelens van anderen als gevolg van dit gedrag, met de bedoeling zowel de eigen gevoelens en intenties als die van anderen te leren begrijpen, waarmee zowel de decentralisatie als het mentaliseren worden bevorderd. Daartoe dient de behandelaar zich echt in het contact te begeven. Dit is niet eenvoudig, omdat het dient te gebeuren zonder onnodige angst of defensiviteit vanuit een gevoel van dreiging of extreme schaamte bij de ander teweeg te brengen. Het vereist een intersubjectieve relatie met vrije reflectieruimte. Dat wil zeggen, een relatie tussen twee subjecten zonder de schadelijke dynamiek van de wetende versus een onwetende, waarin de patiënt zich geobjectiveerd voelt door een normerend en alwetend subject. Binnen een dergelijke veilige intersubjectieve relatie kan men, door een constante dans van *attunement, misattunement and repair,* ofwel van relatiebreuken en relatieherstel, leren en erop gaan vertrouwen dat er meer dan een persoon kan overleven. Bovendien versnellen het herkennen en erkennen van relationele breuken en de daarop volgende reparaties de therapeutische effecten en verminderen ze de uitval uit therapie.

Ten slotte. Het onderhavig onderzoek richtte zich op het geweten. Daarbij is het van belang de beperking van dit onderzoek goed in het oog te houden. Het geweten als psychologische functie is immers een noodzakelijke, maar niet volledige of zelfs maar voldoende voorwaarde voor prosociaal gedrag. Er zijn vele andere (interne en externe) factoren die ons gedrag beïnvloeden. Om bijvoorbeeld het eigen gedrag naar eigen wil te kunnen bepalen, is het hebben van voldoende zelfbeheersing een voorwaarde. Dit geldt des te meer wanneer de omgeving criminaliteit stimuleert. En juist bij delinquenten blijkt het executieve functioneren vaker te haperen.

REFERENCES

Allen, P., & Bennett, K. (2008). *SPSS for the health and behavioural sciences*. South Melbourne: Thomson.

Andrews, D. A., Bonta, J., & Wormith, J. S. (2006). The recent past and near future of risk and/or need assessment. *Crime & Delinquency*, *52*(1), 7-27. doi.org/10.1177%2F0011128705281756

Armstrong, R.A. (2014). When to use the Bonferroni correction. *Ophthalmic & Physiological Optics*, *34*: 502-508. doi:10.1111/opo.12131

Bacchini, D., De Angelis, G., Affuso, G., & Brugman, D. (2016). The structure of self-serving cognitive distortions: A validation of the "How I Think" Questionnaire in a sample of Italian adolescents. *Measurement and Evaluation in Counseling and Development*, *49*(2), 163-180.

Baez, S., Flichtentrei, D., Prats, M., Mastandueno, R., García, A. M., Cetkovich, M., & Agustín, I. (2017). Men, women...who cares? A population-based study on sex differences and gender roles in empathy and moral cognition. *PLoS ONE*, *12*(6), 1-21. doi:10.1371/journal.pone.0179336

Baim, C. (2015). Attachment-based practice. Applications of the dynamic-maturational model in the treatment of adult offenders. In F. Koenraadt, K. 't Lam, L. Eurelings-Bontekoe, & M. Lancel (Eds.). *Hechting of hechtenis? Problematische hechting en het verband met delinquent gedrag [Attachment or detention? Problematic attachment and its association with delinquent behaviour] (pp. 35-51).* Oisterwijk: Wolf Legal Publishers.

Baim, C., & Morrison, T. (2011). *Attachment-based strategies for adults. Understanding Strategies and Promoting Positive Change.* Brighton: Pavilion.

Bal, P., & Koenraadt, F. (2007). Dutch criminal law and procedure, A bird's eye view. In F. Koenraadt, A. Mooij, & J. van Mulbregt (Eds.). *The mental condition in criminal law, Forensic psychiatric and psychological assessment in a residential setting* (pp. 13-35). Utrecht: Dutch University Press.

Baljon, M.C.L., & Verkade, M. (2015). Concreet spiegelen en contactwerk [Mirroring and contact work]. In M.C.L. Baljon, G. Pool, & R.J. Takens (Eds.). *Persoonsgerichte therapie in de praktijk [Person-centred therapy in practice].* Amsterdam: Hogrefe Uitgevers.

Banse, R., Koppehele-Gossel, J., Kistemaker, L. M., Werner, V. A., & Schmidt, A. F. (2013). Pro-criminal attitudes, intervention, and recidivism. *Aggression and Violent Behavior*, *18*(6), 673-685. doi:10.1016/j.avb.2013.07.024

Baron-Cohen, S. (2012). *Zero degrees of empathy: A new theory of human cruelty and kindness*. London: Penguin.

Baron-Cohen, S., & Wheelwright, S. (2004). The empathy quotient: an investigation of adults with Asperger syndrome or high functioning autism, and normal sex differences. *Journal of Autism and Developmental Disorders*, *34*(2), 163-175. doi:10.1023/B:JADD.0000022607.19833.00

Baron-Cohen, S. Wheelwright, S., Hill, J., Raste, Y., & Plumb, I. (2001). The "Reading the Mind in the Eyes" Test revised version: A study with normal adults, and adults with Asperger syndrome or high-functioning autism. *Journal of Child Psychology and Psychiatry, 42*(2), 241–251. doi:10.1017/S0021963001006643

Barriga, A.Q., Gibbs, J.C., Potter, G.B., & Liau, A.K. (2001). *How I think (HIT) questionnaire manual.* Champaign, IL: Research Press.

Barriga, A.Q., Morrison, E.M., Liau, A.K., & Gibbs, J.C. (2001b). Moral cognition: Explaining the gender difference in antisocial behavior. *Merrill-Palmer Quarterly 47*(4), 532-562. doi:10.1353/mpq.2002.0020

Bartlett, A., & Hollins, S. (2018). Challenges and mental health needs of women in prison. *The British Journal of Psychiatry*, *212*(3), 134-136. doi:10.1192/bjp.2017.42

Bateman, A., & Fonagy, P. (2016). *Mentalization-based treatment for personality disorders: A practical guide.* Oxford University Press.

Bateman, A., O'Connell, J., Lorenzini, N., Gardner, T., & Fonagy, P. (2016). A randomized controlled trial of mentalization-based treatment versus structured clinical management for patients with comorbid borderline personality disorder and antisocial personality disorder. *BMC Psychiatry*, *16*(1), 1-11. doi:10.1186/s12888-016-1000-9

Batson, C.D., Early, S., & Salvarini, G. (1997). Perspective taking: Imagining how another feels versus imagining how you would feel. *Personality and Social Psychology, 23*, 751-758.

Baumeister, R.F., Stillwell, A., & Heatherton, T.F. (1994). Guilt: An interpersonal approach. *Psychological Bulletin, 115*, 243-267.

Baylis, F. (2015). A relational view of conscience and physician conscientious action. *International Journal of Feminist Approaches to Bioethics*, *8*(1), 18-36.

Beerthuizen, M.G.C.J., Brugman, D., Basinger, K.S., Gibbs, J.C. (2011) Moral reasoning, moral value evaluation and juvenile delinquency: Introducing the Sociomoral Reflection Measure – Short Form Objective. Utrecht University, Department of Developmental Psychology.

Beerthuizen, M.G.C.J. (2012). *The impact of morality on externalising behavior; Values, reasoning, cognitive distortions and identity*. Utrecht: ZuidamUithof Drukkerijen.

Beerthuizen, M.G., Brugman, D., Basinger, K.S., & Gibbs, J.C. (2012). Moral reasoning, moral value evaluation and juvenile delinquency: Introducing the sociomoral reflection measure–short form objective. In M.G.C.J. Beerthuizen. *The impact of morality on externalizing behavior* (pp. 21-42).Utrecht: Zuidam Uithof Drukkerijen.

Beerthuizen, M. G., & Brugman, D. (2016). The relationship of moral value evaluation with externalising behaviour across value areas in adolescents. *European Journal of Developmental Psychology*, *13*(1), 84-98. doi:10.1080/17405629.2015.1066669

Benjamin, J. (2018). *Beyond doer and done to: Recognition theory, intersubjectivity and the third* (1st ed.). Routledge. doi:10.4324/9781315437699

Besemer, S., Ahmad, S.I., Hinshaw, S.P., & Farrington, D.P. (2017). A systematic review and meta-analysis of the intergenerational transmission of criminal behavior. *Aggression and violent behavior*, *37*, 161-178. doi:10.1016/j.avb.2017.10.004

Binder, U. (1999). Empathie en empathieontwikkeling met betrekking tot vroege, ernstige stoornissen. *Tijdschrift Clientgerichte Psychotherapie,* [Empathy and empathy development with regard to early and serious disorders. *Journal of Client Centred Psychotherapy*], *37*(4), 266-278.

Blair, R.J., & Cipolotti, L. (2000). Impaired social response reversal. A case of "acquired sociopathy". *Brain, 123*(6), 1122–1141. doi:10.1093/brain/123.6.1122

Blair, R.J.R. (2001). Neurocognitive models of aggression, the antisocial personality disorders, and psychopathy. *Journal of Neurology, Neurosurgery, and Psychiatry, 71*, 727-731.

Box, G. P. (1949). A general distribution theory for a class of likelihood criteria. *Biometrika*, *36*, 316-346.

Bowlby, R.J.M. (1988). A secure base: Parent-child attachment and healthy human development. London: Routledge.

Braithwaite, J. (1989). *Crime, shame and reintegration*. Melbourne: Cambridge University Press.

Britannica, T. Editors of Encyclopaedia (2013). Conscience. *Encyclopedia Britannica*. https://www.britannica.com/topic/conscience

Basinger, K.S., Brugman, D., & Gibbs, J.C. (2007). The Sociomoral Reflection Measure–Short Form Objective (SRM-SFO). *Unpublished manuscript, University of Utrecht & Urbana University, Department of Developmental Psychology*.

Brugman, D., Beerthuizen, M.G.C.J., Helmond, P., Basinger, K. S., & Gibbs, J. C. (2021). Assessing moral judgment maturity using the Sociomoral Reflection Measure – Short Form Objective. *European Journal of Psychological Assessment*. Advance online publication. doi:10.1027/1015-5759/a000680

Brugman, D., Rutten, E.A., Stams, G.J.J.M., & Tavecchio, L.W.C. (2006). *Manual of the moral orientation measure (MOM)*. Utrecht: Utrecht University.

Brugman, D., Nas, C.D., Van der Velden, F., Barriga, A.Q., Gibbs, J.C., Potter, G.B., & Liau, A.K. (2011). *Hoe ik denk vragenlijst (HID), Handleiding [How I think questionnaire, Manual]*. Amsterdam: Boom Test Publishers.

Buber, M. (1983). Schuld en schuldgevoelens [Guilt and guilt feelings]. In De Bruin, T (Ed.). (1983). *Adam, waar ben je? De betekenis van het mensbeeld in de joodse traditie en in de psychotherapie [Adam, where are you? The meaning of the human image in the Jewish tradition and in psychotherapy]*. Informatie Jodendom, Hilversum.

Bullens, R.A.R. (2006). Gewetensvorming bij jeugdige zedendelinquenten [Conscience development in juvenile sex offenders]. In L. Le Sage, H. Stegge, & J. Steutel (redactie). *Jeugddelinquentie en gewetensontwikkeling. Conceptualisering, diagnostiek en behandeling [Juvenile delinquency and conscience development. Conceptualisation, diagnosis and treatment]* (pp. 79-92). Amsterdam: SWP.

Bulten, E., & Nijman, H. (2009). Veel psychiatrische stoornissen onder gedetineerden op reguliere afdelingen van penitentiaire inrichtingen [Many mental disorders among detainees in regular wards of penal institutions]. *Nederlands Tijdschrift voor Geneeskunde [Dutch Journal of Medicine]*, *153*(634), 1-5.

Carozza, P.G., Glendon, M.A., & Picker, C.B. (2007). Comparative legal traditions: Text, materials, and cases on western law (3rd edition). *Books*. 42. https://scholarship.law.nd.edu/law_books/42

Carveth, D. L. (2015). The immoral superego: Conscience as the fourth element in the structural theory of the mind. *Canadian Journal of Psychoanalysis*, *23*(1), 206-223.

Carveth, D. L. (2013). *The still small voice: Psychoanalytic reflections on guilt and conscience*. New York: Routledge.

Cassidy, J., & Shaver, R.D. (Eds.) (1999). *Handbook of attachment theory, Research and clinical applications*. New York: Guilford Press.

Cima, M. (2016). *Handbook of forensic psychopathology and treatment*. Taylor & Francis Ltd: London.
Cliffordson, C. (2002). The hierarchical structure of empathy: Dimensional organization and relations in social functioning. *Scandinavian Journal of Psychology, 43,* 49-59.
Cohen, J. (1988). Statistical Power Analysis for the Behavioral Sciences. New York: Routledge. doi:10.4324/9780203771587
Cohen, T.R., Wolf, S.T., Panter, A.T., & Insko, C.A. (2011). Introducing the GASP Scale: a new measure of guilt and shame proneness. *Journal of Personality and Social Psychology*, *100*(5), 947-966. doi:10.1037/a0022641
Covell, C.N., & Scalora, M.J. (2002). Empathic deficits in sexual offenders: An integration of affective, social, and cognitive constructs. *Aggression and Violent Behavior*, *7*(3), 251-270. doi:10.1016/S1359-1789(01)00046-5
Crittenden, P.M., & Ainsworth, M.D.S. (1989). Child maltreatment and attachment theory. In D. Cicchetti & V. Carlson. *Child maltreatment. Theory and research on the causes and consequences of child Abuse and neglect* (pp. 432-463). New York: Cambridge University Press.
Crittenden, P.M., & Landini, A. (2011). *Assessing adult attachment: A dynamic maturational approach to discourse analysis.* New York: Norton.
Cuff, B.M., Brown, S.J., Taylor, L., & Howat, D.J. (2016). Empathy: A review of the concept. *Emotion Review*, *8*(2), 144-153. doi:10.1177%2F1754073914558466
Damasio, A.R. (1994). *Descartes' error*: *Emotion, reason and the human brain.* New York: Putnam.
Davis, M.H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*(1), 113-126. doi:10.1037/0022-3514.44.1.113
Dearing, R.L., Stuewig, J., & Tangney, J.P. (2005). On the importance of distinguishing shame from guilt: Relations to problematic alcohol and drug use. *Addictive Behaviors*, *30*(7), 1392-1404. doi:10.1016/j.addbeh.2005.02.002
Decety, J., & Cowell, J.M. (2014). Friends or foes; is empathy necessary for moral behavior? *Perspectives on Psychological Science, 9*(5), 525-537. doi:10.1177%2F1745691614545130
De Brauw, M, Peen, J, Peeters, C., Popma, A., & Schalkwijk, F. (submitted). Debunking the myth of the unscrupulous offender. Network analysis into the differences in maturation of offending and non-offending adolescents.
De Corte, K., Buysse, A., Verhofstadt, L.L., Roeyers, H., Ponnet, K., & Davis, M.H. (2007). Measuring empathic tendencies: Reliability and validity of the Dutch version of the Interpersonal Reactivity Index. *Psychologica Belgica*, *47*(4), 235-260. doi:10.5334/ph-47-4-235.
De Hart, D.D. (2018). Women's pathways to crime: A heuristic typology of offenders. *Criminal Justice and Behavior*, *45*(10), 1461-1482. doi.org/10.1177%2F0093854818782568
Deonna, J., Rodogno, R., & Teroni, F. (2011). *In defense of shame: The faces of an emotion.* Oxford: Oxford University Press.
De Vogel, V., & de Spa, E. (2015). Criminele voorgeschiedenis en delictanalyse bij vrouwelijke terbeschikkinggestelden: Een vergelijking met mannen [Criminal history and offense analysis of women in forensic psychiatry: A comparison with men]. *Panopticon*, *36*(5), 433-448.

De Vogel, V., Stam, J., Bouman, Y.H.A., Horst, ter, P., & Lancel, M. (2016). Violent women: a multicentre study into gender differences in forensic psychiatric patients. *The Journal of Forensic Psychiatry & Psychology, 27*(2), 145-168. doi:10.1080/14789949.2015.1102312

De Vogel, V., de Vries Robbé, M., van Kalmthout, W., & Place, C. (2014). *FAM. Female additional manual. Additional guidelines to the HCR-20V3 for assessing risk for violence in women.* Utrecht: Van der Hoeven Kliniek.

De Vogel, V., Wijkman, M., & de Vries Robbé, M. (2018). Violence risk assessment in women: The value of the Female Additional Manual. In J.L. Ireland, C. Ireland, P. Birch (Eds.), & Farrington, D. *Violent and sexual offenders.* London: Routledge. pp. 182-200. doi:10.4324/9781315310411

Di Molfetta, E., & Brouwer, J. (2020). Unravelling the 'crimmigration knot': Penal subjectivities, punishment and the censure machine. *Criminology & Criminal Justice*, *20*(3), 302-318.

Dowden, C., & Andrews, D.A. (1999). What works for female offenders: A meta-analytic review. *Crime & Delinquency*, *45*(4), 438-452. doi.org/10.1177%2F0011128799045004002

Eisenberg, N., & Eggum, D. (2009). Empathic responding: Sympathy and personal distress. In J. Decety & W. Ickes (Eds.). *The social neuroscience of empathy*. Cambridge: MIT Press. pp. 57-70.

Eisenberg, N., & Fabes, R.A. (1998). Prosocial development. In W. Damen (Ed.), *Handbook of Child Psychology*. New York: John Wiley. pp. 701-778.

Elison, J., & Harter, S. (2007). Humiliation. Causes, correlates and consequences. In Tracy, J.L., Robins, R.W. & Tangney, J.P. (2007). *The self-conscious emotions. Theory and research.* New York/London: Guilford Press, pp. 310-329.

Elison, J., Lennon, R., & Pulos, S. (2006). Investigating the compass of shame: the development of the compass of shame scale. *Social Behavior and Personality: an International Journal, 34*(3), 221-238. doi:10.2224/sbp.2006.34.3.221

Ent, M.R. & Baumeister, R.F. (2015). Individual differences in guilt proneness affect how people respond to moral trade-offs between harm avoidance and obedience to authority. *Personality and Individual Differences, 74,* 231-234. doi:10.1016/j.paid.2014.10.035

Epskamp, S., Borsboom, D., & Fried, E.I. (2018). Estimating psychological networks and their accuracy: A tutorial paper. *Behavior Research Methods*, *50*(1), 195-212. doi:10.3758/s13428-017-0862-1

Epskamp, S., Cramer, A.O., Waldorp, L.J., Schmittmann, V.D., & Borsboom, D. (2012). Qgraph: Network visualizations of relationships in psychometric data. *Journal of Statistical Software*, *48*(4), 1-18. http://www.jstatsoft.org

Epskamp, S., & Fried, E.I. (2018). A tutorial on regularized partial correlation networks. *Psychological Methods, 23*(4), 617. doi:10.1037/met0000167

Erikson, E. (1950). Childhood and Society. [*Het kind en de Samenleving*]. Utrecht / Antwerpen: Spectrum.

Ernst, A.F., & Albers, C.J. (2017). Regression assumptions in clinical psychology research practice – a systematic review of common misconceptions. PeerJ, 5 (e3323). doi:10.7717/peerj.3323

Farrington, D.P., & Jolliffe, D. (2021). Empathy, convictions, and self-reported offending of males and females in the Cambridge study in delinquent development. In D. Jolliffe & D.P. Farrington (Eds.). *Empathy versus offending, aggression, and bullying* (pp. 77-88). London: Routledge. doi:10.4324/9780429287459

Fazel, S., & Danesh, J. (2002). Serious mental disorders in 23,000 prisoners: A systematic review of 62 surveys. *The Lancet, 359 (9306),* 545-550.

Fazel, S., & Seewald, K. (2012). Severe mental illness in 33,588 prisoners worldwide: a systematic review and meta-regression analysis. *The British Journal of Psychiatry, 200* (5), 364-373.

Ferguson, T.J., & Crowly, S.L. (1997). Gender differences in the organization of guilt and shame. *Sex Roles, 37*(1-2), 19-44. doi.org/10.1023/A:1025684502616

Ferguson, T.J., & Eyre, H.L. (2000). Engendering gender differences in shame and guilt: Stereotypes, socialization, and situational pressures. In A.H. Fischer (Ed.), *Gender and emotion: Social psychological perspectives* (pp. 254-276). Cambridge: University Press. https://www.cambridge.org/core

Ferguson, T.J., Eyre, H.L., & Ashbaker, M. (2000). Unwanted identities: A key variable in shame-anger links and gender differences in shame. *Sex Roles*, *42*(3-4), 133-157. doi:10.1023/A:1007061505251

Fergusson, D.M., & Horwood, L.J. (2002). Male and female offending trajectories. *Development and Psychopathology*, *14*(1), 159-177. doi:10.1017/S0954579402001098

Ferranti, J., McDermott, B.E., & Scott, C.L. (2013). Characteristics of female homicide offenders found not guilty by reason of insanity. *Journal of the American Academy of Psychiatry and the Law, 41,* 516-522.

Finkel, E.J., & Hall, A.N. (2018). The I^3 Model: a metatheoretical framework for understanding aggression. *Current Opinion in Psychology*, 19, 125-130. doi:10.1016/j.copsyc.2017.03.013

Fonagy, P., Gergely, G., Jurist, E.L., & Target, M. (2018). *Affect regulation, mentalization, and the development of the self*. London: Routledge. doi:10.4324/9780429471643

Fontaine, J.R., Luyten, P., De Boeck, P., & Corveleyn, J. (2001). The Test of self-conscious affect: Internal structure, differential scales and relationships with long-term effects. *European Journal of Personality*, *15*(6), 449-463. doi:10.1002/per.428

Fontaine, J.R., Luyten, P., De Boeck, P., Corveleyn, J., Fernandez, M., Herrera, D., ... & Tomcsányi, T. (2006). Untying the Gordian knot of guilt and shame: The structure of guilt and shame reactions based on situation and person variation in Belgium, Hungary, and Peru. *Journal of cross-cultural psychology*, *37*(3), 273-292. doi:10.1177%2F0022022105284493

Freud, S. (1915). Vorlesung: Die Fixierung an das trauma, das unbewusste. In Gesammelte Werke: *XI: Vorlesungen zur Einführung in die Psychoanalyse* (pp. 282-295).

Freud, S. (1933). New introductory lectures on psycho-analysis. SE, Vol. 22, pp. 1-182.

Friesdorf, R., Conway, P., & Gawronski, B. (2015). Gender differences in responses to moral dilemmas: A process dissociation analysis. *Personality and Social Psychology Bulletin, 41*(5), 696-713. doi:10.1177/0146167215575731

Fukushima, H., & Hiraki, K. (2006). Perceiving an opponent's loss: Gender-related differences in the medial-frontal negativity. *Social, Cognitive, and Affective Neuroscience*, *1*(2), 149-157. doi:10.1093/scan/nsl020

George, D., & Mallery, P. (2003). SPSS for Windows step by step: A simple guide and reference. 11.0 update (4th ed.). Boston: Allyn & Bacon.

Geuzinge, R. (2017). Verticale integratie en emotieregulatie [Vertical integration and emotion regulation]. In M.C.L. Baljon, & R. Geuzinge (Ed.), *Echo's van trauma. Slachtoffers als daders, daders als slachtoffers [Echoes of Trauma, Victims as victimisers, Victimising victims]*. Amsterdam: Boom uitgevers.

Gibbs, J.C., Basinger, K.S., & Fuller, D. (2013 (first published 1992). *Moral maturity: Measuring the development of sociomoral reflection*. New York: Routledge. doi:10.4324/9780203771754

Gibbs, J.C., Potter, G.B. and Goldstein, A.P. 1995. *The EQUIP Program: Teaching youth to think and act responsibly through a peer helping approach*, Champaign, IL: Research Press.

Gibbs, J.C. (2019). *Moral development and reality. Beyond the theories of Kohlberg, Hoffman, and Haidt* (4th ed.). Oxford: Oxford University Press.

Gilligan, J. (1996). *Violence: Reflections on a national epidemic* (p. 320). New York: Vintage Books.

Gini, G., Pozzoli, T., & Hauser, M. (2011). Bullies have enhanced moral competence to judge relative to victims, but lack moral compassion. *Personality and Individual Differences, 50*(5), 603-608. doi:10.1016/j.paid.2010.12.002

Giubilini, A. (2021). Conscience. In E.N. Zalta (Ed.): *The Stanford encyclopedia of philosophy, (Spring 2021 Edition)*. https://plato.stanford.edu/entries/conscience/

Glenn, A.L., Koleva, S., Iyer, R., Graham, J., & Ditto, P.H. (2010). Moral identity in psychopathy. *Judgment and Decision*, *5*(7), 497-505. http://journal.sjdm.org/10/10316/jdm10316.pdf

Gobeil, R., Blanchette, K., & Stewart, L. (2016). A meta-analytic review of correctional interventions for women offenders: Gender-neutral versus gender-informed approaches. *Criminal Justice and Behavior*, *43*(3), 301-322. doi.org/10.1177%2F0093854815621100

Hare, Robert D. (1999). *Without conscience. The disturbing world of the psychopaths among us.* New York: Guilford Press

Hawk, S.T., Keijsers, L., Branje, S.J., Graaff, J.V.D., Wied, M.D., & Meeus, W. (2013). Examining the interpersonal reactivity index (IRI) among early and late adolescents and their mothers. *Journal of Personality Assessment*, *95*(1), 96-106. doi.org/10.1080/00223891.2012.696080

Heilbrun, K., Dematteo, D., Fretz, R., Erickson, J., Yasuhara, K., & Anumba, N. (2008). How "specific" are gender-specific rehabilitation needs? An empirical analysis. *Criminal Justice and Behavior*, *35*(11), 1382-1397. doi:10.1177/0093854808323678

Heitzman, J., Markiewicz, I. (2017). Financing of forensic psychiatry in view of treatment quality and threat to public safety. *Psychiatria Polska, 51*(4). doi:10.12740/PP/76000

Helmond, P., Overbeek, G., Brugman, D., & Gibbs, J. C. (2015). A meta-analysis on cognitive distortions and externalising problem behavior: Associations, moderators, and treatment effectiveness. *Criminal Justice and Behavior*, *42*(3), 245-262. doi:10.1177%2F0093854814552842

Helms, L.S. (1999). Basic concepts in classical test theory: Tests aren't reliable, the nature of alpha, and reliability generalization as meta-analytic method (ERIC Document Reproduction Service No. ED 427 083).
Hendriks, J., Rutten, E.A., Stams, G.J.J.M., & Brugman, D. (2006). De MOL graaft naar het geweten: een nieuw meetinstrument. [The MOL digs into moral consciousness: a new measure]. In L. Le Sage, H. *Stegge, & J.W. Steutel (Eds.)., Jeugddelinquentie en gewetensontwikkeling*, [Juvenile delinquency and conscience development], Amsterdam: SWP, 66-78.
Hill, T. (2000). Respect, pluralism, and justice: Kantian perspectives. New York, NY: Oxford University Press.
Hoffman, M.L. (2000). *Empathy and moral development: Implications for caring and justice.* Cambridge: Cambridge University Press. doi:10.1017/CBO9780511805851
Hogan, R. (1969). Development of an empathy scale. *Journal of Consulting and Clinical Psychology, 33(3),* 307-316.
Holm, S. (1979). A simple sequentially rejective multiple test procedure. *Scandinavian Journal of Statistics*, 65-70. https://www.jstor.org/stable/4615733
Ickes, W. (2009). Empathic accuracy: Its links to clinical, cognitive, developmental, social and physiological psychology. In J. Decety & W. Ickes (Eds.). *The social neuroscience of empathy*. Cambridge: MIT Press. pp. 57-50.
James, P. (2015). Conscience. Translation of: Hugo, Victor's La Conscience, which appeared in *Légende des Siècles* (1859).
Jolliffe, D., & Farrington, D.P. (2004). Empathy and offending: a systematic review and meta-analysis. *Aggression and Violent Behavior*, *9*(5), 441-476. doi:10.1016/j.avb.2003.03.001
Jolliffe, D., & Farrington, D.P. (2006). Development and validation of the basic empathy scale. *Journal of Adolescence*, *9*(4), 589-611. doi:10.1016/j.adolescence.2005.08.010
Jolliffe, D., & Farrington, D.P. (2007). Examining the relationship between low empathy and self-reported offending. *Legal and Criminological Psychology*, *12*(2), 265-286. doi:10.1348/135532506X147413
Joosen, K., & Slotboom, A.M. (2015). Terugblikken op de aanloop: Dynamische voorspellers van perioden van detentie gedurende de levensloop van vrouwelijke gedetineerden in Nederland [Looking back at the pathway: Dynamic predictors of periods of detention during the life-span of female detainees in The Netherlands]. *Tijdschrift voor Criminologie [Journal of Criminology], 57*(1), 84-98. doi:10.5553/TcC/0165182X2015057001004
Kant, I. (1991 [1797]). In P. Gruyer & A. Wood (Eds.).*The Cambridge edition of the works of Immanuel Kant.* New York: Cambridge University Press.
Kerig, P.K., & Becker, S.P. (2015). Early abuse and neglect as risk factors for the development of criminal and antisocial behavior. In J. Morizot & L. Kazemian (Eds.) *The Development of criminal and antisocial behavior* (pp. 181-199). Springer, Cham.
Knappik, F., & Mayr, E. (2019). "An erring conscience is an absurdity": The later Kant on certainty, moral judgment and the infallibility of conscience. *Archiv für Geschichte der Philosophie*, *101*(1), 92-134. doi:10.1515/agph-2019-1004
Kochanska, G., & Aksan, N. (2004). Conscience in childhood: Past, present, and future. *Merrill-Palmer Quarterly (1982-)*, 299-310. http://www.jstor.org/stable/23096168
Kochanska, G., & Aksan, N. (2006). Children's conscience and self-regulation. *Journal of Personality*, *74*(6): 1587-1618. doi:10.1111/j.1467-6494.2006.00421.x

Koenraadt, F. (2010). The relative position of crime. In M. Herzog-Evans (Ed.), *Transnational Criminology Manual.* Nijmegen, Wolf Legal Publishers, Volume 1, chapter 5.1, pp. 99-107.

Kohlberg, L. (1981). *The philosophy of moral development. Moral stages and the idea of justice*. San Francisco: Harper & Row.

Kohlberg, L. (1984). Essays on *moral development. Volume II: The psychology of moral development: The nature and validity of moral stages.* Harper & Row Publishers.

Komter, M.L., & Malsch, M. (2012). The language of criminal trials in an inquisitorial system: The case of the Netherlands. In L.M. Solan & P.M. Tiersma (Eds.), *The Oxford handbook of language and law*. Oxford: university press. https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199572120.001.0001/oxfordhb-9780199572120-e-30

Kreis, M.K., Gillings, K., Svanberg, J., & Schwannauer, M. (2016). Relational pathways to substance misuse and drug-related offending in women: The role of trauma, insecure attachment, and shame. *International Journal of Forensic Mental Health*, *15*(1), 35-47. doi:10.1080/14999013.2015.1134725

Kruttschnitt, C., Joosen, K., & Bijleveld, C. (2019). Research note: Re-examining the gender responsive approach to female offending and its basis in the pathways literature. *Journal of Offender Rehabilitation, 58*(6), 485-499. doi:10.1080/10509674.2019.1621415

Laible, D.J., & Thompson, R.A. (2000). Attachment and self-organization. In M.D. Lewis & I. Granic (Eds.), *Emotion, development, and self-organization: Dynamic systems approaches to emotional development* (pp. 298–323). Cambridge University press. doi:10.1017/CBO9780511527883.013

Larsen, R.R., Jalava, J., & Griffiths, S. (2020). Are psychopathy checklist (PCL) psychopaths dangerous, untreatable, and without conscience? A systematic review of the empirical evidence. *Psychology, Public Policy, and Law*, *26*(3), 297. doi:10.1037/law0000239

Lewis, H.B. (1971). *Shame and guilt in neurosis*. New York: International Universities Press.

Lilienfeld, S.O., & Arkowitz, H. (2010). Are men the more belligerent sex? *Scientific American Mind, 21*(2), 64-65. doi:10.1038/scientificamericanmind0510-64

Lindsay-Hartz, J. (1984). Contrasting experiences of shame and guilt. *American Behavioral Scientist*, *27*, 689-704.

Lutwak, N., Panish, J.B., Ferrari, J.R., & Razzino, B.E. (2001). Shame and guilt and their relationship to positive expectations and anger expressiveness. *Adolescence*, *36*(144), 641-653.

Luyten, P., Fontaine, J.R., & Corveleyn, J. (2002). Does the test of self-conscious affect (TOSCA) measure maladaptive aspects of guilt and adaptive aspects of shame? An empirical investigation. *Personality and Individual Differences*, *33*(8), 1373-1387. doi:10.1016/S0191-8869(02)00197-6

Mann, R.E., Hanson, R.K., & Thornton, D. (2010). Assessing risk for sexual recidivism: Some proposals on the nature of psychologically meaningful risk factors. *Sexual Abuse*, *22*(2), 191-217. doi:10.1177%2F1079063210366039

Mariano, M., Pino, M.C., Peretti, S., Valenti, M., & Mazza, M. (2017). Understanding criminal behavior: Empathic impairment in criminal offenders. *Social Neuroscience*, *12*(4), 379-385. doi:10.1080/17470919.2016.1179670

Marshall, W.L., Marshall, L.E., & Ware, J. (2009). Cognitive distortions in sexual offenders: Should they all be treatment targets? *Sexual Abuse in Australia and New Zealand*, *2*(1), 21-33.
Marshall, W.L., Marshall, L.E., Serran, G.A., & O'Brien, M.D. (Eds.). (2011). *Psychology, crime, and justice. Rehabilitating sexual offenders: A strength-based approach.* American Psychological Association. https://doi.org/10.1037/12310-000
Maruna, S., & Mann, R.E. (2006). A fundamental attribution error? Rethinking cognitive distortions. *Legal and Criminological Psychology*, *11*(2), 155-177. doi:10.1348/135532506X114608
Matthaei, I., Stam, E., & Raes, B.C.M. (2002). Psychische stoornissen bij vrouwen in detentie. Een onderzoek bij vrouwen verblijvend op een Individuele Begeleidingsafdeling. [Mental disorders in female prisoners. A study in women detained in a Penitentiary Psychiatric Ward]. *Tijdschrift voor Psychiatrie [Journal of Psychiatry], 44* (10), 655-663.
McCabe, K.M., Lansing, A. Garland, A., & Hough, R. (2002). Gender differences in psychopathology, functional impairment, and familial risk factors among adjudicated delinquents. *Journal of the American Academy of Child and Adolescent Psychiatry, 41*(7)*,* 860-867. doi:10.1097/00004583-200207000-00020
McMahon, S.D., Wernsman, J., & Parnes, A.L. (2006). Understanding prosocial behavior: the impact of empathy and gender among African American adolescents. *Journal of Adolescent Health*, *39*(1), 135-137.
Mears, D., Ploeger, M., & Warr, M. (1998). Explaining the gender gap in delinquency: Moral evaluations of behavior and peer influence. *Journal of Research in Crime and Delinquency*, *35*(3), 251-266. http://purl.flvc.org/fsu/fd/FSU_libsubv1_scholarship_submission_1460062028
Meffert, H. (2012). *Empathy under arrest? functional and structural neural correlates of empathy in psychopathy.* Groningen: s.n.
Mehabrian, A., & Epstein, N. (1972). A measure of emotional empathy. *Journal of Personality, 40*(4), 525-543.
Meijers, J., Harte, J.M., Meynen, G., & Cuijpers, P. (2017). Differences in executive functioning between violent and non-violent offenders. *Psychological Medicine*, *47*(10), 1784-1793. doi:10.1017/S0033291717000241
Moffit, T.E., Caspi, A., Rutter, M., & Silva, P.A. (2001). *Sex differences in antisocial behaviour: conduct disorders, delinquency and violence in the Dunedin longitudinal study.* Cambridge, UK: Cambridge University Press.
Mooij, A.W.M. (2007). *Toerekeningsvatbaarheid en de vraag naar het kwaad*. [Imputability and the question of evil]. In B.F. Keulen, G. Knigge & H.D. Wolswijk (Eds.), *Pet af. Liber Amicorum D.H. de Jong* (pp. 333-353). Nijmegen: Wolf Legal Publishers.
Mooij, A.W.M. (2010). *Intentionality, desire, responsibility. A study in phenomenology, psychoanalysis and law*. Leiden: Brill.
Murdoch, S., Vess, J., & Ward, T. (2012). A descriptive model of female violent offenders. *Psychiatry, Psychology and Law*, *19*(3), 412-426. doi.org/10.1080/13218719.2011.589942
Narvaez, D. (2013). Neurobiology and moral mindset. In *Handbook of moral motivation* (pp. 323-340). Brill Sense.

Nas, C.N., Brugman, D., & Koops, W. (2008). Measuring self-serving cognitive distortions with the "How I Think" questionnaire. *European Journal of Psychological Assessment*, *24*(3), 181-189.

Nathanson, D.L. (1986). The empathic wall and the ecology of affect. *Psychoanalytic Study of the Child, 41*, 171-187.

Nathanson, D.L. (1992). *Shame and pride*. New York: Norton.

Nicholls, T.L., Greaves, C., Greig, D., & Moretti, M. M. (2009a). Aggression: gender differences in. *Wiley Encyclopedia of Forensic Science,* 1-26. doi:10.1002/9780470061589.fsa223

Nichols, S.R., Svetlova, M., & Brownell, C.A. (2009b). The role of social understanding and empathic disposition in young children's responsiveness to distress in parents and peers. *Cognition, Brain, Behavior: An Interdisciplinary Journal*, *13*(4), 449-478. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3359013/

Nummenmaa, L., Hirvonen, J., Parkkola, R., & Hietanen, J.K. (2008). Is emotional contagion special? An fMRI study on neural systems for affective and cognitive empathy. *Neuroimage*, *43*(3), 571-580. doi:10.1016/j.neuroimage.2008.08.014

Ó Ciardha, C., & Gannon, T.A. (2011). The cognitive distortions of child molesters are in need of treatment. *Journal of Sexual Aggression*, *17*(2), 130-141. doi:10.1080/13552600.2011.580573

O'Shea, L.E., Picchioni, M.M., Mason, F.L., Sugarman, P.A., & Dickens, G.L. (2014). Predictive validity of the HCR-20 for inpatient self-harm. *Comprehensive psychiatry*, *55*(8), 1937-1949. doi:10.1016/j.comppsych.2014.07.010

Padykula, N.L., & Conklin, P. (2010). The self-regulation model of attachment trauma and addiction. *Clinical Social Work Journal*, *38*(4), 351-360. doi:10.1007/s10615-009-0204-6

Pillai, K.C.S. (1955). Some new test criteria in multivariate analysis. *The Annals of Mathematical Statistics*, *26*(1), 117-121. https://projecteuclid.org/euclid.aoms/1177728599

Pulos, S., Elison, J., & Lennon, R. (2004). The hierarchical structure of the interpersonal reactivity index. *Social Behavior and Personality: An International Journal*, *32*(4), 355-359.

Rebellon, C.J., Wiesen-Martin, D., Piquero, N.L., Piquero, A.R., & Tibbetts, S.G. (2015). Gender differences in criminal intent: Examining the mediating influence of anticipated shaming. *Deviant Behavior*, *36*(1), 17-41. doi:10.1080/01639625.2014.903755

Reinhardt, B. (1993). Factors affecting coefficient alpha: A mini Monte Carlo study. In B. Thompson (Ed.), *Advances in social science methodology, 4*, 3-20. Greenwich, CT: JAI Press.

Robbins, P., Monahan, J., & Silver, E. (2003). Mental disorder, violence, and gender. *Law and Human Behavior, 27*, 561–571. doi:10.1023/B:LAHU.0000004886.13268.f2

Rogers, C. (1957). The necessary and sufficient conditions of therapeutic personality change. *Journal of Consulting Psychology, 21*, 96-98.

Rueda, J., & Lara, F. (2020). Virtual reality and empathy enhancement: Ethical aspects. *Frontiers in Robotics and AI*, *7*, 160. doi:10.3389/frobt.2020.506984

Safran, J.D., & Muran, J.C. (2000). *Negotiating the therapeutic alliance: A relational treatment guide.* New York: Guilford Press.

Sage, Le, L. (2004). De gebrekkige gewetensontwikkeling in het jeugdstrafrecht: Implicaties voor de toerekening en behandeling. [The deficient development of conscience in juvenile criminal law: Implications for imputation and treatment]. Amsterdam: SWP.

Sage, Le, L. (2006). De gewetensontwikkeling van jeugdige delinquenten in diagnose en behandeling. [Development of conscience in juvenile delinquents in diagnosis and treatment]. In Le Sage, L., Stegge, H. & Steutel, J. (Ed.), *Jeugddelinquentie en Gewetensontwikkeling. Conceptualisering, Diagnostiek en Behandeling*. [Juvenile Delinquency and Development of Conscience. Conceptualization, Diagnostics and Treatment]. Amsterdam: SWP. pp. 14-32.

Salize, H.J., Dreßing, H., & Kief, C. (2005). Placement and treatment of mentally ill offenders–legislation and practice in EU Member States, *Final Report* 2005, Central Institute of Mental Health Mannheim, Germany.

Salkind, N.J. (2010). *Encyclopedia of research design.* Thousand Oaks, CA: SAGE Publications Ltd. doi:10.4135/9781412961288.n492

Savolainen, J., Hurtig, T.M., Ebeling, H.E., Moilanen, I.K., Hughes, L.A., & Taanila, A.M. (2010). Attention deficit hyperactivity disorder (ADHD) and criminal behavior: the role of adolescent marginalization. *European Journal of Criminology*, *7*(6), 442-459. doi:10.1177%2F1477370810376568

Schalkwijk, F. (2006) Schaamte: een miskende emotie. [Shame: a misunderstood emotion]. In T.I. Oei & M.S. Groenhuijsen (Eds.), *Capita selecta van de Forensische Psychiatrie anno 2006*, [Capita selecta in Forensic Psychiatry anno 2006]. Deventer: Kluwer. pp. 39-56.

Schalkwijk, F. (2009). Empathie: ontstaan en diagnostiek. [Empathy: development and diagnostics]. In T.I. Oei & M.S. Groenhuijsen, *Forensische Psychiatrie en haar Grensgebieden*. [Forensic Psychiatry and its Boundaries]. Deventer: Kluwer, pp. 113-137.

Schalkwijk, F. (2011a). *Emoties bij jongeren: theorie en diagnostiek van het geweten [Emotions in adolescents, theory and diagnostics of conscience]*. Amsterdam: Boom.

Schalkwijk, F. (2011b). Naar een nieuwe definitie van het geweten. [Towards a new definition of conscience]. In Groenhuijsen, M., Kierkels, S., & Kooijmans, T. (Ed.). *De forensische Psychiatrie Geanalyseerd. Liber amirocum Karel Oei.* [Forensic psychiatry Analysed, Liber amoricum Karel Oei]. Apeldoorn/ Antwerpen: Maklu, pp. 149-157.

Schalkwijk, F. (2012). Theory and diagnostic of the conscience. In Oei, T.I., & Groenhuijsen, M.C. (Ed.), *Progression in forensic psychiatry. About boundaries*. Deventer: Kluwer, pp. 67-82.

Schalkwijk, F. (2015). *The conscience and self-conscious emotions in adolescence, An integrative approach*. Routledge. doi:10.4324/9781315758961

Schalkwijk, F. (2018). A new conceptualization of the conscience. *Frontiers in Psychology, 9*: 1863. doi:10.3389/fpsyg.2018.01863

Schalkwijk, F., Stams, G.J., Stegge, H., Dekker, J., & Peen, J. (2016a). The Conscience as a regulatory function: Empathy, shame, pride, guilt, and moral orientation in delinquent adolescents. *International Journal of Offender Therapy and Comparative Criminology, 60*(6), 675-693. doi:10.1177/0306624X14561830

Schalkwijk, F., Ellison, J., Dekker, J., Peen. J., & Stams, G.J. (2016b). Measuring shame coping: The validation of the compass of shame scale. *Journal of Social Behavior and Personality 44*, 1775-1792. doi:10.2224/sbp.2016.44.11.1775

Schalkwijk, F. (2022). Morele ontwikkeling en jeugddelinquentie, De mythe van de gewetenloze jongere ontrafeld [Moral development and juvenile delinquency, The myth of the unscrupulous youth unraveled]. Amsterdam: Boom uitgevers.

Schore, A.N. (2001). Effects of a secure attachment relationship on right brain development, affect regulation, and infant mental health. *Infant Mental Health Journal: Official Publication of The World Association for Infant Mental Health*, *22*(1-2), 7-66. doi:10.1002/1097-0355(200101/04)22:1%3C7::AID-IMHJ2%3E3.0.CO;2-N

Schore, A.N. (2015). *Affect regulation and the origin of the self: The neurobiology of emotional development*. Routledge.

Schulte-Rüther, M., Markowitsch, H.J., Shah, N.J., Fink, G.R., & Piefke, M. (2008). Gender differences in brain networks supporting empathy. *Neuroimage*, *42*(1), 393-403. doi:10.1016/j.neuroimage.2008.04.180

Seidel, E.M., Pfabigan, D.M., Keckeis, K., Wucherer, A.M., Jahn, T., Lamm, C., & Derntl, B. (2013). Empathic competencies in violent offenders. *Psychiatry Research*, *210*(3), 1168-1175. doi:10.1016/j.psychres.2013.08.027

Selenius, H., & Strand, S. (2017). Experiences of self-injury and aggression among women admitted to forensic psychiatric care. *Nordic Journal of Psychiatry*, *71*(4), 304-311. doi:10.1080/08039488.2017.1283443

Shamay-Tsoory, S.G., Aharon-Peretz, J., & Perry, D. (2009). Two systems for empathy: A double dissociation between emotional and cognitive empathy in inferior frontal gyrus versus ventromedial prefrontal lesions. *Brain*, *132*(3), 617-627. doi:10.1093/brain/awn279

Shapiro, S.S., & Wilk, M.B. (1965). An analysis of variance test for normality (complete samples). *Biometrika*, *52*(3/4), 591-611. doi:10.2307/2333709

Siegel, D.J. (2012). *The developing mind: How relationships and the brain interact to shape who we are.* New York: Guilford Publications.

Solomon, J., & George, C. (Eds.). (2011). *Disorganized attachment and caregiving*. New York: Guilford Press.

Slotboom, A., Wong, T.M.L., Swier, C., & van der Broek, T.C. (2011). *Delinquente meisjes: Achtergronden, risicofactoren en interventies [Delinquent girls: Background characteristics, risk factors and interventions]*. Den Haag: Boom Juridische Uitgeverij. http://www.wodc.nl/onderzoeksdatabase/de-aanpak-van-meisjes-met-strafrechtelijke-titel-in-de-jjis.aspx

Solomon, J., & George, C. (2011). *Disorganized attachment and caregiving.* New York: Guilford Press.

Sommer, J., Hinsberger, M., Elbert, T., Holtzhausen, L., Kaminer, D., Seedat, S., Madikane, S., & Weierstall, R. (2017). The interplay between trauma, substance abuse and appetitive aggression and its relation to criminal activity among high-risk males in South Africa. *Addictive Behaviors*, *64*, 29-34.

Sood, S., & Forehand, M. (2005). On self-referencing differences in judgment and choice. *Organizational Behavior and Human Decision Processes*, *98*(2), 144-154. doi:10.1016/j.obhdp.2005.05.005

Spruit, A., Schalkwijk, F., Van Vugt, E., & Stams G.J. (2016). The relation between self-conscious emotions and delinquency: A meta-analysis. *Aggression and Violent Behavior, 28,* 12-20. doi:10.1016/j.avb.2016.03.009

Stams, G.J.J.M., Brugman, D., Deković, M., Van Rosmalen, L., Van der Laan, P., & Gibbs, J. C. (2006). The moral judgment of juvenile delinquents: A meta-analysis. *Journal of Abnormal Child Psychology, 34*(5), 692-708. doi:10.1007/210802-006-9056-5

Stams, G.J.J., Deković, M., Brugman, D., Rutten, E.A., Van den Wittenboer, G.L.H, Tavecchio, L. W.C, Hendriks, J., & Van Schijndel, M. (2008). The relationship of punishment-and victim-based moral orientation to prosocial, externalizing, and norm trespassing behavior in delinquent and non-delinquent adolescents: a validation study of the moral orientation measure. *Journal of Experimental Criminology*, *4*(1), 41-60. doi:10.1007/s11292-007-9045-x

Stapert, W. (2010). De ontwikkeling van het geweten; Stand van zaken van onderzoek en theorievorming. [Development of conscience; State of the art in research and theory]. *Tijdschrift voor Psychiatrie, 52*(7), 433-443.

Stern, D. (1985). *The interpersonal world of the infant.* New York, NY: Basic Books.

Stevens, T., Morash, M., & Chesney-Lind, M. (2011). Are girls getting tougher, or are we tougher on girls? Probability of arrest and juvenile court oversight in 1980 and 2000. *Justice Quarterly*, *28*(5), 719-744. https://doi.org/10.1080/07418825.2010.532146

Stevens, M., Roeters, C., & Beukers, M. (2015). *Gedragsdeskundig advies in strafzaken; Het juridisch perspectief [Behavioural advice in criminal matters; The legal perspective].* Uitgave van het Nederlands Instituut voor Forensische Psychiatrie en Psychologie [Publication of the Netherlands Institute of Forensic Psychiatry and Psychology].

Stotland, E., Matthews, K., Sherman, S., Hansson, R., & Richardson, B. (1978). *Empathy, fantasy, and helping.* Berverly Hills: Sage Publication.

Stuewig, J., Tangney, J.P., Heigel,C., Harty, L., & McCloskey, L. (2010). Shaming, blaming, and maiming: Functional links among the moral emotions, externalization of blame, and aggression. *Journal of Research in Personality, 44*(1), 91-102. doi:10.1016/j.jrp.2009.12.005

Sugarman, P., Oakley, C. (2012). The evolution of secure and forensic care. *Journal For Psychiatry and Psycholo*gy. 23:279-84. doi:10.1080/14789949.2012.692094

Tangney, J.P., Becker, B., Hill-Barlow, D., & Wagner, P.E. (1996). *Gender differences in constructive vs. destructive responses to anger across the lifespan.* Unpublished manuscript, George Mason University, Fairfax, Virginia.

Tangney, J.P., & Dearing, R.L. (2003). *Shame and Guilt*. New York: Guilford Press.

Tangney, J.P., Stuewig, J., & Hafez, L. (2011). Shame, guilt, and remorse: implications for offender populations. *The Journal of Forensic Psychiatry & psychology, 22*(5), 706-723. doi:10.1080/14799949.2011.617541

Tangney, J.P., Stuewig, J., Mashek, D. (2007). Moral emotions and moral behaviour. *Annual Review of Psychology, 58*, 345-372. doi:10.1146/annurev.psych.56.091103.070145

Tangney, J.P., Stuewig, J., Mashek, D., & Hastings, M. (2011). Assessing jail inmates' proneness to shame and guilt: Feeling bad about the behavior or the self? *Criminal Justice and Behavior, 38*(7), 710–734. doi:10.1177/0093854811405762

Tangney, J.P., Wagner, P.E., & Gramzow, R. (1989). *The test of self-conscious affect*. Fairfax: George Mason University.

Tarry, H., & Emler, N. (2007). Attitudes, values and moral reasoning as predictors of delinquency. *British Journal of Developmental Psychology*, *25*(2), 169-183. doi:10.1348/026151006X113671

Thagard, P., & Finn, T. (2011). What is moral intuition? In C. Bagnoli (Ed.), *Morality and the emotions* (pp. 150-170). Oxford: Oxford University Press.

Thompson, R.A., Meyer, S., & McGinley, M. (2006). Understanding values in relationships: The development of conscience. In M. Killen & J.G. Smetana (Eds.), *Handbook of moral development* (pp. 267-297). Lawrence Erlbaum Associates Publishers.

Trivedi-Bateman, N. (2021). The combined roles of moral emotion and moral rules in explaining acts of violence using a situational action theory perspective. *Journal of interpersonal violence*, *36*(17-18), 8715-8740. doi:10.1177%2F0886260519852634

Turiel, E. (1983). *The development of social knowledge: Morality and convention.* Cambridge University Press.

Van der Graaff, J., Meeus, W., De Wied, M., Van Boxtel, A., Van Lier, P.A., Koot, H.M., & Branje, S. (2016). Motor, affective and cognitive empathy in adolescence: Interrelations between facial electromyography and self-reported trait and state measures. *Cognition and Emotion*, *30*(4), 745-761. doi:10.1080/02699931.2015.1027665

Van Langen, A.M., Wissink, I.B., Van Vugt, E.S., Van der Stouwe, T., & Stams, G.J.J.M. (2014). The relation between empathy and offending: A meta-analysis. *Aggression and Violent Behavior, 19*(2), 179-189. doi:10.1016/j.avb.2014.02.003

Van Leeuwen, N.K., Chauchard, E., Chabrol, H., & Gibbs, J. (2013). Étude des qualités psychométriques de la version française du how I think questionnaire dans un échantillon d'adolescents français. *L'Encéphale*, *39*(6), 401-407.

Van Vugt, E.S., Asscher, J.J., Hendriks, J., Stams, G.J.J.M., Bijleveld, C.C.J.H., & Van der Laan, P.H. (2012). The relationship between psychopathy and moral development in young sex offenders. *Psychology, Crime & Law, 18,* 655-667.

Van Vugt, E., Gibbs, J., Stams, G. J., Bijleveld, C., Hendriks, J., & van der Laan, P. (2011). Moral development and recidivism: A meta-analysis. *International journal of offender therapy and comparative criminology*, *55*(8), 1234-1250. doi:10.1177%2F0306624X11396441

Vaughn, M.G., Salas-Wright, C.P., & Reingle-Gonzalez, J.M. (2016). Addiction and crime: The importance of asymmetry in offending and the life-course. *Journal of Addictive Diseases*, *35*(4), 213-217. doi:10.1080/10550887.2016.1189658

Verona, E., & Carbonell, J.L. (2000). Female violence and personality: Evidence for a pattern of overcontrolled hostility among one-time violent female offenders. *Criminal Justice and Behavior*, *27*(2), 176-195. doi:10.1177%2F0093854800027002003

Völlm, B.A., Clarke, M., Herrando, V.T., Seppänen, A.O., Gosek, P., Heitzman, J., & Bulten, E. (2018). European Psychiatric Association (EPA) guidance on forensic psychiatry: Evidence based assessment and treatment of mentally disordered offenders. *European Psychiatry*, *51*, 58-73.

Vossen, H.G., Piotrowski, J.T., & Valkenburg, P.M. (2015). Development of the adolescent measure of empathy and sympathy (AMES). *Personality and Individual Differences*, *74*, 66-71. doi:10.1016/j.paid.2014.09.040

Vujošević, M. (2015). Conscience as the rational deficit of psychopaths. *Philosophical Psychology*, *28*(8), 1219-1240. doi:10.1080/09515089.2014.983221

Wallinius, M., Johansson, P., Larden, M., & Dernevik, M. (2011). Self-serving cognitive distortions and antisocial behavior among adults and adolescents. *Criminal Justice and Behavior*, *38*(3), 286-301.

Walter, H. (2001). *Neurophilosophy of free will: from libertarian illusions to a concept of natural autonomy.* Cambridge, Mass./London: MIT Press.

Ward, S.J., & King, L.A. (2018). Gender differences in emotion explain women's lower immoral intentions and harsher moral condemnation. *Personality and Social Psychology Bulletin, 44*(5), 653-669. doi:10.1177%2F0146167217744525

Warner M.S. (2000). Person-centred therapy at the difficult edge: a developmentally based model of fragile and dissociated process. In D. Mearns & B. Thorne, *Person-centred therapy today.* London: SAGE Publications.

Watt, D. (2007). Toward a neuroscience of empathy: Integrating affective and cognitive perspectives. *Neuropsychoanalysis*, *9*, 119-140.

Wikström, P.O.H. (2009). Crime propensity, criminogenic exposure and crime involvement in early to mid adolescence. *Monatsschrift für Kriminologie und Strafrechtsreform*, *92*(2-3), 253-266. doi:10.1515/mks-2009-922-312

Wikström, P.O.H., & Treiber, K. (2009). What drives persistent offending? The neglected and unexplored role of the social environment. In J. Savage (Ed.), *The development of persistent criminality*, Oxford: Oxford University Press, pp. 389-422.

Wikström, P.O.H., & Svensson, R. (2010). When does self-control matter? The interaction between morality and self-control in crime causation. *European Journal of Criminology*, *7*(5), 395-410. doi:10.1177%2F1477370810372132

Williams, D.R., & Rast, P. (2019). Back to the basics: Rethinking partial correlation network methodology. *British Journal of Mathematical and Statistical Psychology, 73*(1), 1–15. doi:10.1111/bmsp.12173

Winnicot, D. (1971). *Playing and reality*. Middlesex: Penguin.

Wolters, M. (2012). Vrouwen in de rechtszaal, in het strafrecht en in detentie [Women in courtroom, in criminal law and in detention]. In F. Koenraadt, M. Lancel, & B. de Jager (Eds.). *Gewelddadige vrouwen, de schaduwzijde van Venus [violent women, the shadow side of Venus].* (pp. 17-27). Oisterwijk, Wolf Legal Publishers.

Wright, K., Gudjonsson, G.H., & Young, S. (2008). An investigation of the relationship between anger and offence-related shame and guilt. *Psychology, Crime & Law*, *14*(5), 415-423. doi:10.1080/10683160701770369

You, D., Maeda, Y., & Bebeau, M.J. (2011). Gender differences in moral sensitivity: A meta-analysis. *Ethics & Behavior, 21*(4), 263-282. doi:10.1080/10508422.2011.585591

Youssef, F.F., Dookeeram, K., Basdeo, V., Francis, E., Doman, M., Mamed, D., Maloo, S., Degannes, J., Dobo, L., Ditshotlo, P., & Legall, G. (2011). Stress alters personal moral decision making. *Psychoneuroendocrinology, 37*(4), 491-498. doi:10.1016/j.psyneuen.2011.07.01.

Zlotnick, C., Clarke, J.G., Friedmann, P.D., Roberts, M.B., Sacks, S., & Melnick, G. (2008). Gender differences in comorbid disorders among offenders in prison substance abuse treatment programs. *Behavioral Sciences & the Law*, *26*(4), 403-412. doi:10.1002%2Fbsl.831

LIST OF PUBLICATIONS

Publications that form the basis for this thesis

Verkade, M., Karsten, J., Koenraadt, F., & Schalkwijk, F. (2019). Conscience as a Regulatory Function, an Integrative Theory Put to the Test. *International Journal of Offender Therapy and Comparative Criminology.* doi:10.1177/0306624X19881918

Verkade, M., Karsten, J., & Koenraadt, F. (submitted). Gender Differences in the Conscience Functioning of Offenders.

Verkade, M., Karsten, J., & Koenraadt, F. (2021). Conscience Functioning and its Developmental Delays in Dutch Female Offenders. *The Journal of Forensic Psychiatry & Psychology*, 1-21. doi:10.1080/14789949.2021.1900332

Verkade, M., Karsten, J., Koenraadt, F., & Schalkwijk, F. (submitted). Conscience and its interrelated constituent aspects: a network and regression analysis in (non)-offenders.

Previous publications

Verkade, M., & Baljon, M. (2010). De jager op groot wild: Persoonsgerichte psychotherapie bij een getraumatiseerde, psychopathiforme man [The big game hunter: Person-centred psychotherapy in a traumatised, psychopathic man]. *Tijdschrift voor Cliëntgerichte Psychotherapie [Journal of Client-centred Psychotherapy], 48*(2), 131-145.

Verkade, M., & Winkel, F. (2012). De wederzijdse versterking van psychomotorische therapie en groepsdynamische psychotherapie [The mutual reinforcement of psychomotor therapy and group dynamic psychotherapy]. *Tijdschrift voor Cliëntgerichte Psychotherapie [Journal of Client-centred Psychotherapy]*, *50*(4), 312-324.

Verkade, M. (2014). Geen verdieping zonder contact, geen diepgang zonder schaduw. Verdieping bereiken bij moeilijk bereikbare mensen [No depth without contact, no depth without shadow. Achieving relational depth with hard-to-reach people]. *Tijdschrift voor cliëntgerichte psychotherapie [Journal of Client-centred Psychotherapy],52*(4), 307-318.

Baljon, M., & Verkade, M. (2015). Concreet spiegelen en contactwerk [Mirroring and contact work]. In M. Baljon, G. Pool, & R.J. Takens. *Persoonsgerichte therapie in de praktijk, emotiegericht, procesgericht, cliëntgericht [Person-oriented therapy in practice, emotion-oriented, process-oriented, client-oriented].* Amsterdam: Hogrefe.

Verkade, M. (2017). Daders als slachtoffers [Victimising victims]. In M. Baljon & R. Geuzinge (Eds.), *Echo's van trauma [Echo's off trauma].* Hoofddorp: Boom.

Verkade, M. (2021). Schaamte, woede en geweld [Shame, anger and violence]. In L. Vergouwen & H. Westerink (Eds.) Woede, Geweld en Levensbeschouwing [Anger, violence and philosophy of life]. *KSGV-serie Geestelijke Volksgezondheid [KSGV series Mental Health] 96*(2),59-84.

CURRICULUM VITAE

Marion Verkade, married and mother of three, was born on April 28, 1976 in Arnhem as eldest daughter in a family of school teachers with five children. In 1994 she started her study psychology at the University of Groningen (RUG). After half a year studying organisational psychology as well as philosophy, she switched to clinical psychology with an additional specialisation in developmental psychology, and obtained her (now called masters) degree as a psychologist in 1998. She then worked as a psychologist in forensic mental health from 1998 to 2019. She worked as a therapist in a psychiatric ward in a penitentiary, where she also completed her training as registered health care psychologist. From 2003 she worked as psychotherapist and mental health program manager of several locations at the Forensic Outpatient Clinic (AFPN). Subsequently, from 2016 to 2019 she worked as clinical psychologist and mental health program manager of a department for patients with severe personality disorders and aggression regulation problems in the Forensic Psychiatric Hospital (FPK) in Assen. From 2018 she also worked there as an external PhD candidate.

In addition to her clinical work, she practiced for 20 years as a forensic psychologist for pre-trial forensic mental health reports. She was guest lecturer for the psychotherapy course at the GZ training, and for the subject forensic diagnostics and assessment at KP training in Groningen for altogether 13 years. She published several articles and chapters on the psychotherapeutic treatment of (forensic) psychiatric patients. In addition, she has had a private practice for supervision and psychotherapy for trainees since 2008.

Marion Verkade, gehuwd en moeder van drie kinderen, werd op 28 april 1976 in Arnhem geboren als de oudste dochter in een onderwijzersgezin met vijf kinderen. In 1994 behaalde zij haar VWO diploma, waarna zij psychologie ging studeren aan de Rijksuniversiteit Groningen (RUG). Na ongeveer een half jaar arbeids- en organisatiepsychologie met daarnaast filosofie gestudeerd te hebben stapte zij over naar klinische psychologie met als extra specialisatie ontwikkelingspsychologie en behaalde in 1998 haar doctoraaldiploma. Vervolgens is zij van 1998 tot en met 2019 als psycholoog werkzaam geweest in de forensische psychiatrie. Zij werkte als behandelaar op een psychiatrische afdeling in een penitentiaire inrichting, waar zij eveneens haar opleiding tot geregistreerd Gezondheidszorgpsycholoog (GZ-psycholoog) volgde. Vanaf 2003 werkte zij als psychotherapeut en inhoudelijk leidinggevende van de locatie(s) Assen en later ook Emmen en Hoogeveen op de forensische polikliniek van GGZ Drenthe (AFPN). Aansluitend werkte zij als klinisch psycholoog en inhoudelijk leidinggevende van een afdeling voor patiënten met ernstige persoonlijkheidsproblematiek en agressie-regulatieproblemen in de forensisch psychiatrische kliniek (FPK) te Assen. Hier deed zij vanaf 2018 bovendien onderzoek als buitenpromovenda.

Naast haar klinische werk praktiseerde zij gedurende 20 jaar als gedragsdeskundig onderzoeker pro Justitia. Ook doceerde zij gedurende ongeveer tien jaar als gastdocent voor het vak psychotherapie aan de GZ-opleiding, en gedurende drie jaar voor het vak forensische diagnostiek en indicatiestelling aan de KP-opleiding in Groningen. Ze publiceerde enkele artikelen en hoofdstukken over de psychotherapeutische behandeling van (forensisch) psychiatrische patiënten. Ze heeft sinds 2008 een eigen praktijk voor supervisie en leertherapie.

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In 2014, after 16 years of working in forensic psychiatry and a registration as health-care psychologist and psychotherapist, I started my postgraduate training to become a clinical psychologist. For me, the emphasis was on learning to do scientific research. In this learning process I was allowed to join an existing research program, thereby making it a defined and manageable process. However, I opted instead for a leap of faith. I wanted to do research on a subject closely related to my practical experience, one that would enrich me with relevant insights.

At the time, I had been a forensic psychologist for sixteen years, and had written many reports on the mental state and accountability of various suspects. My reports and those of other forensic psychologists often presented professional opinions about the conscience functioning of the suspects in question. A questionable custom, considering the lack of a universal definition of conscience at that time. I had, therefore, begun to rethink conscience, and I wanted to study this subject.

At first I thought in seven-mile steps, planning to study the effects of attachment on the functioning of conscience, as well as possible positive effects of treatments addressing attachment styles and mentalizing capacity. However, I soon concluded that this was impossible without a universal operationalisation of conscience. I went on, in the process gradually, bit by bit, reducing these steps in my thinking. Gradually I realised that practising science is like helping to build a cathedral. Just as each builder from 1882 until 2010 could work on only a minuscule part of the Sagrada Familia during his lifetime, I have laid only one stone in the whole of accumulated scientific knowledge about conscience and its functioning.

However, during the process of starting and reducing my research proposal I met Frans Schalkwijk, who, in a session for forensic psychiatric expert-witnesses, presented his new emotion- and development-oriented theory of conscience. At the time he was testing his own integrative conceptualisation of conscience among delinquent and non-delinquent adolescents. I contacted him and asked if I could replicate and extend his study, putting his definition to the test with adult offenders and non-offenders. Frans Koenraadt, professor at Utrecht University, and also at the time a scientific advisor at the Forensic Psychiatric Hospital in Assen, agreed to supervise me in this. My research plan for the postgraduate training was born.

The first steps in conducting scientific research during this training gave me unexpected joy, inspiring me to continue my research after I got my degree in 2018, first in publishing the results of my research in a peer reviewed international journal, and subsequently by writing additional articles. In 2020 this led to the plan of a PhD-proposal.

First of all, I would like to thank all patients and volunteers for participating in the study. Without them, the research would not have been possible and I would not have been able to complete this thesis.

I want to thank my lecturers, Jojanneke Bastiaansen and Frederiek Jorg, for the inspiration of their enthusiastic and stimulating feedback on my first writings, and Frans Koenraadt, who became my research supervisor and promotor. From the very beginning, he encouraged me to develop, to become engaged, to do something that really interested me, and to perform PhD research. Most grateful I am for the fact that I was able to continue, in spite of all my hesitation, that I could hold back, observe, take things step by step, and decide. Frans showed great patience with me, sometimes more than I gave in return.

My qualms about the world of research and statistics were reduced by the comforting availability of Julie Karsten, who took me by the hand for my first steps in SPSS and data-analysis, and who thereafter stimulated my growing independence. I also want to thank her for her patient and provocative feedback on every article. She is very clear, unsparing, and yet so constructive. What a great co-promoter she is!

As mentioned, Frans Schalkwijk was an inspiration for me, even before the start of my training. His enthusiastic, light-hearted and slightly flamboyant way of sharing his insights stimulated me in the research part of my training. I thank him for his openness and warm encouragement along the way, combined with the personal interest of a true psychotherapist.

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I really appreciate Ronald Heukels, manager of operations of the Forensic Psychiatry division of GGZ-Drenthe, where I started my follow-up study. In spite of production pressure, vacancies, and spending cuts, he nevertheless released me from my patient care for a few hours a week so that after my training I could continue my investigations for a PhD project. What an opportunity for development! His successor, Jacqueline Latumalea, continued to support my research although I was no longer working in her forensic institute; for this I thank her.

I am grateful for my supportive colleagues, especially Greta Schaafsma and Bas Sligter, for their interest in all substantive and personal developments during the research project. Greta also supported me in preparation for and during the defence ceremony as my *paranimf*, for which I thank her. I thank both Ab van Langevelde and Nicolaas Balk for reading the manuscript chapters and providing feedback on their readability. JoAnn van Seventer I thank for her support with the English language.

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during the writing process, and my family and friends, who supported me over the years. All this to the memory of my dear parents.

I want to thank all for their contribution to my development as a scholar, and as a person, by traveling with me on my journey through the world of scientific research. Without all of them, this Phd research would not have been possible.