

# Persons at risk during interrogations in police custody

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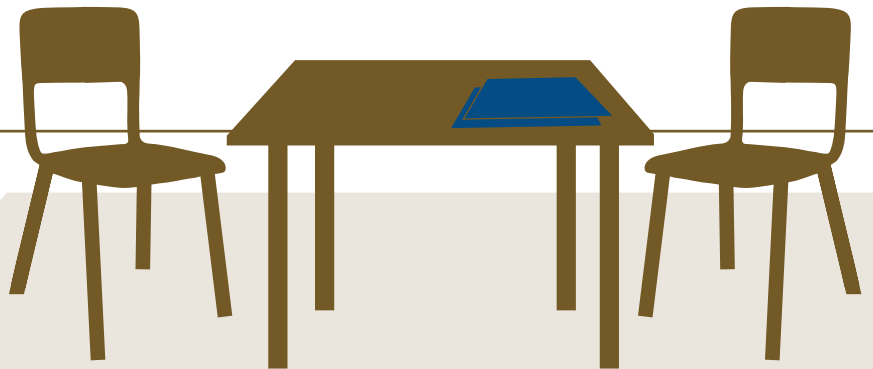
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# Persons at risk during interrogations in police custody

Different perspectives on  
vulnerable suspects

DISSERTATION

to obtain the degree of Doctor at Maastricht University  
on the authority of the Rector Magnificus Prof. dr. Rianne M. Letschert  
in accordance with the decision of the Board of Deans  
to be defended in public on Thursday 1 November 2018 at 12:00 hours

by

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I left the CUBT\* because it was a factory. Everything had to be done in a hurry. There never was time to interrogate someone properly and appropriately. I did not agree with that, I did not want to work like that. But hey, the supervisors were forced to do it that way, they are being judged on statistics.

**Police officer, District 1,  
Amsterdam Police Force  
(2016)**

\*Dutch acronym for 'Calamiteiten Unit Basis Team':  
a district criminal investigation unit within  
the Amsterdam police force, which investigates  
common violations and felonies.

## Chapter One

# General introduction



### **Case 1: The Ina Post case**

In the evening of 22 August, 1986, the body of an 89-old lady was found in her apartment of a home for the elderly. In the beginning, the police had no clue about who committed the homicide. The only evidence was bank cheques of the old woman that were stolen at the time of the murder and found one day later in a shop where they had been cashed. All nurses of the elderly home were forced to complete a writing test, in order to be compared with the handwriting on the bank cheques. So did nurse Ina Post. The police noticed Ina Post was very nervous at the time of this test, and a number of resemblances between Ina's handwriting and the handwriting on the cheques were found. However, the handwriting of two of Ina's colleagues also resembled the handwriting on the cheques, but the police did not report this in the judicial file. From that moment on, Ina was regarded as the main suspect in this homicide case, and after being interrogated intensively for four days in a row, she confessed the murder. There were many inconsistencies in her statements, but because no recordings were made of the interrogations, no one will ever know what exactly happened in the interrogation room (Gosewehr & Timmerman, 2007; Israëls, 2004). Subsequently, Ina Post stated that she just desperately wanted to escape the manipulative interrogation techniques and the tremendous amount of pressure put on her during the interrogations, yet this statement was ignored by the Court. In 1987, Ina Post was sentenced to six years imprisonment based on her confession – which was later deemed to be false – and on flawed Bayesian statistical argumentation. It took 24 years before the High Court of the Netherlands ruled that the case had to be reconsidered. On 6 October, 2010, Ina Post was found innocent by the Appeals Court of 's Hertogenbosch, the Netherlands, and was acquitted of all charges.

### **Case 2: The Mohammed D. case**

On a Sunday morning in the autumn of 2001, the body of a young woman was found at a parking lot in Maastricht, the Netherlands. She had been killed. About 10 days later, Mohammed D., an inhabitant of Maastricht with Moroccan roots, was arrested for this homicide because he fit the description eyewitnesses had given to the police. After prolonged interrogations, Mohammed D. not only partially confessed to the murder, but he told the police detectives that he wanted to be treated for his problems and that he wanted to be punished for his bad deeds as well. Despite his strange and incoherent statements, the detectives did not consult a police psychologist and produced an extensive police file of more than 2000 pages. In a later stage of the investigation process, Mohammed D. was assessed by a psychiatrist and psychologist

of the Netherlands Institute of Forensic Psychiatry and Psychology (NIFP) and was diagnosed with schizophrenia and intellectual disability. Still, the public prosecutor thought the defendant's incoherent statements were proof of guilt. The Appeals Court and the High Court of the Netherlands ruled that Mohammed D. falsely confessed the murder, thus rendering all the efforts of the police and the public prosecution service futile (De Ruiter, Peters, & Smeets, 2010).

### **Case 3: The Schiedam park murder case**

On June 22, 2000, in a park in Schiedam, the Netherlands, Nienke Kleiss (10) was sexually abused and murdered. Her friend Maikel (11) was stabbed in his neck but not critically injured, and by playing dead he survived the attack. He succeeded to escape and ran into Kees B. in the park, who immediately called the emergency number. Early in the police investigation, a police officer recalled that a few weeks earlier Kees B. had been a suspect in a sexual offence case, and as a result, Kees B. became the main suspect of the assault on Nienke and Maikel. After his arrest, Kees B. confessed the murder during one of the first interrogations, although he denied the crime the next day and in all subsequent interrogations. A lot of the other evidence exculpated him as the perpetrator as well, for example, the description of the perpetrator did not match the physical appearance of Kees B. at all, and DNA samples found at the crime scene did not match with Kees B.'s DNA profile. Furthermore, important evidence about other potential suspects was left out of the police file, and Kees B.'s statements did not match the statements of witnesses. Nevertheless, Kees B. was sentenced to 18 years imprisonment and mandatory psychiatric treatment under the TBS order (Van Koppen, 2003). Four years later, a DNA sample of a suspect in another crime case matched the DNA sample found on Nienke, and soon after this Kees B. was released from prison and the actual culprit was convicted. In the years afterwards, it became clear that from the moment Kees B. was arrested, the police had made serious mistakes during the investigative process due to tunnel vision and confirmation bias (Van Koppen, 2009).

## General introduction

Most people are convinced that a suspect who is not guilty will not confess a crime he or she did not commit (Appleby, Hasel, & Kassin, 2013; Farrugia & Milne, 2012), however, the previously described cases show otherwise. It is impossible to make an exact estimate of the prevalence of false confessions because if the innocence of a suspect is proven prior to trial, the case is dismissed (Kassin, 2017). However, a body of research has shown that false confessions occur quite frequently (Gudjonsson, 2010; Kassin, 2017), including in the Netherlands (Van Koppen, 2009). In the United States of America, false confession rates are believed to be around 13%, and around 25% in DNA exoneration cases (Bedau & Radelet, 1987; Gross, Jacoby, Matheson, & Montgomery, 2005; Kassin, 2017).<sup>1</sup>

The three cases also illustrate that a false confession has serious consequences. First and foremost, it results in serious ramifications for the suspect, such as prison time or mandatory admission to a forensic psychiatric hospital, which in turn results in lost years, trauma, and social stigma. In an interview immediately after her acquittal, Ina Post told an interviewer:

*'It has affected almost half of my life. I was almost 30 at that time, I was about to make choices in life, which did not happen (...)'* (EenVandaag, 2010).

Second, the three false confession cases illustrate that biases, such as confirmation bias and guilty bias, and inappropriate interrogation techniques, contribute to less effective police investigations. If police investigations had been properly executed and suspects had been interrogated in an appropriate manner, the police could have focussed on other evidence and other potential suspects, and, foremost, innocent suspects would not have been wrongly sent to prison.

Third, false confessions and their consequences may harm societal trust in the police, the public prosecution service, and the criminal justice system. Each time a false confession case is exposed, the general public loses trust in the legal system.

---

<sup>1</sup> For more information about (research on) false confessions and DNA exoneration cases, see:

(1) FalseConfessions.org: [www.falseconfessions.org](http://www.falseconfessions.org)

(2) The Innocence Project: [www.innocenceproject.org](http://www.innocenceproject.org)

(3) National Registry of Exonerations: [www.law.umich.edu/special/exoneration/Pages/about.aspx](http://www.law.umich.edu/special/exoneration/Pages/about.aspx)

(4) Knoops' Innocence Project: [www.knoops.info/nl/knoops-innocence-project](http://www.knoops.info/nl/knoops-innocence-project)

## **Types of false confessions**

In the past, several theoretical models have been proposed as to why suspects make false confessions (Kassin & Wrightsman, 1985; Ofshe & Leo, 1997). Gudjonsson (2003) refined these models because in his opinion little attention was paid to pressure used by police officers, the custodial environment, non-police coercion (being coerced by a peer or spouse to confess), and psychological vulnerabilities. Gudjonsson's model distinguishes between three types of false confessions. The first type is a voluntary false confession, supposedly caused by the desire to protect the real perpetrator, a pathological desire for notoriety, or because of an inability to distinguish facts from fantasy. The second type is a coerced-compliant false confession. In this case, the suspect gives a false confession in an attempt to escape the stressful interrogation situation, to gain a promised (or implied) reward, or to avoid punishment. The third type, an internalized false confession, occurs when suspects develop a profound distrust of their memory, for example, due to highly suggestive interrogation tactics, making them psychologically vulnerable to the influence of the interrogator. Suspects confabulate false memories during this process (Gudjonsson, 2003; Kassin, 2017).

## **Why false confessions occur**

In the past, researchers have addressed the following questions to investigate the nature of false confessions: why do police target innocent individuals as suspects, what types of interrogation techniques increase the risk that persons falsely confess, and what types of suspects are more vulnerable to falsely confess during interrogation (Kassin, 2017).

The answer to the first question why police target innocent people for suspicion is that police officers often engage innocent suspects with a guilty bias and a confirmation bias (Hill, Memon, & McGeorge, 2008; Leo & Drizin, 2010). In the Netherlands – as in most western countries – police officers may only arrest suspects when facts or circumstances have resulted in a reasonable presumption of guilt of a crime (Code of Criminal Procedure, 2018; Davis & Leo, 2012; Hill et al., 2008). After the arrest, the public prosecutor decides if the suspect is charged with a crime. In the Netherlands, immediately after the arrest suspects are led before a deputy public prosecutor, which is a trained and certified police officer with the rank of Inspecteur (Inspector, the first rank in Dutch police management) or higher, who decides whether there is enough evidence to justify placement of the suspect in police custody for further investigation. Thus, if a suspect is detained in a police station or police detention centre, obviously police officers have serious reasons to think that the suspect is actually involved in a

crime. First impressions occur quickly and are difficult to drop (St-Yves, 2006). Police interrogators who presume the suspect is guilty focus on obtaining a confession and use a more accusatory style of interviewing (Mortimer, 1994). Furthermore, if a suspect already has a criminal record, police interrogators are less inclined to give suspects the benefit of the doubt and are more inclined to put the emphasis on obtaining a confession rather than getting at the facts, and they will act in a more prejudicial and stereotypical manner (Moston & Stephenson, 1993).

The second question was what types of interrogation techniques make some suspects vulnerable for providing a false confession. A police interrogation is an exceptional social situation in which police officers try to obtain as much information from suspects as possible (Kassin, 2015, 2017). Sometimes manipulative interrogation methods are used, such as inappropriate questions (e.g., leading questions, suggestive questions, proposing a hypothetical scenario), emotional provocation (e.g., appeal to self-interest or conscience, reducing fears, offering moral rationalizations, encouraging to take responsibility for the offence), and physical intimidation (e.g., slamming a fist on the table, raising the voice), to overcome resistance of presumably guilty suspects in order to obtain a confession (Kassin et al., 2010; Kelly, Miller, Kleinman, & Redlich, 2013; Verhoeven & Stevens, 2012). Especially if a case lacks technical evidence, police officers tend to put more pressure on the suspect by using more persuasive and/or suggestive tactics (Häkkinen, Ask, Kebbel, Alison, & Granhag, 2009). In addition, being in police custody increases stress in suspects, due to loss of liberty, lack of contact with relatives, and uncertainty about the future. The answer to the second question is that a combination of these circumstances may cause suspects to falsely confess (Kassin, 2017; Kassin et al., 2010; Kassin & Israëls, 2014).

The answer to the third question, about what types of suspects are more vulnerable to falsely confess during interrogation, is that certain suspects are psychologically more vulnerable to provide a false confession (Gudjonsson, 2003; Kassin, 2017). Gudjonsson (2003) defined a psychologically vulnerable suspect as 'a person whose psychological characteristics or mental states render a suspect prone, in certain circumstances, to providing information which is inaccurate, unreliable (or invalid), or misleading' (p. 316). Gudjonsson divided psychological vulnerabilities of suspects into four groups: mental health problems, an abnormal mental state, intellectual disability, and vulnerable personality traits (Gudjonsson, 2003, 2010). These psychological vulnerabilities of suspects form an important part of a complex and dynamic process during police interrogations (Gudjonsson, 2003; Herrington & Roberts, 2012; Kassin, 2017).

Mental health problems refer to mental disorders, such as schizophrenia, attention deficit hyperactivity disorder (ADHD), and depression. People suffering from mental disorders experience difficulties with reality monitoring, which might impair their ability to differentiate between reality and fantasy. Psychopathology is also often accompanied by impaired judgement, mood disturbance, anxiety, feelings of guilt, and poor self-control (Gudjonsson, 2003, 2010; Kassin et al., 2010).

Suspects' intellectual disabilities affect interrogations in different ways. First, people with intellectual disabilities may not understand their legal rights, even when carefully explained to them (Gudjonsson, 2003). Further, suspects with limited intellectual abilities have trouble understanding and answering questions, understanding consequences of their answers, and are more easily intimidated by police officers (Gudjonsson & Joyce, 2011). Moreover, these suspects show higher levels of compliance, interrogative suggestibility, acquiescence, and fantasy proneness, as well as impaired memory capacity (Gudjonsson, 2003; Gudjonsson & Joyce, 2011).

Suspects who find themselves in an abnormal mental state are not necessarily suffering from mental health problems, but are experiencing, for example, high levels of acute stress and/or anxiety, symptoms related to alcohol and/or drug abstinence, or sleep problems. Anxiety and stress can be induced by the fear of being in police custody, in view of the police investigation, and by phobic symptoms (e.g., claustrophobia). Individuals addicted to alcohol or drugs may experience high levels of stress and anxiety due to withdrawal symptoms (Gudjonsson, 2010; Kassin et al., 2010). Sleep problems increase the likelihood that police suspects falsely confess (Blagrove, 1989; Frenda, Berkowitz, Loftus, & Fenn, 2016; Kassin et al., 2010).

Personality traits are specific characteristics of individuals. Gudjonsson (2003, 2010) identified three important traits which increase a suspect's vulnerability to falsely confess: interrogative suggestibility, compliance, and acquiescence. These traits can make a suspect give in to pressure or leading questions or to clues provided by the interrogators, which may result in a false confession (Gudjonsson, 2003; Smeets, Leppink, Jelicic, & Merckelbach, 2009). Interrogative suggestibility and compliance show similarities in a number of aspects, such as eagerness to please, social desirability, anxiety, and an avoidant coping style, thus the two concepts are overlapping rather than completely distinct. However, compliance refers to the tendency to deliberately obey instructions and comply with requests for some immediate instrumental gain, while interrogative suggestibility concerns the private acceptance of suggestions. Acquiescence is the tendency to give affirmative answers to questions (Gudjonsson, 1989, 2003).

## **Research questions of the dissertation**

During the last two decades, it has become more widely recognised that psychologically vulnerable suspects are at risk during interrogations in police custody. Much has been learned about psychological vulnerabilities in police suspects (e.g., Baksheev, Thomas, & Ogloff, 2012; Blaauw, Kerkhof, & Vermunt, 1998; Dorn, Ceelen, Buster, & Das, 2013; Dorn et al., 2014; Gudjonsson, 2010; Young, Goodwin, Sedgwick, & Gudjonsson, 2013; Herrington & Roberts, 2012), but in the Netherlands, this issue has not been tested in the context of actual interrogations during police custody. This dissertation aims to examine this issue.

The first two research questions are how often police officers engage psychologically vulnerable suspects during interrogations, and if police officers are able to make an adequate estimation of the prevalence of vulnerable suspects. The third research question is whether current Dutch interrogation techniques can, in theory, be considered appropriate for questioning vulnerable suspects. Subsequently, the fourth research question is how police suspects – and vulnerable suspects in particular – are interrogated in practice. The fifth and final research question is how police suspects experience their psychological wellbeing and sleep problems while being in police custody.

## **Dissertation outline**

### **Framework**

This dissertation follows the framework proposed by Gudjonsson and MacKeith (1988, 1997), later refined by Gudjonsson (2003). The aim of the framework is to assess the ability of suspects to cope with an interrogation situation during police custody and to provide a standard which psychologists and psychiatrists may use when giving expert testimony in court.

Gudjonsson and MacKeith published an article in 1988 on the assessment of cases where suspects retracted self-incriminating statements. Based on their experiences and relevant literature, they proposed a standard to assess defendants to assist in evaluations and writing court reports, which comprised an assessment of psychological variables (e.g., intellectual disabilities, neuropsychological status, personality disorders, and phobic symptoms), mental state (e.g., anxiety level, withdrawal symptoms because of alcohol, drugs or medication use), knowledge about relevant statements to provide background to the case and to circumstances in which the statements were made, as

well as interrogation techniques, and circumstances in police detention (Gudjonsson & MacKeith, 1988).

The framework is called CIPH, which is an acronym for Circumstances, Interactions, Personality, and Health. Circumstances refer to a variety of factors which influence attitudes and behaviour of the suspect and the police (Gudjonsson & MacKeith, 1997). Suspects are affected by different circumstances, such as a violent arrest, timing and duration of the interrogation(s), and the physical circumstances in police custody (Gudjonsson, 2003). Interaction refers to the complex process of police officers interrogating suspects and covers a wide range of non-verbal and verbal communication aspects. In addition, interrogators' biases and interrogation style must be taken into account (Gudjonsson, 2003; Gudjonsson & MacKeith, 1997). Personality is defined as suspects' enduring psychological qualities, while Health refers to a suspect's physical and mental health (Gudjonsson & MacKeith, 1997). A suspect's mental and physical health may affect the reliability of statements, due to high stress levels, medication use, intoxication with drugs and/or alcohol, withdrawal symptoms, and/or a mental disorder (Gudjonsson, 2003). Gudjonsson and MacKeith (1997) emphasized 'the importance of not solely assessing psychological vulnerabilities in police suspects, but to interpret these vulnerabilities within the context of all information available' (p. 16).

### **Outline of the dissertation**

The outline of this dissertation follows the CIPH framework, albeit in reverse order. First, the prevalence of a number of psychological vulnerabilities in police suspects is examined, as well as the ability of police officers to estimate the prevalence of these vulnerabilities (Chapter Two). Second, one specific vulnerability, intellectual disability, is examined (Chapter Three). Next, police officers' interaction with vulnerable suspects is explored, by focussing on Dutch police interrogation practices in theory (Chapter Four) and in practice (Chapter Five). In addition, suspects' psychological wellbeing and sleep problems when detained in police detention centres are investigated (Chapter Six). Finally, the results of the set of studies are summarised and discussed (Chapter Seven). The studies reported in the chapters are described in more detail in the next paragraphs.

### **Personality and Health: Psychological vulnerabilities**

Chapter Two is a close replication of prior research on vulnerable suspects conducted by Gudjonsson, Clare, Rutter, and Pearse (1993). The prevalence rate of several psychological vulnerabilities in police suspects in the Netherlands is explored, namely mental disorders, an abnormal mental state, and specific personality characteristics



of suspects. In addition, the views of Dutch police detectives on the identification of vulnerable suspects are examined, to estimate to what extent they are aware of psychological vulnerabilities among police suspects.

Chapter Three addresses a specific vulnerability in police suspects: intellectual disability. Many people suffering from intellectual disability are quite apt at disguising their disability and thus may appear to possess normal intellectual capacities. However, in interrogation situations intellectually disabled suspects may face problems with understanding questions and estimating the consequences of their answers. In addition, the predictive accuracy of a recently developed Dutch screening instrument for mild intellectual disability (SCIL; Kaal, Nijman, & Moonen, 2013) is examined, to explore if the SCIL is a usable screener for the police to screen for intellectual disability in police suspects. The research questions are whether the SCIL is a valid instrument for the police to screen for intellectual disability in police suspects, and what the prevalence rate of intellectual disabilities in police suspects is.

#### Interaction: Interrogation

Chapter Four discusses concerns about a number of contentious aspects of an important Dutch interrogation method termed the General Interrogation Strategy (GIS; in Dutch: *Standaard Verhoorstrategie*, SVS), commonly used by police officers, and described in the Interrogation Manual (*Handleiding Verhoor*; Van Amelsvoort, Rispens, & Grolman, 2015). This Manual is currently in its seventh edition, in which the GIS is renamed the Scenarios Investigative Method (*Scenario's Onderzoekende Methode*, SOM; Van Amelsvoort & Rispens, 2017), but essentially the interrogation strategy has remained unchanged. A major problem with the GIS/SOM is that its effectiveness has never been empirically tested. This contrasts with police interviewing practices in other countries, for example, the United Kingdom, Australia, Canada, New Zealand, and Norway (Bull & Soukara, 2009; Oxburgh, Myklebust, & Grant, 2010; Walsh & Bull, 2015). Chapter Four discusses the question whether the current Dutch police interrogation method is in line with the empirical evidence regarding optimal investigative interviewing (Farrugia & Milne, 2012; O'Mahony, Milne, & Grant, 2012), particularly in view of the psychological vulnerabilities suspects may present (Herrington & Roberts, 2012).

Chapter Five focuses on the actual execution of police interrogations, and especially those with vulnerable suspects. After the assessment of a number of psychological vulnerabilities in police suspects, interrogations of these suspects were analysed in

terms of appropriateness. Although the goal of a police interrogation should be fact-finding into what exactly happened during the alleged crime (Van Amelsvoort, Rispens, & Grolman, 2017; Vrij, 2010), most police officers will admit that a confession of a suspect is the crowning glory of every interrogation (Blom, 2011; Hill, Memon, & McGeorge, 2008; Kortlever, 2011; Rassin & Israëls, 2014). This is because a confession is generally seen as an important and powerful piece of evidence in a criminal investigation, while people tend to believe a suspect who is not guilty will not confess (Appleby, Hasel, & Kassin, 2013; Beune, 2009; Farrugia & Milne, 2012). To date, what exactly happens in Dutch police interrogation rooms is largely unknown. The research question examined in Chapter Five is whether vulnerable suspects are interrogated appropriately.

### Circumstances: Police detention centre environments

Chapter Six concerns how an overnight stay in a police cell may impact suspects' experiences of mental wellbeing and sleep problems. In the Netherlands, police detention centres vary to a great extent in terms of interior design (e.g., colour, space, amount of daylight), services, and number of staff. The interiors are mostly designed to foster safety of suspects and staff and to serve efficiency (e.g., hygiene, cleaning, routing). They are not specifically designed in view of suspects' comfort and wellbeing. Prior research has addressed the effects of prison environments on inmate behaviour, wellbeing of detainees and prison staff (Hancock & Jewkes, 2011; Morris & Worrall, 2010; Nurse, Woodcock, & Ormsby, 2003). However, only few studies have addressed circumstances in Dutch police detention centres in relation to mental health problems of suspects (Blaauw, Kerkhof, & Vermunt, 1998). The research question is to what extent staying in a police detention centre affects suspects' psychological wellbeing and sleep problems.

### Data collection

Between June 24, 2014, and May 7, 2015, suspects in six different police detention centres across the Netherlands were invited to participate in a psychological assessment. All suspects were 18 years or older and placed in continued custody (*inverzekeringstelling*), meaning they were suspected of an offence for which they could be sentenced to a prison term for a minimum of four years, or they were suspected of a specific offence (e.g., assault, embezzlement, demolition, or the possession of certain drugs or weapons), or they were suspected of an offence in combination with homelessness – yet only if facts or circumstances indicate that the charge is substantiated, and that continued detention is absolutely necessary for the police investigation (Article 67 of the Code of Criminal Procedure, 2018). Before inviting suspects for the psychological

assessment, the police detective department was contacted to ensure not to interfere with the investigative process in any way, in order not to harm suspects' legal rights. Suspects placed in an observation cell because of serious mental or physical health problems were not invited to participate, nor were suspects about to be released.

The assessments took place at the police detention centres located in Amsterdam ( $n = 37$ ), Breda ( $n = 35$ ), Eindhoven ( $n = 31$ ), Heerlen ( $n = 26$ ), Tilburg ( $n = 8$ ), and Maastricht ( $n = 41$ ). The assessors were able to invite 431 suspects for this study, and 275 suspects accepted the invitation. Eventually, 178 suspects completed the assessment. Hence, 97 suspects did not complete the assessment procedure for various reasons, such as major language problems, an unexpected immediate release, a lawyer visit, or because the suspect mentioned that he or she was suffering from a serious mental disorder. Figure 1.1 provides an overview of the recruitment process. The participants' age ranged from 18 to 63 years ( $M_{age} = 31.7$ ,  $SD_{age} = 11.2$ ,  $Mdn_{age} = 27.5$ ). Table 1.1 gives detailed demographic information on the 178 participants. The duration of the assessments was between 60 and 90 minutes.

The assessments were performed by the author of this dissertation and three Forensic Psychology Master's students of Maastricht University, the Netherlands. At the time of the assessments, the dissertation author held a Master's degree in Clinical Psychology and had obtained the Basic Qualification Psychodiagnostics (*Basisaantekening Psychodiagnostiek; BAPD*)<sup>2</sup> of the Dutch Association of Psychologists (*Nederlands Instituut van Psychologen; NIP*),<sup>3</sup> was a member of the NIP, and was not employed at

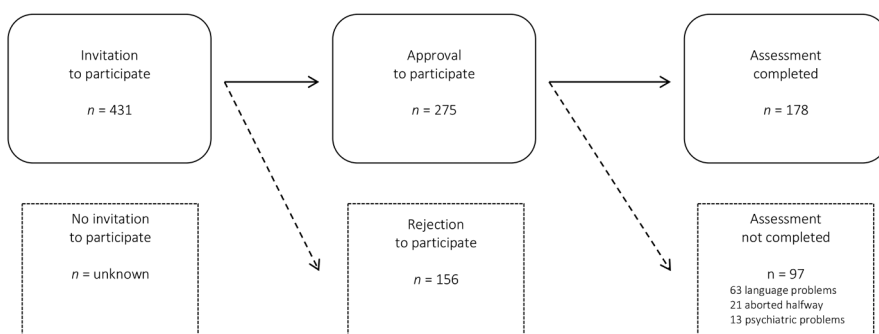


Figure 1.1. Recruitment of the participants for this study.

<sup>2</sup> <https://www.psynip.nl/registraties/overige-registraties/basisaantekening-psychodiagnostiek-bapd/>

<sup>3</sup> <https://www.psynip.nl/en/>

the Dutch police. The three Master's students were screened by the Police Academy of the Netherlands before the start of the assessments. They had to sign a confidentiality agreement concerning all obtained information and observations during their presence in the police detention centres and the psychological assessments. They were closely supervised by the author of this dissertation during the data collection period.

The psychological assessment battery was designed to assess the previously mentioned four categories of psychological vulnerability (i.e., mental disorders, intellectual disability, abnormal mental state, and vulnerable personality characteristics). Yet, time constraints had to be taken into consideration, both in view of suspects' capabilities and the police investigation process, and therefore, the ultimate assessment battery consisted of a mix of complete instruments, screeners, and short forms. Table 1.2 shows the composition of the psychological assessment battery for this study.

**Table 1.1.** Demographic characteristics of the sample ( $N = 178$ ).

	<i>n</i>	Percentage
<b>Gender</b>		
Male	162	91.0
Female	16	9.0
<b>Education</b>		
Elementary school/ Special education	57	31.5
Low and intermediate level secondary school	103	57.9
High level secondary school / College / University degree	18	10.1
Missing	1	.5
<b>Nationality</b>		
Dutch	133	74.7
Dutch and other nationality	29	16.3
Other nationality than Dutch	16	9.0
<b>Employment status</b>		
Employed or self-employed	68	38.2
Unemployed	110	61.8

The instruments were administered in this order to ensure variation in terms of interview questions asked by the assessor, performance-based tasks, and questionnaires the participants had to fill out themselves.

The mBias (instrument 4) was dropped from the analyses because recent research showed that the mBias was not a reliable tool to screen for symptom exaggeration (Lange, Brickell, & French, 2015; Lippa, Axelrod, & Lange, 2016).

Additionally, police detectives of different subdivisions (e.g., departments of criminal investigation, sexual offences, and financial crimes) in seven (former) police regions of the Netherlands (i.e., Amsterdam, Limburg, Midden-Nederland, Oost-Brabant, Oost-Nederland, Rotterdam, and Zeeland West-Brabant) were invited by email to fill in an online questionnaire on the identification of vulnerable suspects. Eventually, 103 police detectives completed the questionnaire (Chapter Two).

### **Ethical approval**

Before its start, approval for this study was given by the Ethical Review Committee Psychology and Neuroscience of Maastricht University (ERCPN number: 03\_10\_2014), the Office of the Attorney General of the Netherlands (*College van Procureurs-Generaal*), and the Chief Constable of the Police of the Netherlands (*Korpschef*).

**Table 1.2.** Composition of the psychological assessment battery.

Instrument	Reference
1. Questions concerning: <ul style="list-style-type: none"> <li>- Demographic data</li> <li>- Sleep problems</li> <li>- Use of alcohol, drugs, and medicines</li> </ul>	(this dissertation)
2. WAIS-III-NL - Dutch short form	Uterwijk, 2000; Velthorst et al., 2012
3. Depression Anxiety and Stress Scale - Dutch 21-items version	De Beurs et al., 2001
4. Mild Brain Injury Atypical Symptoms Scale (mBias)	Lange, Edmed, Sullivan, French, & Cooper, 2013
5. Mini Mental State Exam (MMSE) - Dutch version	Kok & Verhey, 2002
6. Brief Jail Mental Health State (BJMHS)	Steadman, Scott, Osher, Agnese, & Clark Robbins, 2005
7. Ultra Short ADHD questionnaire for adults	Kooij, 2009
8. Gudjonsson Suggestibility Scale (GSS) - Dutch 20-items short form	Smeets, Leppink, Jelicic, & Merckelbach, 2009
9. Gudjonsson Compliance Scale (GCS) - Dutch version	Smeets, 2008
10. Wildman Symptom Checklist (WSC) - Dutch short form	Merckelbach, Smeets, & Jelicic, 2008; Merckelbach, Langeland, De Vries, & Draijer, 2014
11. Screener for Intelligence and Learning Disabilities (SCIL)	Kaal, Nijman, & Moonen, 2013
12. Symptom Checklist 90-NL (SCL-90-NL)	Arrindell & Ettema, 2005

I have seen new colleagues perform interrogations as they have learned at the Police Academy.

These interrogations are unnecessarily long due to ridiculous reflection questions about feelings, which asked continually during the interrogation.

This irritates suspects and leads nowhere.

I have done murder case interrogations in the normal, old-fashioned way, and with result. Sometimes getting angry, sometimes raising your voice, sometimes letting the suspect know he is an asshole, or just rewarding the suspect for his honesty, is still the proper way to interrogate suspects.

**Dutch senior police detective  
(2015)**

## Chapter Two

# Identifying psychological vulnerabilities

Studies on police suspects' mental  
health issues and police officers'  
views

This chapter is a modified version of the published paper:  
Geijsen, K., De Ruiter, C., & Kop, N. (2018). Identifying psychological  
vulnerabilities: Studies on police suspects' mental health issues and  
police officers' views. *Cogent Psychology* 5(1), 1462133. Published  
online 19 April 2018. DOI: 10.1080/23311908.2018.1462133.



## Introduction

In the last decades, there has been an increased interest in psychological vulnerabilities among police suspects. These vulnerabilities are 'psychological characteristics or mental states which render a suspect prone, in certain circumstances, to providing information which is inaccurate, unreliable (or invalid) or misleading' (Gudjonsson, 2003, p. 316). Several studies have demonstrated that psychological vulnerabilities in police suspects could interfere with the demand characteristics of an interrogation, for example with understanding the consequences of answers, and with giving a reliable, accurate and coherent statement (Gudjonsson, 2010; Gudjonsson & Joyce, 2011; O'Mahony, Milne, & Grant, 2012). Gudjonsson (2003) divides psychological vulnerabilities into four categories: mental disorders, intellectual disabilities, abnormal mental states, and personality characteristics. Mental disorders (e.g., schizophrenia, depression) and abnormal mental states (e.g., distress, alcohol or drug withdrawal) impact reality monitoring, perception, judgement, self-control, anxiety level, and mood, which may affect the accuracy of statements of suspects (Gudjonsson, 2010; Kassin et al., 2010). Police suspects who suffer from intellectual disabilities have trouble understanding their legal rights and the questions of the interrogators, and to oversee the implications of their answers (Gudjonsson, 2010; Gudjonsson & Joyce, 2011). They also tend to confabulate more and face problems with memory capacity (Gudjonsson & Joyce, 2011). It has been demonstrated that in numerous cases suspects falsely confessed due to a failure of police officers to identify psychological vulnerabilities in suspects (Appleby, Hasel, & Kassin, 2013; Gudjonsson, 2010; Kassin, 2017; Kassin et al., 2010). Thus, it is important that police officers provide proper safeguards for a fair and effective police interview, for example, by adjusting interrogation methods, seeking assistance of a police psychologist, videotaping the interrogation, or ensuring a lawyer is present during the interrogations (Herrington & Roberts, 2012; Kassin, 2017).

Yet, police officers have difficulty detecting vulnerabilities among police suspects (Gudjonsson, 2010; Kassin, 2012). This is partly because many people who suffer from mental disorders or intellectual disabilities are used to masking their vulnerabilities, because of social stigma (Herrington & Roberts, 2012). There are several screening tools suitable for use by non-clinicians, but police officers must have an idea when to assess a specific vulnerability in order to select an appropriate screener (Herrington & Roberts, 2012). Furthermore, police officers often lack time, skills, and/or inclination to conduct a screening (Herrington & Roberts, 2012; Steadman, Scott, Osher, Agnese, & Clark Robbins, 2005).

To the authors' knowledge, no research has yet examined the prevalence of

psychological vulnerabilities in police suspects in the Netherlands, and it is unknown to what extent Dutch police officers are able to identify vulnerable suspects as well. This paper addresses these issues. In line with the research by Gudjonsson (e.g., Gudjonsson, 1993; 2003; 2010), Study 1 explores the prevalence of a number of important vulnerabilities in police suspects. For this purpose, 178 unselected police suspects, detained in six police detention centres across the Netherlands, were psychologically assessed. The rates of mental health problems, abnormal mental states, interrogative suggestibility, and compliance in police suspects will be compared with rates found in previous studies of general Dutch population samples. Study 2 aims to explore to what extent police officers believe they are able to note psychological vulnerabilities in suspects. For Study 2, 103 Dutch police detectives completed an online questionnaire about their police experience and training, their views on identifying vulnerable suspects, and the precautions they take when interrogating these suspects.

## Study 1

### Introduction

Gudjonsson, Clare, Rutter, and Pearse (1993) were the first to explore psychological vulnerabilities in police suspects prior to police interrogations. They assessed 156 police suspects detained in two London police stations over a period of six months, and examined suspects' mental states, psychological distress, intellectual functioning, reading ability, interrogative suggestibility, anxiety proneness, and understanding of legal rights. This was done by the use of a structured interview with questions about education, use of alcohol and drugs, medication, prior criminal convictions, mental disorders, detention circumstances and legal rights, and four additional psychometric tests, i.e., three subtests of the Wechsler Adult Intelligence Scale (WAIS-R; Wechsler, 1981), the Schonell Grades Word Reading Test (Schonell & Goodacre, 1974), the Gudjonsson Suggestibility Scale (GSS-2; Gudjonsson, 1984), and the State-Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1970).

The assessment battery used in Study 1 was not an exact copy of the Gudjonsson et al. (1993) instruments but was adjusted in line with subsequent research on vulnerabilities in police suspects. Three instruments on vulnerabilities discovered in subsequent research (Gudjonsson, Hannesdottir, Petursson, & Bjornsson, 2002a; Gudjonsson, Sigurdsson, Brynjolfsdottir, & Hreinsdottir, 2002b; Gudjonsson, Sigurdsson, Sigfusdottir, & Young, 2011) were added to the assessment battery in order to explore depression, attention deficit hyperactivity disorder (ADHD), and

compliance. In addition, a test for malingering was included, because we assumed that some suspects during interrogation could feign problems with their mental health in order to be released more quickly or to be interrogated less intensively (Merckelbach, Langeland, De Vries, & Draijer, 2014; Wildman & Wildman, 1999).

## Method

### Participants

Between June, 2014 and May, 2015, 178 suspects placed in continued police custody participated in Study 1. The mean age of the participants was  $M = 31.7$ ,  $SD = 11.2$ ,  $Mdn = 28.0$ , range = 18 – 60. Participants were recruited in six different police detention centres across the Netherlands: Amsterdam ( $n = 37$ ), Breda ( $n = 35$ ), Eindhoven ( $n = 31$ ), Heerlen ( $n = 26$ ), Tilburg ( $n = 8$ ), and Maastricht ( $n = 41$ ). Demographic characteristics of the sample are shown in Table 2.1.

**Table 2.1.** Demographic data of the sample of Study 1 ( $N = 149$ ).

	<i>n</i>	Percentage
<b>Gender</b>		
Female	13	8.7
Male	136	91.3
<b>Education</b>		
Elementary / Special education	49	32.9
Low / Intermediate level secondary school	83	55.7
High level secondary school / University degree	17	11.4
<b>Nationality</b>		
Dutch	136	91.3
Dutch and second nationality	25	16.8
Not the Dutch nationality	13	8.7
<b>Employment status</b>		
Unemployed	90	60.4
Employed or self-employed	59	39.6

The recruiters invited available police suspects of at least 18 years of age to participate. Suspects who were about to be seen by a physician or psychiatrist because of urgent physical and/or psychiatric problems were excluded from participation. Over the course of Study 1, 21 assessments were interrupted and subsequently terminated due to unforeseen developments in the criminal investigation process (e.g., unexpected interrogations, visits of lawyers, or immediate release of the suspect); 63 assessments were terminated early on because of a lack of proficiency in the Dutch language, which led to misunderstanding of instructions and questions; and, 13 participants stated or implied shortly after the start of the assessments that they were suffering from a serious mental disorder. Ultimately, 178 suspects completed the assessment procedure.

### Procedure

The assessments were conducted by a M.Sc. psychologist (first author), and three second-year Master's students in Forensic Psychology of Maastricht University who had previously followed several assessment skills training courses and were closely supervised. To not harm suspects' legal rights, it was assured that (1) suspects would be staying in continued detention at the police detention centre for at least the next few hours, and (2) that the assessment would not interfere with any planned investigation procedures.

The assessors approached prospective participants in their cells and briefly introduced the purpose of the study. When he or she agreed to consider participation, the suspect was taken to another room, where the details of the study procedure and the informed consent were explained. Participation was anonymous and suspects were informed that the researchers were bound by professional confidentiality. Participants were free to stop the assessment at any moment. After the explanation, a brief moment was given to consider participating. All participants signed the informed consent before starting the assessment.

Permission for this study was granted by the standing Ethical Review Committee Psychology and Neuroscience of Maastricht University (ERCPN number 03\_10\_2014), the Attorney General Office of the Netherlands, and the Chief Constable of the National Police of the Netherlands.

### Measures

The instruments for Study 1 were part of a larger battery of tests to assess different psychological vulnerabilities in police suspects. First, the assessment contained four items to screen for malingering. Second, tests 2 to 6 assessed psychological vulnerabilities, namely serious mental health problems, the misuse of alcohol and

drugs, ADHD, depression, anxiety, and stress, and symptoms of psychopathology. Third, tests 7 and 8 assessed two personality characteristics, namely interrogative suggestibility and compliance. Findings regarding intellectual disabilities in this sample are presented in Chapter Three of this dissertation.

- (1) Four items of the Wildman Symptom Checklist (WSC; Wildman & Wildman, 1999; Merckelbach, Smeets & Jelicic, 2008; Merckelbach et al., 2014), which addresses non-credible, disturbing, cognitive symptoms (e.g., 'I have headaches that are so severe my feet hurt', and 'The buzzing in my ears keeps switching from the left to the right'). The total score of the WCS is the sum of the scores of all items (range = 0 - 16), and a score of 4 or higher serves as an indication for malingering (Merckelbach et al., 2014). The Cronbach's alpha of the four items of the WCS in previous studies ranged from .56 to .73 (Deetman et al., 2011), in the present study the Cronbach's alpha was .73.
- (2) Brief Jail Mental Health Screen (BJMHS; Steadman, Clark Robbins, Islam, & Osher, 2007). The BJMHS was developed as a jail intake screen, which prison staff can use as a screening tool for inmates who need additional mental health evaluation. The BJMHS contains eight questions (e.g., 'Do you currently believe that someone can control your mind by putting thoughts into your head or taking thoughts out of your head?', 'Are you currently taking any medication prescribed for you by a physician for any emotional or mental health problems?', and 'Have you ever been in a hospital for emotional or mental health problems?'). Further mental health evaluation is advised if at least two of the items 1 through 6 are answered positively, or items 7 and/or 8 (i.e., the latter two questions mentioned above) receive an affirmative response (Steadman, Clark Robbins, Islam, & Osher, 2007). Previous validation studies compared the BJMHS and the Structural Clinical Interview for DSM-IV (SCID; First, Spitzer, Miriam, & Williams, 2002), and showed that the BJMHS is a reliable and valid mental health screener in custody settings (Baksheev, Ogloff, & Thomas, 2012; Steadman, Scott, Osher, Agnese, & Clark Robbins, 2005). For the purpose of this study, the BJMHS was translated into Dutch by the first and third author.
- (3) Self-report questions about the use of alcohol and drugs: 'Do you use alcohol/drugs?', if replied with 'yes', followed by a probing question about the frequency and amount of alcohol/drug use.
- (4) Ultra Brief Questionnaire for ADHD in Adults (Ultrakorte Vragenlijst voor ADHD bij Volwassenen; Kooij, 2009). This screener contains four questions, which consists of three questions about hyperactivity, impulsivity, and problems with concentration and attention, and a fourth question about the persistence of these symptoms

across the lifetime. The screener has proven to provide a good estimation of ADHD in clinical practice: 70 - 90% of the subjects with a positive screening score was diagnosed with ADHD upon further examination (Kooij, 2009).

- (5) Depression Anxiety and Stress Scale (DASS; Lovibond & Lovibond, 1995). The DASS was developed over a period of 11 years and discriminates between depression, stress and anxiety - concepts that show overlap in other instruments (De Beurs et al., 2001). For this study, the 21-items Dutch version (De Beurs et al., 2001) was used, which contains 7 items on depression, 7 items on anxiety, and 7 items on stress. The reliability of this 21-items DASS short form is similar to the original 42-items version. (De Beurs et al., 2001).
- (6) Symptom Checklist (SCL-90; Derogatis, 1977; Dutch version SCL-90-NL, Ettema & Arrindell, 2005). The SCL-90 is widely used to screen for mental and physical problems related to psychopathology. The Dutch version contains 90 items, which refer to eight domains: Depression, Anxiety, Hostility, Agoraphobia, Interpersonal sensitivity, Somatization, Obsessive-Compulsive, and Sleeping Problems. Furthermore, the total score provides a global severity index of psychological distress (Psychoneuroticism).
- (7) A short form of the Gudjonsson Suggestibility Scale (GSS; Gudjonsson, 1997) including 20 items on interrogative suggestibility (Smeets, Leppink, Jelicic, & Merckelbach, 2009). This short form of the GSS starts with a story of a mock crime, followed by 15 misleading questions and five cued recall memory questions. After answering the 20 items, the participants are told they made quite a few errors and are asked to answer all 20 questions a second time. Four suggestibility parameters were calculated to measure interrogative suggestibility: (1) the tendency to go along with misleading questions immediately (Yield 1); (2) the tendency to accept misleading cues after negative feedback (Yield 2); (3) the tendency to change an answer after negative feedback (Shift), (4) and the total interrogative suggestibility score, which provides an indication of susceptibility to suggestion (Gudjonsson, 1997; Smeets et al., 2009). Previous research showed that this GSS short form (without a retention interval) does not affect total or subscale scores of the original GSS (Smeets et al., 2009).
- (8) Gudjonsson Compliance Scale (GCS; 1989; Smeets, 2008). The concept of compliance is based on studies of Milgram (1974) on obedience. Some people act compliant when they are put under pressure by authority figures (Gudjonsson, Sigurdsson, Brynjolfsdottir, & Hreinsdottir, 2002). The GCS has been found to discriminate between suspects who are able to resist pressure, and those who conform to requests during interrogations in order to avoid confrontation and

conflict (Gudjonsson et al., 2002). The GCS contains 20 items with true-false statements, which provide an indication of how suspects tend to cope with the demand characteristics of police interrogations (Gudjonsson, 1989). A higher score on the GCS reflects a higher level of compliance.

### Statistical Analyses

IBM SPSS v24 was used to analyse the data. The scores obtained in the present sample were compared to data from previous studies using one-way ANOVAs, and Tukey HSD post-hoc tests.

### Results

Before performing the analyses, participants were screened for possible malingering using a Dutch short form of the WCS (Merckelbach et al., 2008; Merckelbach et al., 2014). Test results showed that 14 participants (7.9%) scored positive on possible feigning. In addition, 15 participants (8.4%) had missing WCS data. These participants were excluded from the analyses described below, resulting in a total sample of  $N = 149$ .

The BJMHS (Steadman et al., 2007) indicated that for 90 (60.4%) participants serious concerns were raised about their mental health, requiring further evaluation.

Six participants (4.0%) stated they drank alcohol on a daily basis, and 32 participants (21.5%) stated they used drugs (e.g., marijuana, cocaine, GHB) on a daily basis.

The ADHD screener (Kooij, 2009) indicated that for 57 participants (38.3%) further examination regarding possible ADHD was deemed necessary.

Mean scores on the Depression, Anxiety and Stress subscales of the DASS (De Beurs et al., 2001) are presented in Table 2.2, and compared to mean scores of a general population and a clinical sample (De Beurs et al., 2001). The general population sample comprised 289 undergraduate psychology students ( $M_{age} = 23$ ,  $SD_{age} = 5.6$ , age range = 18 - 53; 65 male, 224 female). The clinical sample comprised 173 outpatients of a psychiatric hospital ( $M_{age} = 39$ ,  $SD_{age} = 9.1$ , age range = 21 - 73; 63 male, 110 female), suffering from a variety of psychiatric problems (e.g., panic disorder, obsessive compulsive disorder, depression). We found significant differences between groups for Depression,  $F(2, 608) = 41.50$ ,  $p = .000$ , Anxiety,  $F(2, 608) = 56.27$ ,  $p = .000$ , and Stress,  $F(2, 608) = 39.50$ ,  $p = .000$ . Tukey post-hoc tests showed that the means of the three subscales differed significantly between all three samples, all  $p$ 's < .01, except for the mean of the Depression scale found in this study, which did not differ significantly from the mean in a clinical sample ( $p = .21$ ) but was significantly higher than the mean in a general sample ( $p = .000$ ).

**Table 2.2.** Means and standard deviations of the DASS subscales found in this study, in a clinical population, and in a general population.

	Police suspects <sup>a</sup> N = 149 M (SD)	Clinical population <sup>b</sup> N = 173 M (SD)	General population <sup>b</sup> N = 289 M (SD)
Depression	11.6 (9.4)	13.4 (11.9)	5.7 (7.7)
Anxiety	9.2 (7.4)	11.7 (10.1)	4.2 (5.9)
Stress	12.3 (7.9)	15.7 (10.2)	8.4 (8.0)

<sup>a</sup> This study.

<sup>b</sup> De Beurs et al. (2001).

Participants' scores on the SCL-90-R-NL are shown in Table 2.3 and compared to scores of a Dutch prison sample and a general population sample (Arrindell & Ettema, 2005). The prison sample comprised 257 men (no women) detained in regular prisons ( $M_{age} = 31.6$ ,  $SD_{age} = 9.8$ , range = 18 - 66), the general population sample comprised 2394 Dutch inhabitants (50% male, 50% female;  $M_{age} = 41.1$ ,  $SD_{age} = 14.5$ , range = 17 - 88). Significant differences between groups were found for Depression,  $F(2, 1432) = 146.24$ ,  $p = .000$ , Somatization,  $F(2, 1432) = 48.64$ ,  $p = .000$ , Hostility,  $F(2, 1432) = 88.66$ ,  $p = .000$ , Anxiety,  $F(2, 1432) = 86.20$ ,  $p = .000$ , Agoraphobia,  $F(2, 1432) = 27.73$ ,  $p = .000$ , Obsessive-Compulsive,  $F(2, 1432) = 62.00$ ,  $p = .000$ , Interpersonal Sensitivity,  $F(2, 1432) = 45.50$ ,  $p = .000$ , Sleep Problems,  $F(2, 1432) = 122.56$ ,  $p = .000$ , and overall Psychological distress,  $F(2, 1432) = 114.83$ ,  $p = .000$ . Tukey post-hoc tests showed that the scores of the subscales did not significantly differ between our police suspects and prisoners, all  $p$ 's > .05, however, the scores of both police suspects and prisoners were significantly higher than those of the general population sample, all  $p$ 's = .000.

The mean scores on the GSS (short form) are shown in Table 2.4 and compared to scores obtained in two previous studies in Dutch general population samples who used the same GSS short form (Hansen et al., 2010; Smeets et al., 2009). Hansen et al. (2010) tested 90 undergraduate students ( $M_{age} = 21$ ,  $SD_{age} = 3.54$ , range = 18 - 45; 29 male, 61 female), and Smeets et al. (2009) tested 80 undergraduate students ( $M_{age} = 21$ ,  $SD_{age} = 2.79$ , range unspecified; 19 male, 61 female). There were significant differences between groups for Yield 1,  $F(2, 191) = 7.67$ ,  $p < .01$ , Yield 2,  $F(2, 191) = 28.96$ ,  $p = .000$ , Shift,  $F(2, 191) = 22.31$ ,  $p = .000$ , and the Total score,  $F(2, 191) = 26.37$ ,  $p = .000$ . Tukey post-hoc tests revealed that the GSS scores of our sample were higher compared to scores obtained in the two previous studies, all  $p$ 's < .01, except for the score on Yield 1



**Table 2.3.** Means and standard deviations on the SCL-90-R-NL found in this study compared to previous research among Dutch police suspects, Dutch prisoners, and the general population.

Measure	Dutch police suspects <sup>a</sup> N = 149 M (SD)	Dutch prisoners <sup>b</sup> N = 250 M (SD)	Dutch general population <sup>b</sup> N = 1036 M (SD)
Depression	30.4 (13.7)	31.7 (13.23)	21.6 (7.6)
Somatization	20.3 (7.1)	20.3 (8.6)	16.7 (5.3)
Hostility	9.3 (3.4)	9.3 (4.0)	7.2 (2.1)
Anxiety	16.6 (6.3)	17.1 (7.7)	12.8 (4.4)
Agoraphobia	8.9 (2.8)	9.1 (3.4)	7.9 (2.3)
Insufficiency of thinking and acting	16.4 (6.2)	15.3 (5.9)	12.6 (4.3)
Interpersonal sensitivity	29.4 (10.3)	28.7 (11.4)	24.1 (7.6)
Sleeping problems	6.6 (3.0)	7.1 (3.8)	4.5 (2.2)
Psychoneuroticism	151.2 (47.2)	153.1 (52.0)	118.3 (32.4)

<sup>a</sup> This study.

<sup>b</sup> Arrindell & Ettema, 2005 (SCL-90-R-NL Manual).

**Table 2.4.** Means and standard deviations on the Gudjonsson Suggestibility Scale found in this study and two previous Dutch studies.

	This study N = 144 M (SD)	General population <sup>a</sup> N = 20 M (SD)	General population <sup>b</sup> N = 30 M (SD)
Yield 1	6.42 (3.34)	4.80 (2.76)	4.17 (2.38)
Yield 2	9.42 (3.60)	5.40 (3.59)	4.93 (2.46)
Shift	5.65 (2.87)	3.65 (1.79)	2.33 (1.75)
Total	12.07 (4.44)	8.45 (3.32)	6.47 (2.93)

<sup>a</sup> Results of the 'no delay/no recall' group (Smeets et al., 2009).

<sup>b</sup> Results of the group who received standard instructions for answering the questions (Hansen et al., 2010).

**Table 2.5.** Means and standard deviations on the GCS found in this study and in two previous Dutch studies.

	<i>N</i>	<i>Mean</i>	<i>SD</i>
Police suspects <sup>a</sup>	149	10.1	3.6
General population <sup>b</sup>	120	9.5	3.6
University students <sup>c</sup>	30	10.0	2.8

<sup>a</sup> This study.

<sup>b</sup> Smeets (2008).

<sup>c</sup> Hansen et al. (2010).

found in our sample, which did not differ from the score found in a general population sample,  $p > .05$  (Smeets et al., 2009).

The scores on the GCS are shown in Table 2.5 and compared to those from two previous studies (Hansen et al., 2010; Smeets, 2008), who used the same version of the GCS in the same Dutch general population samples. There were no significant differences found between the three samples,  $F(2, 296) = .99, p = .37$ .

## Discussion

Study 1 examined a number of key psychological vulnerabilities in Dutch police suspects, that is, mental health problems, an abnormal mental state, and the personality characteristics interrogative suggestibility and compliance.

We found that 60.4% of police suspects screened positively for further mental health examination, based on the BJMHS. Baksheev, Ogloff, and Thomas (2012) assessed 150 suspects ( $M_{age} = 30.4, SD_{age} = 9.0$ ; 90.7% male, 9.3% female) detained in two police stations in Melbourne, Australia, and found that 58.3% screened positively on the BJMHS. Dorn et al. (2013) assessed 248 suspects ( $M_{age} = 32.4, SD_{age} = 11.9$ ; 92% male, 8% female) in Amsterdam police detention centres, and found that the BJMHS screened 40% suspects as in need of further mental health examination. Both samples are fairly comparable to our sample in terms of age and gender composition.

Results showed that 21.5% of our police suspects used illegal drugs on a daily basis, which seems to be a lot higher than the general Dutch population (18 - 64 years) in which a lifetime prevalence of 3.8% and a 12-month prevalence of 0.9% was found (De Graaf, Ten Have, Gool, & Van Dorsselaer, 2012). Only 4% of police suspects reported they used alcohol on a daily basis in combination with drinking more than 15 glasses of

alcohol per week, which seems to be comparable to the 12- month prevalence of 3.7% found in the Dutch population (De Graaf et al., 2012).

In our sample, 38.3% scored positive on a screener for ADHD. The prevalence of ADHD among Dutch police suspects has not been subject of previous research. Yet compared to the prevalence of ADHD among adults from the Dutch general population, which is 2.1% (Tuithof, Ten Have, Van Dorsselaer, & De Graaf, 2014), ADHD seems to be (much) more common in police detainees.

On the DASS, police suspects scored significantly higher than a general population sample, and quite similar to a psychiatric out-patients sample, except for the Depression scale (De Beurs et al., 2001). The clinical sample was quite comparable with the present sample in terms of age.

The scores on the SCL-90-R-NL in our sample were also higher in comparison to a Dutch general population sample but did not differ significantly from scores of a Dutch prison sample (both samples provided in the Dutch SCL-90-R-NL test manual; Arrindell & Ettema, 2005). Age and gender composition of our sample and the Dutch prison sample were fairly similar.

The scores on interrogative suggestibility were significantly higher compared to previous studies in general population samples (Hansen et al., 2010; Smeets et al., 2009), which could be due the fact that research (Gudjonsson, 2003) has revealed higher levels of interrogative suggestibility in individuals with intellectual disabilities and mental health problems (e.g., anxiety, personality disorders). In contrast, compliance scores did not differ significantly from Dutch general population samples (Hansen et al., 2010; Smeets, 2008). Again, it must be noted that these samples only included (mostly female) undergraduate students.

In sum, our findings indicate that 38.3% of police suspects needed further assessment for ADHD, and 60.4% needed a more comprehensive mental health examination. Levels of self-reported psychopathology, depression, anxiety, stress, drug use, and interrogative suggestibility were significantly higher compared to general Dutch population samples. In line with previous studies (Dorn et al., 2013; Gudjonsson, 2003; Herrington & Roberts, 2012; Kassin et al., 2010), these findings demonstrate that police officers will frequently meet psychologically vulnerable suspects in their interrogation room – with the associated risks.

## Study 2

### Introduction

The findings of Study 1 confirm the high prevalence of psychological vulnerabilities among Dutch police suspects, echoing findings of previous studies (Baksheev et al., 2012; Blaauw, Kerkhof, & Vermunt, 1998; Gudjonsson, 1993). With such high base rates of psychological vulnerability, the question to what extent police detectives are able to identify vulnerable suspects becomes even more pertinent. We hypothesize that police officers who received specialized training in interrogation methods would have a more realistic view of the base rate of vulnerable suspects, compared to those who did not receive specialized training (Angermeyer & Dietrich, 2006; Herrington & Roberts, 2012; Lamb, Weinberger, & DeCuir, 2002; Ogloff et al., 2012). We are also interested in exploring what type of precautions police detectives take when they encounter vulnerable suspects in the interrogation room. To examine these research questions, we conducted an online survey among police detectives working at different divisions of the Dutch National Police.

### Method

#### Participants and procedure

Police detectives of different subdivisions (e.g., departments of criminal investigation, sexual offences, and financial crime) in seven different police regions of the Netherlands (i.e., Amsterdam, Limburg, Midden-Nederland, Oost-Brabant, Oost-Nederland, Rotterdam, and Zeeland West-Brabant) were invited by email in May 2016. They were asked to participate anonymously in a study on vulnerable suspects by completing an online questionnaire. The invitation email was sent to the manager of the division, with the request to forward the email, after his or her approval, to his or her team members, and to managers of other detective subdivisions. Repeated invitation requests were sent after three and five weeks. Because of a major reorganisation of the Dutch National Police at the time of Study 2, and the snowball method used, it was not feasible to keep a record of exactly how many police detectives were invited to participate. Eventually, 141 police detectives filled out the questionnaire.

#### Questionnaire

The questionnaire developed for Study 2 comprised 16 items. It started with a brief introduction to the study. Next, 10 questions were asked about demographic characteristics, such as age, gender, level of experience as a police officer/detective, education, and enrolment in specialized criminal investigation courses and advanced



interrogation courses. Further, participants were asked with open-ended questions how many interrogations they usually perform during one week (item 11), how many vulnerable suspects they had encountered during the past year (item 12), how they had recognised these vulnerable suspects (item 13), if they took any precautions when interrogating these suspects (item 14), and if so, what type of precautions they took (item 15), or if not, why they did not take precautions (item 16). After completing the questionnaire, a short briefing about the study was provided.

### Data Analysis

Out of the total sample ( $N = 141$ ), 38 questionnaires were incomplete and dropped from the analyses, which resulted in a total  $N$  of 103. The analyses for Study 2 were performed with IBM SPSS v24. First, means, standard deviations, and percentages were calculated for the descriptive variables, and second, the effect of the number of completed advanced detective courses on the number of identified vulnerable suspects was explored with a Kruskal Wallis test.

### Results

The age of the police detectives ( $N = 103$ ) ranged from 23 to 63 ( $M_{age} = 44.74$ ;  $SD_{age} = 11.95$ ,  $Mdn_{age} = 45.00$ ). The sample was predominantly male ( $n = 69$ ; 70%). They had worked an average of 21 years in the police force ( $M = 21.39$ ;  $SD = 12.92$ ), and about 11 years at an investigative unit ( $M = 11.42$ ;  $SD = 9.09$ ). About half of the police detectives ( $n = 51$ ; 49.5%) had followed one or two advanced level criminal investigation courses (e.g., courses on specific procedures or complex police investigations, for example in regard to severe, financial or sexual crimes), about one-third ( $n = 29$ ; 28.3%) had followed three or more advanced level criminal investigation courses, yet 23 (22.3%) police detectives had not completed any advanced training. On average, police detectives performed 2.54 interrogations per week ( $SD = 3.13$ , range = 0 - 15). Their estimate of how many vulnerable suspects they saw during the past 12 months ranged from 0 to 90 ( $M = 4.63$ ,  $SD = 12.13$ ,  $Mdn = 0.00$ ). Most police detectives ( $n = 57$ ; 55.3%) answered they had not seen a vulnerable suspect during the past 12 months. Furthermore, 78 (75.7%) police detectives had not received any advanced interrogation training, and 22 (21.4%) police detectives had completed one advanced interrogation training. Only three (2.9%) police detectives received two or more advanced interrogation training courses and a specific training on interrogating vulnerable witnesses and suspects. These three detectives gave somewhat different answers. The first detective answered that he/she performed 152 interrogations in the past 12 months, and that he/she identified only five vulnerable suspects (3.3%

of the interrogations) – without any further explanation. The second detective stated he/she interrogated 52 suspects himself/herself but was only called in for assistance during one interrogation (1.9%) of a known vulnerable suspect (a suspect with a mental illness). The third detective stated he/she had interrogated 52 suspects in the past 12 months, and to have seen 52 vulnerable suspects as well (100% of the interrogations).

Next, we explored whether police officers are able to identify vulnerable suspects. We did not provide a definition of a vulnerable suspect in order not to influence the answers of the detectives, yet we asked them: 'How did you recognise a vulnerable suspect?' Only 46 police detectives answered this question. Fifteen police detectives (14.6%) stated they knew beforehand they were going to interrogate a vulnerable suspect (because of a known mental illness or substance use disorder or because the suspect had previously been admitted to a psychiatric institution), and 17 police detectives (16.5%) observed abnormal behaviours during the interrogation (i.e., the suspect acted strangely, did not understand questions, or did not respond adequately to questions). A combination of the latter two situations was mentioned by 13 (12.6%) police detectives. One detective stated that all suspects are potentially vulnerable.

In addition, police detectives were asked if they took any precautions when they thought a suspect might be a vulnerable suspect. About half ( $n = 57$ ; 55.3%) stated they did not take any special precautions. A probing question to describe which precautions they took in case they met a vulnerable suspect during interrogation was answered by 43 police officers, who mentioned the following options: seeking the assistance of a police psychologist ( $n = 17$ ; 39.5%), contacting the public prosecutor or their supervisor before they started the interrogation ( $n = 4$ ; 9.3%), enlisting the help of a specialised police detective to perform the interrogation ( $n = 3$ ; 7.0%), adjustment of interrogation techniques ( $n = 2$ ; 4.7%), audio recording the interrogation ( $n = 2$ ; 4.7%), or a combination of any of these ( $n = 15$ ; 34.6%). Contrary to our hypothesis, we did not find a significant association between the number of advanced level criminal investigation courses taken (none vs. 1 - 2 vs.  $\geq 3$ ) and the number of identified vulnerable suspects reported over a period of 12 months,  $H(2) = 4.94$ ,  $p = .09$ , with a mean rank of 56.91 for none ( $n = 23$ ), 52.40 for 1 - 2 ( $n = 51$ ), and 47.40 for  $\geq 3$  ( $n = 29$ ) advanced level criminal investigation courses. We also did not find a significant association between the number of specific interrogation courses taken (none vs. 1 vs.  $\geq 2$ ) and the number of identified vulnerable suspects,  $H(2) = 5.60$ ,  $p = .06$ , with a mean rank of 55.21 for none ( $n = 78$ ), 40.50 for 1 ( $n = 22$ ), and 53.00 for  $\geq 2$  ( $n = 3$ ) specialized interrogation courses.

## Discussion

Study 2 explored the views of police detectives on the identification of vulnerable suspects. We hypothesized that most police detectives do not recognize vulnerable suspects and therefore underestimate the base rate of vulnerability in suspects; we also hypothesized that specialized interrogation training would result in more realistic base rate estimations ability to detect vulnerable suspects (Angermeyer & Ditrich, 2006; Herrington & Roberts, 2012; Lamb et al., 2002). In addition, we asked police detectives about the precautions they take when they encounter vulnerable suspects.

Our participants ( $N = 103$ ) had an average of 21 years' experience working in the police force, and 11 years as a police detective in a criminal investigation unit. Most police detectives (about 78%) had completed advanced criminal investigation courses, yet, despite the high number of years of police and detective experience, most of them (about 74%) had never taken an specialized interrogation course. Police detectives reported they had encountered an average of five vulnerable suspects during the past 12 months, while they reported an average of 2.5 interrogations per week. About 55% of detectives stated they had not interrogated any vulnerable suspects in the past 12 months.

The number of completed courses on criminal investigation was unrelated to the number of vulnerable suspects police detectives reported to have seen during the previous 12 months. Successfully completing a specialized interrogation course seemed unrelated to a more realistic base rate expectation regarding vulnerable suspects. Even the three detectives who received the most advanced training in interrogating vulnerable suspects currently available in the Netherlands (Politieacademie, 2017) gave quite different answers to the question how many vulnerable suspects they had seen during the past year (2%, 34% and 100% of the interrogations, respectively). About half of all detectives (55%) stated they did not take special precautions when they knew they were interrogating a vulnerable suspect. About 42% responded they would request the assistance of a police psychologist, public prosecutor, supervisor, or a specialized police interrogator, adjust their interrogation techniques, and/or audiotape the interview when interrogating a vulnerable suspect.

## General discussion

The findings of Study 1 indicate that a majority (60%) of police suspects ( $N = 149$ ) has mental health problems, which concurs with previous studies (Blaauw et al., 1998; Ceelen et al., 2012; Ogloff et al., 2012). Study 2 reveals that police detectives ( $N = 103$ ) on average reported 4.63 vulnerable suspects over the course of 132 interrogations in a year's time, resulting in an estimated prevalence of 3.5%, which is obviously a grave underestimation compared to the actual prevalence rate of 60% as determined by means of psychological assessment.

The combined findings of Study 1 and 2 suggest that base rate neglect (a form of selective attention to pertinent information whereby base-rate information is ignored; Case, Fantino, & Goodie, 1999) regarding psychological vulnerabilities in suspects is a problem among police detectives. Many police detectives appear to hold inaccurate beliefs regarding vulnerabilities in suspects, and these beliefs may have implications for their professional conduct and decision making, for instance, in terms of not taking precautions when interrogating vulnerable people. Without accurate knowledge of the high prevalence of psychological vulnerabilities in police suspects, detectives are less likely to notice these vulnerabilities and to take them into account, as the findings of Study 2 demonstrate.

Second, about three-quarters of our police detectives stated they had not received specialized interrogation training. This is worrisome because interrogating suspects is core businesses of detective work (Farrugia & Milne, 2012; Gudjonsson, 2003). Previous research has shown that training and repeated feedback is pivotal for effective interrogation (Clark, Milne, & Bull, 2011; Farrugia & Milne, 2012; Vrij, 2003). It has been previously shown that even after extensive, three-weeks interrogation training, interviewing skills deteriorate over time (Griffiths & Milne, 2006), suggesting that basic training alone is not enough. Continued coaching and supervision of interrogations is essential because police officers find it difficult to maintain complex social and communication skills after basic training (Clark et al., 2011).

### Strengths and limitations

A strong point of Study 1 is that the assessments took place in the real-world environment of police detention centres, which not necessarily offer optimal conditions for mental health. Gudjonsson et al. (1993) and Baksheev et al. (2012) also conducted their studies in police detention centres and these conditions obviously increase the ecological validity of the findings. We used both self-report (e.g., SCL-90-R-NL, DASS) methods and an assessor-administered rating tool (BJMHS) to assess mental health problems,





with both revealing high prevalence rates, adding to the robustness of our findings. Another strong point of Study 1, compared to prior ones on the same topic, is that we included a measure of positive malingering in our test battery and excluded suspects who screened positive on this measure. Thus, we made sure our (high) prevalence rate would not be due to over-reporting. An important limitation of Study 1 – yet one which could not be prevented – is that an unknown number of suspects could not be included in the study, for different reasons (e.g., unwillingness to participate, being aggressive, poor language proficiency, or alcohol or drug intoxication). Another limitation is that we were unable to control the exact circumstances in which the assessments took place. The rooms in the six police detention centres slightly differed in terms of colour, and the presence of a window and daylight, which could be a subject for further research.

A strength of Study 2 is that it provides insight in the views of Dutch police officers about their ability to estimate how often they engage vulnerable suspects, and how they execute interrogations of these suspects. An important limitation of Study 2 is that we were unable to control the recruitment process, due to the extensive reorganisation of the Dutch police at the time of the study. An online questionnaire was chosen instead of another research method in order to invite as many police detectives as possible, and because a qualitative research method would have taken a substantially longer time. In addition, we were not able to send an email to all Dutch police detectives because we did not have access to email addresses of all detective subdivisions of the (former) 26 police forces. Therefore, known contacts from different detective subdivisions in seven police forces were approached and asked to forward the invitation email to members of their teams and other detective subdivisions. This snowball method to recruit the detectives may have resulted in selection bias. Because we only know in which police region (for reasons of anonymity) the detectives worked, it is unknown to what extent the 103 participants are representative for all Dutch police detectives. A second limitation is that the questionnaire did not contain a definition of a vulnerable suspect. This was done on purpose in order not to influence the answers of the police detectives about their knowledge of psychological vulnerabilities in police suspects, yet in hindsight, a definition could perhaps have provided more insight.

## Conclusion

Psychological vulnerabilities are highly prevalent among police suspects. Compounded by the serious underestimation of the base rate of psychological vulnerability by police detectives and their tendency to not take special precautions during interrogations, vulnerable suspects may face risks in Dutch interrogation rooms. Important first steps are raising awareness of the high base rate of different psychological vulnerabilities in suspects and appealing to police officers to take precautions when interrogating vulnerable suspects. Subsequent steps need to include special training in advanced interrogation techniques, especially for detectives who are involved in more complex cases, as well as continued supervision and feedback regarding interrogation style.



If I were you, I would rather confess,  
otherwise they probably will postpone  
your case until after Christmas,  
and you will be detained  
during Christmas!

Police officer to a suspect at  
the Mijkenbroek Police Detention Centre,  
Breda, the Netherlands.  
(Christmas Eve, 2014)

## Chapter Three

# Screening for intellectual disability in Dutch police suspects

This chapter is a modified version of the published paper:  
Geijsen, K., Kop, N., & De Ruiter, C. (2018). Screening for intellectual  
disability in Dutch police suspects. *Journal of Investigative  
Psychology and Offender Profiling*, 1-15. Published online  
14 April 2018. DOI: [10.1002/jip.1502](https://doi.org/10.1002/jip.1502).

## Introduction

On 28 October, 2009, a 21-year old man was summoned to a Dutch police station for interrogation. He was suspected of having seduced a 16-year old girl to perform sexual acts in front of a webcam, but in the invitation letter the police did not mention he was a suspect in a sexual offence case. The man came to the police station and agreed to participate in the interrogation voluntarily without being arrested. Early on, the young man stated that he received special education in the past, and that he resided in an assisted living residence, yet despite this information, the police interrogators did not notify the man he could have access to a lawyer, and they proceeded to interrogate him about the alleged sexual offence. In the subsequent verdict, the court recognized it had been obvious the suspect was suffering from intellectual disability and that he was not able to oversee his situation and to determine his position during the police investigation, hence, the court blamed the police officers for not having informed the suspect he had access to a lawyer and ruled that his statement was deemed inadmissible because of violation of the principle of a fair trial (Arnhem Court, 2011).

The above is an example of recent Dutch jurisprudence, which illustrates that it is important that police officers take certain vulnerabilities of suspects (e.g., intellectual disability) into account during interrogation in order to obtain accurate statements (Gudjonsson & Joyce, 2011). The level of intellectual functioning, generally determined by means of IQ (Intelligence Quotient) tests, can be described as 'the aggregate or global capacity of the individual to act purposefully, to think rationally and to deal effectively with his environment' (Wechsler, 1944, p. 3), or as 'the ability to understand complex ideas, to learn from experience, to engage in various forms of reasoning, and to overcome obstacles by taking thought' (Neisser et al., 1996, p. 77). At present, the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013) defines intellectual disability as a disorder that includes both intellectual and adaptive functioning deficits in conceptual, social, and practical areas, with an onset during the developmental period. The conceptual area refers to skills in knowledge, memory, reading, writing, math, reasoning, and language. The social area includes, for example, empathy, communication skills, and social judgement. The practical area refers to self-management in, for example, personal care, organizing school and work, and financial matters. The classification of intellectual disability across the three areas must be based on both clinical assessment and standardized intelligence testing (American Psychiatric Association, 2013).

Research has demonstrated that suspects who suffer from intellectual disability face problems understanding their legal rights and interrogation questions, overseeing

consequences of answers, and giving a reliable, accurate and coherent statement during police interrogations (Gudjonsson, 2010; Kassin, 2012; Scheyett, Vaughn, Taylor, & Parish, 2009). Intellectually disabled suspects are more vulnerable to give in to leading questions (interrogative suggestibility), react more compliant to authority figures (compliance), and produce more memories that are imagined or distorted (confabulation) (Gudjonsson & Joyce, 2011; Scheyett et al., 2009). Hence, police officers must take precautions when interrogating suspects with intellectual disability (Gudjonsson, 2003; Kassin et al., 2010; O'Mahony, Milne, & Grant, 2012) by, for example, asking questions in a simple and clear way, using short sentences and speaking more slowly, and avoiding leading questions and interruptions (Gudjonsson & Joyce, 2011; Herrington & Roberts, 2012). Police officers, however, are not particularly apt at detecting individuals with intellectual disabilities (Gudjonsson, 2003; Parton, Day, & White, 2004). Furthermore, many intellectually disabled individuals develop strategies to disguise their cognitive and social limitations in trying to cope with the demand characteristics of their surroundings (Gudjonsson, 2003; Hayes, Shackell, Mottram, & Lancaster, 2007; Scheyett et al., 2009), making it even harder to notice their disability.

Kaal, Nijman, and Moonen (2013) recently introduced the Screener for Intelligence and Learning Disabilities (SCIL), a screener for mild intellectual disability among persons older than 18 years. While an assessment with the Wechsler Adult Intelligent Scale (WAIS; Wechsler, 1997) or the Kaufman Adolescent and Adult Intelligence Test (KAIT; Kaufman & Kaufman, 2004) is not always possible because of time constraints, the SCIL contains only 14 items and can be administered in about 10 minutes. The DSM-5 (American Psychological Association, 2013) defines intellectual disability by an IQ lower than 70. However, people with an IQ between 70 and 85, a so-called borderline IQ, possess cognitive and learning characteristics, which are comparable to those of people with an IQ between 50 and 70 (Parton, Day, & White, 2004; Roos, 2014). Hence, there is a fine line between people with a borderline IQ and people with more severe intellectual disabilities (Hayes, 2007). For this reason, in the Netherlands mild intellectual disability is defined by an IQ score between 50 and 85, which provides the person access to certain psychological and social services (Roos, 2014). In view of this, the Dutch SCIL defines mild intellectual disability as an IQ lower than 85 (Kaal et al., 2013).

The SCIL was constructed on the basis of four sources. The first source was the Hayes Ability Screening Index (HASI; Hayes, 2002), which includes self-report questions, backwards spelling of a five-letter word, a trail-making test, and a clock-drawing test. The HASI was validated on the basis of the Kaufman Brief Intelligence Test (KBIT; Kaufman & Kaufman, 2004) and the Vineland Adaptive Behaviour Scale (VABS; Sparrow,

Balla, & Cicchetti, 1984), and screens for an IQ below 70. The second source was the Learning Disability in the Probation Service (LIPS; Mason & Murphy, 2002). This test contains items about demographic characteristics, a clock-drawing test, items about social-adaptive abilities and self-report questions relating to identity, education and mental health needs. The LIPS was validated against the WAIS-R (Wechsler, 1981) and screens for an IQ below 75 (Mason & Murphy, 2002). The third source was the Learning Disability Screening Questionnaire (LDSQ; McKenzie, Michie, Murray, & Hales, 2012) that contains items about telling time, educational history, healthcare, personal circumstances, and reading and writing abilities. The LDSQ was validated by means of the WAIS-III (Wechsler, 1997) and screens for an IQ below 70 (McKenzie et al., 2012). Next, the developers of the SCIL consulted a fourth source, namely experts from the Dutch institution De Borg specializing in the care for clients with intellectual disability in combination with severe behavioural problems. These experts advised focussing on education, social abilities, arithmetic, reading and writing abilities, and language comprehension. Based on a validation study in a sample of 318 subjects recruited from various educational and mental health institutions, 14 items were selected (out of a test version with 48 items) which correlated strongly with intellectual capacity (based on WAIS-III-NL IQ scores) (Kaal et al., 2013).

To date, little is known about intellectual disability among suspects in police custody (McKinnon & Grubin, 2010), which applies to the Netherlands as well (Kaal, 2014). Furthermore, the SCIL has not been tested as a screener in a sample of suspects in police custody. Therefore, the present study has two goals. The first and main goal is an examination of the predictive validity of the SCIL for mild intellectual disability (IQ < 85) among suspects who are taken into police custody on a charge of a criminal offence. A previously validated 15 minutes short form (SF) of the WAIS-III scales, which contains four subtests (Arithmetic, Block Design, Digit Symbol Coding, and Information; Velthorst et al., 2013), is used as the criterion measure. Velthorst et al. (2013) showed that this method provided a valid full IQ score approximation in research and clinical settings (overall  $R = .95$ ;  $R^2 = .91$ ,  $CI = .87 - .95$ ). A principal component analysis (PCA) will be used to examine the interrelations among the SCIL items and to gain more insight into its factor structure. In addition, we will explore correlations between the four subtests of the WAIS-III and the 14 items of the SCIL. Our hypothesis is that the SCIL has adequate predictive validity to screen for individuals who suffer from mild intellectual disability (IQ below 85; Kaal et al., 2013) in a sample of Dutch police suspects.

The second goal of our study is to provide an estimate of the prevalence of intellectual disability among police suspects in The Netherlands. We expect this

prevalence will be comparable with a previous study on police suspects in the United Kingdom, that is, that about 42% of police suspects have an IQ score between 70 and 79, and that about 8% of police suspects have an IQ score below 70 (Gudjonsson, Clare, Rutter, & Pearse, 1993). We will compare our obtained rate to prevalence rates previously found in police suspects (Young, Goodwin, Sedgwick, & Gudjonsson, 2013) and detainees in regular prisons (Hayes et al., 2007; Parton et al., 2004; Søndena, Rasmussen, Palmstierna, & Nøttestad, 2008) from other Western countries.

## Method

### Participants

The sample of police suspects in this study is the same sample as described in Chapter Two. The participants were suspects placed in continued police custody ( $N = 178$ ). Their age ranged from 18 to 63 years ( $M_{age} = 31.7$ ,  $SD_{age} = 11.2$ ,  $Mdn_{age} = 27.5$ ). They were recruited from six different police detention centres across the Netherlands between June 24, 2014 and May 7, 2015. The sample distribution across the different police detention centres was: Amsterdam ( $n = 37$ ), Breda ( $n = 35$ ), Eindhoven ( $n = 31$ ), Heerlen ( $n = 26$ ), Tilburg ( $n = 8$ ), and Maastricht ( $n = 41$ ).

Only police suspects who were not clearly under the influence of alcohol or drugs, able to speak the Dutch language, and at least 18 years of age, were invited to participate. Suspects who were thought to suffer from a major mental disorder (e.g., when a subject was placed in a police cell with permanent video surveillance due to known mental illness or medical condition, or when a subject was about to be presented to a medical doctor or psychiatrist because of urgent physical and/or mental health problems), were neither able nor allowed by the police to participate and hence excluded from participation.

Over the course of the study, 63 assessments had to be terminated due to major language problems (poor Dutch language proficiency) that led to, for example, misunderstanding of instructions and questions. Twenty-one assessments were interrupted and subsequently terminated because of unforeseen developments in the criminal investigation process (e.g., unexpected interrogations, visits of lawyers, or immediate release of the suspect). Directly after the start of the assessment, 13 participants stated or implied that they were suffering from a serious mental disorder. Ultimately, 178 police suspects voluntarily agreed to participate and completed the assessment procedure. One of the 178 participants did not complete the SCIL (this case was coded as missing).



Unfortunately, it was not feasible to keep record of all suspects who were detained in the detention centres during the period of data collection. A number of suspects were released within six hours after being placed in police custody and, consequently, could not be asked to participate. Another set of suspects was placed in police custody for a rather brief period, for example, in association with unpaid fines, refugee detention, or awaiting transit to prison. In addition, a significant number of detainees could not be assessed due to serious mental health problems, the abuse of drugs or alcohol, or withdrawal symptoms. Official police registration systems could not be used to compensate for the lack of information on the total number of suspects in the detention centres, for privacy reasons.

### **Procedure**

The psychological assessments were carried out by a M.Sc. psychologist (first author), and three psychologists-in-training. The latter were second year Master's students in Forensic Psychology from Maastricht University, who were trained in different clinical assessment skills, and were closely supervised during the assessments for this study. Police suspects were approached by the assessors in their cells, where they were briefly informed about the purpose of the study. If a suspect responded positively to the invitation to participate, he or she was taken to a separate room where details of the study, the procedures, and the informed consent were explained. All potential participants were told that participation would be completely anonymous, that the assessors were bound by professional confidentiality, and that the assessment results could not be used in a police investigation in any way. Potential participants were also assured they were free to withdraw from the assessment at any moment. Finally, all participants were asked to sign an informed consent before starting the assessment.

Three precautions were taken in order to assure the assessment would not harm suspects' legal rights. First, according to article 67 of the Code of Criminal Procedure (2018), only suspects placed in continued detention (*inverzekeringstelling*) were invited to participate. In the Netherlands, suspects may be placed in continued detention when (1) they are suspected of having committed a criminal offence for which they could be sentenced to imprisonment for four years or more, or (2) when they are suspected of a number of specifically described criminal offences (e.g., theft, assault, fraud), or (3) when they are suspected of a criminal offence in combination with being homeless. Second, before inviting suspects to participate, it was determined that the suspect would stay in continued detention for the next few hours and that the assessment would not interfere with any planned investigative activities. Third, the assessment was limited in duration to one to one-and-a-half hours.

This study was approved by the standing Ethical Review Committee Psychology and Neuroscience of Maastricht University (ERCPN number: 03\_10\_2014), the Office of the Attorney General of the Netherlands, and the Chief Constable of the National Police of the Netherlands.

## Measures

The instruments mentioned below were part of a larger battery of psychological instruments, in order to assess different psychological vulnerabilities.

### Screenener for Intelligence and Learning Disabilities (SCIL)

The SCIL (Kaal et al., 2013; Moonen, Kaal, & Nijman, 2012) comprises 14 items that provide an indication for mild intellectual disability, defined by a full-scale IQ score below 85 (Kaal et al., 2013). Items 1 to 3 refer to educational background (i.e., special education, type of school diploma, and professional assistance in regard to possible intellectual disability). Kaal et al. (2013) argued that a low educational level or special needs education served as an indication for intellectual disability. Item 4 assesses the availability of a social support network the person could rely on when problems arise. Items 5 to 8 and 11 to 13 include cognitively challenging tasks, including arithmetic, writing and reading, and these are usually challenging for people with intellectual disability; performance on these tasks correlates with IQ. Items 9, 10 and 14 address language comprehension and behaviour (i.e., reading newspapers or magazines, comprehension of a Dutch saying, and telling time), which correlate with IQ as well.

A reliability analysis of the 14 items of the SCIL showed a Cronbach's alpha  $\alpha = .84$  (Kaal et al., 2013). In the present sample ( $N = 177$ ), Cronbach's alpha of the 14 SCIL-items was  $\alpha = .64$ . After two weeks, 28 people of the original Kaal et al. (2013) sample were retested resulting in a high test-retest reliability,  $r = .92$ ,  $p = .000$ . Kaal and colleagues (2013) tested the validity of the SCIL with a Receiver Operating Characteristic (ROC) analysis used to determine an optimal cut-off score based on the Area Under the Curve (AUC; Streiner & Cairney, 2007). It was found that a cut-off score of 19 indicated an AUC value of .93, which means that there is a chance of 93% that a random individual with intellectual disability (i.e., an IQ score lower than 85) will score lower than an individual without intellectual disability (Kaal et al., 2013). The corresponding sensitivity was .82, and the specificity was .89, which indicates that the SCIL correctly identified 82% of people suffering from intellectual disability, whereas the screener mistakenly identified about 11% of people without intellectual disability as suffering from intellectual disability (Kaal et al., 2013).

### Wechsler Adult Intelligence Scale, 3rd edition, Dutch Version (WAIS-III-NL)

As previously mentioned, suspects with intellectual disabilities may face serious problems during police interrogations with understanding legal rights and questions, making rational decisions, and overseeing implications of their answers (Gudjonsson & Joyce, 2011; Young et al., 2013). Because these problems concern to cognitive abilities, we decided to use an IQ test, and did not perform further assessments of the conceptual, social, and practical aspects, which is required to determine intellectual disabilities according to the DSM-5 (American Psychological Association, 2013).

A WAIS-III-NL SF was used to estimate general intellectual ability. Velthorst et al. (2013) constructed this SF, which consists of four subtests of the WAIS-III-NL (Wechsler, 1997; Dutch version: Uterwijk, 2000), namely: Information (Verbal Comprehension), Block design (Perceptual Organization), Arithmetic (Working Memory), and Symbol Substitution (Processing Speed). The participants of the original validation study were 75 patients diagnosed with schizophrenia, 73 of their non-schizophrenia siblings, and 84 unrelated and healthy controls (Velthorst et al., 2013). The correlation coefficient between the WAIS-III-NL (Uterwijk, 2000) and the WAIS-III-NL SF (Velthorst et al., 2013) was  $r = .95$ , and the four subtests showed adequate predictive accuracy and differentiated well between patients, relatives and healthy controls. In sum, the WAIS-III-NL SF is a valid alternative to estimate general intellectual ability (Velthorst et al., 2013).

### Data analysis

First, a Principal Component Analysis (PCA) was performed with orthogonal rotation (Varimax with Kaiser normalization; Kaiser, 1974) to gain more insight into the factor structure of the SCIL. Second, IQ scores were calculated based on the WAIS-III-NL SF. Third, the predictive validity of the SCIL was examined using ROC analysis, which provides an AUC value and an optimal cut-off score. The dichotomous outcome criterion used in the ROC analysis was  $IQ < 85$  vs.  $IQ \geq 85$ , as estimated by the WAIS-III-NL SF. Fourth, the correlations between the 14 SCIL items and IQ scores were calculated using Pearson's  $r$ . Statistical analyses were performed with IBM SPSS Statistics v24.

## Results

First, a principal component analysis (PCA) was conducted on the 14 SCIL items. In order to verify the sample adequacy for a PCA, the Kaiser-Meyer-Olkin (KMO) measure was inspected. All items met the minimum criterion of  $KMO > .50$  (Stevens, 2009), the average  $KMO$  was  $.70$ , and all individual items showed  $KMO > .64$ . The correlation coefficients between the 14 items were significantly different from zero and were sufficiently large for a PCA, Bartlett's test of sphericity was  $\chi^2(91) = 283.11$  ( $p = .000$ ). Slightly ambiguous scree plots as shown in Figure 3.1 provided inflexions that would justify retaining two or four components. Because the original SCIL consisted of four a priori factors (Factor 1 'Education'; Factor 2 'Social Contacts'; Factor 3 'Arithmetic, Reading and Writing Abilities'; Factor 4 'Language Comprehension and Behaviour'; Kaal et al., 2013), we decided to retain four components. The four components showed eigenvalues over Kaiser's criterion of 1 and explained 47.7% of the variance. The factor loadings after rotation are shown in Table 3.1, which indicated that the original four factors were not clearly replicated in both samples.

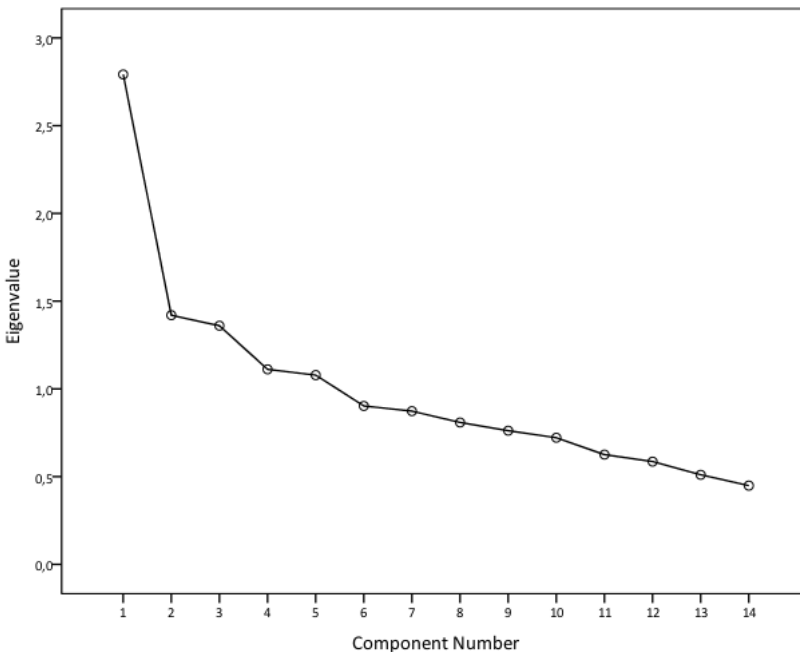


Figure 3.1. Scree plot of the principal component analysis on the 14 items of the SCIL.

Third, IQ scores were calculated based on the WAIS-III-NL SF (Velthorst et al., 2013). IQ scores ranged from 49 to 112,  $M = 75.2$ ,  $SD = 11.3$ ,  $Mdn = 75.00$ . Table 3.2 provides an overview of IQ categories based on the classification by Resing and Blok (2002), a classification commonly used by health professionals in the Netherlands and within Dutch public social services. Results showed that, of our sample, 28.7% had an IQ below 70, 39.3% had an IQ between 70 - 79, 21.9% had an IQ between 80 - 89, and only 10.1% had an IQ above 90. In addition, 55.6% (99 participants) had a borderline IQ (IQ between 70 - 84).

**Table 3.1.** Principal Component Analysis (rotated component matrix) on the 14 items of the SCIL ( $N = 177$ ).

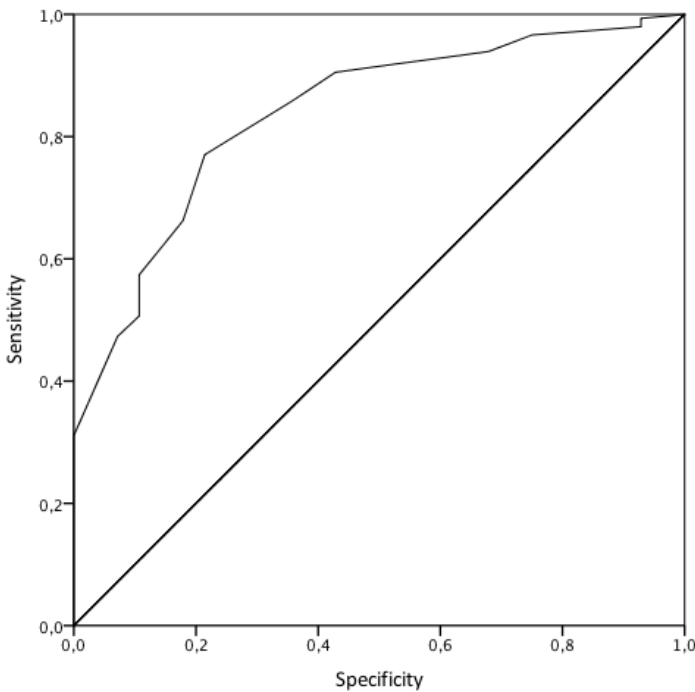
Item	Component			
	1	2	3	4
1		.72		
2		.49		
3		.65		
10		.53		
6	.38			
7	.42			
8	.59			
12	.72			
13	.68			
5			.61	
11			.58	
14			.75	
4				.66
9				.59

Note. Rotation method is Varimax with Kaiser normalization.  
 Component 1: Eigenvalue 2.79 (% of variance = 19.94),  $\alpha = .55$ .  
 Component 2: Eigenvalue 1.42 (% of variance = 10.14),  $\alpha = .51$ .  
 Component 3: Eigenvalue 1.36 (% of variance = 9.71),  $\alpha = .47$ .  
 Component 4: Eigenvalue 1.11 (% of variance = 7.94),  $\alpha = .14$ .

**Table 3.2.** Numbers and percentages of Resing & Blok IQ categories (2002), based on the WAIS-III-NL SF (N = 178).

IQ category (IQ scale values)	<i>n</i>	Percentage	Cumulative percentage
1. Mild mental retardation ( $\leq 69$ )	51	28.7	28.7
2. Well below average (70-79)	70	39.3	68.0
3. Below average (80-89)	39	21.9	89.9
4. Average (90-109)	16	9.0	98.9
5. Above average ( $\geq 110$ )	2	1.1	100.0

3



**Figure 3.2.** Receiver operating characteristic analysis of the SCIL based on the on the WAIS-III-NL SF (cut-off score IQ < 85).

Fourth, ROC analyses were performed to examine the predictive validity of the SCIL for detecting intellectual disability (IQ < 85), which resulted in an AUC value of .78 ( $SD = .04, p = .000$ ). Results of the ROC analysis are shown in Figure 3.2 and Table 3.3. Furthermore, the SCIL screened 89 (50.0%) participants as suffering from mild intellectual disability (IQ < 85; Kaal et al., 2013), while the four subtests of the WAIS classified 150 (84.3%) participants as having an IQ below 85.

**Table 3.3.** Sensitivity and specificity for different SCIL cut-off scores with a cut-off IQ score of 85 ( $N = 177$ ).

Cut-off point	Sensitivity	Specificity
3.0	.00	1.00
5.5	.00	.99
7.5	.02	.99
8.5	.04	.99
9.5	.06	.99
10.5	.10	.98
11.5	.18	.97
12.5	.20	.95
13.5	.26	.94
14.5	.38	.90
15.5	.54	.85
16.5	.68	.80
17.5	.72	.71
18.5	.76	.68
19.5	.80	.61
20.5	.86	.52
21.5	.88	.39
22.5	.92	.28
23.5	.98	.23
24.5	1.00	.14
25.5	1.00	.09
26.5	1.00	.04
27.5	1.00	.02
29.0	1.00	.00

**Table 3.4.** Correlation matrix between the IQ scores of the WAIS-III-NL SF and the 14 items of the SCIL<sup>1</sup> (N = 177).

	IQ score	SCIL 1	SCIL 2	SCIL 3	SCIL 4	SCIL 5	SCIL 6	SCIL 7	SCIL 8	SCIL 9	SCIL 10	SCIL 11	SCIL 12	SCIL 13	SCIL 14
IQ score	1	.21**	.29**	.06	.07	.25**	.28**	.24**	.27**	.05	.38**	.36**	.37**	.24**	.19**
SCIL 1		1	.36**	.24**	.11	.01	.11	.17*	.06	.02	.21**	.07	.09	-.03	.01
SCIL 2			1	.17**	.16**	.12	.16*	.23*	.24**	.19*	.15	.22**	.22**	.20**	.05
SCIL 3				1	-.00	.08	.00	.26	.81	-.08	.18*	.23**	.06	.05	.06
SCIL 4					1	-.02	-.01	.01	.10	.08	-.02	.02	-.08	.02	.04
SCIL 5						1	.04	.14	.08	-.05	.20**	.30**	.18*	.09	.20**
SCIL 6							1	.16*	.15*	.18*	.13	.32**	.20*	.15	.14
SCIL 7								1	.09	.13	.18*	.36**	.29**	.11	.01
SCIL 8									1	.09	.07	.22**	.35**	.28**	.13
SCIL 9										1	-.07	.04	.15*	.00	.02
SCIL 10											1	.32**	.13	.04	.09
SCIL 11												1	.26**	.20**	.21**
SCIL 12													1	.27**	.09
SCIL 13														1	-.03
SCIL 14															1

<sup>1</sup> Items 1-3: educational background; item 4: social support network; items 5-8 and 11-13: cognitive challenging tasks; items 9, 10, and 14: language comprehension and behaviour.

\*\* Correlation was significant at the .01 level (two-tailed).

\* Correlation was significant at the .05 level (two-tailed).



Results showed that the correlation between the SCIL total score and IQ scores based on the WAIS-III-NL SF was moderate,  $r = .56$ ,  $p = .000$ . Correlations between IQ scores and the 14 SCIL items are presented in Table 3.4. SCIL items 3, 4, and 9 (i.e., contact with social services, social safety net, and reading newspapers and magazines) did not correlate significantly with IQ, however, items on educational background (items 1 and 2), comprehension of a Dutch saying (item 10), and the more cognitively challenging items (items 5 - 8 and 11 - 14) did correlate significantly with IQ ( $r$ 's between .19 and .38).

Finally, IQ scores obtained in our sample were compared to IQ scores obtained in previous studies on suspects in police custody and detainees in regular prisons (see Table 3.5). Because previous studies used different IQ-measures and score cut-offs, Table 3.5 shows various categories (< 70, 70 - 79, and 70 - 84) and the different test instruments for comparative purposes.

**Table 3.5.** IQ-scores of suspects in police custody and in prison from previous studies compared to the present study.

Study	Country; setting; participants	Instrument	IQ	Percentage
Present study	Netherlands; police custody; N = 178	WAIS-III-NL SF <sup>1</sup>	<70	28.7
			70-79	39.3
			70-84	55.6
Gudjonsson et al. (1993)	England; police custody; N = 156	WAIS-R <sup>2</sup>	<70	8.6
			70-79	42.0
Hayes et al. (2007)	England; prison; N = 140	WAIS-III-UK <sup>3</sup>	<70	7.1
			70-79	23.6
Murphy et al. (2017)	England; prison; N = 2,429	LDSQ <sup>4</sup>	<70	7.0
Parton et al. (2004)	Australia; prison; N = 74	WASI <sup>5</sup>	55-69	9.5
			70-79	23.0
Søndena et al. (2008)	Norway; prison; N = 143	WASI <sup>5</sup> , HASI <sup>6</sup>	<70	10.8
			70-84	20.1
Young et al. (2013)	England; police custody; N = 195	LDSQ <sup>4</sup>	<70	6.7

<sup>1</sup> Velthorst et al., 2013; <sup>2</sup> Wechsler, 1981; <sup>3</sup> Wechsler, 1999b; <sup>4</sup> McKenzie et al., 2012;

<sup>5</sup> Wechsler, 1999a; <sup>6</sup> Hayes, 2000.

## Discussion

Early identification of intellectual disabilities in police suspects is essential in view of an effective and efficient investigation process (Gudjonsson & Joyce, 2011; Herrington & Roberts, 2012; Sheyett et al., 2009). Up until now, not much is known about the prevalence of intellectual disabilities in police suspects in the Netherlands (Kaal, 2014). The main goal of this study was to explore the predictive validity of the recently developed Screener for Intelligence and Learning Disability (SCIL) in suspects in police custody, and the second goal was to examine the prevalence of intellectual disability in this sample.

Our first hypothesis was that the SCIL is an adequate instrument to detect intellectual disability in police suspects. The results of our study showed that factor loadings of the 14 items did not correspond very well with the a priori factors proposed in the original study (Kaal et al., 2013). An exploratory factor analysis such as PCA requires at least five cases per item (i.e.,  $14 * 5 = 70$ ) and preferably more (O'Rourke & Hatcher, 2013). Thus, our sample of 178 cases was adequate in this respect. However, the distribution of IQ in our sample was quite skewed, which may have affected PCA findings. Future studies need to examine the SCIL's factor structure in different samples with more normal and/or heterogeneous distributions.

Second, we explored the prevalence of intellectual disability among police suspects. Our second hypothesis was that this prevalence would be similar to that found in the study of Gudjonsson et al. (1993) among police suspects. In their study, 42.0% of police suspects had an IQ score between 70 and 79, and 8.6% of police suspects had an IQ score below 70. We found that 39.3% of Dutch police suspects had an IQ between 70 and 79, which seems to be in line with the study of Gudjonsson et al. (1993). However, we found that 28.7% had an IQ below 70, which is a much higher percentage than previous studies in police suspects, who found that 8.6% (Gudjonsson et al., 1993) and 6.7% (Young et al., 2013), respectively, had an IQ below 70. Previous studies performed in adjudicated prisoners in the United Kingdom found that 16.4% had an IQ between 70 and 79 (Hayes et al., 2007) and that about 7% had an IQ below 70 (Hayes et al., 2007; Murphy, Gardner, & Freeman, 2017). Furthermore, 83.4% of our sample had an IQ below 85. Thus, intellectual disabilities appeared to be more prevalent in our police suspects compared with previous studies on intellectual disabilities in police suspects and detainees in regular prisons.

The prevalence of borderline IQ among suspects – detained in police custody as well as in regular prisons – seems to be substantial (Jones, 2007), and the prevalence of borderline IQ among suspects in police custody compared with prison detainees

appears to be even higher. This could perhaps be explained by the circumstances in which the IQ assessments took place. Possibly, the distress caused by the recent arrest and the circumstances in police detention (Baksheev, Thomas, & Oglhoff, 2012; Herrington & Roberts, 2012) resulted in increased anxiety, lack of concentration, and fatigue. Police detention is characterised by uncertainties about the police investigation, smaller, noisier and less comfortable cells, limited contact with relatives, friends and other inmates, and lack of daily activities, in comparison with regular prison regimes (Blaauw, Kerkhof, & Vermunt, 1998). Another possible explanation to account for differences in observed prevalence rates of intellectual disability in detainees is that different definitions of intellectual disability have been used, as well as different diagnostic criteria, and a variety of assessment tools (see Table 3.5). In fact, research studies found that studies on the prevalence of intellectual disabilities in individuals held in the criminal justice system showed a large range of estimates, from 2% to 40% (Jones, 2007), mostly between 20% and 30% (Talbot, 2007).

Fourth, the predictive validity of the SCIL was examined. We found a significant but moderate correlation ( $r = .56$ ) between SCIL and IQ scores based on the short WAIS, and lower sensitivity (.72) and specificity (.71) in comparison with the original validation study (i.e., sensitivity = .82, specificity = .89; Kaal et al., 2013). This moderate correlation is expected because the SCIL used a broader intelligence construct than the WAIS-III-NL SF, which is entirely focused on cognitive intelligence. In addition, the AUC value for IQ < 85 obtained in the present study was .78, whereas the AUC value in the original study by Kaal et al. (2013) was .93. It remains an empirical question whether the practical and social aspects of intellectual disability, as measured with the SCIL, are cause for vulnerability within a police interrogation setting. Future research needs to examine which aspects of the current DSM-5 definition of intellectual disability (American Psychiatric Association, 2013) predict problems during actual interrogations, such as source monitoring errors and errors in judgement.

### **Limitations**

This study has a number of limitations. First, the sample size was relatively small, therefore our results should be interpreted with some caution. Second, we used a WAIS-III-NL SF to assess cognitive functioning in police suspects because we believed that the cognitive domain of intellectual disability, in comparison with the practical and social domains, is the most relevant to the interrogation situation. Although Velthorst et al. (2013) showed that their SF provides a reliable and valid estimation of the full-scale IQ score, ideally, we would have tested all domains and used a full WAIS. However, this was not possible given time constraints in police detention. Third, the assessments

were conducted in police detention centres, which could have had negative effects on participants' performance levels. On the other hand, the assessments took place in a real-world police detention environment, supporting the ecological validity of our findings.

## Conclusion

The detection of suspects with intellectual disability is the professional responsibility of Dutch police officers according to a policy guideline (Aanwijzing auditief en audiovisueel registreren van verhoren van aangevers, getuigen en verdachten, 2014), yet previous international research has shown that police officers lack the required knowledge and experience to adequately identify these suspects (Gudjonsson, 2003; Parton et al., 2004). We found that the screening instrument SCIL did not detect a significant proportion (about 34%) of police suspects who were found to suffer from mild intellectual disabilities (IQ below 85) according to an IQ measure. We also found a somewhat different factor structure for the SCIL in our sample compared with the originally hypothesised factor structure of Kaal et al. (2013). The social and practical items of the SCIL could mask actual lower IQ scores when assessing police suspects by means of the SCIL. Future studies in different forensic (e.g., police suspects, prisoners) and non-forensic samples must test whether the SCIL is a useful screener for police suspects who may need further assessment of their intellectual abilities (Hayes, 2002; Kaal et al., 2013). As mentioned above, the possible relevance of social and practical disabilities for police interrogations needs to be further investigated.

To conclude, a large percentage of this study's sample of police suspects suffered from intellectual disabilities (Gudjonsson et al., 1993; Hayes et al., 2007; Murphy et al., 2017; Parton et al., 2004; Søndena et al., 2008; Young et al., 2013). Pending future research on the prevalence of intellectual disabilities in Dutch police suspects and on the impact of both cognitive and practical aspects of intellectual disabilities on functioning within the interrogation room, we hope our study contributes to raising awareness among police interrogators that it is quite likely they will run into suspects with intellectual disabilities on a regular basis, and that they need to take special precautions when interrogating them (Gudjonsson & Joyce, 2011; Herrington & Roberts, 2012; Scheyett et al., 2009).

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I warned the team supervisor that he was a vulnerable suspect because I suspected he was suffering from psychoses. But both the team supervisor and the public prosecutor literally said that they wanted pressure on the suspect during interrogation. Later, it turned out that, according to the psychiatric report of the Dutch Institute of Forensic Psychiatry and Psychology, I had been right. But apologies: no way! Sometimes people just don't listen to me.

**Police psychologist employed by  
the Dutch National Police  
(2015)**

## Chapter Four

# The interrogation of police suspects in the Netherlands

## Current practices

This chapter is a translated and modified version of the published paper: Geijssen, K. & De Ruiter, C. (2017). Het Nederlandse politieverhoor van verdachten anno 2017. *Strafblad*, 79(2), 157-162.



## Introduction

Interrogating suspects is core business of the police and has gained more interest from researchers during the past years (Häkkinen, Ask, Kebbell, Alison, & Granhag, 2009). Research in the United Kingdom has shown that inappropriate interrogation techniques, such as confronting suspects with false evidence, minimization and maximization techniques, appealing to suspects' conscience and other tricks to deceive suspects, can make both guilty and innocent suspects confess (Gudjonsson, 2003, 2010; Kassin, 2017). However, until today it has remained relatively unknown how appropriate Dutch police interrogations are executed. The few researchers granted access to police interrogation rooms reported that Dutch police officers do not always use appropriate interrogation methods (Duker & Stevens, 2009; Stevens & Verhoeven, 2011; Verhoeven & Duinhof, 2017). Therefore, it is time to review current Dutch interrogation methods. For this purpose, empirical research on police interrogation practices in the United Kingdom and the Netherlands will be compared.

### **Police interrogation in the United Kingdom: Investigative interviewing**

The United Kingdom has a long tradition of scientific research on police interviews of victims, witnesses, and suspects. The main reason for this is that in 1984 the Police and Criminal Evidence (PACE) Act was introduced. The PACE Act was a major innovation after it was found out that the British police had used coercive interrogation practices on IRA suspects. The purpose of the PACE Act was to formulate ethical and transparent guidelines for police interrogations (Shepherd & Griffiths, 2013). In addition, the police had to record all interrogations, and these recordings were made accessible for scientific research. Subsequent research showed that police interrogators often used an accusatory interrogation style and that their main aim in the interrogation was to obtain a confession (Baldwin, 1993). In several cases, it was proven that suspects falsely confessed due to inappropriate interrogation methods (Griffiths & Milne, 2005; Gudjonsson, 1994). In-depth research showed that during interrogation, police officers first confronted suspects with the available evidence, subsequently asked suspects for a reaction on the accusation, and next tried to convince suspects to provide a confession (Soukara, Bull, Vrij, Turner, & Cherryman, 2009).

In 1992, a new interrogation framework, the so-called PEACE framework, was introduced in the UK. The term 'police interrogation' was replaced by 'investigative interviewing', to emphasize the importance of interviewing suspects without biases. The main goal of a police interview is to find the facts of a case and not necessarily to

obtain a confession. The new interviewing framework was based on scientific research on good communication skills, the functioning of human memory, and conversation management techniques (Clarke, Milne, & Bull, 2011).

The PEACE framework comprises five stages: *Planning and preparation, Engage and explain, Account, clarification and challenge, Closure, and Evaluation*. The PEACE framework is based on three principles: (1) a neutral, unbiased interviewing style; (2) transparency about the goal of the interview, and (3) free recall. Suspects are given the opportunity to provide a statement and the interviewers pose questions about this statement in a neutral manner (Shepherd & Griffiths, 2013). At the time the PEACE framework was implemented, the registered intermediate was also introduced to assist vulnerable suspects during interviews. A registered intermediate is expected to engage in the interview in an active manner, thereby protecting a fair interview and contributing to adequate communication between the police interviewers and the suspect (Medford, Gudjonsson, & Pearse, 2003).

About ten years later, a new educational model was introduced to train police officers in investigative interviewing. This model, based on scientific research and tailored to the severity of offences, consists of five tiers. At tier one, junior police officers are taught the basics of investigative interviewing. Tier two is a two-weeks interview training for senior police officers who are involved in more complex police investigations. Tier three is a specialized six-weeks course about interviewing vulnerable suspects and children. Tiers four and five are courses for supervisors and police management who provide interview guidance to police staff (Griffiths & Milne, 2005). During the past years, the interview training programme has been refined and is now called the Professionalising Investigation Programme (College of Policing, 2017), which consists of four tiers. Tiers one to three involve training in basic interviewing techniques and supervision, and tier four is designed for strategic supervision during interviews in more complex police investigations (McGrory & Treacy, 2012). Research into investigative interviewing practice showed that police interviews are better prepared, structured, and contain more transparent interviewing techniques (Clarke, Milne, & Bull, 2011), which results in more cooperative suspects and more extensive accounts (Bull & Soukara, 2010). Nowadays, Investigative interviewing has been introduced in several police forces around the world, for example, in Australia, Canada, New-Zealand, and Norway (Walsh & Bull, 2015).

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### **Police interrogation in the Netherlands: The General Interrogation Strategy**

Dutch police officers commonly use the General Interrogation Strategy (GIS; in Dutch: *Standaard Verhoorstrategie, SVS*) to interrogate suspects. The GIS is described in the Interrogation Manual (Van Amelsvoort, Rispens, & Grolman, 2015), which is used by the Police Academy of the Netherlands to train police officers in interrogation techniques. The GIS divides an interrogation into three parts, which are: a first contact part, a second 'person-oriented' part, and a third 'case-oriented' part. During the first contact part, the interrogator explains suspects' legal rights, the role of the lawyer (if the lawyer is present during interrogation), and the interrogation procedure. Next, during the person-oriented part, the interrogator informs about personal circumstances of the suspect, such as education, occupation, family, and financial circumstances. During the substantive, case-oriented part, the suspect is interrogated with the GIS. The GIS is based on building up 'internal pressure', minimizing reluctance to provide an account, ruling out alternative explanations, and challenging the suspect's account (Hoekendijk & Van Beek, 2015). Although the GIS is believed to possess scientific components, to date the GIS has not been scientifically tested on its reliability and validity (Nierop, 2005; Stevens & Verhoeven, 2011).

Two major theoretical shortcomings of the GIS are discussed next. First, the GIS may lead to guilty and confirmation biases in police officers. The GIS is based on minimizing resistance of the suspect about telling 'the truth' (Van Amelsvoort et al., 2015, p. 445), and building up confrontations with evidence in frequency, severity, and pace (Van Amelsvoort et al., 2015, p. 446), whereby tactical clues are being encircled (which means verifying or falsifying suspects' explanations for tactical or technical evidence), and suspects are rewarded when telling 'the truth' (Van Amelsvoort et al., 2015, p. 445). The problem is that the Interrogation Manual does not explain what exactly is meant by the term 'the truth'. Probably, the authors mean that the statement of the suspect must concur with the technical evidence. This implies that the utility of the GIS depends on the evidence available at the time of the interrogation (Kortlever, 2011). This obviously enhances the likelihood of confirmation bias and guilty bias (Hill, Memon, & McGeorge, 2008; Leo & Drizin, 2010). Police officers will likely assume that the suspect is guilty and will probably seek evidence that confirms the guilt of a suspect and ignore evidence to the contrary (Gudjonsson, 2003; Leo & Drizin, 2010), especially in cases with little technical evidence (Häkkinen et al., 2009; Vrij, 2010). In addition, previous research has shown that police interrogators who presume a suspect is guilty will use a more accusatory interrogation style and more pressure and will try to obtain a confession of the suspect (Hill et al., 2008; Stevens & Verhoeven, 2010). Moreover,

the Interrogation Manual mentions that if the suspect adjusts his or her statement in line with 'the truth', the interrogators have to reward the suspect (Van Amelsvoort et al., 2015, p. 455). This implies that, contrary to what is claimed in the Manual, the GIS is not solely an information gathering interrogation method in regard to several accusatory components (Duker & Stevens, 2009; Geijssen & De Ruiter, 2017; Kortlever, 2011; Nierop, 2005).

Second, a major principle of the GIS is the build-up of pressure during the interrogation, which is problematic. The Interrogation Manual mentions that the GIS may only be used when a suspect is 'normally sensitive to pressure' (Van Amelsvoort et al., 2015, p. 455), but what this entails is not explained in the manual. Recently, Hoekendijk and Van Beek (2015) described two types of interrogative pressure: external and internal pressure. External pressure is believed to be pressure put on suspects by threatening them, making promises, maximization or minimization techniques, or long-lasting interrogations. According to the Interrogation Manual, this type of pressure is not to be used during interrogations (Van Amelsvoort et al., 2015). Internal pressure is pressure experienced by suspects due to confrontations with evidence, and this kind of pressure is believed to make suspects confess in line with 'the truth' (Hoekendijk & Van Beek, 2015). However, the exact difference between these two types of pressure remains unclear. The truth of the matter is that both types of pressure will lead to heightened stress levels in suspects, which is unnecessary because suspects already experience a lot of stress when being questioned by the police (Van Koppen, 2009). Furthermore, previous research on Dutch interrogations showed that suspects who refuse to talk are more likely to encounter police officers who use a more intimidating interrogation style (Stevens & Verhoeven, 2010). This, in fact, may elicit a boomerang effect when suspects feel being treated unfairly or when experience too much pressure, resulting in even greater reluctance to talk with the police (Gudjonsson, 1994).

In sum, the Interrogation Manual warns police officers that 'distress may lead to false confessions' (Van Amelsvoort et al., 2015, p. 372), yet paradoxically it also advises that 'if most tactical clues have been used, it is possible to increase the pressure within the suspect by increasing confrontations, without letting the suspect respond' (Van Amelsvoort et al., 2015, p. 455). Thus, the GIS is not merely an information gathering interrogation method because it contains controversial accusatory components as well – some of which even appear to resemble the controversial Reid interrogation technique (Gudjonsson, 2003).

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### **Police interrogation in the Netherlands: Scientific research**

Not much is known about what takes place in Dutch police interrogation rooms (Duker & Stevens, 2009; Kortlever, 2011). A study by Stevens and Verhoeven (2011) showed mixed results. They observed 168 police interrogations of murder and manslaughter suspects. On the one hand, police officers used appropriate interrogation methods, such as encircling tactical clues (45-52%) and building trust (71%). On the other hand, police officers used inappropriate interrogation methods as well, for example, referring to hypothetical scenarios (23%), acting out impatience, frustration or anger (28.6%), asking suggestive questions (44.0%), and addressing feelings of guilt and conscience (49.4%). Moreover, the most important interrogation method of the GIS, namely confronting the suspect with evidence, was used only in half (52%) of the 168 interrogations (Stevens & Verhoeven, 2011).

Recently, Siemerink and Van der Laan (2016) interviewed Dutch police officers, a public prosecutor, a judge, and an investigative judge (*rechter-commissaris*) ( $N = 16$ ). The interviewees revealed that most police interrogations are based on gut feelings rather than on proper preparation. In addition, most police interrogators are not selected on the basis of how skilled or trained they are but merely selected based on availability. Furthermore, their research showed that police interrogators believe that interrogation training does not have any association with the quality of police interrogators, that interrogators lack knowledge about the police investigation, and that older police officers are used to a different style of interrogating than younger police officers (Siemerink et al. 2016).

Odinot, Boon and Wolters (2015) showed that police officers lack knowledge about how human memory works, and about the factors that influence the reliability of statements. They asked 191 police interrogators 18 questions about episodic memory and about factors that might influence the reliability of witness' statements. About two-thirds of the police interrogators answered incorrectly to questions about, for example, if a witness under the influence of alcohol can provide a reliable statement, if traumatic memories can be recovered after a few years, and whether asking leading questions to child witnesses result in false memories. The researchers concluded that there was no relationship between police officers' level of knowledge about human memory and their interrogation training level (Odinot et al., 2015).

More recently, Geijsen, Vanbelle, Kop and De Ruiter (2017) analysed transcripts from Dutch interrogations of 36 police suspects. For this purpose, they used the Griffiths Questions Map (GQM), which can be used to analyse the quality of police interrogations. The GQM labels the questions asked during an interrogation as either appropriate questions (i.e., open, probing, and appropriate closed questions) or as

inappropriate questions (i.e., inappropriate closed questions, leading questions, multiple questions, opinion statement, and forced choice). No less than 86% of the interrogations were labelled as inappropriate interrogations, because of the use of inappropriate questions and the lack of a logical structure of open, probing, and appropriate closed questions. Results showed that only five (about 14%) of the 36 interrogations could be labelled as appropriate interrogations (see Chapter Five).

## Discussion

Appropriate police interrogation techniques are essential in order to obtain an accurate and full account from suspects, yet the scarce research on interrogation practices in the Netherlands indicates that Dutch police officers often use inappropriate interrogation techniques. This does not come as a complete surprise, in view of the GIS principles and the instructions on how to perform a police interrogation described in the Interrogation Manual. The GIS may lead to guilty bias and confirmation bias in police officers and the basic principle of building pressure during interrogations leads to stress in suspects. This is unnecessary and undesirable, because it may increase the chance of obtaining an unreliable account or even a false confession (Gudjonsson, 2010; Kassin, 2017). In the past, several scientists have questioned the appropriateness of the GIS (e.g., Boon et al., 2016; Duker & Stevens, 2009; Israëls & Horselenberg, 2010; Kortlever, 2011; Nierop, 2005; Odinot et al., 2015; Siemering & van der Laan, 2016; Verhoeven & Stevens; Stevens & Verhoeven, 2010, 2011; Verhoeven & Duinhof, 2017; Van Koppen, 1998, 2009; Vrij, 1998, 2010), yet to date no empirical research has examined the potentially adverse effects of the GIS, and teachers at the Dutch Police Academy continue to use the Interrogation Manual to train police officers in interrogation techniques.

In addition, during the past years case law has shown that the current Dutch legislation might not be sufficient to protect suspects from inappropriate interrogation techniques (Duker & Stevens, 2009). Although Article 6 of the Convention for the Protection of Human Rights and Fundamental Freedoms (Council of Europe, 1950) prescribes that suspects have the right to a fair trial without prejudice, and Article 29 of the Dutch Code of Criminal Procedure (2018) prescribes that statements must be given freely and that interrogators are not allowed to put unlawful physical or psychological pressure on suspects, in actual Dutch legal cases only one example of unlawful pressure can be found. In 1997, the High Court of the Netherlands ruled that the so-

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called Zaanse interrogation method was not allowed. In this method, suspects relived the crime as a result of coercive interrogation methods and being shown pictures of the crime scene and family members of the victim.<sup>4</sup> More recent legal cases showed, however, that judges allowed police officers to interrogate (silent) suspects frequently and incisively to enhance pressure,<sup>5</sup> to slam their fists on the table and to interrogate using a raised voice,<sup>6</sup> to exaggerate available evidence,<sup>7</sup> and to make inferences about what fellow suspects have already stated<sup>8</sup> (Blom, 2011). In sum, although research has shown that these techniques may lead to unreliable statements, and the Manual rejects these techniques because they are considered to constitute unlawful external pressure, Dutch Courts do not deem these interrogation techniques inadmissible.

## Conclusion

Appropriate interrogation methods are necessary to obtain accurate and reliable accounts from suspects. However, research has shown that Dutch interrogation practices often include inappropriate techniques, which is not a surprise in view of the basic principles of the GIS and the instructions provided in the Manual. The GIS may contribute to guilty bias and confirmation bias in police officers, and the basic principle of building pressure leads to increased stress in suspects. In the past, scholars have expressed concerns about these risks of the GIS (e.g., Boon et al., 2016; Duker & Stevens, 2009; Van Koppen, 2009; Kortlever, 2011; Nierop, 2005), however, until now without tangible results. Teachers at the Police Academy of the Netherlands continue to use the Interrogation Manual to instruct police officers in interrogation methods. Furthermore, legal safeguards for the use of inappropriate interrogation methods appear to be failing (Blom, 2011; Duker & Stevens, 2009).

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<sup>4</sup> Dutch High Court, 13 May, 1997, ECLI:NL:HR:1997:ZD0705, NJ 1998, 152 m.nt. Schalken.

<sup>5</sup> e.g., Court of Appeal Arnhem, 12 December, 2000, ECLI:NL:GHARN:2000:AA8995, LJN AA8995; Court Dordrecht, 20 September, 2003, ECLI:NL:RBHAA:2007:BB7483, LJN BB7483; Court Amsterdam, 17 March, 2005, ECLI:NL:RBAMS:2005:AT0873, LJN AT0873; Court Groningen, 10 April, 2008, ECLI:NL:RBGRO:2008:BC9249, LJN BC9249.

<sup>6</sup> Court of Appeal 's-Hertogenbosch, 8 October, 2012, ECLI:NL:GHSHE:2012:BX9413, LJN BX9413.

<sup>7</sup> Court of Appeal 's-Hertogenbosch, 29 November, 2006, ECLI:NL:GHSHE:2006:AZ4141, LJN AZ4141.

<sup>8</sup> Court Midden-Nederland, 18 March, 2014, ECLI:NL:RBMNE:2014:1019, 16-703042-13 (P).

It has been demonstrated that investigative interviewing is a reliable and effective way of questioning police suspects (Clarke, Milne, & Bull, 2011; Shepherd & Griffiths, 2013). Many police organisations across the globe have adopted investigative interviewing to obtain reliable and full accounts from suspects (Bull & Soukara, 2010; Hill, Memon, & McGeorge, 2008). Investigative interviewing could avert guilty bias and confirmation bias among Dutch police officers, and, on top of that, the GIS basic principle of building up pressure would no longer be necessary. We agree with Odinet et al. (2015) there is a need to develop a new scientifically, up-to-date Interview Manual for the Dutch police, in order to close the gap between current police practices and scientific evidence on police interrogation. In addition, we advise the development of this new manual using the investigative interviewing framework. It is not efficient and effective, even potentially dangerous, if police interrogators do not possess the required knowledge and skills to perform police interviews ethically and appropriately, that is, based on scientific evidence, instead of experience and gut feeling (Boon et al., 2016; Duker & Stevens, 2009; Gudjonsson, 2003; Kassin, 2017; Kortlever, 2011; Odinet et al., 2015; Soukara et al., 2009).

4



Lately, I was present during an interrogation performed by a former student of mine, who had received all different kinds of interrogation training courses. Multiple things went wrong, he seemed to be forgotten all training. Unbelievable.

I think many detectives just switch to old routines that they are accustomed to.

**Teacher of the Police Academy  
of the Netherlands  
(2015)**

## Chapter Five

# The interrogation of vulnerable suspects in the Netherlands

An exploratory study

This chapter is a modified version of the published paper: Geijssen, K., Vanbelle, S., Kop, N., & De Ruiter, C. (2018). The interrogation of vulnerable suspects in the Netherlands: An exploratory study. *Investigative Interviewing: Research and Practice*, 9(1), 34-51.

For this study, Andy Griffiths, Ph.D., FCMI, was so kind to assist with analyses preparation with the Griffiths Question Map.

## Introduction

On July 30, 2004, the Dutch optometrist Isabella Pongs (48) was stabbed to death in her shop. It wasn't until August 2007 that the police arrested two male suspects (20 and 22 years old at time of their arrest), who were interrogated 11 times by the police, and eventually confessed to committing the crime. During trial, the court noted that the suspects' confessions were contradictory on certain points, and they stated they were uncertain about their confessions. Experts testified that the first suspect suffered from intellectual disabilities and schizophrenia, as well as cannabis dependence. The second suspect was diagnosed with intellectual disabilities, a drug dependence, psychosis, and possible autism. In addition, another expert testified that the police investigators had used inappropriate interrogation methods, such as putting too much pressure on the suspects, use of suggestive questions and maximisation techniques, and providing misleading clues and negative feedback. As a consequence, the court ruled that the suspects falsely confessed to the crime due to their mental disorders and the inappropriate interrogation techniques. They were found not guilty (Maastricht Court, 2008).

The Isabella Pongs case first illustrates that certain individuals are psychologically more vulnerable to give a false confession during police interrogations, regardless of guilt or innocence (Gudjonsson, 2010; Herrington & Roberts, 2012; Kassin, Appelby, & Torkildson Perillo, 2010a). Gudjonsson (2003) defines psychological vulnerabilities in suspects as: 'psychological characteristics or mental states which render a suspect prone, in certain circumstances, to providing information which is inaccurate, unreliable (or invalid) or misleading' (p. 316). Gudjonsson (2003) contends there are four major categories of psychological vulnerability in police suspects: mental disorders, intellectual disabilities, abnormal mental states, and personality characteristics. Suspects suffering from a mental disorder (such as depression, ADHD, or psychosis) experience troubles with perception, emotion, cognition, self-control and reality monitoring. These suspects often fail to provide a detailed and coherent statement (Gudjonsson, 2003; Kassin et al., 2010b). Suspects with intellectual disabilities may have difficulty understanding their legal rights and the interview questions (Gudjonsson & Joyce, 2011; Herrington & Roberts, 2012). In addition, these suspects face problems with memory capacity, and they are more sensitive to suggestion (giving in to leading questions) and prone to confabulation (Gudjonsson, 2003; Gudjonsson & Joyce, 2011). Suspects with an abnormal mental state do not necessarily suffer from a mental disorder, yet they have problems functioning in a stressful situation, such as a police interrogation, due to extreme distress caused by detention circumstances, alcohol or

drug abuse, or medical symptoms (e.g., cardiovascular problems, diabetes, epilepsy; Gudjonsson, 2003; Van Oorsouw, Merckelbach, & Smeets, 2015). Some personality characteristics of suspects, such as suggestibility and compliance, are related to unreliable and inaccurate statements as well (Gudjonsson, 2003; Smeets, Leppink, Jelacic, & Merckelbach, 2009). Suggestibility implies personal acceptance of questions or information, while compliance implies complying with requests and instructions for some immediate instrumental gain (Gudjonsson, 2003). Both traits are related to social desirability, eagerness to please, and avoidant coping, but the main difference is that suggestibility implies personal acceptance of questions or information (thus, some degree of internalization), while compliance implies complying with requests and instructions of someone else for some immediate instrumental gain (Gudjonsson, 2003). These vulnerabilities are best viewed as risk factors (Gudjonsson, 2010). Psychologically vulnerable suspects are at increased risk of providing untruthful statements and/or false confessions, particularly in conjunction with inappropriate interrogation techniques (Gudjonsson, 2003; Kassin et al., 2010a; Kassin et al., 2010b; Walsh & Bull, 2012).

The Isabella Pongs case also illustrates that suspects – particularly psychologically vulnerable suspects – must be interrogated appropriately in order to obtain a reliable and accurate statement (Farrugia & Milne, 2012; Herrington & Roberts, 2012; Leo & Davis, 2010; O'Mahony, Milne, & Grant, 2012). A number of key principles are important during police interrogations, for example, interrogators should be open-minded and act fairly (Soukara, Bull, Vrij, Turner, & Cherryman, 2009), and they should use appropriate questions (Shepherd & Griffiths, 2013). Appropriate or productive questions are relevant, respectful, sensible, sensitive, short, single, simple and sincere, and stimulate the suspect's thinking and disclosing of thoughts. These questions are open prompts, for example, instructions (tell, describe, explain), or probing questions (what, how). Appropriate questions contribute optimally to obtain an accurate and extensive account, in contrast to inappropriate questions. Inappropriate or counter-productive questions are, for example, leading (suggestive) questions, option posing or forced choice questions, multiple questions, or hypothetical questions (Oxburgh, Myklebust, & Grant, 2010; Shepherd & Griffiths, 2013). Especially when interrogating suspects with psychological vulnerabilities, such as a mental disorder or intellectual disabilities, it is important that police officers slow down the pace of the interrogation, try to reduce stress, and avoid inappropriate questions and lengthy interrogations (Herrington & Roberts, 2012; Leo & Davis, 2010).

At the time of this study, Dutch police officers are taught to perform interrogations as prescribed in the so-called Interrogation Manual (*Handleiding Verhoor*; Van

Amelvoort, Rispens & Grolman, 2015), first published in 2005 and used by the Police Academy of the Netherlands to educate police officers up until today. The authors are a police psychologist and two police experts, who wrote the Interrogation Manual based mainly on past experiences of police officers (Nierop, 2005), and a small laboratory experiment, which explored effective interrogation behaviour with the help of four experienced police interrogators and four actors, in order to derive basic interrogation principles (Hoekendijk & Van Beek, 2015).

The Dutch Interrogation Manual divides a police interrogation into three parts. The first part is called 'first contact', in which the suspect is informed of his/her rights, and the procedure of the interrogation is explained. The second part, termed the 'person-oriented interrogation', aims to establish rapport, to collect information about the suspect (e.g., education, family, work, finances), and to explore whether the suspect is willing to provide a statement. The third part, the 'case-oriented interrogation', concerns interrogating the suspect about the alleged crime (Van Amelvoort et al., 2015). During this third part, Dutch police officers use the General Interrogation Strategy (GIS; Duker & Stevens, 2009; Hoekendijk & Van Beek, 2015) as described in the Interrogation Manual (Van Amelvoort et al., 2015). The GIS basic rules are: (1) minimizing resistance of suspects against telling the truth, (2) encircling tactical clues to avoid evasions, which is done by asking questions about possible alternatives in order to rule them out, (3) building up pressure by confronting the suspect with evidence, and (4) rewarding the suspect if 'he or she adjusts his or her statement in line with the truth' (Van Amelvoort et al., 2015, p. 445). Obviously, some of these basic rules are accusatory in nature, and some even appear to resemble the highly criticized Reid technique of interrogating police suspects (Duker & Stevens, 2009; Gudjonsson, 2003). The GIS may be used when three conditions are satisfied: (1) availability of enough tactical and technical clues for making an interrogation plan, (2) the suspect must be 'sensitive to pressure in a normal manner', and (3) the suspect is willing to provide a statement (Van Amelvoort, 2015, p. 445).

Some of these conditions are problematic. First, the Interrogation Manual does not explain how many tactical and technical clues are necessary in order to use the GIS. A previous version of the Interrogation Manual, called the Suspect Interrogation Manual (Van den Adel, 1997), mentioned a number of five to ten clues, but did not describe the rationale for these numbers (Duker & Stevens, 2009). Second, the Interrogation Manual does not provide guidelines on how to determine whether a suspect is 'sensitive to pressure in a normal manner', it only mentions that the suspect 'must not give extreme reactions, or no reactions at all, where you would normally expect this' (Van Amelvoort et al., 2015, p. 445). Yet, studies have demonstrated that pressure during interrogations

may increase stress levels in suspects, especially in vulnerable suspects, which in turn increases the risk of inaccurate statements, or even false confessions (Gudjonsson, 2010; Herrington & Roberts, 2012; Kassin et al., 2010b). Still, it is stated in the Interrogation Manual the aim of the GIS is to build up so-called 'internal pressure', which is assumed to be 'the tension aroused in the mind of the suspect by the perceived incriminating power of the pieces of evidence at hand' (Hoekendijk & Van Beek, 2015, p. 4), and which is believed to be different from external pressure, described as 'everything that might be used to force the suspect to talk or confess' (Hoekendijk & Van Beek, 2015, p. 4). Nevertheless, 'internal pressure' is a form of pressure which aims to influence a suspect's statements, and it could thus be argued that there is actually little difference between internal and external pressure (Gudjonsson, 2003; Kortlever, 2011; Leo & Davis, 2010; Verhoeven & Stevens, 2012). Moreover, the Interrogation Manual mentions that it is allowed for police interrogators 'to incisively interrogate the suspect and thereby use a certain amount of pressure' (Van Amelsvoort et al., 2015, p. 340). According to the GIS, the interrogation ends 'if the suspect's statement is in line with the tactical clues' (Van Amelsvoort et al., 2015, p. 456). This implies not only that police officers will continue to interrogate the suspect in case he or she provides a statement that is not in line with the tactical clues, but it also enhances the risk of confirmation bias and guilty bias in police officers (Duker & Stevens, 2009; Kortlever, 2011; Leo & Davis, 2010). To conclude, although the GIS is officially termed an information gathering interrogation method, its aim is to deliberately build up pressure in suspects (Van Amelsvoort et al., 2015, pp. 445-457) reveals an accusatory component (Boon, Odinot, Horselenberg, & Geijssen, 2016; Duker & Stevens, 2009; Kortlever, 2011; Stevens & Verhoeven, 2011; Verhoeven & Stevens, 2012; Vrij, 2003).

Research on police interrogation in The Netherlands has demonstrated that police officers use inappropriate questions and tactics (e.g., maximisation, minimisation, accusation, or suggesting a particular scenario). Stevens and Verhoeven (2012) analysed 168 Dutch police interrogations of murder and manslaughter suspects and found that police interrogations only partially conformed to the guidelines in the Interrogation Manual. Three interrogation techniques, viewed by the Interrogation Manual as appropriate, were used frequently (i.e., building trust, 71.4%; encircling tactical and technical clues, 44.6% – 51.8%), yet inappropriate interrogation techniques were used frequently as well (i.e., leading and suggestive questions, 44%; asking about hypothetical scenarios, 22.6%; pushing to evoke feelings of guilt, 49.4%; expressions of impatience, frustration and anger, 28.6%; Stevens & Verhoeven, 2012). Moreover, these authors found that an important interrogation technique of the GIS (e.g., confrontation with evidence) was used in only 51.8% of the interrogations, and that Dutch police

officers sometimes even resorted to manipulation and intimidation techniques, especially during the second and third interrogations (i.e., physical intimidation, 4.2%; minimization techniques, 4.2%; Stevens & Verhoeven, 2012). By using inappropriate interrogation techniques, police officers risk to obtain an unreliable statement, or even a false confession, especially from vulnerable suspects (Gudjonsson, 2003; Herrington & Roberts, 2012; Kassin et al., 2010b).

Since a number of years, the Dutch National Police and the Police Academy are paying attention to the issue of vulnerable suspects. During initial training, police recruits receive information about interrogation techniques in regard to vulnerable suspects. In 2013, a new training program 'Interrogation of Vulnerable Suspects' was launched, which trains police officers to signal vulnerabilities in police suspects and to effectively interrogate these suspects (Nierop & Van den Eshof, 2014).

Based on the guideline in the Interrogation Manual and previous research, the question arises if vulnerable suspects are appropriately interrogated by Dutch police officers. We hypothesise that, as prescribed by the Interrogation Manual (c.f., Van Amelsvoort et al., 2015, pp. 95-101), Dutch police officers conduct interrogations by mostly using appropriate questions (i.e., open questions), and by avoiding inappropriate questions (e.g., closed questions, multiple questions, forced choice questions). We expect comparable results to the study of Stevens and Verhoeven (2012). In addition, we expect the percentage of appropriate interrogations to be significantly higher for vulnerable suspects, compared to non-vulnerable suspects, as a consequence of increased awareness building on vulnerable suspects within the Dutch police force. To investigate our hypotheses, tests for different psychological vulnerabilities (i.e., intellectual disabilities, mental disorders, and an abnormal mental state; Gudjonsson, 2003), and the Griffiths Question Map (GQM; Shepherd & Griffiths, 2013) for classifying interview questions, are used in a sample of police suspects detained in Dutch police detention centres.

## Method

### Participants

Subjects ( $N = 178$ ) who participated in a study on the prevalence of psychological vulnerabilities among police suspects in the Netherlands (see Chapter One and Two) were asked to participate in the current study. Subjects were at least 18 years of age, not visibly intoxicated by alcohol or drugs, and able to speak the Dutch language. Subjects were psychologically assessed at six police detention centres (Amsterdam,

Breda, Eindhoven, Heerlen, Maastricht and Tilburg) between June 24, 2014, and May 7, 2015. Thirty-seven subjects gave permission to use their interrogation transcripts, so they were included in the present study. Their age ranged from 18 to 60 ( $M_{age} = 31.68$ ;  $SD_{age} = 11.37$ ). Thirty-two male subjects (86.5%) and five female subjects (13.5%) participated and all subjects stated they possessed the Dutch nationality. The distribution of subjects across the police detention centres was: Breda,  $n = 9$  (24.3%); Eindhoven,  $n = 15$  (40.5%); Heerlen,  $n = 9$  (24.3%); and Maastricht,  $n = 13$  (35.1%).

## Procedure

Assessors approached prospective subjects in their cells and invited them to participate. If a subject agreed, the aim and procedures of the study and the informed consent were explained in a separate room. The subjects were assured that the assessors were bound by confidentiality and that they would be free to stop their participation at any moment without having to provide a reason. Before starting the assessment, all subjects were asked to sign an informed consent, by which they agreed to voluntarily participate in the psychological assessment. In addition, 37 subjects granted access to their interrogation transcripts by signing an additional consent. The psychological assessments were performed by a M.Sc. psychologist (first author) and two Master's students in Forensic Psychology from Maastricht University, carefully instructed and supervised. It was assured that the psychological assessment would not interfere with the police investigation in any possible way. The assessments lasted for about one hour and one hour and a half. Four months after completion of all assessments, the interrogation transcripts of the 37 subjects were collected. All interrogation transcripts were anonymised after the analyses.

This study was approved by the standing Ethical Review Committee Psychology and Neuroscience of Maastricht University (ERCPN number: 03\_10\_2014), the Office of the Attorney General of the Netherlands, the Chief Constable of the Dutch National Police Force.

## Measures

### Malingering

In order to detect possible malingering of symptoms, a short form (SF) of the Wildman Symptom Checklist (WSC; Wildman & Wildman, 1999) was included in the assessment battery. Previous research found that out of the original 70 items of the WCS, four items discriminated optimally between respondents who were asked to answer honestly and respondents asked to exaggerate symptoms (Merckelbach, Smeets, & Jelicic, 2008; Merckelbach, Langeland, De Vries, & Draijer, 2014). The four items of the WSC SF



concern non-credible, yet disturbing, cognitive symptoms: 'I have headaches that are so severe my feet hurt', 'The buzzing in my ears keeps switching from the left to the right', 'I notice that the colour of things around me keeps shifting', and 'I find myself frequently blacking out when I sit down.' These items are answered on a 5-point Likert scale (0 = not at all to 4 = extremely). The total score of the WCS SF is the sum of all item scores (range = 0 - 16), and a score of 4 or higher serves as an indication for malingering (Merkelbach et al., 2014). Cronbach's alpha of the four items in the present study was .75.

### Criteria for identifying vulnerable suspects

A suspect was classified as a vulnerable suspect when he or she met one or more of the following three criteria, based on the categorisation of vulnerable suspects of Gudjonsson (2003): mental disorder, intellectual disabilities, and/or an abnormal mental state. The fourth category, personal characteristics (suggestibility and compliance), was not included in this study, because there are no cut-off points for the Gudjonsson Suggestibility Scale (GSS; Gudjonsson, 1997) and the Gudjonsson Compliance Scale (GCS; Gudjonsson, 1989), and therefore these scales are not helpful to identify vulnerable suspects in this study.

Mental disorders were screened with the Brief Jail Mental Health Screen (BJMHS; Steadman, Scott, Osher, Agnese, & Clark Robbins, 2005). The BJMHS is a tool to screen for mental health problems, originally validated against the Structured Clinical Interview for DSM-IV (SCID; First, Spitzer, Gibbon, & Williams, 2002). In a previous study, the BJMHS correctly classified 73.5% of male prisoners and 61.6% of female prisoners on the basis of SCID diagnoses (Steadman et al., 2005). The BJMHS was translated into Dutch by the first and fourth author for the purpose of this study. Examples of BJMHS items are: 'Do you currently believe that someone can control your mind by putting thoughts into your head or taking thoughts out of your head?' (item 1); 'Are you currently taking any medication prescribed for you by a physician for any emotional or mental health problems?' (item 7); and 'Have you ever been in a hospital for emotional or mental health problems?' (item 8). All eight items are scored either 'no' (0 points) or 'yes' (1 point). A score of more than two points on items 1 through 6 and/or 1 point on items 7 and 8 indicate a need for further mental health assessment (Steadman et al., 2005).

Intellectual disabilities were measured with a SF of the WAIS-III-NL (Wechsler, 1997; Dutch version: Uterwijk, 2000): Information (verbal comprehension), Block Design (perceptual organization), Arithmetic (working memory), and Symbol Substitution Coding (processing speed). The validation study of the short form included 75 patients

with a diagnosis of schizophrenia, 73 of their non-schizophrenia siblings, and 84 unrelated healthy controls (Velthorst et al., 2013). It was found that the four subtests had adequate predictive accuracy and differentiated between patients, relatives and healthy controls. The correlation coefficient between the WAIS-III and the WAIS-III SF was found to be  $r = .95$ , thus the WAIS-III SF was proven to be a valid alternative to estimate general intellectual ability (Velthorst et al., 2013). In this study, intellectual disabilities were defined by a full-scale IQ score lower than 70 (DSM-IV-TR; American Psychiatric Association, 2000).

First, an abnormal mental state was assessed by means of the Mini Mental State Exam (MMSE; Folstein, Folstein, & McHugh, 1975). This instrument screens for impaired cognitive functioning. We used the Dutch standardised version of the MMSE (Kok & Verhey, 2002), with a cut-off score of 25 (a score below 25 indicates an abnormal mental state). Examples of MMSE items are: 'What is the date/day/month/year/season?' and a three-stage instruction: 'Take this piece of paper, fold it in half, and then put it on your lap.'

In addition, an abnormal mental state related to alcohol and/or drug abuse was assessed as well. This was documented based on self-report: subjects were asked about their use of alcohol and/or drugs. If the subject stated that he or she was addicted to alcohol and/or drugs, or admitted that he or she used alcohol and/or drugs on a daily basis, the subject was classified with a substance use disorder.

### Interrogations analyses

In the Netherlands, police interrogations are not recorded as a standard procedure. Audio or video recording of police interrogations is only mandatory in particular cases (according to the judicial guideline 'Aanwijzing auditief en audiovisueel registeren van verhoren van aangevers, getuigen en verdachten', 2012), for example, in cases when the victim is deceased, when the suspect could be sentenced to imprisonment for more than 12 years, or when interrogators are coached by a police psychologist. We chose to include all types of cases (and offences) in our study and analysed the written transcripts of these interrogations. All interrogation transcripts were written in a question-answer format and reflected the first 'case-oriented interrogation' (Van Amelsvoort et al., 2015).

The interrogation transcripts were analysed with the GQM (Shepherd & Griffiths, 2013). Based on the research literature, the GQM identifies eight types of questions, labelled as either appropriate or inappropriate. Appropriate questions (i.e., open-ended, probing, and appropriate closed questions) are questions associated with neutral and effective information gathering. An open question is to obtain detailed

information, a probing question is to get micro-details, and an appropriate closed question is to seek confirmation and/or clarification. In contrast, inappropriate questions (i.e., inappropriate closed, leading, multiple questions opinion statements, and forced choice) produce insufficient and/or unreliable information. Inappropriate closed questions only provide a yes or no answer, leading questions are associated with suggestibility (Gudjonsson, 2003; Oxburgh et al., 2010), multiple questions make it unclear which question is to be answered, and an opinion statement and a forced choice reflect a biased interrogator (Shepherd & Griffiths, 2013; Walsh & Bull, 2012). Although the GQM was originally designed for analysis of audio recordings of interrogations for training purposes, we used the GQM because it provides a detailed map with an overview of the type of questions used during an interrogation (Shepherd & Griffiths, 2013), and because of its proven utility in previous research (Griffiths & Milne, 2006).

A GQM was constructed for all 37 interrogation transcripts. First, the first author and a Master's student in Forensic Psychology of Maastricht University (who also participated in the data collection) independently scored 16 (43.2%) interrogation transcripts. Next, the first author scored another 12 (32.3%) interrogation transcripts, and the Master's student scored the last 9 (24.3%) interrogation transcripts. The inter-observer agreement of the first 16 interrogation transcripts was quantified using Cohen's kappa coefficient, which compares the agreement observed between two observers to the level of agreement expected if the two observers had made the classification randomly. The standard error of the coefficient was adjusted to account for the fact that several questions refer to the same interview (Yang & Zhou, 2014). The 16 interviews comprised between 8 and 64 questions. According to the GQM, question classification as described above, the quality of the question was further sub-classified as appropriate for categories 1, 2 and 3 (coded as 1) and inappropriate for the categories 4 through 8 (coded as 0). The two observers agreed on the classification of 403 (92.2%) questions and disagreed on 34 (7.8%) questions, leading to a Cohen's  $\kappa = .88$ ; 95%, Confidence Interval = .82 - .94.

### **Data analysis**

Data analysis was performed using R v3.3.3. Before analysing the data, the sample ( $N = 37$ ) was examined for malingering using the WSC SF. One subject of the sample was suspected of malingering, and the data from this subject were excluded from further analyses (Merckelbach et al., 2014). All analyses described below were thus performed with a sample of  $N = 36$ .

## Results

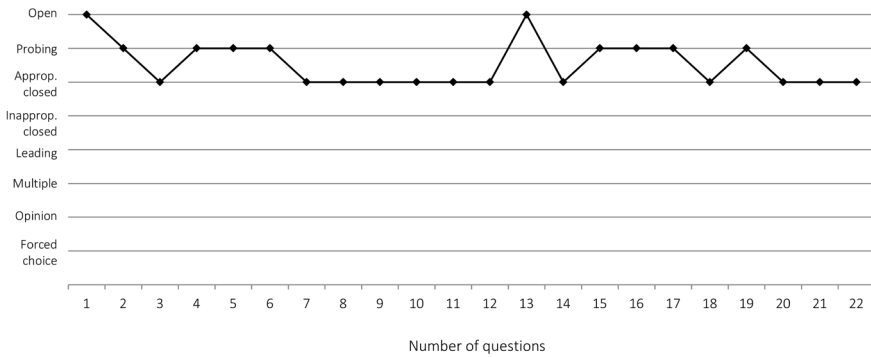
First, we examined psychological vulnerabilities in our sample of police suspects ( $N = 36$ ), based on three of the categories proposed by Gudjonsson (2003): mental disorder, intellectual disabilities, and abnormal mental states. The BJMHS indicated that 20 subjects (55.6%) scored above the cut-off score. The results of the WAIS-III-NL short form showed that 10 subjects (27.8%) obtained an IQ score lower than or equal to 70, which indicated intellectual disabilities. The MMSE indicated that four subjects (11.1%) were suffering from impaired cognitive functioning. Based on self-report, 9 subjects (25%) presented as abusing alcohol and/or drugs. Combining all three categories, 25 subjects (69.4%) in the sample could be labelled as vulnerable and 11 (30.6%) as non-vulnerable. Vulnerability scores summarized using means, standard deviations, medians, and ranges on the WAIS-III-NL short form and MMSE are presented in Table 5.1.

Second, interrogation transcripts ( $N = 36$ ) were coded by means of Griffiths Question Map and subsequently labelled as either an appropriate or inappropriate interrogation (Shepherd & Griffiths, 2013). Figures 5.1 and 5.2 present examples of the GQM for two transcripts, classified as an appropriate interrogation (Figure 5.1) and an inappropriate interrogation (Figure 5.2). Only five (about 14%) of the interrogations met the criteria for an appropriate interrogation, as described by Shepherd and Griffiths (2013). These five interrogations consisted entirely of open, probing, and appropriately closed questions. Consequently, 31 (about 86%) interrogations did not meet these criteria and were labelled inappropriate interrogations. The inappropriate interrogations contained a minimum of 2.1% and a maximum of 23.1% inappropriate questions, all in combination with a lack of a coherent questioning pattern, which requires open questions to introduce a topic, followed by probing questions, and (possibly) ending a topic by an appropriately closed question.

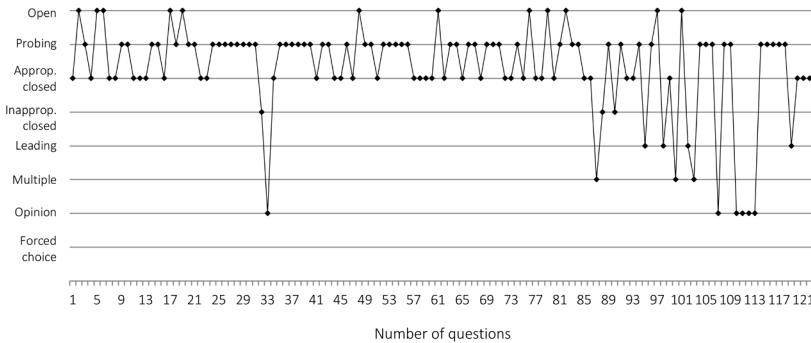
**Table 5.1** Mean, median and standard deviation for the WAIS-III-NL and MMSE in the sample ( $N = 36$ ).

	<i>M</i>	<i>SD</i>	<i>Mdn</i>	<i>Range</i>
WAIS-III-NL	75.39	10.46	75.00	54-100
MMSE	27.25	2.37	28.00	19-30

Note. WAIS-III-NL: Dutch Short Form of the Wechsler Adult Intelligence Scale 3<sup>rd</sup> edition (Velthorst et al., 2013). MMSE: Dutch version of the Mini Mental State Exam (Kok & Verhey, 2002).



**Figure 5.1.** Typical representation of an appropriate police interrogation. Appropriate questions are represented at the top three lines (i.e., open, probing, and appropriate closed questions). Inappropriate questions are represented at the bottom five lines (i.e., inappropriate closed questions, leading questions, multiple questions, stating an opinion, and forced choice questions).



**Figure 5.2.** Typical representation of an inappropriate police interrogation. Appropriate questions are represented at the top three lines (i.e., open, probing, and appropriate closed questions). Inappropriate questions are represented at the bottom five lines (i.e., inappropriate closed questions, leading questions, multiple questions, stating an opinion, and forced choice questions).

Table 5.2 shows a cross tabulation of appropriate vs. inappropriate interrogations among vulnerable vs. non-vulnerable suspects. Twenty-one (84.0%) out of 25 vulnerable suspects were interrogated inappropriately, four vulnerable suspects (16.0%) were interrogated appropriately. Ten (90.9%) non-vulnerable suspects were interrogated inappropriately, one non-vulnerable suspect (9.1%) was interrogated appropriately. No significant difference was found between appropriate and inappropriate interrogations in vulnerable vs. non-vulnerable suspects,  $OR = 1.90, p = 1$ .

**Table 5.2.** Appropriate and inappropriate interrogations in vulnerable and non-vulnerable suspects ( $N = 36$ ).

Suspects	Interrogations <sup>1</sup>	
	Appropriate	Inappropriate
Non-vulnerable	1 (9.1%)	10 (90.9%)
Vulnerable	4 (16.0%)	21 (84.0%)
Total	5 (13.9%)	31 (86.1%)

<sup>1</sup> Appropriate interrogations contained open-ended, probing, and appropriate closed questions. Inappropriate interrogations were performed with the use of inappropriate/ ineffective questions and showed disorganised questioning patterns as well (Shepherd & Griffiths, 2013).

There was no difference in the length of interrogations (number of questions) between vulnerable suspects (*Mdn* = 27) and non-vulnerable suspects (*Mdn* = 30), *p* = 0.47. We also examined the association between type of question and the outcome of each screening instrument separately, with the use of a multinomial-poisson model to acknowledge the fact that the length of the interrogation varies between suspects (Lang, 2004). The comparison between vulnerable and non-vulnerable suspects was adjusted for the length of the interrogation. Results in Table 5.3 are presented for an interrogation of 27 questions, which is the median length of the interrogations.<sup>9</sup>

**Table 5.3.** Percentages of the eight types of questions of the GQM asked during interrogations, for an interrogation of 27 questions in relation to vulnerability, as defined on WAIS-III-NL (IQ ≤ 70 vs. > 70), BJMHS (further mental health examination needed: yes vs. no), MMSE (impaired cognitive functioning: yes vs. no), and the use of drugs and/or alcohol (yes vs. no).

		Question types <sup>1</sup>								
		Appropriate					Inappropriate			
		<i>n</i>	1	2	3	4	5	6	7	8
WAIS-III	≤ 70	10	8.2*	34.8*	42.2	2.0	5.6	6.2	1.1	.0
	> 70	26	3.1*	47.7*	35.9	0.8	3.0	7.8	1.8	.0
BJMHS	Y	20	4.2	44.6	37.5	1.3	4.4*	6.8	1.3	.0
	N	16	3.2	48.1	36.0	0.4	1.4*	8.6	2.4	.0
MMSE	Y	4	10.1*	43.3	40.6	0.0*	4.6	1.4*	0.0*	.0
	N	32	3.8*	45.6	36.7	1.0*	3.4	7.8*	1.7*	.0
Drugs / Alcohol	Y	9	7.5*	47.3	38.0	0.5	2.3	4.4*	0.0*	.0
	N	27	3.2*	45.2	36.6	1.1	3.7	8.3*	1.9*	.0

<sup>1</sup> (1) open-ended, (2) probing, (3) appropriate closed, (4) inappropriate closed, (5) leading, (6) multiple questions, (7) opinion statements, (8) forced choice.

\* Significant difference when 95% confidence interval for the percentage difference does not contain 0, based on a multinomial-poisson model.

<sup>9</sup> Note: the distribution of the length of the interrogations was skewed to the right, and the number of suspects was moderate (*N* = 36), therefore the median was used instead of the mean.

## Discussion

The aim of this study was to investigate whether police officers in the Netherlands interrogate suspects – vulnerable suspects in particular – appropriately, by the use of appropriate interrogation techniques. We expected that all suspects, but psychologically vulnerable suspects in particular, would be interrogated in an appropriate manner, with open and non-leading questions.

First, in our sample ( $N = 36$ ) about 56% screened positively for further examination of their mental health, about 28% suffered from intellectual disabilities (IQ score below 70), 11% screened positive for an abnormal mental state, and 25% of the sample stated to be addicted to alcohol and/or drugs and/or to take alcohol or drugs on a daily basis. Only 31% of our sample could be labelled as non-vulnerable according to our criteria. These findings seem to be in line with previous research. Gudjonsson, Clare, Rutter, and Pearse (1993) reported the prevalence of psychological vulnerabilities in suspects at two police stations in London, United Kingdom. They found that of 173 police suspects, 33% were intellectually disadvantaged ( $IQ < 75$ ), 20% experienced high levels of stress and anxiety, and 35% were in an abnormal mental state because of stress, mental disorder, or drug and/or alcohol abuse (Gudjonsson et al., 1993). A study conducted at Australian police stations ( $N = 198$ ) showed that about 82% of male and 94% of female suspects exhibited high levels of psychological distress (Baksheev, Thomas & Ogloff, 2012). Another study ( $N = 614$ ) showed that about one-third of Australian police suspects experienced psychiatric symptoms (Ogloff, Warren, Tye, Blaher, & Thomas, 2011). Blaauw, Kerkhof, and Vermunt (1998) found high levels of depression (89%), somatization (74%) and emotional problems, such as feeling very lonely (70%), tired (46%), angry (54%), and anxious (52%), among Dutch police suspects. Thus, we can safely conclude that police officers are highly likely to encounter a high percentage of vulnerable suspects during police interrogations.

Second, we hypothesized that police officers would perform interrogations appropriately as prescribed by the Dutch Interrogation Manual (Van Amelsvoort et al., 2015), especially with vulnerable suspects. Our study revealed that about 86% of all suspects, about 84% of all vulnerable suspects, and 91% of all non-vulnerable suspects were interrogated in an inappropriate manner. These inappropriate interrogations showed disorganised questioning patterns and the use of inappropriate questions, which were mainly multiple questions, followed by leading questions, opinion statements and inappropriate closed questions. Importantly, no association was found between the type of suspect (vulnerable vs. non-vulnerable) and the way the interrogation was performed (appropriate vs. inappropriate).



Exploratory analyses on the use of the different types of questions in relation to psychological vulnerabilities showed a mixed picture of associations. First, leading questions were asked more often during interrogations of suspects who were positively screened for needing further mental health examination, compared to suspects who were not screened positively on this measure. Second, open-ended questions were asked more often, yet probing questions less often, during interrogations of intellectually disabled suspects, compared to suspects without intellectual disabilities. Third, cognitively impaired suspects were less often confronted with inappropriate closed questions, opinion statements, and multiple questions, and more often with open-ended questions, compared to suspects who were not cognitively impaired. In addition, suspects who stated to drink alcohol or use drugs on a daily basis were asked more open questions and experienced fewer opinion statements and multiple questions, compared to suspects who did not drink alcohol or use drugs on a daily basis. However, these differences should be interpreted with some caution because of small sample sizes. Something worth noting is police officers used open-ended questions significantly more often when interrogating vulnerable suspects – at least with suspects who are suffering from intellectual disabilities and abnormal mental states – yet the overall percentage of open questions during all police interrogations was extremely low (about 5%).

In sum, it can be concluded that police officers often used inappropriate questions during their interrogations and their interrogations were often disorganised, irrespective of the presence of psychological vulnerabilities in suspects. Moreover, if future studies confirm that police officers use more inappropriate questions during interrogations of suspects with putative mental health problems (i.e., those who screened positive on needing further mental health examination), this could mean these suspects are in double jeopardy because their vulnerability increases the risk of inappropriate interrogation. One possibility is that suspects who suffer from mental disorders manifest problems with understanding questions, and with providing a detailed and accurate account of events. This may inadvertently 'tempt' interrogators to use more closed and leading questions in order to seek confirmation from more vulnerable suspects (Herrington & Roberts, 2012; Hill, Memon, & McGeorge, 2008; O'Mahony, Milne, & Grant, 2012). Obviously, this hypothesis needs to be tested by conducting sequential analyses of interrogations in larger samples of vulnerable and non-vulnerable suspects.

Our finding of disorganised questioning patterns and the ample use of inappropriate questions demonstrates that day-to-day police interrogation practice in the Netherlands differs greatly from the guidelines described in the Interrogation

Manual, which has been reported by other researchers as well. For example, Siemerink and Van der Laan (2016) interviewed 16 police officers, a public prosecutor, and a judge, who were involved in five murder and manslaughter cases with juvenile suspects. They found that older police officers mostly relied on 'old-school' tactics, which were mainly based on gut feelings. Younger police officers were trained in modern interrogation techniques, which led to more proper preparation of interrogations. Duker and Stevens (2009) found that, after graduation from the Police Academy, young police officers' initially trained interrogation techniques were reshaped by older colleagues in the field. Moreover, it was found that in most cases interrogators were selected on the basis of availability and not on the basis of their qualifications. Further, Dutch police officers believe that successful completion of specialised interrogation training has no bearing on the quality of the interrogation (Siemerink & Van der Laan, 2016). Thus, it is likely that Dutch police officers lack thorough theoretical knowledge of the importance of appropriate interrogation techniques and their effects on suspects (Duker & Stevens, 2009; Nierop & Van den Eshof, 2014; Odinet, Boon, & Wolters, 2015; Siemerink & Van der Laan, 2016).

It is of eminent importance that police officers undergo extensive training in appropriate interrogation techniques, grounded in empirical research, not only during their initial training, but throughout their career (Clarke, Milne, & Bull, 2011; Farrugia & Milne, 2012; Odinet et al., 2015; Soukara et al., 2009). Research has clearly shown that skilled police interrogators ask more open-ended questions (Powell, Hughes-Scholes, Smith, & Sharman, 2014), and that peer feedback on the interrogators' performance leads to an increase of appropriate questions and enhanced quality of police interrogations (Clarke et al., 2011; Cyr, Dion, McDuff, & Trotier-Sylvain, 2012; Lamb et al., 2012).

### **Limitations**

The present study was limited in two respects. First, the sample size was small ( $N = 36$ ). Notably, the number of non-vulnerable suspects was small. Second, this study investigated interrogation techniques based on written interrogation transcripts, because audio or video recordings of the interrogations were not available. After we collected the data for this study, Malsch and her colleagues (2015) reported that most written Dutch police transcripts do not fully represent the actual interrogations. They analysed 55 verbatim interrogation transcripts and interviewed 24 experts within the criminal justice system (e.g., police detectives, public prosecutors, judges, and lawyers). According to their results, at most 37% of all questions asked during interrogations are reproduced in official police transcripts, and circumstances, emotions, pressure,

confrontations, and remarks of suspects that could exculpate them, are often left out of the transcripts. Dutch police interrogation transcripts are in fact summaries of the interrogation and are not accurate reproductions of reality (Malsch et al., 2015), hence, a replication of our study using audio or video recordings, in order to obtain a more accurate representation of what was actually said in the interrogation room, could provide more accurate data. However, considering that Malsch et al. (2015) found that less appropriate interrogation methods were often left out of the official police transcripts, we hypothesize that the current findings (which used the official transcripts) may actually underestimate the level of inappropriateness of the interrogations.

## Conclusion

Based on our findings, police officers in the Netherlands appear to adhere to inappropriate interrogation methods in a large proportion of interrogations. This is particularly problematic because psychologically vulnerable suspects appear to be at even higher risk to be subjected to inappropriate closed and leading questions compared to non-vulnerable suspects. We would encourage the Dutch National Police to open its interrogation rooms to empirical researchers to further examine to what extent Dutch interrogation methods are appropriate for interrogating suspects – in particular in relation to vulnerable suspects (Duker & Stevens, 2009; Farrugia & Milne, 2012; Herrington & Roberts, 2012; Kassin et al., 2010a; Soukara et al., 2009; Vrij, 2003). Furthermore, the possible increased vulnerability of police interrogators to revert to inappropriate questioning, in response to vulnerable suspects' behaviours during the interrogation, is in need of further investigation.

5

I am staying in this cell for two days now, and yesterday I suddenly saw bugs crawling on the wall.

The green colour of the cell,  
it drives me crazy.

Male police detainee, 48 years old  
(2015)

## Chapter Six

# Staying overnight in a police cell

A study on suspects' psychological wellbeing and sleep problems

This chapter is a translated and modified version of the published paper: Geijsen, K., Kop, N., & De Ruiter, C. (2018). Overnachten in een politiecel: Een onderzoek naar het psychisch welzijn en slaapproblemen van verdachten. *Tijdschrift voor Criminologie*, 60(3), 312-326. DOI: 10.5553/TvC/0165182X2018060003003.

## Introduction

In recent years, many studies have addressed the influence of environments on behaviour and psychological wellbeing. Studies have found that if people find their environment stressful, negative performance and negative emotions increase (Bell, Green, Fisher, & Baum, 2001). This effect has been found in psychiatric wards (Karlin & Zeiss, 2006), hospitals (Drahota et al., 2012; Dijkstra, Pieterse, & Pruyn, 2006), and prisons (Hancock & Jewkes, 2011; Morris & Worrall, 2010). For example, prison design affects prisoners' behaviour and psychological states (Bell, Greene, Fisher, & Baum, 2000). Prisoners' behaviour is related to various aspects of their environment, such as interiors, architecture, and social factors (Steinke, 1991). Temperature, colours, air quality, and the amount of daylight are also related to problematic behaviour by prisoners (Morris, Carriaga, Diamond, Leeper Piquero, & Piquero, 2012; Steinke, 1991). Deprivation of mental stimulation due to incarceration may lead to stress, anger, and frustration, and has a negative effect on the relationship with prison staff and prisoners' psychological wellbeing (Nurse, Woodcock, & Ormsby, 2003; Steinke, 1991).

To date, very little research has addressed the influence of police detention centre environments on suspects' psychological wellbeing and sleep problems. The present study explores this issue.

### Environmental psychology

Environmental psychologists have used different theoretical models to attempt to understand environmental influences on psychological wellbeing and behaviour (Bell et al., 2001; Gifford, Steg, & Reser, 2011). For instance, stimulation theory asserts that people adapt to their environments to a certain level and that overstimulation or under-stimulation heightens levels of arousal and stress (Gifford et al., 2011; Wohlwill, 1996). Control theory emphasizes the importance of people's ability to control stimuli in their environments (Altman, 1975; Gifford et al., 2011). Integral approaches (e.g., interactionism and organic models) attempt to describe the full yet complex interrelationship between the environment and people (Altman & Rogoff, 1987; Gifford et al., 2011). Although different models address specific environments, they also overlap (Gifford et al., 2011).

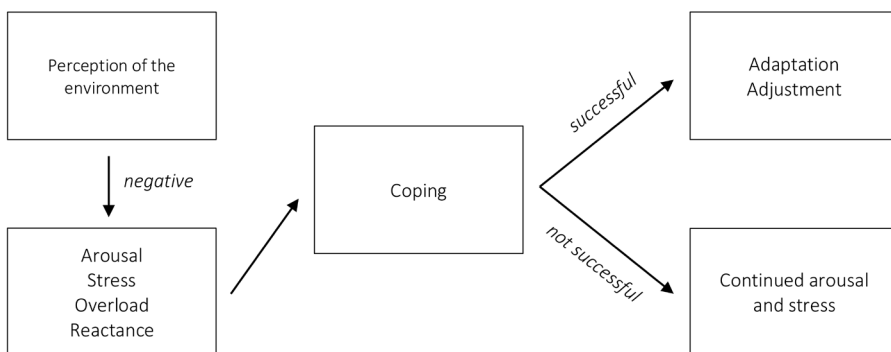
Bell et al. (2001) combined different theoretical models into an eclectic model of theoretical perspectives about how environments affect people's behaviour and emotions. They assumed that people experience the environment in unique ways. If coping is successful, people will eventually adapt to the environment, sometimes leading to higher self-esteem and skill development. If the environment

is experienced in a negative manner due to under-stimulation (deprivation of stimuli) or overstimulation (too many stimuli), then the ability to adapt to that environment leads to avoidance behaviour, continued arousal and stress, and eventually possible decreased psychological wellbeing, so-called learned helplessness, and/or decreased performance (Bell et al., 2001). Figure 6.1 presents a simplified theoretical model from Bell et al. (2001).

### Police detention centres in the Netherlands

Little research has investigated the influence of police detention centres' environments on the psychological wellbeing of suspects. Every year, about 240,000 people are incarcerated in police detention centres in the Netherlands (Inspectie Veiligheid en Justitie, 2015), mostly because they are suspected of committing a crime. Often police suspects must be detained for some time, ranging from several hours to several days. The period depends on the severity of the crime and the police investigation (e.g., whether witnesses need to be interviewed, other evidence must be investigated, or a suspect must be questioned multiple times).

Blaauw, Vermunt, & Kerkhof (1997) investigated the quality of Dutch police detention centres and concluded that they differ in interior design, procedures, number of prison staff, and facilities (e.g., availability of a nurse). They also concluded that physical circumstances in police detention centres are worse than in regular prisons (e.g., because of the size and design of cells, the possibility to contact family, friends, and other inmates, daily activities, and levels of crowding and noise). Dutch police



**Figure 6.1.** Simplified eclectic model of theoretical perspectives on the influence of environments on people's behaviour and emotions (from Bell et al., 2001).



detention centres are designed with a view toward functionality, security, and safety, not specifically for suspects' comfort (Blaauw et al., 1997).

Some changes have occurred in recent decades. The interiors of police detention centres must meet strict national regulations (Regeling politiecellencomplex, 2017) and international regulations (see Hagens, 2011, for detailed information). For safety and hygiene reasons, cells are furnished with a plastic mattress and pillow, a woollen blanket, and paper sheets. In some of the more recently built centres, suspects can control lighting, heating, and the toilet, and some cells are equipped with TV, radio, and/or a game console. However, the house rules of police detention centres differ, for example in how often and how long suspects are allowed to smoke and stay in the courtyard for fresh air and exercise, and whether an extra meal or blanket is provided on request. To check the wellbeing of suspects during the night, staff may leave a small light on to check suspect's wellbeing through the door hatch on a regular basis, or they even might use flashlights. Most of the time, police detention centres are noisy – during the night as well – because of irritated, aggressive, and/or confused suspects being locked up in cells.

### **Sleep problems**

If suspects experience sleep problems, they might face problems during police interrogations (Gudjonsson, 2003; Harrison & Horn, 2000). For example, sleep deprivation has negative effects on cognitive abilities (Ratcliff & Van Dongen, 2009), such as attention, memory, emotions, and executive functions (Ben Simon, Greene, Fisher, & Baum, 2017; Deak & Stickgold, 2010). It can also affect preparedness, reaction time, and decision-making (Killgore, Balkin, & Wesensten, 2006). Research has also found that sleep deprivation may enhance psychological symptoms (Baksheev, Thomas, & Ogloff, 2012; Blaauw et al., 1998). For example, Ratcliff and Van Dongen (2009) tested the cognitive abilities of two groups of participants. One group was allowed to sleep, the second group was kept awake for three days. On the third day, the second group gave significantly more random answers on cognitive tests and were less able to effectively retrieve information from stimuli, compared to the first group. Another example is the experiment by Killgore et al. (2006), who tested the effect of sleep deprivation on decision-making in uncertain circumstances. For this purpose, they used the Iowa Gambling Task (IGT), a computerized gambling test in which participants take a card from one of four piles. They must choose between an immediate large reward accompanied by a high chance of potential loss during the test, or small, long-term rewards with less risk. Results of the IGT showed that sleep deprivation negatively affects long-term decision-making because sleep-deprived

participants took a lot of risks and lost a lot of money (Killgore et al., 2006). A third experiment, conducted by Thomas et al. (2010), showed that even one night of sleep deprivation negatively affects attention and high-order cognitive processing, such as planning, organising, and information processing. Furthermore, a fourth experiment, by Frenda et al. (2016), showed that sleep deprivation is related to false confessions. Participants ( $N = 88$ ) were involved in a computer test and were told to absolutely not touch the escape button because information would then be lost. The participants were divided into two groups: one group ( $n = 44$ ) was allowed to sleep during the night, while the other group ( $n = 44$ ) was kept awake all night. The next morning, all the participants were questioned and told they had hit the escape button – which had not happened. Subsequently, 30 (68%) of the sleep-deprived participants falsely confessed, compared to 16 (36%) of the participants who had slept (Frenda et al., 2016). In sum, suspects who experience sleep problems are less able to make considered decisions (Harrison & Horne, 2000), and can be influenced more easily (Blagrove, 1986; Frenda et al., 2016; Gudjonsson, 2003).

### **This study**

Based on the theory and research described above, circumstances in police detention centres raise four research questions. The first research question is what the current situation is with regard to the psychological wellbeing of suspects in Dutch police detention centres. The second question concerns the extent to which police suspects experience sleep problems. The third research question is to what extent sleep problems are related to the psychological wellbeing of suspects. The fourth question is whether there are differences in psychological wellbeing and sleep problems between suspects who sleep at home and suspects who sleep in a police detention centre. Subsequently, five hypotheses were formulated. It was hypothesized that suspects detained in police detention centres experience (1) a lower level of psychological wellbeing and (2) a higher level of sleep problems compared to a sample of the general Dutch population, that (3) sleep problems among police suspects negatively affects their psychological wellbeing, and that suspects who sleep in a police cell experience (4a) a lower level of psychological wellbeing and (4b) a higher level of sleep problems than suspects who sleep at home (Baksheev et al., 2012; Blaauw, Kerkhof, & Vermunt, 1998; Gudjonsson, 2003; Harrison & Horne, 2000).

## Method

### Participants

The sample of police suspects detained in police detention centres in this study is the same sample as described in Chapter Two and Three. The psychological assessments were performed between 24 June 2014 and 7 May 2015. Only suspects who were at least 18 years old, who were able to speak the Dutch language were invited for the psychological assessment. If a suspect had been placed in an observation cell or if there was any prospect of release, that suspect was excluded from this study. A number of psychological assessments had to be terminated for various reasons. These included serious language problems, which made the assessment impracticable ( $n = 63$ ), unforeseen developments in the police investigation (e.g., unannounced interrogations, lawyer visits, or immediate release;  $n = 21$ ), or because after the start of the assessment the participant stated that he or she was suffering from psychoses (e.g., acoustic or visual hallucinations) or severe depressive symptoms ( $n = 13$ ). Eventually, 178 suspects voluntarily participated in this study: 37 in Amsterdam, 35 in Breda, 31 in Eindhoven, 26 in Heerlen, 8 in Tilburg, and 41 in Maastricht. Their age range was 18 to 63 years ( $M_{age} = 31.7$ ,  $SD_{age} = 11.2$ ).

Unfortunately, it was not feasible to keep a record of how many suspects were incarcerated in the police detention centres during the assessment period. This was because many suspects were not placed in continued detention and hence were released within six hours after being incarcerated, because they were detained based on immigration status or unpaid fines, or because they stayed there briefly while awaiting transportation to a pre-trial detention centre.

### Procedure

The psychological assessments were performed by the first author, who at the time of the assessments was a M.Sc. psychologist who had obtained the Basic Qualification for Psychodiagnostics (Basisaantekening Psychodagnostiek, BAPD) from the Dutch Association of Psychologists (Nederlands Instituut van Psychologen, NIP). During the assessment period, he was a member of the NIP and was not employed by the Dutch police. He was assisted by three second-year students from the Master's programme in Forensic Psychology at Maastricht University. They had completed various courses on psychological diagnostics and were closely supervised during the assessments. The three Master's students underwent an official security screening by the Police Academy and signed a confidentiality agreement.

Suspects were approached in their cells and asked if they were willing to participate in a psychological assessment. If they agreed, the aim and outline of the assessment were explained in a separate room (an interrogation room or lawyer room). All potential participants were told that they could only participate anonymously, that the results of the assessment were confidential and could not be used in the police investigation, and that the assessor was bound by professional secrecy. Finally, the informed consent form was explained, and participants were told that they could end the assessment at any time.

This study was approved by the standing Ethical Review Committee Psychology and Neuroscience of Maastricht University (ERCPN number: 03\_10\_2014), the Office of the Attorney General of the Netherlands, and the Chief Constable of the Dutch National Police.

## **Instruments**

The following instruments were part of a psychological test battery used to assess several psychological vulnerabilities.

To check for malingering (simulation of physical and psychological symptoms), we used a short form (SF) of the Wildman Symptom Checklist (WCS; Wildman & Wildman, 1999). The WCS SF contains four items about serious but non-credible symptoms that have proven to be a reliable predictor of malingering (Merckelbach, Smeets, & Jelacic, 2008; Merckelbach, Langeland, De Vries, & Draijer, 2014). An example of a WCS item is: 'Sometimes I have such a bad headache that my feet hurt'. The items were scored on a five-point Likert scale (0 = not at all to 4 = extreme). The total score is the sum of the scores, which varies from 0 to 16, and a score of 4 or higher is an indication of malingering. Previous research found good internal reliability for the four items, namely a Cronbach's alpha from .56 to .73 (Deetman et al., 2011). In our study, the Cronbach's alpha was .73.

Psychological wellbeing was first measured with the total scale for Psychoneuroticism from the Symptom Checklist 90 (SCL-90, Derogatis, 1997; Dutch version: SCL-90-R-NL, Arrindell & Ettema, 2005). The SCL-90-R-NL is a validated instrument that is used to measure psychological distress. The checklist contains 90 questions, scored on a five-point Likert scale ranging from 1 'not at all' to 5 'very much' (Arrindell & Ettema, 2005).

Additionally, psychological wellbeing was measured by a negative affect (Watson, Clark, & Carey, 1988), for which the Depression Anxiety and Stress Scale was used (DASS; Lovibond & Lovibond, 1995; Dutch version: de Beurs, van Dyck, Marquenie, Lange, & Blonk, 2001). The DASS provides insight into subjectively experienced negative emotions. The Depression scale measures symptoms such as a lack of

initiative and interest, and pessimism about the future. The Anxiety subscale measures symptoms such as panic, a dry mouth, fear of bad performance, and tremors. The Stress subscale measures symptoms such as tension, being unable to come to rest, irritation, and being hot-tempered (de Beurs et al., 2001). In this study, we used the 21-item DASS, which contains seven items per subscale. Scores ranged from 0 'never' to 3 'most of the time'. The total sum-scores of the subscales were multiplied by two so that scores from the 21-item version could be compared with the original 42-item version (de Beurs et al., 2001).

Sleep problems were measured using the Sleep Problems subscale of the SCL-90-R-NL, and by asking two specific questions about sleep problems. The Sleep Problems subscale contains three items about problems falling asleep, waking up too early, and experiencing disturbed or restless sleep (Arrindell & Ettema, 2005). However, this subscale refers to sleep problems 'during the last week including today', so two additional questions were asked: 'How did you sleep last night on a scale from 1 to 10, where 1 is very bad and 10 is very good?' and 'Did you sleep in the police detention centre last night (yes/no)?'

### **Data analyses**

Scores from the SCL-90-R-NL and the DASS were compared with scores of populations from previous research (i.e., the SCL-90-R-NL manual; Arrindell & Ettema, 2005) and validation research about the DASS (de Beurs et al., 2001). Differences were analysed with ANOVAs and Tukey post-hoc tests. Differences between sleep deprivation scores found in this research and previous research (SCL-90-R-NL) were analysed with a *t*-test. Differences between psychological wellbeing and sleep problems were analysed with *t*-tests and post-hoc with a power analysis. Correlations between sleep problems and psychological wellbeing were calculated with Pearson's correlation coefficient *r*. All analyses were performed with IBM SPSS v24, except for the power analysis, which was calculated with G\*Power (Faul, Erdfelder, Lang, & Buchner, 2007).

## **Results**

Before performing the analyses, we screened participants ( $N = 178$ ) for malingering based on the WSC SF. This screening found that 14 participants scored above the threshold score of the WSC SF (and results on the WSC SF were missing for 15 participants). We excluded the results of those 29 participants from further analyses, which left  $N = 149$ . We confirmed that there was a normal distribution of scores on the

total Psychoneuroticism scale and the Sleep Problems subscale of the SCL-90-R-NL, and the Depression, Anxiety, and Stress subscales of the DASS.

First, the mean score of the total Psychoneuroticism scale of the SCL-90-R-NL was 151.2 ( $SD = 47.2$ ). Previous research (Arrindell & Ettema, 2005) in a sample of the general Dutch population ( $N = 2394$ ) found a general mean score of 118.3 ( $SD = 32.4$ ). In a sample of Dutch prisoners detained in general prisons ( $N = 257$ ), a general mean score of 153.1 ( $SD = 52.0$ ) was found. These scores differed significantly:  $F(2, 1432) = 114.83, p = .000$ . A Tukey post-hoc test found that scores of this study population and the prison sample did not differ,  $p > .05$ .

Second, scores on the Depression, Anxiety, and Stress subscales of the DASS are presented in Table 6.1, next to scores found in previous research (de Beurs et al., 2001) in a clinical sample (outpatients of a psychiatric hospital;  $N = 173$ ), and a sample of the general Dutch population (students;  $N = 289$ ). Significant differences were found between the Depression subscale ( $F(2, 608) = 41.50, p = .000$ ), the Anxiety subscale ( $F(2, 608) = 56.27, p = .000$ ), and the Stress subscale ( $F(2, 608) = 39.50, p = .000$ ). Tukey post-hoc tests showed that scores from the three samples differed significantly (all  $p$ 's  $< .01$ ) except for the Depression subscale: the score found in this study did not differ significantly from the score found in the clinical population ( $p = .21$ ).

**Table 6.1.** Scores (means and standard deviations) of the DASS subscales of suspects in police custody, a clinical population, and a general Dutch population.

	Police suspects <sup>1</sup> $N = 149$ $M (SD)$	Clinical population <sup>2</sup> $N = 173$ $M (SD)$	General population <sup>2</sup> $N = 289$ $M (SD)$
Depression	11.6 (9.4)*	13.4 (11.9)	5.7 (7.7)*
Anxiety	9.2 (7.4)*	11.7 (10.1)*	4.2 (5.9)*
Stress	12.3 (7.9)*	15.7 (10.2)*	8.4 (8.0)*

\*  $p < .05$ , tested two-sided.

<sup>1</sup> This study.

<sup>2</sup> De Beurs et al., 2001.

Third, the mean score on the Sleep Problems subscale of the SCL-90-R-NL was 6.6 ( $SD = 3.0$ ). Previously, in a sample of the general Dutch population ( $N = 2394$ ) a score of 4.5 ( $SD = 2.2$ ) was found, and in a sample of Dutch male prisoners detained in general prisons a score of 7.1 ( $SD = 3.8$ ) was found. Scores differed significantly between these three samples ( $F(2, 2797) = 172.65, p = .000$ ). A Tukey post-hoc test showed that the score found in this study's sample and the sample of prisoners did not differ significantly ( $p = .11$ ). Furthermore, suspects rated the quality of sleep during the night prior to the psychological assessment a mean score of  $M = 4.7$  ( $SD = 2.18$ ) on a 1-10 scale.

In addition, sleep problems measured with the Sleep Problems subscale of the SCL-90-R-NL, as well as with the self-report items, correlated negatively with psychological wellbeing (measured with the total Psychoneuroticism scale of the SCL-90-R-NL and the DASS), except for the Stress subscale of the DASS. Correlations are presented in Table 6.2. A Bonferroni-correction was not applied intentionally to avoid Type-II errors (false-negative), in view of the exploratory character of this study (Field, 2012).

**Table 6.2.** Correlations between sleep problems: self-report [Self] and the subscale Sleep Problems [SLE] of the SCL-90-R-NL;<sup>1</sup> and psychological wellbeing: total scale Psychoneuroticism of the SCL-90-R-NL (PSY),<sup>1</sup> and the subscales of the DASS<sup>2</sup>: Depression (DEP), Anxiety (ANX), and Stress (STR) ( $N = 149$ ).

	Self	SLE	PSY	DEP	ANX	STR
Self	1	-.31**	-.22**	-.17*	-.18*	-.06
SLE		1	.69**	.46**	.40**	.31**
PSY			1	.74**	.64**	.65**
DEP				1	.66**	.70**
ANX					1	.61**
STR						1

\*  $p < .05$ , tested one-sided.

\*\*  $p < .01$ , tested one-sided.

<sup>1</sup> Arrindell & Ettema, 2005.

<sup>2</sup> De Beurs et al., 2001.

Finally, differences between suspects who slept at home the night prior to the psychological assessment ( $n = 15$ ; 12 males, 3 females,  $M_{age} = 29.9$ ;  $SD_{age} = 12.4$ ;  $Mdn_{age} = 25.0$ ), and suspects who slept in a police detention centre ( $n = 134$ ; 124 males, 10 females;  $M_{age} = 32.0$ ;  $SD_{age} = 10.8$ ;  $Mdn_{age} = 28.5$ ) were explored. T-tests showed that the two groups (slept at home vs. slept in a police detention centre) differed significantly in regard to Psychoneuroticism, Depression, Anxiety, and the self-reported quality of sleep, but not in regard to Sleep Problems and Stress. The mean scores of suspects who slept at home and in a police cell, and the results of the T-tests, are presented in Table 6.3.

**Table 6.3.** Scores of police suspects who slept at home or slept in a police detention centre prior to the psychological assessment in regard to psychological wellbeing (total score Psychoneuroticism of the SCL-90-R-NL and the subscales Depression, Anxiety, and Stress of the DASS), sleep problems (self-report and the subscale Sleep Problems of the SCL-90-R-NL), and results of the t-tests.

	Sleeping at home  $n = 15$ $M (SD)$	Sleeping in a police detention centre  $n = 134$ $M (SD)$	T-test
Psychological wellbeing			
Psychoneuroticism	126.27 (32.09)*	154.00 (47.83)*	$t(22) = -3.00, p = .007^*$
Depression	6.27 (5.44)*	12.15 (9.63)*	$t(25) = -2.32, p = .022^*$
Anxiety	3.87 (5.57)*	9.75 (7.43)*	$t(23) = -4.38, p = .000^*$
Stress	9.86 (4.67)	12.60 (8.12)	$t(22) = -1.91, p = .068$
Sleep problems			
SCL-90-R-NL	5.60 (2.41)	6.76 (3.00)	$t(147) = -1.45, p = .150$
Self-report	7.27 (2.63)*	4.45 (2.63)*	$t(147) = 3.93, p = .000^*$

\*  $p < .05$ .



## Discussion

The first hypothesis was that suspects detained in a police detention centre would experience lower levels of psychological wellbeing. The results confirmed this. Study participants reported higher levels of psychological distress than a normative sample of the general Dutch population and scored comparably to prisoners detained in general prisons. In addition, police suspects reported higher levels of depression, anxiety, and stress. Although a direct comparison with the study of Blaauw et al. in 1998 is not possible (e.g., they used an older version of the Symptoms Checklist), our results indicate that many suspects detained in Dutch police detention centres still experience diminished psychological wellbeing.

The second hypothesis was that suspects detained in police detention centres would experience higher levels of sleep problems, which results confirmed as well. Police suspects in police detention centres slept significantly worse than a normative sample of the general Dutch population. Their scores were similar to those found in a sample of prisoners detained in general prisons (Arrindell & Ettema, 2005).

The third hypothesis was that sleep problems in police suspects negatively affects their psychological wellbeing, which the results confirmed. Self-report of the experienced quality of sleep during the night prior to the psychological assessment correlated significantly (although low) with psychological wellbeing – again with the exception of stress.

The fourth hypothesis was that suspects who slept in a police cell prior to the psychological assessment would report lower levels of psychological wellbeing and higher levels of sleep problems than suspects who slept at home, which was confirmed by the results. Suspects who slept in a police cell during the night prior to the psychological assessment rated their quality of sleep with a mean number of 4.5, in contrast to suspects who slept at home prior to the psychological assessment, who rated it with a mean number of 7.3. No differences were found between these samples in regard to sleep problems measured with the SCL-90-R-NL. A possible explanation for this is that the self-reported items referred to the quality of sleep during the night prior to the psychological assessment, yet the items of the SCL-90-R-NL referred to the last seven days including the day of the psychological assessment. Furthermore, we found differences between these two groups for depression and anxiety, but not for stress. The reason for this is unknown; future research should address this. Although the sample of suspects who slept at home was relatively small, it could nonetheless be argued that the results support the fourth hypothesis.

Perhaps, in view of the circumstances in police detention centres described in the

introduction, the results of this study seem to be stating the obvious. However, as mentioned above, poor psychological wellbeing and sleep problems among police suspects may negatively affect police interrogations. Therefore, we recommend that police do their best to prevent sleep problems among suspects detained in police detention centres.

We propose the guidelines of the Dutch Institute for Healthcare Quality (Kwaliteitsinstituut voor de Gezondheidszorg; 2004) may be helpful in this effort. These guidelines emphasize the need to avoid disturbing environmental elements (e.g., noise and lightning) and provide a comfortable bed and bed linen, enough ventilation, and a temperature lower than 24 degrees Celsius (about 75 degrees Fahrenheit).

In addition, police can use simple and cheap measures derived from environmental psychology (e.g., from healing environments). For example, during the construction and renovation of hospitals and psychiatric institutions, designers are now including natural elements (e.g., plants, pictures of nature), paying attention to colours and lightning, and including as much daylight and as many views of the outside world as possible to avoid disturbing biorhythms (Bell et al., 2000; Dalke et al., 2006; Dijkstra et al., 2006; Frumkin, 2001; Karlin & Zeiss, 2006; Ulrich, 1991, 2000). These measures have proven effective in reducing feelings of stress, anxiety, and depression among patients, which results in better psychological wellbeing, shorter stays in hospital, reduced costs, and less use of sick leave and higher labour satisfaction among staff as well (Morris et al., 2012; Nurse et al., 2003; Steinke, 1991; Ulrich, 2001).

Furthermore, isolation in a separation cell within psychiatric emergency services is nowadays seen as a traumatic experience. In response, many institutions have transformed their separation cells into 'comfort rooms' (Steenbergen & Pinedo, 2016). A comfort room is a room specially designed for agitated patients and has homey touches, comfortable furniture, music, and soothing colours. Staying in a comfort room helps to decrease negative symptoms (e.g., pain, anxiety, disturbance, hallucinations) and to prevent escalation of violent behaviour (Souverijn, 2009).

### **Limitations**

A limitation of this study is that our measure of sleep problems was based on the Sleep Problems subscale of the SCL-90-R-NL and on self-report and did not comprise sleep deprivation. However, we were not able to control for the actual hours of sleep, that is, an accurate registration of the level of sleep deprivation among police suspects who participated in this study (e.g. with psycho-physiological measures). Another limitation was that sleep problems could have been caused by circumstances outside the police detention centre, such as personal factors like medicine or alcohol and/or

drug abuse (or abstinence). We could not control for those factors, mostly because of the lack of information about them. Furthermore, as mentioned above, items on the SCL-90-R-NL and the DASS refer to the last seven days, including the day of the psychological assessment. Future research should therefore include instruments that measure psychological wellbeing at the moment of the psychological assessment. Unfortunately, it was not possible to extend the test battery of this study with these instruments because of the test duration. Finally, the sample size of suspects who slept at home prior to the psychological assessment was small ( $n = 15$ ), which implies that the results must be interpreted with some caution and cannot easily be generalized.

## Conclusion

Suspects incarcerated in police detention centres reported lower levels of psychological wellbeing and higher levels of sleep problems than the general population, and they slept more poorly in police cells than at home. Future research on the interiors and circumstances in police detention centres, with the aim of enhancing psychological wellbeing and preventing sleep problems in police suspects, is recommended – not only from a humane perspective but also in view of police investigations and interrogations. If 'comfort police cells' could positively contribute to police interrogations, then the effectiveness and efficiency of police investigations will be served.

# 6

I hope, for most, the police will  
learn something about it.  
Because that would make it all  
a little bit less meaningless.

Ina Post  
EenVandaag, 6 October 2010

## Chapter Seven

# General discussion

Summary

## General discussion

The quotes on the chapters' covers are drawn from a log, which I kept during the data collection and writing phases of my dissertation project. Remarkable 'off-the-record' statements were noted down without further inquiry. At the time these quotes were written down, the findings of the research were unknown, but in hindsight, they provide another window into Dutch police interrogation practice and police suspects' experiences.

In this final chapter, first, a brief summary of the findings reported in Chapter Two through Chapter Six is provided. Next, the findings in relation to the CIPH framework (Gudjonsson, 2003; Gudjonsson & MacKeith, 1988, 1997),<sup>10</sup> implications for police practice, and directions for future research will be discussed.

## Summary

This dissertation concerned persons at risk during interrogations in police custody. The research questions were how often police officers engage vulnerable suspects, if they are able to make an adequate estimation of the prevalence of vulnerable suspects, how they interrogate vulnerable suspects in theory and in practice, and how police detention environments affect police suspects' psychological wellbeing and sleep problems. During a one-year period, 178 suspects detained in six police detention centres across the Netherlands (i.e., Amsterdam, Breda, Eindhoven, Heerlen, Tilburg, and Maastricht) were assessed with a set of psychological instruments for mental disorders, intellectual disability, an abnormal mental state (e.g., due to high levels of stress, alcohol or drug abuse), and certain personality characteristics (i.e., interrogative suggestibility and compliance).

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<sup>10</sup>CIPH is an abbreviation for Circumstances, Interaction, Personality, and Health. Gudjonsson and MacKeith (1997) introduced this framework as a standard to assess defendants in order to assist psychiatrists and psychologists in evaluations and writing court reports (for more details, see: General introduction).

## **Personality and health**

### Psychological vulnerabilities

Chapter Two explored the prevalence of psychological vulnerabilities in police suspects. The research questions were in which percentage of cases a number of specific psychological vulnerabilities occur in police suspects, and if police officers are able to make an accurate estimation of the prevalence of psychological vulnerabilities in police suspects.

In the first part of Chapter Two, it was found that 60% of police suspects scored positive on a mental health screening instrument that indicated a need for further examination of their mental health. About 38% needed further examination specifically about possible Attention Deficit Hyperactivity Disorder (ADHD), 21% reported daily use of drugs (e.g., cannabis, cocaine, GHB), and 4% drank alcohol on a daily basis and more than 15 glasses of alcohol per week. In addition, levels of general psychological distress, depression, anxiety and stress, and interrogative suggestibility, were significantly higher compared to general Dutch population samples.

In the second part of Chapter Two, findings derived from a questionnaire completed by 103 Dutch police detectives were presented. These detectives had worked on average 21 years in the police force, and 11 years as a police detective. About 77% had received one or more advanced criminal investigation training courses, however, 22% had not participated in any training on criminal investigation. In addition, 76% had not received any advanced interrogation training. Police detectives stated they had seen about five vulnerable suspects on average during the past 12 months, ranging between 0 and 90. Some police detectives knew they were interrogating a vulnerable suspect because of known mental health problems, or they noted that suspects were exhibiting strange behaviour or were not responding adequately to questions. About 55% of police detectives stated they did not take any precautions when interrogating vulnerable suspects. Finally, no associations were found between the number of advanced criminal investigation training courses or interrogation training courses taken and the estimated number of vulnerable suspects. The combined findings of the two studies reveal that police officers seriously underestimate the likelihood they will meet a vulnerable suspect in their interrogation rooms.

Chapter Three described a study on a specific psychological vulnerability: intellectual disability. The research questions concerned whether the Screener for Intelligence and Learning Disability (SCIL; Kaal, Nijman, & Moonen, 2013) is a useful screening instrument for the police to detect intellectual disability in police suspects, and what the prevalence of intellectual disabilities in police suspects is. The SCIL contains 14





items, which refer to educational background, a social support network, cognitive abilities, language comprehension and behaviour. The SCIL screens for an IQ below 85.

Results showed that the average IQ score in our sample of police suspects was 75, with a range from 49 to 110. About 84% showed an IQ below 85, and 29% showed an IQ below 70. The SCIL detected 50% of the suspects as having an IQ below 85. The factor structure of the SCIL found in the present study diverged from the structure described in the SCIL Manual, possibly because of a skewed distribution of IQ scores in our sample. The correlation between the IQ score and the SCIL score was only moderate ( $r = .56$ ). A possible explanation for the difference between IQ scores and SCIL results was that social and practical SCIL items (e.g., having a social safety net, contact with social services, reading a newspaper) could have masked actual lower IQ scores, which should be a subject for future research to examine if the different aspects of intellectual disability predict problems during police interrogations.

## **Interaction**

### **Interrogation**

Chapter Four provides a conceptual analysis of current police interrogation practices in the Netherlands in light of cognitive psychological research on police interviewing practices. The central research question was whether current Dutch police interrogation practices meet modern, evidence-based investigative interviewing standards.

A closer look at UK interrogation practice and policy revealed that, around 25 years ago, multiple miscarriages of justice in which false confessions had played a pivotal role led to the Police and Criminal Evidence Act (PACE; 1984), and to new guidelines for police interviewing and investigative interview training. The term interrogation was abandoned and replaced by the term investigative interviewing, reflecting a new framework for the police interview, grounded in cognitive psychological theory on information processing and memory. Fact-finding instead of obtaining a confession became paramount in police interviews.

At the time of the study presented in Chapter Four, Dutch police officers were trained in the General Interrogation Strategy (GIS) described in the Interrogation Manual (Van Amelsvoort, Rispen, & Grolman, 2015, 6<sup>th</sup> edition). To date, the GIS has never been subjected to an empirical test. Several aspects of the GIS are problematic. First, the GIS may foster guilty and confirmation biases in police officers. Second, deliberately building up pressure in suspects is unwanted and unnecessary. Third, it appears from Dutch case law that there are no safeguards to protect suspects from the use of inappropriate interrogation methods.

Chapter Five investigated 36 transcripts of police interrogations, in an attempt to answer the research question if vulnerable suspects are interrogated appropriately. Appropriateness of the interrogations was examined by means of Griffiths Question Map (Shepherd & Griffiths, 2013). Interrogations were labelled either as appropriate (containing open-ended, probing, and appropriate closed questions) or inappropriate (e.g., containing inappropriately closed, leading, or multiple questions, and/or lacking a logically organised questioning pattern). Results showed that 86% (31) of the 36 interrogations were conducted inappropriately, and that 84% (21) of the interrogations of vulnerable suspects were performed inappropriately. The percentage of open questions used during all interrogations was only 5%. In sum, Dutch police officers use inappropriate interrogation tactics in a large proportion of interrogations, regardless of the psychological vulnerability of the suspect. More research on the use of the GIS in actual police interrogations in larger samples is needed.

## **Circumstances**

### **Police detention centre environments**

Chapter Six examined suspects' stay in a police detention centre in relation to their psychological wellbeing and sleep problems. The research questions were whether police suspects experience poorer psychological wellbeing and more sleep problems when detained in a police cell, and to what extent sleep problems affect suspects' mental health.

Findings confirmed that police suspects experienced decreased levels of psychological wellbeing and increased levels of sleep problems while being in police detention. Suspects who slept at home prior to the psychological assessment rated their quality of sleep as satisfactory (7.3), while suspects who had slept in a police cell prior to the assessment judged their quality of sleep as unsatisfactory (4.5). In addition, suspects who had spent the night in a police cell prior to the assessment experienced significantly lower levels of psychological wellbeing and higher levels of sleep problems compared to suspects who had slept at home the night prior to the assessment. Promoting psychological wellbeing and preventing sleep problems in police suspects could probably serve to enhance the effectiveness of police interrogations. Principles of environmental psychology could provide relevant guidance for this.



## Discussion

### Personality and health

#### Psychological vulnerabilities

The findings of Chapter Two and Three showed that most police officers likely engage vulnerable suspects on a daily basis, and much more frequently than their own estimates. The term base rate neglect (a form of selective attention to pertinent information whereby base-rate information is ignored) is used to denote this problem (Case, Fantino, & Goodie, 1999). In addition, many police officers stated they do not take any precautions when interrogating vulnerable suspects. In the next section, we will discuss Dutch and European law, to examine whether police provide proper legal safeguards for vulnerable suspects during interrogations in police custody, in view of possible recommendations for adjustments to police interrogations.

First, the Dutch judicial guideline about audio and video recordings of interrogations of victims, witnesses, and suspects (Aanwijzing audiovisueel registreren van verhoren van aangevers, getuigen en verdachten, 2013; hereafter: Aanwijzing) prescribes mandatory audio or video recording when the police interrogates a vulnerable suspect (a) who is suspected of a crime for which he/she could be sentenced to imprisonment for 12 years or more, (b) in cases victims suffered from a severe physical injury, (c) in specific sexual offences, or (d) in any other case in view of the suspect (e.g., mental disorder), the nature of the case (e.g., severe injuries, impact on society), and/or interrogation proceedings (e.g., unforeseen incidents). The Aanwijzing defines vulnerable suspects as suspects with an age below 16, with mild intellectual disability, or with impaired cognitive functioning (e.g., Parkinson's disease, stroke, or other serious neurological problems). The Aanwijzing also mentions that individual police officers have to decide whether a suspect suffers from intellectual disability. The latter is problematic, because intellectual disabilities are hard to detect on the basis of mere observation during communication, because many intellectually disabled people are apt at masking and cloaking their disability (Kaal, Overvest, & Boertjes, 2017; Young, Goodwin, Sedgwick, & Gudjonsson, 2013), as discussed in more detail in Chapter Three. Additionally, audio or video recording of interrogations with persons with mental disorders is not mandatory, but only by discretion of the public prosecutor, or by decision of a detective unit's staff member, in cases when 'the course of the interrogation urges to record the rest of the interrogation' (Aanwijzing, 2013).

Second, the European Commission provided a recommendation on procedural safeguards for vulnerable persons suspected or accused in criminal proceedings (European Commission, 2013; hereafter: Recommendation). The Recommendation describes vulnerable suspects as suspects 'who are not able to understand and to effectively participate in criminal proceedings, due to age, their mental or physical condition, or disabilities', and 'persons with serious psychological, intellectual, physical or sensory impairments, or mental illness or cognitive disorders' (for an in-depth discussion, see: Van der Aa, 2016). In view of the findings reported in this dissertation, it can be argued that a majority of police suspects fit this definition. The Recommendation prescribes that a lawyer and/or an registered intermediate must be present during interrogations of vulnerable suspects (Article 10), that these suspects have the right to regular and systematic access to health care services (Article 12), that the right to consult a lawyer cannot be waived (Article 12), that audio recording of all pre-trial interrogations is mandatory (Article 13), that detaining these suspects must be seen as a last resort and that it must take place under conditions suited to their needs (Article 14), and that police officers should receive specific training on psychological vulnerabilities in police suspects (Article 17). Although the Recommendation is non-binding with regard to Dutch national legislation, the proposed measures formulated in the Recommendation will likely contribute to more appropriate and ethical police interrogations with vulnerable suspects, as discussed next.

Firstly, suspects may benefit from the presence of a lawyer during interrogations. Verhoeven and Stevens (2012) found that when a lawyer was present, Dutch police detectives used intimidation tactics (i.e., evoking emotional reactions and misleading suspects) less frequently, and the authors argued that 'the presence of a lawyer might prevent the use of the kind of coercion that might lead to false confessions' (p. 87). In addition, Verhoeven and Duinhof (2017) concluded that the presence of a lawyer during interrogations does not make suspects tell less about the case. Furthermore, if lawyers are allowed to actively participate in police interrogations, they could ask suspects questions that could disculpate them (Duker & Stevens, 2009). At present, however, suspects probably do not benefit optimally of the assistance of a lawyer. Lawyers have a passive role during Dutch police interrogations. They are, for example, not allowed to interfere with the interrogation, but only allowed to communicate with the police officers and the suspect at the beginning and the end of an interrogation. Further, if police officers believe the lawyer is 'disturbing the order of the interrogation', he or she can be expelled from the interrogation room (Besluit inrichting en orde politieverhoor, 2017; Blom, 2011). Additionally, to date, lawyers who are assigned to provide legal aid for police detention centre work receive 85 Euros per consultation,



probably making it economically unviable to do more than the standard 30 minutes of consultation (Hodgson, 2015). In sum, the question is whether Dutch lawyers are able and allowed to provide appropriate legal assistance to vulnerable suspects, which should be a subject for further research.

Secondly, recording all interrogations, as suggested by Kassin (2017), has several advantages. First, it prevents police officers from using inappropriate interrogation methods (Kassin, Kukucka, Lawson, & DeCarlo, 2014). A second advantage is that it provides an exact registration of what happened in the interrogation room (Kassin, 2017) – which is the aim of the previously mentioned Aanwijzing after all. A third advantage is that police officers no longer have to type during interrogations and will be able to completely focus on the conversation (Kassin, 2017). In addition, recordings can be used for educational and coaching purposes, and for scientific research as well. Furthermore, in the past, several evaluation reports on the police investigation process in the Netherlands have recommended recording all police interrogations (Openbaar Ministerie, Politie, & NFI, 2005; Posthumus, 2005).

Third, the Recommendation describes that police officers are educated in how to deal with vulnerable suspects. However, as discussed before, it is rather difficult to detect psychological vulnerabilities in suspects on the basis of observations during interaction (Gudjonsson, 2010; Kaal et al., 2017; Kassin, 2012). In the past, the Police Academy of the Netherlands initiated the development of an experimental questionnaire to screen for psychological vulnerabilities in police suspects (Politieacademie, 2014). Such a screener was recently recommended from a legal perspective as well, in order to ensure that vulnerable suspects are provided with proper legal procedural safeguards, for example, being able to consult a lawyer (Gremmen, 2018). However, during the course of the psychological assessments of the present dissertation project, several suspects stated they were only participating because the assessment was anonymous and the assessors were bound by professional confidentiality. Suspects also stated they would not participate in a psychological assessment performed by police officers, because they were afraid of being sentenced to a forensic psychiatric hospital on the basis of their test results. Further, as previously mentioned, even trained psychologists and psychiatrists need considerable time to assess mental deficits in people. Therefore, a screener for psychological vulnerabilities in police suspects administered by police officers will most likely not be very helpful.

In conclusion, based on this dissertation's findings regarding (a) the prevalence of psychological vulnerabilities in police suspects, (b) the base rate neglect among police

officers, (c) Dutch and European law and regulations, and (d) the utility of a screener for psychological vulnerabilities, my first advice would be that police officers need to consider every suspect as a potentially vulnerable suspect. My second advice is that all police interrogations need to be recorded.

## **Interaction**

### Interrogation

The findings of Chapter Four and Five concern Dutch interrogation in theory and practice. Below, the recently revised Dutch Interrogation Manual (Van Amelsvoort & Rispens, 2017), research on interrogations performed by Dutch police officers in practice, and Dutch and European case law, is discussed in light of the investigative interviewing framework.

First, there is an important difference between traditional police interrogations and modern police interviews. An interrogation is 'a heuristic approach, including coercive and/or manipulative techniques, designed to obtain a confession', while interviewing is 'an evidence-based approach designed to gather and test accurate and reliable information ... balancing the need for accurate information from suspects with respect for individual human rights and the rule of law' (Griffiths & Rachlew, 2018, p. 155). Up until now, Dutch interrogation practices, as described in the Seventh Manual, are not substantiated by empirical evidence. Dutch interrogation practices are mostly based upon experience and gut feelings of police officers, which was already reflected in the first Suspect Interrogation Manual (Van den Adel, 1997) and is still echoed in the Seventh Manual, 20 years later (Van Amelsvoort & Rispens, 2017). However, it could be argued that the Seventh Manual is an improvement compared to the previous sixth edition that was discussed in Chapter Four (Van Amelsvoort, Rispens, & Grolman, 2015) because more attention has been paid to recent scientific research, for example, on memory processes and the reliability of statements of suspects. Nevertheless, it could also still be argued that the Seventh Manual is not an appropriate manual for police officers, for different reasons.

The Seventh Manual describes four different interrogation methods, and different versions of these methods, to question police suspects (Van Amelsvoort & Rispens, 2017). The first interrogation method is termed the Free Statement Method (*Vrije Verklaringsmethode*), in which the suspect is given the opportunity to freely give a statement. This method is recommended with cooperative suspects, when there are reasons not to present evidence to the suspect, or when there is not enough time to prepare and perform the interrogation. The second method is the Direct Pile Up



Method (*Directe Stapelmethode*), in which the suspect is presented with all available technical and tactical clues at once, and is not given the opportunity to react, yet only after completing the pile up. This method is recommended in cases when less time for questioning is available, or when there is overwhelming, solid evidence, and the interrogation is only a formality. The third method is the Scenarios Investigating Method (*Scenario's Onderzoekende Methode, SOM*) – formerly known as the General Interrogation Strategy, and discussed in more detail in Chapter Four. The fourth method is the Evidence-Question Method (*Bewijs-Vraagmethode*), to be used when suspects choose to remain silent. It means that the suspect is confronted with the (in the view of police officers) most valuable evidence and is given the opportunity to provide a statement about it. Furthermore, the Seventh Manual describes different versions of these interrogation methods, such as changing the order of confrontations, or clustering confrontations (Van Amelsvoort & Rispens, 2017).

The problem is that the Seventh Manual does not provide a clear guideline on when to choose a specific interrogation method, or when the use of a combination of different methods (and variations thereof) is indicated. It only states that 'if the suspects' statement is in line with the available evidence', police officers should use the Free Statement Method (Van Amelsvoort & Rispens, 2017, p. 456), and if the suspect's statement is not in line with the available evidence, police officers are allowed to use a combination of the four interrogation methods, 'in order to find the truth' (Van Amelsvoort & Rispens, 2017, p. 455).<sup>11</sup>

This implies that police officers must possess profound knowledge and skills to be able to appropriately execute every interrogation method (and variations thereof), to adequately choose an appropriate interrogation method, and to combine different methods and versions. In general, this will most likely not be a realistic assumption, as Chapter Two and other research indicate (e.g., Odinot, Boon, & Wolters, 2015). Additionally, the Direct Pile Up Method may not be that effective, while gradual disclosure of evidence has been shown to provide more comprehensive accounts (Walsh & Bull, 2015). Aside from this, as discussed in more detail in Chapter Four, the SOM is merely old wine in new bottles, because the basic principles of the SOM are the same as the basic principles of the GIS,<sup>12</sup> including several unwanted aspects, such as building up pressure, and rewarding suspects when they adjust their statement in line with the available tactical clues.

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<sup>11</sup> Note: the Seventh Manual does not explain in more detail what is meant by 'the truth'.

<sup>12</sup> Van Amelsvoort & Rispens, 2017, p. 466, vs. Van Amelsvoort, Rispens, & Grolman, 2015, p. 445.

The scarce scientific research on Dutch interrogation practices indicates that police officers use inappropriate interrogation methods quite frequently. This is reported in Chapter Five, as well as in previous research. Verhoeven and Stevens (2012) found in their study on Dutch police interrogations ( $N = 168$ ) in manslaughter and murder cases that in many interrogations risky interrogation techniques were used (i.e., leading questions in 44.0%, showing impatience, frustrations and anger in 28.6%, and presenting hypothetical scenarios in 22.6% of the interrogations). Furthermore, Verhoeven and Duinhof (2017) recently found that different Dutch interrogation tactics (e.g., evoking emotions, confronting with evidence) contributed little to the willingness of suspects to provide statements. It could be argued that police officers' gut feelings and experience with police interrogations do not naturally lead to the appropriate interrogation methods and to useful statements by the suspects.

In sum, the Seventh Manual does not meet science-based investigative interviewing principles (Clark, Milne, & Bull, 2011; Farrugia & Milne, 2011; Griffiths & Milne, 2018; Shepherd & Griffiths, 2013), yet the Police Academy of the Netherlands still persists in teaching police officers non-evidence-based – and in some aspects potentially risky – interrogation methods, while at the same time several independent studies have questioned the appropriateness of Dutch interrogation practices, and demonstrated the inability of Dutch police officers to execute interrogations appropriately as well (e.g., Boon et al., 2016; Duker & Stevens, 2009; Israëls & Horselenberg, 2010; Kortlever, 2011; Nierop, 2005; Odinet et al., 2015; Siemering & van der Laan, 2016; Stevens & Verhoeven, 2010, 2011; Van Koppen, 1998, 2009; Verhoeven & Duinhof, 2017; Verhoeven & Stevens, 2012; Vrij, 1998, 2010).

Second, Dutch Courts do not seem to reject inappropriate and undesirable interrogation methods,<sup>13</sup> as discussed in more detail in Chapter Four. This is worrisome, since on 26 October, 2010, the Amsterdam Court of Appeal ruled in a homicide case that a frequent and accusatory style of interrogation, and the use of extreme interrogative pressure, were not inadmissible, and the suspects' statements were allowed as evidence (De Ruiter, 2015).<sup>14</sup> De facto this means that if police detectives use inappropriate and



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<sup>13</sup> e.g., Court of Appeal Arnhem, 12 December, 2000, ECLI:NL:GHARN:2000:AA8995, LJN AA8995; Court Dordrecht, 20 September, 2003, ECLI:NL:RBHAA:2007:BB7483, LJN BB7483; Court Amsterdam, 17 March, 2005, ECLI:NL:RBAMS:2005:AT0873, LJN AT0873; Court Groningen, 10 April, 2008, ECLI:NL:RBGRO:2008:BC9249, LJN BC9249.

<sup>14</sup> e.g., Court of Appeal Amsterdam, 26 October, 2010, ECLI:NL:GHAMS:2010:BL5731, LJN BL5731.



coercive interrogation methods, it is sufficient for the Dutch Courts to take note that these interrogation methods were used, and it will not lead to consequences in terms of inadmissibility of evidence (Blom, 2011). In other words, apparently, there are no legal restrictions for the Dutch police in using inappropriate interrogation tactics.

European case law does not provide more protection of vulnerable suspects' rights during the police investigation process (Mergaerts, Van Daele, & Vervaeke, 2017). In rulings in 2000 and 2008, the European Court of Human Rights (ECtHR) acknowledged that every suspect involved in a police investigation is in a particularly vulnerable position.<sup>15</sup> In other rulings, the ECtHR considered that in some circumstances suspects might be vulnerable in regard to, for example, age and maturity,<sup>16</sup> physical disabilities,<sup>17</sup> mental disabilities,<sup>18</sup> and alcohol addiction.<sup>19</sup> However, the ECtHR has only described certain individual characteristics and circumstances that place suspects in a vulnerable position but has not provided a clear definition of vulnerable suspects as of yet (Mergaerts et al., 2017). Mergaerts et al. (2017) argued that a vulnerable suspect 'is not able to exercise his or her procedural rights in a conscious, deliberate, and actual manner (...) which hampers effective participation in the investigation procedure, or even makes that impossible' (p. 525). In these authors' view, suspects are only able to participate in the investigation process if three conditions are satisfied: (1) they must have been informed about the accusation and their legal rights, (2) they must understand the accusation and their rights, and (3) they must be able to make reasoned decisions about exercising their rights. Suspects' characteristics (as mentioned above in ECtHR case law) and circumstances (e.g., pressure during interrogation, inappropriate questioning techniques) influence the ability to participate adequately in the investigation process and make suspects vulnerable to provide an unreliable statement or a false confession (Mergaerts et al., 2017).

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<sup>15</sup> e.g., ECtHR Grand Chamber, 27 June, 2000, No. 21986/93 (*Salman vs. Turkey*); ECtHR, 13 July, 2006, No. 26853/04 (*Popov vs. Russia*); ECtHR Grand Chamber, 28 October, 2008, No. 36391/02 (*Salduz vs. Turkey*).

<sup>16</sup> e.g., ECtHR 16 December, 1999, No. 24724/94 (*T. vs. United Kingdom*); ECtHR, 17 October, 2006, No. 52067/99 (*Okkali v. Turkey*).

<sup>17</sup> e.g., ECtHR 5 February, 2013, No. 76317/11 (*Bubnov vs. Russia*).

<sup>18</sup> e.g., ECtHR 24 November, 2009, No. 23968/05 (*Halilovic vs. Bosnia Herzegovina*); ECtHR, 20 May, 2010, No. 38832/06 (*Alajos Kiss v. Hungary*); ECtHR, 11 October, 2011, No. 30951/10 (*Gorobet vs. Moldova*).

<sup>19</sup> e.g., ECtHR 31 March, 2009, No. 20310/02 (*Plonka vs. Poland*).

Obviously, current Dutch police interrogation practices are in need of reform. In the past years, police forces in many jurisdictions, for example, the United Kingdom, Australia, New Zealand and Norway, have adopted investigative interviewing,<sup>20</sup> which is based upon empirical research on good communication skills, conversation management, and human memory (Clarke, Milne, & Bull, 2011). Investigative interviewing should to be considered as a total concept (not merely as an interviewing technique), which comprises training, supervision, and a solid foundation in legislation about, for example, education, presence of a lawyer during interrogation, and recording all interrogations (Clarke et al., 2011; Farrugia & Milne, 2012; Griffiths & Milne, 2018; Shepherd & Griffiths, 2013). It does not include any coercive or manipulative techniques, contributes to avoiding the negative effects of guilty and confirmation biases, group-thinking, primacy effect and heuristics, and reduces the 'boomerang effect' (i.e., the tendency of suspects who are about to confess, deciding not to confess, because they feel the interview is inappropriate) as well (Griffiths & Rachlew, 2018; Gudjonsson, 2003). Additionally, it enhances public confidence in criminal investigative procedures (Griffiths & Milne, 2018).

Farrugia and Milne (2012) reflected on the major shift from interrogation to investigative interviewing in England and Wales in the 1980s as follows: 'Before such a paradigm change, police interviewing focused purely on interrogation techniques (and the subsequent confession), and this ethos was bolstered by influential training guides which promoted such inappropriate practice' (p. 24).

Asbjørn Rachlew – a Norwegian police superintendent, researcher, and university lecturer, involved in modernising police interviews in Norway – recently stated: 'It will not be sufficient only to incorporate certain aspects of investigative interviewing into existing interrogation methods. Ultimately, this will not change the mind-set of police officers, they will just use other, more subtle and manipulative, ways of seeking confirmation' (Mykhailov, 2018).

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<sup>20</sup> For more detailed information about investigative interviewing, see for example:  
- College of Police for England and Wales: <https://www.app.college.police.uk/app-content/investigations/investigative-interviewing/>  
- Schollum, M. (2005). *Investigative Interviewing: The literature*. Wellington: Office of the Commissioner of Police. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.117.228&rep=rep1&type=pdf>



To address the elephant in the room, my third advice is to radically say goodbye to current Dutch interrogation practices. Following several enlightened police forces across the world, the concept of investigative interviewing should be introduced in the Netherlands, including a complete reform of police interviewing techniques (according to the PEACE model, see Chapter Four), interview training (according to the PIP model, see Chapter Four), and Dutch legislation (Clarke et al., 2011; Farrugia & Milne, 2012; Griffiths & Milne, 2005, 2018; Griffiths & Rachlew, 2018; O'Mahony, Milne, & Grant, 2012; Shepherd & Griffiths, 2013).

Recently, Griffiths and Milne (2018) introduced the Framework for Investigative Transformation (FIT), based on a growing body of research on investigative interviewing and evidence-based policing. FIT can help police organisations to create a correct environment for professional criminal investigations, executed by professional and open-minded investigators who seek justice for victims and avoid errors which may lead to miscarriages (Griffiths & Milne, 2018). In short, FIT consists of eight factors: (1) leadership, to foster a learning culture, giving proper workplace support, and providing opportunities to apply new skills; (2) appropriate legislative framework, because it is unrealistic that police officers will adopt moral standards that are not reflected in the law; (3) investigative mind-set or cognitive style (e.g., exploration of alternative hypotheses, open-mindedness), adopted by every police officer; (4) profound investigators' knowledge base, based on temporary theory and research literature; (5) optimal training and knowledge regime; (6) the establishment of meaningful quality assurance mechanisms (e.g., support, supervision, evaluation); (7) appropriate skills/ability of the investigators, because not every police officer is a skilled interviewer; and (8) technology, for example audio and video recording (Griffiths & Milne, 2018).

### **Circumstances**

#### **Police detention centre environments**

Chapter Six discussed findings on police detention circumstances on police suspects. During the past years, new police detention centres have been built in the Netherlands. These centres pay more attention to comfort, for example, by applying rubber in doorframes and electronic locks instead of iron latches so doors shut silently, by installing toilets that can be flushed with a button inside the cell instead of by remote control, and by more exposure to daylight. This positive change has been acknowledged by an independent commission that monitors circumstances in police detention centres, who stated that the overall quality and services of Dutch police detention centres meet national and international requirements (Inspectie Veiligheid

en Justitie, 2015). Nonetheless, the research findings presented in Chapter Six showed that suspects still experience poorer psychological wellbeing and that they sleep poorly when detained in a police detention centre, and that the experience of sleep problems is associated with diminished psychological wellbeing. This is reason for concern, because decreased psychological wellbeing will affect the ability of suspects, and vulnerable suspects in particular, to cope with the demands of police interrogations.

In the 19<sup>th</sup> century, large and impressive prisons were built, and the interior was designed to intimidate inmates (Hancock & Jewkes, 2011). Although modern age prisons tend to blend more with other buildings in the environment, people still think that suspects in prisons should be punished. They often do not make a clear distinction between regular prisons and police detention centres, yet obviously, suspects in police detention are not sentenced prisoners but still awaiting trial.

Currently, interiors of many psychiatric emergency wards are being modernised in line with a growing body of international research on interior design which reduces patients' distress and agitation, and enhances psychological wellbeing (Björkdahl, Perseus, Samuelsson, & Hedlund Lindberg, 2016; Novak, Scanlan, McCaul, MacDonald, & Clarke, 2012; Wiglesworth & Farnworth, 2016). A modern psychiatric emergency separation room does not resemble a police cell at all. The former separation chamber is now termed a comfort room or sensory room, designed to create feelings of comfort and safety (Baillon, Van Diepen, & Prettyman, 2002). The rationale behind this new interior design concept is that it inhibits negative effects of prolonged absence of appropriate stimulation, which can lead to mental health problems (Baillon et al., 2002). It follows the principles of the healing environment as discussed in Chapter Six. A comfort room can be a spacious room, with a white or pastel coloured ceiling and walls, colours that can be adjusted by the patient, as well as adjustable sounds (e.g., sounds of birds) and odours. Doors are made of wood instead of steel, and there is a touchscreen to watch television or to play a computer game (Baillon et al., 2002; Van Steenberg & Pinedo, 2016).

My final suggestion is that the Dutch police could draw inspiration from environmental psychology, for example, from recent interior design developments in hospitals and psychiatric wards, to redesign police cells into comfort cells, in order to enhance mental health and prevent sleep problems among suspects (Bell et al., 2001; Björkdahl et al., 2016; Novak et al., 2012; Ulrich, 1991; Wiglesworth & Farnworth, 2016). This ultimately might promote efficiency and effectivity of police interviews through enhancement of suspects' psychological wellbeing.



### **Strengths and limitations**

An important strength of this dissertation is that a number of psychological vulnerabilities were assessed: mental disorders, intellectual disability, an abnormal mental state (including drug and alcohol abuse, and sleep problems), and personality characteristics. Another strength is that the CIPH framework (Gudjonsson, 2003; Gudjonsson & MacKeith, 1988, 1997) was used to explore these psychological vulnerabilities, as well as external factors that are hypothesized to increase psychological vulnerability in suspects. A third strength is that the research was performed in the field, and therefore, the ecological validity can be considered high. This makes this dissertation relevant for police practices, policy, and educational programs.

However, a number of limitations of this research must be addressed as well. First, it was not possible to control the circumstances in which the assessments took place, because the rooms in the police detention centres slightly differed in terms of the presence of a window, daylight, and colour. Second, the psychological assessment battery used for this study contained several abbreviated versions of psychological tests and a number of screeners, instead of full versions, obviously for reasons of time constraints in the police detention setting. This might have impacted the results. Third, Study Two included only 103 police detectives, and due to the reorganisation of the national police at the time, the recruitment procedure of detectives could not be controlled. The sample might thus not be representative of the current Dutch police detective population. Fourth, only 36 interrogation transcripts could be analysed for the study reported in Chapter Five, and these were not verbatim transcripts. Future studies need to use verbatim transcripts of recordings of police interrogations. Lastly, the study reported in Chapter Six included a small sample of suspects who had slept at home ( $n = 15$ ) compared to a much larger sample of suspects who had slept in a police detention centre ( $n = 134$ ) prior to the psychological assessment. Therefore, more research on the impact of police detention centre environments on suspects is needed. This research could include a larger sample of suspects detained in relatively old as well as in recently built police detention centres, perhaps with the use of EEG monitoring to study actual levels of sleep deprivation in police suspects.

### **Final remarks**

This dissertation comprised research on persons at risk during interrogations in police custody. Although the focus was on the current situation in the Netherlands, results and recommendations might inspire other countries in the world to review policies and practices on police interviewing. Foremost, I hope my dissertation will lead to more research on the topics discussed here and to policy changes in the Dutch police force

and the Police Academy of the Netherlands – not only to ensure a fair investigative procedure for vulnerable suspects, but to enhance the quality of police interviews as well.



I use interrogation tactics  
to manipulate suspects.  
Ultimately, the interrogation is  
about obtaining a confession.

Police interrogator specialist  
Conference 'Knowledge for  
the police of tomorrow',  
The Hague, 5 April 2018

# Samenvatting

Summary (in Dutch)



## Introductie

Niemand gelooft dat een verdachte iets zal bekennen wat hij of zij niet heeft gedaan. Toch zijn er genoeg voorbeelden van rechtszaken waarbij later is gebleken dat een psychologisch kwetsbare verdachte een valse bekentenis heeft afgelegd, zoals bijvoorbeeld in de zaak Ina Post en de Schiedammer Parkmoord.

Er kunnen drie verschillende vormen van valse bekentenissen worden onderscheiden. Ten eerste een vrijwillige valse bekentenis, bijvoorbeeld uit sensatiezucht of om een medeverdachte te beschermen. Ten tweede om gunsten te verkrijgen, zoals een einde aan het verhoor te maken. Ten derde omdat de verdachte ten onrechte is gaan denken schuldig te zijn, door manipulatieve verhoortechnieken en confabulatie.

Kort gezegd ontstaan valse bekentenissen door een combinatie van tunnelvisie bij politieagenten (als gevolg van een *guilty bias* en *confirmation bias*), het gebruik van onjuiste verhoormethoden en omdat bepaalde verdachten psychologisch kwetsbaarder zijn voor het afleggen van een valse bekentenis.

Psychologisch kwetsbare verdachten zijn verdachten met een psychische stoornis, een lichtverstandelijke beperking, een abnormale mentale toestand (als gevolg van bijvoorbeeld een hoge mate van stress, een alcohol- of drugsverslaving, of slaapproblemen) en/of bepaalde persoonlijkheidskenmerken, zoals suggestibiliteit (*interrogative suggestibility*) en toegeeflijkheid (*compliance*). Als psychologisch kwetsbare verdachten niet door politieagenten worden herkend en niet op de juiste wijze worden verhoord, dan kan dat leiden tot verregaande consequenties voor deze verdachten, tot een ineffectief en inefficiënt opsporingsproces, en uiteindelijk tot minder vertrouwen in politie en justitie.

Tot dusver is in Nederland nog niet veel bekend over kwetsbare verdachten die voor verhoor in een politiecellencomplex verblijven; deze dissertatie beschrijft een exploratief onderzoek daarnaar. De onderzoeksvragen zijn: wat is de prevalentie van kwetsbare verdachten in Nederland en zijn politieagenten in staat de prevalentie van kwetsbare verdachten juist in te schatten? Zijn Nederlandse verhoormethoden geschikt om verdachten te verhoren? Hoe worden verdachten (kwetsbare verdachten in het bijzonder) in de praktijk verhoord? En, tot slot, hoe ervaren verdachten hun psychisch welzijn en slaapproblemen als zij in een politiecellencomplex verblijven?

Het onderzoek volgt het CIPH-onderzoeksmodel van Gudjonsson en MacKeith (1988, 1997). CIPH is een acroniem voor omstandigheden (*Circumstances*), interactie

(*Interaction*), persoonlijkheidskenmerken (*Personality*) en gezondheid (*Health*). Het model werd ontwikkeld als handvat voor psychiaters en psychologen voor psychologische onderzoeken en onderzoeksrapporten – het Nederlandse equivalent zou wellicht kunnen zijn een ‘rapportage Pro Justitia’, een psychologisch rapport van het Nederlands Instituut voor Forensische Psychiatrie en Psychologie (NIFP) over een verdachte, in opdracht van de Officier van Justitie en/of de Rechter-Commissaris.

Gedurende een jaar werden 178 verdachten die in zes verschillende cellencomplexen verbleven (Amsterdam, Breda, Eindhoven, Heerlen, Tilburg en Maastricht) psychologisch onderzocht met behulp van een testbatterij. Deze testbatterij bestond uit verschillende instrumenten om psychische stoornissen, een lichtverstandelijke beperking, een abnormale mentale toestand (bijvoorbeeld door een hoge mate van stress, alcohol- of drugsverslaving, of slaapproblemen) en bepaalde persoonlijkheidskenmerken (suggestibiliteit en toegeeflijkheid) te onderzoeken.

Hoofdstuk Twee is een replicatie van eerder onderzoek naar kwetsbare verdachten die bij de politie verbleven in het Verenigd Koninkrijk (Gudjonsson, Clare, Rutter en Pearse, 1993) – aangepast naar deze tijd. In dit deelonderzoek werd de prevalentie van verschillende psychologische kwetsbaarheden bij Nederlandse verdachten onderzocht en is gekeken of politieagenten in staat zijn deze prevalentie in te schatten.

In Hoofdstuk Drie wordt een specifieke kwetsbaarheid bij verdachten nader onderzocht, namelijk een lichtverstandelijke beperking. De vragen zijn of de Screener voor Intelligentie en Lichtverstandelijke Beperking (SCIL; Kaal, Nijman, & Moonen, 2013) een geschikt instrument is voor de politie om verdachten te screenen en daarnaast wat de prevalentie van een lichtverstandelijke beperking bij verdachten is.

Hoofdstuk Vier bespreekt de bruikbaarheid van de Standaard Verhoorstrategie (SVS), een methode die vaak door politieagenten wordt gebruikt en is beschreven in de zesde editie van de Handleiding Verhoor (Van Amelsvoort, Rispens, & Grolman, 2015). Het probleem is namelijk dat de SVS nog nooit empirisch is onderzocht op effectiviteit. De vraag is hoe de SVS zich verhoudt tot het wetenschappelijk bewezen effectieve verhoorconcept *investigative interviewing*, met name met betrekking tot kwetsbare verdachten.

Hoofdstuk Vijf onderzoekt Nederlandse verhoormethoden in de praktijk. Tot op heden is namelijk niet duidelijk wat zich precies in de verhoorkamers van de politie afspeelt. De vraag is of kwetsbare verdachten op een adequate manier worden verhoord.

In Hoofdstuk Zes wordt het verblijf in een politiecellencomplex onderzocht. Alle Nederlandse politiecellencomplexen verschillen qua inrichting, procedures en aantal

arrestantenverzorgers. Bovendien worden politiecellencomplexen niet ontworpen met het oog op een comfortabel verblijf, maar vooral om veiligheid en efficiency te garanderen. De vraag is in welke mate overnachten in een politiecellencomplex het psychisch welzijn en slaapproblemen van verdachten beïnvloedt.

## **Verschillende perspectieven op kwetsbare verdachten**

### **Persoonlijkheidskenmerken en gezondheid**

In Hoofdstuk Twee werd de identificatie van psychologische kwetsbaarheden besproken.

Allereerst werd in navolging van het onderzoek van Gudjonsson et al. (1993) de prevalentie van verschillende psychologische kwetsbaarheden bij verdachten in een politiecellencomplex onderzocht ( $N = 149$ ). De resultaten lieten zien dat 60% van de verdachten werd gescreend voor nader onderzoek naar hun psychische gezondheid, 38% werd gescreend voor nader onderzoek naar Attention Deficit Hyperactivity Disorder (ADHD), 21% gebruikte dagelijks drugs (soft-/harddrugs) en 4% gebruikte dagelijks alcohol (in combinatie met minimaal 15 alcoholische consumpties per week). Daarnaast waren scores van psychopathologie, depressie, angst, stress en suggestibiliteit (*interrogative suggestibility*) hoger in vergelijking tot scores van de algemene Nederlandse populatie.

Het tweede gedeelte van Hoofdstuk Twee beschrijft de resultaten van een vragenlijst ingevuld door 103 Nederlandse rechercheurs, waarmee werd onderzocht in welke mate rechercheurs in staat zijn een inschatting te maken van de prevalentie van kwetsbare verdachten. De deelnemende rechercheurs werkten gemiddeld 21 jaar bij de politie en daarvan gemiddeld 11 jaar als rechercheur. Ongeveer 77% volgde één of meerdere gevorderde researchecursus(sen), terwijl 22% geen enkele researchecursus had gevolgd. Bovendien had 76% geen enkele speciale/gevorderde verhoorcursus gevolgd. De rechercheurs zeiden in de afgelopen twaalf maanden gemiddeld vijf kwetsbare verdachten te hebben geïdentificeerd, variërend van 0 tot 90 kwetsbare verdachten, en 55% van de rechercheurs zeiden geen enkele kwetsbare verdachte te hebben verhoord in de afgelopen 12 maanden. Ook meldde 55% van de rechercheurs geen maatregelen te nemen als ze een kwetsbare verdachte verhoren, en antwoordden 42% van de rechercheurs wel maatregelen te nemen als zij een kwetsbare verdachten verhoren, zoals het raadplegen van een researchepsycholoog, teamchef, gespecialiseerde collega of een officier van justitie.

Hoofdstuk Drie beschrijft een onderzoek naar een specifieke psychologische kwetsbaarheid bij verdachten, namelijk een licht verstandelijke beperking (LVB) – in Nederland een IQ (intelligentie quotiënt) lager dan 85. De vraag was wat de prevalentie van een LVB onder verdachten in politiecellencomplexen was, en of de SCIL een bruikbare screener voor de politie is om een LVB bij verdachten te herkennen. De SCIL bestaat uit 14 items over gevolgd onderwijs, het bestaan van een sociaal vangnet, cognitieve capaciteiten, taalbegrip en gedrag, en screent voor een IQ lager dan 85. Het IQ werd gemeten met een verkorte versie van de Wechsler Adult Intelligence Scale en met de SCIL.

Het gemiddelde IQ van verdachten was 75, variërend van 49 tot 110. Ongeveer 85% had een IQ lager dan 85 en 29% lager dan 70. De SCIL screende 50% van de verdachten voor een IQ lager dan 85. In deze studie werd een andere factorstructuur van de SCIL gevonden in vergelijking met de handleiding van de SCIL, waarschijnlijk vanwege de scheve verdeling van IQ-scores. De correlatie tussen IQ-scores en de scores van de SCIL was matig ( $r = .56$ ), mogelijk omdat de sociale items van de SCIL (items over onder andere een sociaal vangnet, contact met hulpverlening en het lezen van een krant) lagere IQ-scores maskeren, hetgeen nader onderzoek behoeft.

## **Interactie**

In Hoofdstuk Vier is de stand van zaken met betrekking tot het Nederlandse verdachtenverhoor besproken. Daarbij was de vraag of Nederlandse verhoorpraktijken zich kunnen meten met recent empirisch onderzoek naar het politieverhoor. Een duik in de geschiedenis leert dat in Engeland ongeveer 25 jaar geleden verschillende gerechtelijke dwalingen hebben geleid tot afschaffing van het politieverhoor en tot de introductie van nieuwe wetten en richtlijnen met betrekking tot een transparant politie-interview en vernieuwde interview trainingen voor de politie (het investigative interviewing concept). Onderzoek naar het politie-interview hebben laten zien dat – over het algemeen – de interviews meer gestructureerd en effectiever verlopen in vergelijking tot oude verhoormethoden.

Ten tijde van het onderzoek zoals beschreven in Hoofdstuk Vier gebruikten Nederlandse politieagenten over het algemeen de Standaard Verhoorstrategie (SVS; Van Amelsvoort, Rispens & Grolman, 2015, zesde editie). Twee problematische aspecten van de SVS werden besproken. Ten eerste leidt de SVS tot tunnelvisie (*confirmation bias* en *guilty bias*). Ten tweede wordt de SVS een informatie-vergarende verhoormethode te zijn, maar bevat het ook beschuldigende aspecten. Tot op heden is nog niet veel bekend over wat er precies in Nederlandse verhoorkamers gebeurt en is de SVS nog nooit wetenschappelijk getoetst op validiteit en betrouwbaarheid.

Bovendien laat het weinige onderzoek naar de SVS zien dat politieagenten soms inadequate verhoortechnieken gebruiken – nota bene, gelet op jurisprudentie, akkoord bevonden door rechters.

Hoofdstuk Vijf beschrijft een onderzoek naar 36 verdachtenverhoren, met als doel te onderzoeken of kwetsbare verdachten adequaat worden verhoord. Allereerst werden de verdachten op basis van het psychologisch testonderzoek geclassificeerd als kwetsbaar of niet-kwetsbaar. Daarna werden de verhoren geanalyseerd aan de hand van de Griffith Question Map (GQM) en geclassificeerd als een adequaat verhoor (op basis van: open vragen, doorvragen en gepaste gesloten vragen) of als een inadequaar verhoor (op basis van, bijvoorbeeld, ongepast gesloten, sturende of suggestieve vragen, meerdere vragen tegelijk stellen en een scenario opwerpen). Ongeveer 69% (25) van de 36 verdachten werd geclassificeerd als kwetsbare verdachten, ongeveer 86% (31) van de 36 verhoren waren inadequaar uitgevoerd en 84% (21) verhoren van kwetsbare verdachten waren inadequaar uitgevoerd. Meer onderzoek is nodig naar Nederlandse verhoorstrategieën.

### **Omstandigheden**

In Hoofdstuk Zes was de invloed van de omgeving van een politiecellencomplex op het psychologisch welzijn en slaapproblemen van verdachten onderwerp van onderzoek. Alle politiecellencomplexen in Nederland verschillen namelijk van, onder andere, grootte, kleur, verlichting, aantal arrestantenverzorgers per arrestanten, voorzieningen en drukte. De vraag was of een overnachting in een politiecel leidt tot een verminderd psychologisch welzijn en meer slaapproblemen, en of slaapproblemen van invloed zijn op het psychisch welzijn van verdachten.

Resultaten wezen uit dat verdachten in een politiecel inderdaad een verminderd psychologisch welzijn ervaren en slechter slapen. Verdachten die voorafgaand aan het testonderzoek thuis hadden geslapen gaven een gemiddeld cijfer van 7,3 voor de kwaliteit van slaap in de afgelopen nacht, terwijl verdachten die in een politiecel hadden geslapen daarvoor een gemiddeld cijfer van 4,5 gaven. Verdachten die voorafgaand aan het psychologisch assessment in een politiecellencomplex hadden geslapen rapporteerden een lager psychisch welzijn en meer slaapproblemen ten opzichte van verdachten die voorafgaand aan het assessment thuis hadden geslapen. De politie zou er mogelijk goed aan doen psychisch welzijn van verdachten te bevorderen en slaapproblemen bij hen zoveel mogelijk te voorkomen, om zo bij te dragen aan een adequaat verdachtenverhoor.

# Discussie

## Persoonlijkheid en gezondheid

Hoofdstuk Twee en Drie hebben aangetoond dat politieagenten waarschijnlijk dagelijks te maken hebben met kwetsbare verdachten, maar dat kwetsbare verdachten niet altijd door hen worden herkend; het *base rate neglect* bij politieagenten blijkt hoog te zijn.<sup>21</sup>

Allereerst schrijft de Aanwijzing audiovisueel registreren van verhoren van aangevers, getuigen en verdachten (2013) voor dat het verhoor van kwetsbare verdachten (verdachten jonger dan 16, met een LVB of met een verminderd cognitief vermogen) verplicht moet worden vastgelegd middels een audio- of video-opname. De aanwijzing bepaalt ook dat politieagenten zelf mogen beslissen wanneer een verdachte kwetsbaar is.

Verder bestaat een aanbeveling van de Europese Commissie waarin is gesteld dat kwetsbare verdachten moeten worden verhoord in aanwezigheid van een raadsman (en dat van dit recht geen afstand kan worden gedaan), dat audio-opname van alle verhoren verplicht is en dat politieagenten getraind moeten worden.

Verdachten – in het bijzonder kwetsbare verdachten – zouden voordeel kunnen hebben als deze wetten zouden worden toegepast. Eerder onderzoek heeft namelijk uitgewezen dat politieagenten minder intimiderende verhoortechnieken gebruiken als een raadsman aanwezig is tijdens het verhoor. Bovendien kunnen audio- of video-opnames leiden tot minder gebruik van inadequate verhoortechnieken, kan het later worden teruggelusterd/-gekeken om na te gaan wat er precies is gezegd en gebeurd, kunnen politieagenten zich focussen op het verhoor in plaats van ondertussen het proces-verbaal te moeten typen, en kunnen opnames voor wetenschappelijk onderzoek worden gebruikt. Een kanttekening bij het trainen van politieagenten in het herkennen van kwetsbare verdachten is, dat psychiaters en psychologen in de regel meerdere onderzoeken en gesprekken nodig hebben om tot een oordeel of diagnose te kunnen komen. Daarbij verklaarden veel verdachten tijdens dit onderzoek dat zij alleen meededen vanwege hun anonimiteit en de geheimhoudingsplicht van de assessoren. Zij zeiden nooit mee te zullen doen aan een psychologische test afgenomen door de politie, vanwege de kans dat resultaten in een strafzaak gebruikt zouden kunnen worden en de angst voor een eventuele Terbeschikkingstelling (TBS).

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<sup>21</sup> Base rate neglect: bij het schatten van een kans wordt basis-informatie over de omvang van een populatie genegeerd en laat degene zich leiden door enkele opvallende vertegenwoordigers van die populatie.

Daarom is het gebruik van een screener voor kwetsbare verdachten door de politie onrealistisch.

Mijn eerste advies is, gelet op (a) de prevalentie van psychologische kwetsbaarheden bij verdachten, (b) het base rate neglect bij politieagenten, (c) Nederlandse en Europese regelgeving en (d) de (on)bruikbaarheid van een screener, dat politieagenten iedere verdachte zouden moeten benaderen als een potentieel kwetsbare verdachte.

Mijn tweede advies is dat alle verhoren van verdachten zouden moeten worden opgenomen (audio/visueel).

### **Interactie**

In de zomer van 2017 is de zevende druk van de Handleiding Verhoor uitgekomen (Van Amelsvoort & Rispens, 2017). Hoewel ten opzichte van de zesde druk bepaalde aspecten van de Handleiding zijn verbeterd, is de nieuw geïntroduceerde Scenario Onderzoekende Methode (SOM) oude wijn in nieuwe zakken, want in feite is een nieuw etiket op de Standaard Verhoorstrategie (SVS) geplakt. De keuze tussen verschillende verhoortechnieken en het gebruik ervan wordt niet in de Handleiding Verhoor uitgelegd en is nodeloos ingewikkeld. Het is de vraag of politieagenten voldoende competent zijn om adequaat te kunnen kiezen tussen de verhoormethoden en deze te kunnen toepassen – waarschijnlijk niet, zoals uit onderzoek is gebleken. Bovendien kleven enkele ongewenste en potentieel gevaarlijke aspecten aan de Nederlandse manier van verhoren, zoals het opbouwen van druk en tunnelvisie.

Daarbij komt dat de Handleiding Verhoor twintig jaar geleden is ontstaan op basis van ervaring en onderbuikgevoel. Tot op heden zijn Nederlandse verhoormethoden niet empirisch onderzocht, echter, verschillende onderzoekers hebben in het verleden gewezen op negatieve aspecten van Nederlandse verhoormethoden en het onvermogen van Nederlandse politieagenten om het verhoor op een adequate manier uit te voeren.

Uit jurisprudentie blijkt dat Nederlandse rechters inadequate verhoormethoden niet afkeuren. Kortom, voor de politie zijn er dus geen restricties om inadequate verhoormethoden te gebruiken. Ook jurisprudentie van het Europese Hof voor de Rechten van de Mens (EHRM) heeft tot op heden geen duidelijke definitie van een kwetsbare verdachte opgeleverd.

Mijn derde advies is dat de Nederlandse politie, in navolging van onder andere de politie in het Verenigd Koninkrijk, Australië, Nieuw-Zeeland en Noorwegen, moet overgaan op het concept van investigative interviewing. Dit behelst het gebruik van

een evidence-based, effectieve en ethische interview methode, in combinatie met borging van opleiding in de organisatie en regelgeving. Pleisters plakken op bestaande verhoormethoden heeft geen zin, er moet radicaal afscheid worden genomen van huidige verhoormethoden, vooral om de mind-set van politieagenten te veranderen.

### **Omstandigheden**

De omstandigheden in Nederlandse politiecellencomplexen kunnen zeker niet worden gekwalificeerd als slecht. Desalniettemin heeft dit onderzoek aangetoond dat verdachten in politiecellencomplexen een verminderd psychisch welzijn en meer slaapproblemen ervaren. Naar voorbeeld van basisprincipes uit de omgevingspsychologie en zogenaamde healing environments in zorginstellingen is meer onderzoek nodig om omstandigheden in politiecellencomplexen te verbeteren. Zoals isolatiecellen bij psychiatrische inrichtingen tegenwoordig worden omgebouwd tot 'comfort rooms' om het gevoel van comfort en veiligheid te vergroten, is mijn laatste advies dat de politie haar politiecellen zou moeten ombouwen tot 'comfort cellen', naar principes uit de omgevingspsychologie. Dit zou kunnen bijdragen aan een verbeterd psychisch welzijn en minder slaapproblemen bij verdachten, en daardoor uiteindelijk aan een effectiever verdachtenverhoor.

### **Sterke punten en beperkingen**

Een sterk punt van dit onderzoek is dat meerdere psychologische kwetsbaarheden zijn onderzocht, namelijk psychische stoornissen, een lichtverstandelijke beperking, een abnormale mentale toestand en enkele persoonlijkheidskenmerken. Een ander sterk punt is dat gebruik is gemaakt van het CIPH onderzoeksmodel om deze psychologische kwetsbaarheden te onderzoeken in de context van externe factoren die deze kwetsbaarheden beïnvloeden. Een derde sterk punt is dat het onderzoek is uitgevoerd in de praktijk, waardoor de ecologische validiteit hoog is. Daarmee kan dit onderzoek bijdragen aan de politiepraktijk, beleid en onderwijs.

Een beperking in Hoofdstuk Twee is dat slechts 103 onderzoekers de vragenlijst hebben ingevuld en daardoor mogelijk niet representatief zijn voor het totale aantal onderzoekers werkzaam bij de politie. Een tweede beperking is dat de psychologische testbatterij verschillende verkorte versies van oorspronkelijke vragenlijst bevatte, vanwege de omvang en een tijdslimiet. De resultaten kunnen hierdoor beïnvloed zijn. Een derde beperking is dat in Hoofdstuk Vijf slechts 36 verhoren konden worden geanalyseerd aan de hand van het proces-verbaal van verhoor. In toekomstig onderzoek is het aan te bevelen om verbatim verslagen te gebruiken. Een vierde beperking is dat slechts 15 verdachten thuis hadden geslapen voorafgaand aan het psychologisch



assessment in vergelijking met 134 verdachten die in een politiecellencomplex hadden geslapen. Meer onderzoek naar de invloed van de omgeving van een politiecellencomplex op verdachten is noodzakelijk.

## Tot slot

Dit proefschrift beschrijft een exploratief en toegepast onderzoek naar kwetsbare verdachten die voor verhoor bij de politie verblijven – als zodanig het eerste onderzoek in Nederland. Hoewel de Nederlandse situatie is verkend zouden uitkomsten en aanbevelingen naar andere landen in de wereld kunnen worden vertaald. Hopelijk stellen politieorganisaties en politieacademies zich open voor wijzingen in beleid en praktijk met betrekking tot de besproken onderwerpen, met als uiteindelijk doel de effectiviteit van het politie-interview verder te verbeteren.



I am left in this cell the whole day,  
without any sheets,  
only with a plastic mattress and  
a cushion. They said they had no time  
to let me smoke but I just  
saw them all watching television.

**Female police detainee, 40-years old**

# Valorisation

Addendum

The most important implications for police interviewing practices and suggestions for future research are already discussed in the General discussion in Chapter Seven. Therefore, in this Valorisation addendum I will focus on how research in the field of environmental psychology may be used to redesign and improve police detention centre environments.

In 2015, I asked Kate Piotrowska, who was then a Master's student Interior Design at the University of Applied Sciences and Arts (HKU) in Utrecht, the Netherlands, to redesign a police detention centre into 'the police detention centre of the future'.<sup>22</sup> The object of the redesign was the police detention centre Mijkenbroek, Breda, the Netherlands, built in the 90's of the past century. The following is part of her Master's thesis, called 'Humanisation of Cell Complexes: Creating Balance between Equality and Hierarchy' (Piotrowska, 2015).

Before the start of the design, I helped Kate to formulate four areas of research, which she later subsequently translated into four spatial arrangements: safety for both suspects and staff, order to ensure optimal police work, trust between suspects and police staff, and authority in order to ensure respect and modesty. As she recognized, there is a paradox in designing a humane, comfortable, and respectful space on the one hand, and to maintain a certain level of hierarchy and authority on the other hand (Piotrowska, 2015). Still, the aim was to design a police detention centre where the environment contributes to reduced stress levels in police suspects, and where police staff can carry out their tasks optimally as well.

The design was based on literature review, and a pilot study (i.e., interviews, observations, and surveys). The Theory of Supportive Design (Ulrich, 1991) argues that supportive spaces may reduce stress levels in humans and is nowadays commonly used as the basis for designing health care facilities (as discussed in more detail in Chapter Six). In addition, empirical research showed that when people lose their sense of control, their stress levels increase (Ulrich, 1991). Thus, police cells must provide some privacy and comfort, access to information, and control over lighting and temperature, in order to increase the sense of control of detainees.

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<sup>22</sup> Kate Piotrowska earned her Master's degree in Interior Design at the University of Applied Sciences and Arts (HKU) in Utrecht, the Netherlands, in 2015. Her thesis can be viewed on her website: [www.katepiotrowska.com](http://www.katepiotrowska.com).



**Figure 1.** Graphical representation of police cells in the Mijkenbroek police detention centre, Breda, the Netherlands, in 2015. © Kate Piotrowska 2015



**Figure 2.** Graphical representation of the interior of the Mijkenbroek police detention centre, Breda, the Netherlands, in 2015. © Kate Piotrowska 2015

Firstly, the redesign comprised more daylight in police cells, for example by placing windows in ceilings. Secondly, a patio with a tree was placed in the central part of the complex, as a reference point, and to provide view to the tree and sky. Thirdly, all dead ends of corridors were removed, for example by creating semi-open walls at the end of hallways to reduce feelings of isolation. Spatial interventions, such as glazed corridor doors, smooth links between inside and outside, and different floor patterns, must make transitions smoother and thereby create a suggestion of more perceived personal control over spaces.

The redesigned cells were painted in white epoxy paint, and cells' furniture were made of soft, sponge-like materials to literally soften the look and feel of it. Warm colours were used in spaces where suspects do not have direct contact with police staff, and wood was used because of its stress-reducing and noise-absorbing properties. All cells were equipped with control panels to control lighting, temperature, toilet, TV, radio, and ventilation. Attention was paid to ceiling height by reducing the ceiling height from 4.3 meters to 3 meters, and daylight by inserting larger windows.



**Figure 3.** Graphical representation of the future Mijkenbroek police detention centre, Breda, the Netherlands. A patio with a tree, and more daylight.

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The police staff control room was raised by two steps to suggest hierarchy, and the front was built in a slight angle to suggest a certain distance. Thereby it showed authority and power, without the intention to evoke feelings of stress.

This collaborative project with Kate Pietrowska shows future police detention centres, where the environment contributes to reducing suspects' feelings of stress, anxiety and sleep problems, and to increase work satisfaction in police staff as well. Ultimately, this design may contribute to a more effective police interrogations and police investigation processes.



**Figure 4.** Graphical representation of the future Mijkenbroek police detention centre, Breda, the Netherlands. On the left: the patio with a tree, on the right: the police control room. © Kate Piotrowska 2015



It is a custom in our team  
that cake is served when  
a confession has been obtained.

Police detective, Brabant, the Netherlands  
(2015)

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Our supervisor wants us to interrogate people as soon as possible.

He just doesn't want a hassle, so he assigns any available police detective to interrogate vulnerable people.

**Police detective, Amsterdam Police Force  
(2016)**

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(in Dutch)

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On my first day of work,  
just after entering the room,  
an older police detective told me:  
“Just forget about everything you  
learned at the Police Academy,  
because I will teach you how to  
properly conduct police investigations  
and interrogations.”

Young police detective,  
Bachelor in Criminal Investigation  
of the Netherlands Police Academy,  
Amsterdam Police Force  
(2016)

# Curriculum Vitae

## Curriculum Vitae

After graduating high school in 1996, I was selected for the Executive Master of Tactical Policing (Leergang Tactisch Management) at the Police Academy of the Netherlands, which I graduated from in 2000. Subsequently, I worked at different police departments in Amsterdam, Breda, Eersel, and Tilburg, in different ranks and positions. In 2007, I started a Bachelor's study Psychology at the Open University of the Netherlands next to my job. Five years later I earned a Bachelor's degree in Psychology. My Bachelor's thesis was selected for an oral presentation at the Dutch Student Research Conference in 2012, Utrecht University, the Netherlands. In July 2013, I obtained a Master's degree in Clinical Psychology at the Open University of the Netherlands. During my Bachelor's and Master's studies, I enrolled in several additional courses on neuropsychology, law, and management at Tilburg University and the Open University of the Netherlands. In January 2014, I started a PhD research project at Maastricht University and the Police Academy of the Netherlands under the supervision of Prof. Corine de Ruiter, PhD (Full Professor of Forensic Psychology at Maastricht University), and Nicolien Kop, PhD (Professor of Applied Sciences at the Police Academy of the Netherlands). In May 2016, I rejoined the Amsterdam police force as a senior police officer. Since October 2018, I work as a researcher at Team Research of the Police Academy of the Netherlands, but occasionally I can still be found as a police officer in the city centre of Amsterdam.

