

# From suspect statement to legal decision making how do judges weigh the evidence?

Citation for published version (APA):

Tersago, P., Vanderhallen, M., Rozie, J., & McIntyre, S.-J. (2020). From suspect statement to legal decision making how do judges weigh the evidence? *Zeitschrift für Psychologie*, 228(3), 175-187. <https://doi.org/10.1027/2151-2604/a000412>

## Document status and date:

Published: 01/07/2020

## DOI:

[10.1027/2151-2604/a000412](https://doi.org/10.1027/2151-2604/a000412)

## Document Version:

Publisher's PDF, also known as Version of record

## Document license:

Taverne

## Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

## General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

[www.umlib.nl/taverne-license](http://www.umlib.nl/taverne-license)

## Take down policy

If you believe that this document breaches copyright please contact us at:

[repository@maastrichtuniversity.nl](mailto:repository@maastrichtuniversity.nl)

providing details and we will investigate your claim.



# From Suspect Statement to Legal Decision Making

## How Do Judges Weigh the Evidence?

Pieter Tersago<sup>1</sup>, Miet Vanderhallen<sup>2</sup>, Joëlle Rozie<sup>1</sup>, and Sara-Jane McIntyre<sup>3</sup>

<sup>1</sup>Faculty of Law, Antwerp University, Antwerp, Belgium

<sup>2</sup>Faculty of Law, Antwerp University and Faculty of Law, Maastricht University, Maastricht, The Netherlands

<sup>3</sup>Faculty of Law, Maastricht University, Maastricht, The Netherlands

**Abstract:** Notwithstanding that confessions are considered the “Queen of evidence,” how judges actually weigh suspects’ statements in reaching their decision remains relatively unknown. This study sought to examine how Belgian judges determine the evidential value of a suspect’s statement, specifically how they evaluate the statement’s: (a) admissibility and validity and (b) interaction with other pieces of evidence. To shed light on this legal decision-making process, 100 Belgian burglary case files were examined, and semi-structured interviews were undertaken with ten Belgian judges. The findings suggest that: the judge’s evaluation of a suspect’s statement differs depending on the outcome of the statement; how a statement is obtained does not appear to be an essential aspect of evidence evaluation; judges expend more effort to falsify denials than confessions; and only when they fail to falsify the denial is an acquittal granted.

**Keywords:** legal decision making, suspect interview, confession, evidence

The fundamental question in legal decision-making for criminal cases is whether the charge against a suspect is proven (De Wolf, 2010). Although seemingly straightforward, determining this is quite challenging. To inform this decision, judges in Belgium rely on evidence obtained through the criminal investigation which is contained in an investigation dossier, and evidence presented in court at the hearing (Buruma, 2009). Each piece of evidence is characterized by some degree of uncertainty and often does not form a coherent and cohesive picture (Van Koppen, 2013). Judges and juries are regularly confronted with pieces of evidence that are not complementary and sometimes even contradictory (Bartol & Bartol, 2004; Charman, 2013; Groscup & Tallon, 2009; Pennington & Hastie, 1991).

In the adjudication of criminal matters, confessions are considered the “Queen of evidence” (Damaška, 2018). Research indicates that, regardless of whether a confession is true or false, it is psychologically the most powerful evidence in a suspect’s trial (Kassin, 2012). Research also shows an overshadowing effect of confessions when evaluating other evidence (Kassin & Neumann, 1997) which might result in flawed decision making and miscarriages of justice (Van Koppen, 2011). Although miscarriages of

justice are ultimately the result of the legal decision-making process, they often originate from the criminal investigation and remain unnoticed by judges.

Despite (false) confessions having such an impact, few studies have explored how judges evaluate the evidential value of suspects’ statements (Charman, 2013; Kassin, 2012). This is particularly problematic given that judges in Belgium possess wide discretion in evaluating evidence.

### Legal Decision Making in Belgium

When presented with evidence in criminal cases, judges must first determine its admissibility and then its probative value. In Belgium, admissibility is determined according to principles outlined in the Antigoon judgement.<sup>1</sup> Where a judge considers evidence was obtained irregularly, it must be excluded if: the irregularity concerns a violation of a formal requirement, the penalty prescribed for which is legal nullity, the reliability of the evidence is affected, or the violation makes a fair trial impossible (“Antigoon criteria”).

The judge, who is sovereign and holds wide discretionary power,<sup>2</sup> then determines the charges based on all the

<sup>1</sup> Court of Cassation, No P.03.0762.N, 14 October 2003. These principles are now also legislatively enshrined in Article 32 of the Belgian Code of Criminal Procedure.

<sup>2</sup> For case law, see e.g.: Court of Cassation. 28 March 2012, P.11.2054.F; Court of Cassation. 19 December 2012, P.12.1310.F; and Court of Cassation. 11 March 2014, P.12.1903.N.

admitted evidence. This is consistent with the primacy placed within the inquisitorial framework on the principle of ‘free evaluation of the evidence’ as the mechanism through which justice can be most effectively served (Damaška, 2018).

Absolute certainty is not required. Instead, the judge must be satisfied “beyond reasonable doubt,” which is the standard that replaced “inner conviction”<sup>3</sup> and is considered functionally equivalent (Traest, 2011). Although some suggest these standards entail subjectivity, irrationality, and even randomness (Henry, 1985; Traest, 1992), others contend that a subjective inner conviction is inevitable but not problematic since it results from a careful, rational, and logical deliberation of the presented evidence (Traest, 1992; Verstraeten, 2012; Court of Cassation. 30 January 2007, P.06.1390.N).

Problematically, international research on how judges actually weigh the evidence, especially statements, during the deliberation process is demonstrably limited, and in Belgium is non-existent. It is, however, particularly interesting in the context of Belgium as an inquisitorial system because of the absence of a plea mechanism, which obviates the need for adversarial judges to consider the probative value of some suspects’ statements. Belgian judges are therefore required to assess the probative value of all confessions, not just those retracted.

## The Present Study

This study examines how judges assess the evidential value of suspects’ statements after determining the admissibility of the evidence, through two anchoring pathways: the evaluation of (a) how the suspect’s statement was obtained and (b) the interaction between the statement and other evidence.

The first pathway refers to the voluntariness and accuracy of the statement. Voluntariness relates to procedural safeguards such as the right to silence, the right to legal assistance, and *nemo tenetur* (right not to incriminate oneself). It is necessary to consider the impact of any irregularity with these safeguards on the weight of the evidence even if the irregularity did not reach the Antigoon threshold for exclusion.

The theoretical protections provided by these safeguards do not eliminate the possibility of an inaccurate statement altogether; a guilty suspect might still deny culpability (false negative) or an innocent suspect might confess (false positive) (Horselendberg & Van Koppen, 2017). The judge, therefore, ought to examine the accuracy of the statement separately.

Various risk factors should be taken into account when considering the accuracy of the statement (Costanzo & Leo, 2007). These risk factors fall into two main categories: dispositional factors including age, mental impairment, and personality of the suspect, and situational factors including interview techniques and isolation (Kassin et al., 2010; Klawer, Lee, & Rose, 2008). The content of the statement should also be tested against intimate knowledge that the true perpetrator would have (Wojciechowski, Grans, & Liden, 2018). Israëls and van Koppen (2006) distinguish weak and strong intimate knowledge: the former referring to knowledge of information that is also known to the police, and the latter not known to the police and therefore not arising from police contamination. Research shows that false confessions quite often include intimate knowledge found to have originated from police (Appleby, Hasel, & Kassin, 2018; Garrett, 2010, 2015; Leo, Neufeld, Drizin, & Taslitz, 2013; Nirider, Tepfer, & Drizin, 2012).

The second anchoring pathway relates to the positioning of the suspect’s statement *vis-à-vis* other evidence (Leo, 2009; Van Koppen, 2009). More specifically, the extent to which the independent evidence corroborates a confession should be examined (Kassin et al., 2010).

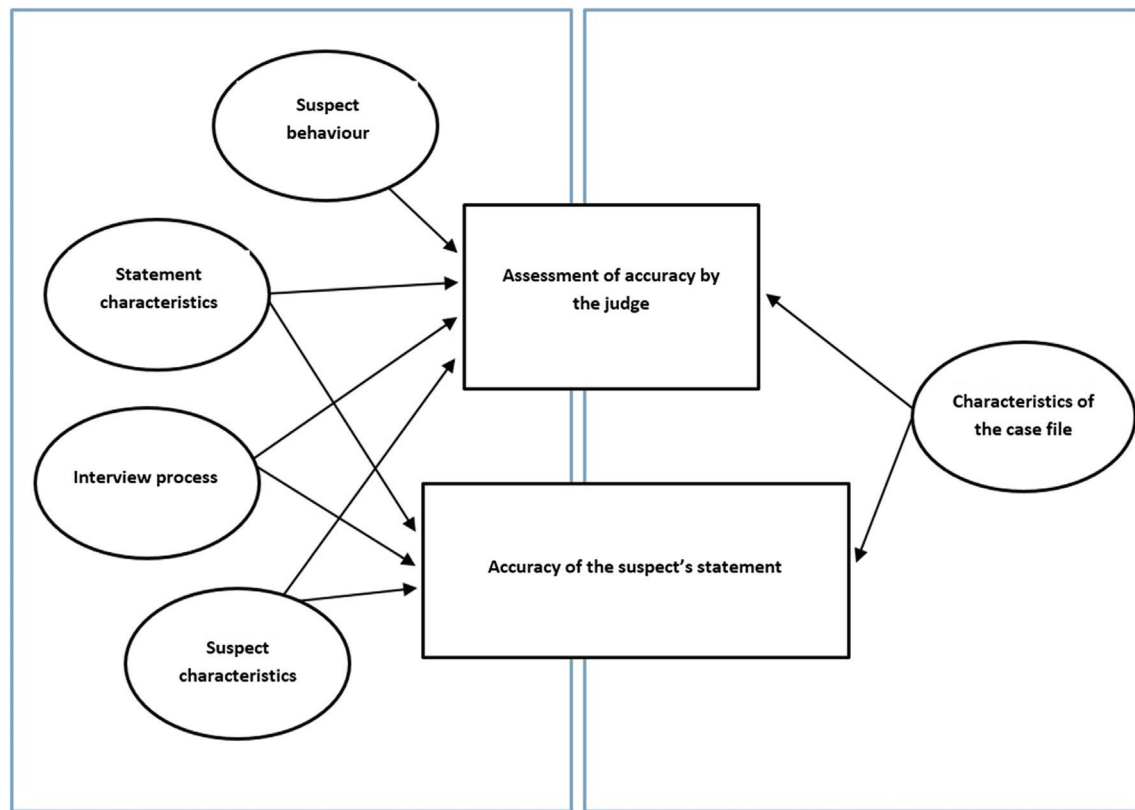
This complementary approach should enable better assessment of the suspects’ statements and facilitate overall more accurate legal decisions. Figure 1 shows how the judge’s assessment combines the two pathways.

## Method

The current exploratory study used a cross-sectional research design in which data were gathered to examine patterns of association and coherence, as well as variation and difference in the research population (Bryman, 2008). Given judges’ independence in legal decision-making, a non-manipulative design was adopted. Specifically, this exploratory study used a cross-sectional, mixed methods research design, comprising analysis of criminal case files (desk research) and semi-structured interviews with criminal judges. Data were collected in Dutch from one judicial district in Flanders.

Examination of the case files facilitated assessment of the characteristics of suspects’ statements, their interplay with other evidence, and relationship to the judge’s decision and reasons for deciding. No inter-rater reliability was calculated because there was no elasticity in interpretation of data except for determining: full versus partial confessions, weak versus strong intimate knowledge, and consistency between evidence and the statement, for which

<sup>3</sup> Article 326 of the Belgian Code of Criminal Procedure.



**Figure 1.** Two pathways for evaluating suspects' statements.

strict coding criteria were developed by the research team. For example, regarding consistency between the statement and other pieces of evidence: (1) full consistency refers to consistency about the constitutive elements of the crime, the legal aggravating circumstances, and other legally defined circumstances; (2) partial consistency concerns only the consistency on the constitutive elements of the crime; and (3) full inconsistency relates to differences on these three components.

As case files are not prepared for the purpose of scientific research, they might lack useful information. Interviewing judges facilitated a greater understanding of their reasoning process. All interviews were recorded and transcribed.

A specific crime type was chosen for both case files and interviews to narrow the focus, ensure uniformity, and control for extraneous offense-specific considerations. In consultation with a chief of police and the president of a Belgian court of appeal, burglary cases were adopted. Broadly speaking, "burglary cases" include entering a home or building to steal (with or without aggravating circumstances e.g., violence or forced entry) but exclude, for example, theft from a bank safe, car, store, or of wages or electricity.

These cases were adopted for three reasons. First, burglaries are volume offenses that judges regularly adjudicate.

Second, most research on interviews with suspects and miscarriages of justice focus on the most serious crimes like murder and sexual offenses (Drizin & Leo, 2004; Van Koppen, 2011). By contrast, little is known about suspects' statements (and their evaluation) in volume crimes such as a burglary. Third, burglary cases usually consist of various evidence types, combining statements with forensic and other evidence allowing scrutiny of the different weight given to so-called "soft" evidence like suspects' statements and their interaction with so-called objective (or "hard") evidence like DNA or fingerprints (Ask, Rebelius & Granhag, 2008).

## Desk Research

The desk research comprised burglary case files for which a decision was made in 2010. First, all cases from the Court of Appeal meeting the inclusion criteria were identified and selected ( $n = 49$ ). An additional 51 cases were then randomly selected from two courts of first instance within the same judicial district as the Court of Appeal. A sample size of 100 was chosen to balance the need to obtain sufficient data to identify patterns with resource constraints.

The coding scheme for analysis of the case files comprised five variable clusters capturing characteristics of:

(a) the case file, suspect, and arrest/detention; (b) the process of interviewing the suspect; (c) the suspect statements; (d) the statement *vis-a-vis* other evidence; and (e) the legal decision including outcome and reasons. Data were mainly quantitative. Regarding the legal decision, information was derived from the reasons provided by the judge. Although providing reasons is obligatory, the scope of their articulation was often limited and information about suspects' statements was scarce. Therefore, information on the evaluation of how a statement was obtained was constrained.

Table 1 shows that approximately half the burglaries were committed in private residence (e.g., houses and apartments) and the other half in other building types, such as stores and factories. Suspects were mostly male, aged 29 years on average, and more than half (62%) were previously convicted of a similar crime.

Overall, 60.2% of suspects ( $n = 52$ ) confessed, either partially ( $n = 22$ , 37.2%) or fully ( $n = 37$ , 62.7%). A minority confessed partially (13.3%,  $n = 13$ ) or fully (22.4%,  $n = 22$ ) when first interviewed. Of those who initially denied, 43.3% ( $n = 26$ ) later confessed during a subsequent interview. No suspect systematically asserted their right to silence. These figures are in line with earlier studies revealing confessions rates around 60% (e.g., Baldwin, 1993; Clarke & Milne, 2001; Leo, 1996; Moston & Stephenson, 1993). However, deriving an unambiguous image of confessions is difficult because of methodological and procedural differences and complexities in decision-making strategies of suspects.

## Semi-Structured Interviews

Ten semi-structured interviews were conducted with criminal judges, half of whom were appointed to the courts of first instance, and the other half to the Court of Appeal. Table 2 provides an overview of the judges' characteristics.

Table 2 shows that the majority of judges had worked previously as lawyers ( $n = 9$ ) and had received some training on interviewing suspects ( $n = 7$ ). Judges reported having adjudicated a wide range of crimes.

Interviews were conducted using a topic list comprising three parts. The first part concerned the overall decision-making process and aimed to explore how judges come to their decision in a burglary case in general. The second focused on the decision-making process with respect to suspects' statements specifically. Finally, judges were asked to analyze a burglary case (an 8-page vignette) using the "thinking-out-loud" method. The vignette contained a description of facts including results of the crime scene investigation, the suspect's arrest in the vicinity of the crime scene, the witness statement and result of the identification test ("might be the perpetrator but not sure"), and the negative results for the tangible evidence (i.e., burglary

**Table 1.** Characteristics of the burglary case files

Characteristic	Relative frequency ( $N = 100$ )
Crime characteristics	
Crime scene	
Theft residence	51% ( $n = 51$ )
Theft other buildings	42% ( $n = 42$ )
Other	7% ( $n = 7$ ) <sup>a</sup>
Aggravating circumstances	
Violence	29% ( $n = 29$ )
Theft with forced entry, false keys...	65% ( $n = 65$ )
Suspect characteristics	
Age	$M = 29.75$ years ( $SD = 6.75$ )
Sex	
Male	97% ( $n = 97$ )
Female	3% ( $n = 3$ )
Nationality	
Belgian	61% ( $n = 61$ )
European	25% ( $n = 25$ )
Other	14% ( $n = 14$ )
Recidivism	
General recidivism	15% ( $n = 15$ )
Specific recidivism	62% ( $n = 62$ )
Criminal investigation characteristics	
Investigation lead	
Investigation led by prosecution	23% ( $n = 23$ )
Investigation led by judge of instruction	77% ( $n = 77$ )
Police force	
Local police	85% ( $n = 85$ )
Federal police	15% ( $n = 15$ )

Note. <sup>a</sup>Case files in which the burglary is combined with other crimes.

**Table 2.** Characteristics of the judges interviewed

Characteristic	Relative frequency ( $N = 10$ )
Sex	
Male	4
Female	6
Training in interviewing suspects	
Yes	7
No	3
Previous experience	
Lawyer	7
Lawyer and prosecutor	2
Investigating judge	1
Experience as a judge	
$\leq 1$ year	2
1–5 years	0
6–10 years	3
11–15 years	3
$> 15$ years	2



**Table 3.** Evidence in the burglary case files

Evidence	% present in case files (N = 100)	95% CI [LU, UL]
Suspect statement(s)	98%	[0.95, 1.00]
Other statement(s) (victim, witness...)	70%	[0.61, 0.79]
Substantive evidence (burglary tools, stolen goods...)	57%	[0.47, 0.67]
Statement of co-suspect <sup>a</sup>	50%	[0.40, 0.60]
Audiovisual or digital documentation (CCTV, pictures, telephone investigation)	31%	[0.22, 0.40]
Forensic evidence (DNA, finger and ear marks, evidence of forced entry...)	23%	[0.15, 0.31]
Police observations, caught in the act	12%	[0.06, 0.18]

Note. <sup>a</sup>In Belgian criminal procedure statements of co-suspects can be used as evidence against the suspect (see, e.g., Court of Cassation, 30 March 2011, P.10.1940.F.).

tool). The written record of the suspect interview was also provided. The vignette was inspired by examples from the case files and an observational study of suspect interviews in burglary cases (Tersago, Vanderhallen, & Rozie, 2017).

## Results

### Desk Research (Case Files)

#### Description of the Suspect Statement, Other Evidence, and the Verdict

Table 3 summarizes the various evidence types contained in the case files.

Suspects' statements were most frequently observed, being present in almost all cases (98%), followed by victim or witness statements (70%), and tangible evidence (e.g., burglary tools) in more than half (57%). Audiovisual or digital evidence, and other forensic evidence, were present in one-third (31%) and one-quarter (23%) cases, respectively.

In 75.5% ( $n = 74$ ) of the cases in which a statement was located on file, the suspect was interviewed more than once (on average, 2.5 times). After the initial interview, suspects were most often (91%,  $n = 62$ ) interviewed the second time by the investigating judge when deciding upon pre-trial detention. They were also re-interviewed by the police to fill the white spots or connect the suspect to other crimes. Suspects who denied responsibility during the first interview were interviewed more frequently ( $M = 3.2$ ) but not significantly so,  $t(96) = 1.97$ ;  $p = .05$ , 95% CI  $[-.0062, 1.50440]$ .

Of the 100 burglary cases reviewed, the judge rendered a guilty verdict in 91%. When a suspect confessed, either partially or fully, the court of first instance invariably found the charges proven ( $n = 66$ , 100%). Suspects who denied responsibility were convicted in 73.5% ( $n = 25$ ) of cases and acquitted in 26.5% ( $n = 9$ ). Thus, denying suspects are acquitted significantly more frequently than their confessing counterparts,  $\chi^2(1) = 19.20$ ,  $p < .001$ , Cramer's  $V = .48$ .

Similarly, of the cases considered by the Court of Appeal ( $n = 49$ ), those with a confession resulted in a conviction (55%,  $n = 27$ ) compared with an acquittal for 23% of those who denied responsibility ( $n = 5$ ), which was a statistically significant difference,  $\chi^2(1) = 8.48$ ,  $p = .007$ , Cramer's  $V = .33$ .

The Court of Appeal only overturned the original decision in cases of denial. Convictions in cases with a confession were always upheld. Finally, the reasons in (the limited number of) acquittals often referred to "insufficient evidence" or that "the facts could not be proven beyond reasonable doubt" and did not refer to the defendant as "innocent."

#### The First Pathway: How the Statement Was Obtained

None of the reasons canvassed how the suspect's interview was conducted, nor outlined specific information on risk factors, nor intimate knowledge provided by the suspect despite 59.3% ( $n = 35$ ) of the files with confessions containing only weak intimate knowledge. Analysis further revealed that 14.7% ( $n = 41$ ) of the suspects' statements contained remarks from the interviewer in the margin. Contrary to prevailing jurisprudence,<sup>4</sup> in 3.9% ( $n = 11$ ) the remarks were subjective interpretations about the guilt or mendacity of the suspect.

Audio-visual records are not obligatory or common in Belgium, and indeed only permitted under judge's authorization for the most serious crimes (Belgian Criminal Code of Procedure, Art. 112). Recordings were therefore not on file to enable the judge to personally assess the suspect's behavior. This issue may be compounded by the fragmented information about the interview process otherwise contained in the written records. Remarkably though, where the interviewer confronted the suspect with evidence, this, as well as the suspect's response, was often included, as were the details of any confession. None of the reasons scrutinized or critically reflected on any shift from denial to confession.

<sup>4</sup> See, for example, Court of Cassation, 19 January 2000; Gent 2 February 1989, RW 1989-90, 1094.

**Table 4.** Consistency between suspect statements (denial/confession) and other evidence

Type of evidence	<i>n</i> (%)	<i>SD</i>	95% CI [LL, UL]	<i>n</i> (%)	<i>SD</i>	95% CI [LL, UL]
Witness statements		Denial ( <i>n</i> = 25)		Confession ( <i>n</i> = 45)		
Fully consistent	2 (8.0)	5.5	[0.0, 20.0]	18 (40.0)	7.4	[26.1, 54.8]
Partially consistent	3 (12.0)	6.6	[0.0, 26.3]	17 (37.8)	7.2	[23.3, 51.3]
Fully inconsistent	20 (80.0)*	8.2	[63.2, 94.7]	10 (22.2)	6.3	[10.6, 35.6]
Fisher's Exact: 22.012, <i>p</i> = .00						
Statements co-suspects		Denial ( <i>n</i> = 20)		Confession ( <i>n</i> = 43)		
Fully consistent	4 (20.0)	9.2	[4.5, 40.9]	10 (23.2)	6.3	[11.9, 36.6]
Partially consistent	5 (25.0)	10.1	[6.7, 47.1]	26 (60.5)	7.3	[4.0, 75.6]
Fully inconsistent	11 (55.0)*	11.3	[33.3, 76.5]	7 (16.3)	5.6	[5.6, 27.7]
Fisher's Exact: 10.20, <i>p</i> = .006						
Forensic evidence		Denial ( <i>n</i> = 11)		Confession ( <i>n</i> = 12)		
Fully consistent	4 (36.4)	15.0	[8.3, 66.7]	8 (66.7)	14.0	[38.5, 92.3]
Partially consistent	7 (63.6)	15.0	[33.3, 91.7]	4 (33.3)	14.0	[7.7, 61.5]
Fully inconsistent	0 (0.0)	–	–	0 (0.0)	–	–
Fisher's Exact: 0.39, <i>p</i> = .150						
Substantive evidence		Denial ( <i>n</i> = 19)		Confession ( <i>n</i> = 38)		
Fully consistent	5 (26.3)	10.7	[7.1, 47.6]	26 (68.4)	7.6	[54.1, 83.8]
Partially consistent	3 (15.8)	8.6	[0.0, 35.0]	3 (7.9)	4.4	[0.0, 17.1]
Fully inconsistent	11 (57.9)*	11.6	[35.0, 78.9]	9 (23.7)	7.1	[10.5, 38.1]
Fisher's Exact: 9.19, <i>p</i> = .008						
Other evidence		Denial ( <i>n</i> = 12)		Confession ( <i>n</i> = 19)		
Fully consistent	0 (0.0)	–	–	11 (57.8)	11.6	[33.4, 80.0]
Partially consistent	8 (66.6)	14.0	[36.4, 91.7]	6 (31.6)	10.7	[10.5, 52.9]
Fully inconsistent	4 (33.3)*	14.0	[8.3, 63.6]	2 (10.5)	7.0	[0.0, 26.7]
Fisher's Exact: 11.91, <i>p</i> = .002						

Note. \**p* < .01.

### The Second Pathway: How the Statement Relates to Other Evidence

With respect to the second pathway, the consistency between the statement and other evidence was examined. Case files in which objective evidence was present were not significantly more likely to end in a conviction (forensic evidence: Fisher's Exact, *p* = .35; audiovisual and digital evidence: Fisher's Exact *p* = .20). However, consistency between the confession/denial and the other evidence should also be considered. An overview is provided in Table 4.

Table 4 shows that confessions were significantly more consistent with other pieces of evidence than denials. Moreover, inconsistency was never found between the confession and "objective" evidence.

In all cases where a confession was present, judges convicted the suspect. In one case, a conviction was based on a confession without any supporting evidence.

In 62% (*n* = 62) of the files, the confession was mentioned in the reasons by the court of first instance (including reasons located on the 49 files adjudicated by the court

of appeal). However, information on balancing the weight of the confession with that of the other evidence was rather absent. In 64.5% (*n* = 40) of these cases, the judge summed up only the pieces of evidence that were taken into consideration and in 35.5% (*n* = 22) found that "the facts were sufficiently proven by the criminal investigation" with specific reference only to the confession. For example, in one case file, the reasons stated: "The court considers the facts proven by the criminal investigation and the evidence presented in court and, for that matter, the suspect admitted these facts."

In a minority of cases (three at the court of appeal), the reasons were solely built around the confession of the (co-)suspects. For example: "Both suspects confessed to the crime during the criminal investigation. The second suspect explicitly admits that she previously had met the first suspect for the purpose of stealing." At the Court of Appeal, the confession was mentioned in 14% (*n* = 8) of the cases<sup>5</sup> where the judge provided reasons. None of the reasons mentioned that the confession was balanced with or against the other evidence.

<sup>5</sup> There was a confession in 55% (*n* = 27) of the cases at the Court of Appeal.

Compared to confessions, denials were more inconsistent with other evidence. This inconsistency related mostly not only to objective evidence but also to statements made by co-suspects. The majority of cases with a denial ended in a conviction (see above). The reasons did not explicitly state the specific inconsistency being used to invalidate the denial, but all the other evidence contradicting the denial was often identified by the judge. The analysis showed that, where the denial is consistent with and thus supported by the other evidence, judges might still convict the defendant because of the “implausibility of the statement.” For example, the court of appeal in one case stated:

In contradiction with the court of first instance, the suspects guilt is proven by (the fact that the following elements are present simultaneously): his mobile phone was found at the crime scene left behind by one of the perpetrators; during the crime the perpetrator wore the jacket of the suspect; the explanation of the defendant that another person on the day of the crime and the preceding period used his mobile phone is a manifest lie.

## Semi-Structured Interviews

Before considering the two pathways, it is necessary to provide some general observations on how judges come to their decision and how they approach the outcome of the statements.

### How Judges Come to Their Decision

Judges appeared to be highly uniform in their working method. All judges explained that their starting point is the prosecutor's indictment which, according to the judges, states what must be proven and which information judges should seek.

Judges all reported trying to find a story that could explain the indictment and added that they strictly follow the presumption of innocence principle until they consider guilt is proven beyond reasonable doubt. When being asked about acquittals, judges referred to the fact that these result from the indictment not being able to be proven. Judges explicitly reported that the aim is not to actively investigate the suspect's innocence and thus they do not actively search for exculpatory evidence.

When it comes to the evidence itself, all judges specified a preference for “objective” evidence (such as forensic evidence and digital evidence) because this evidence more directly sketches the contours of the evidential story and needs little interpretation. This is illustrated as follows: “I first look at objective information. I only take into account the confession or denial as circumstantial evidence.” Regarding the decision-making process as a whole, one of the judges employed the metaphor of a “puzzle.”

### How Judges Approach the Outcome of the Statement

Judges were unanimous in appreciating a statement differently depending on the position adopted by the suspect. According to three judges, suspects have an interest in not telling the truth. They therefore scrutinize denials and partial confessions in which facts or involvement is minimized:

It is not because the other says: “you know, I broke in and I was caught in the act, but I didn't steal anything and I didn't threaten the inhabitant with a knife”. Then I look at the inhabitant and if he says: “he was there with a knife”, then I have no reason to doubt whether or not this is correct.

Judges nevertheless agreed that believing the denying suspect is guilty is insufficient to convict. All judges tend to rely more on confessions. While one judge stated that “in the case where a suspect confesses, you actually don't have to check whether he is guilty or not,” eight judges contemplated the risk of false confessions. Notwithstanding that these judges considered voluntary false confessions (e.g., to protect the real perpetrator) the highest risk, three judges also referred to the (according to them) less common coerced false confessions. Based on their statements, the risk of false confessions prevented almost all judges from unconditionally trusting confessions.

Finally, although judges agreed that the use of the right to silence cannot be considered evidence of guilt and cannot be used against the suspect, three judges expressed suspicion.

### The First Pathway: How the Statement Was Obtained

From the interviews, it was apparent that all judges are less interested in the process of obtaining the suspect's statement. When judges do evaluate this process, most attention is paid to more obvious aspects like voluntariness or contamination by the police. Judges agreed that an information-gathering style is important. With respect to pressure, judges mostly focused on accusatory and explicitly manipulative techniques and were less sensitive to more implicit ones like minimization. In addition, judges agreed that a certain degree of pressure is permitted, provided the right to decide whether to give a statement is not violated.

Judges reported being convinced that inappropriate pressure seldom occurs. They further acknowledged only evaluating the interview process when the defense criticizes it, or the other evidence contradicts the statement.

Instead, judges reported placing more emphasis on the content of the statement and all preferred more detailed statements. Suspects who provide little information are considered less credible, particularly when denying. Confessions also need to contain more information than a bare admission of guilt in order to evaluate the confession,



according to the judges. To attribute high value to a confession, judges agreed that it was preferably spontaneous.

### The Second Pathway: How the Statement Relates to Other Evidence

The second pathway was identified by all judges as the predominant strategy for assessing the suspect's statement. The first step in their evaluation is to test the statement (whether a confession or a denial) against the other evidence.

When the evidence supports the statement, the value of the statement is improved and for many the facts are then proven: "The first issue you consider is whether the statement in any way corresponds with neutral elements in the case file. And actually, then I would say: that's it." By contrast, where a suspect's statement does not correspond with other evidence, particularly objective evidence, the credibility of the statement is negatively affected.

Judges reported more thoroughly examining a confession where there was inconsistency with the evidence. Many judges consider the facts proven when a confession is supported by other evidence. With one exception, judges stated they do not use the confession as a starting point for their decision, but rather consider the confession as confirmation of the other evidence. When the confession is contradicted by other evidence, especially objective evidence, judges indicated that they keep in mind the risk of a false confession, albeit that the risk is not estimated as being high.

When discussing the vignette, judges focused primarily on the correspondence of the confession with the evidence, even though it had in fact been obtained through inappropriate pressure. All but two judges agreed that the confession could be used as evidence if the confession was repeated at the trial.

When the suspect denies, all judges reported that contradictions undermine the credibility of the denial, particularly contradictions with objective evidence. At the same time, judges recognized the possibility of other explanations for certain contradictions, including because of mistakes or the intention to disguise other matters (e.g., an affair).

## Discussion

Two pathways were explored regarding the evaluation of statements. To contextualize the pathways within the framework of the over-arching decision-making process, a holistic exploration of the legal decision-making process was first conducted.

### Top-Down Decision-Making Process

In their interviews, judges describe starting from the indictment and subsequently searching for confirmatory evi-

dence to support that indictment. This finding is in line with previous research on top-down decision-making processes by judges (see e.g., Bartels, 2010; Crombag, van Koppen, & Wagenaar, 2010; Stridbeck & Granhag, 2010). This confirmation seeking approach undermines the presumption of innocence and contradicts the reported emphasis judges placed on this important safeguard. This finding is reinforced by the fact that an acquittal seemed not to be a synonym for innocence. Rather, judges observe that the guilty scenario cannot be proven "beyond reasonable doubt."

### Powerful Confessions

The second pathway is predominantly used to evaluate confessions and the first pathway appears to be largely overlooked.

#### First Pathway Evaluation: "Only When Necessary"

Findings show that how confessions are obtained is not an essential part of judges' evidence evaluation, as found in earlier research (Kassin & Sukel, 1997; Wallace & Kassin, 2012). Judges are more inclined to examine how a confession was obtained in particular cases: when the confession contradicted the other evidence or when the defense criticized the interview process. Regarding the latter, only when the lawyer criticized the process and made an objection, did judges report engaging in a more critical analysis of the confession. Otherwise, although judges acknowledged the risk of false confessions, they considered it small. This confirms previous assumptions on false confessions found in research (Findley, 2009; Grebler, 2011; Kassin, 2008; Leo, 2009; Simon, 2011). Therefore, legal assistance can only be effective if the lawyer's role is active and lawyers are sufficiently trained to identify risks to voluntary and accurate statements. After research showed they could be more active (Tersago et al., 2017), lawyers in Belgium are now obliged to follow training on providing legal assistance at the police station to become accredited for the duty scheme (Pivaty, Vanderhallen, Daly, & Conway, 2020). It is unclear to what extent lawyers are currently active following this mandatory training program.

It might actually not be that surprising that the first pathway is subordinate since the absence of audio-visually recorded interviews means judges cannot identify problematic techniques, contamination, or whether a suspect provided intimate knowledge. Thus, judges can rely only on written records to evaluate how the confession was obtained, albeit rarely doing so. The case file analysis demonstrated that written records often do not incorporate information on how the statement was obtained, leaving the judge with little information on which to base such an assessment. This confirms previous research establishing

that written records often omit or misrepresent relevant information including about questions asked, techniques used, confrontations with evidence, and non-verbal contextual information such as emotions, hesitations, or behavior of the interviewer (Komter, 2003; Malsch et al., 2015; Malsch, De Keijser, Kranendonk, & de Gruijter, 2010). Research by Malsch et al. (2015) highlights that even when audio-visual recordings are available judges do not always utilize this information in their analysis, which indicates the need for sufficient time and further training.

Moreover, the absence of audiovisual recording might partly explain why judges do not mention interview techniques or the interview process as a whole in their reasoning. However, this absence in the reasons might have various other explanations: (a) this information was not available on file, (b) the information was not considered, or (c) notwithstanding that the factors were considered, they were not documented.

### The Second Pathway as the First and Predominant Evaluation

When the confession supports the other evidence, the suspect's guilt is confirmed according to the judges and reinforced by the case analysis in which a conviction was recorded for all cases where a confession was present (often supported by other evidence). This is consistent with earlier research findings that confessions are considered more credible and result in more convictions when they are supported by other evidence (Appleby, Hasel, & Kassin, 2018; Cutler, Findley, & Loney, 2014; Greenspan & Scurich, 2016; Leo, Neufeld, Drizin, & Taslitz, 2013; Shaked-Schroer, Costanzo, & Berger, 2015). Although this seems intuitively reasonable since the balance of the evidence in these cases is *prima facie* indicative of guilt, there is a risk that judges will rely too heavily on consistency at the expense of thoroughly checking the accuracy and independence of each piece of evidence.

Consistency with objective evidence is most valuable according to judges and where this is the case the impact of the confession becomes even stronger. This supports Kassin's (2012) finding of the power of confessions. It also introduces a further risk for confession evidence since it supports the concern expressed by Kassin, Dror, and Kukucka (2013) that judges might suffer from the – possibly erroneous – assumption that the “objective” evidence was independent of the confession, and therefore might overlook false confessions (harmless error rule).

Although judges in their interviews reported questioning the credibility of confessions, this was not strongly supported by the findings from the case files, since in the few cases where the confession was inconsistent with other evidence, the suspect was convicted. This is in contrast with a recent experimental study in which inconsistencies

between confessions and other evidence were found to undermine the credibility of the confession and lead to less convictions (Palmer, Button, Barnett, & Brewer, 2014). Only cases where the suspect denied responsibility resulted in acquittals. The correspondence of a confession with other evidence leads to closure and limits the evaluation of the confession itself because investigative efforts are no longer considered necessary. Judges thus assess the value of confessions predominantly on their (in)consistency with other evidence. This finding is in line with previous research where, in 80% of cases with other evidence, the confession was used to conclude the story (McConville & Baldwin, 1982).

### Suspicious Denials

As with confessions, the evaluation of denials primarily follows the second pathway. When a suspect denies, the inconsistency with other evidence is considered less. Judges expect an innocent suspect to cooperate and provide an alibi and subsequently this alibi is examined more critically. According to the judges, where this alibi is consistent with other evidence and the denial cannot be disproved, the defendant should be acquitted, which confirms Elffers' (2017) conclusion as to how they should proceed. Thus, inconsistency between denials and other evidence is considered less of an incentive to evaluate how the denial was obtained.

However, case analysis showed that even when there was consistency between the denial and the other evidence, some defendants were nonetheless convicted. This might confirm previous research showing that innocent suspects are not always able to provide a complete and consistent alibi or provide corroborative evidence (Van Koppen & Nieuwkamp, 2017; Olson & Charman, 2012). If innocent suspects are unsuccessful, their “alternative” version will be ignored (Allison & Brimacombe, 2010; Olson & Charman, 2012; Culhane & Hosch, 2006; Dahl, Brimacombe, & Lindsay, 2008). The interviews showed that the only alternative scenario to guilt entertained by the judges was any alibi given by the denying suspect and that judges tended to be more suspicious of denials.

### Failure to Falsify

Confessions and denials are approached similarly when the confession is consistent with the other evidence and the denial inconsistent. In these cases, the evaluation process is essentially finalized. The difference exists when the confession is inconsistent with the other evidence or the denial is consistent. In both cases, judges will be more likely to look at how the confession/denial was obtained. Whereas

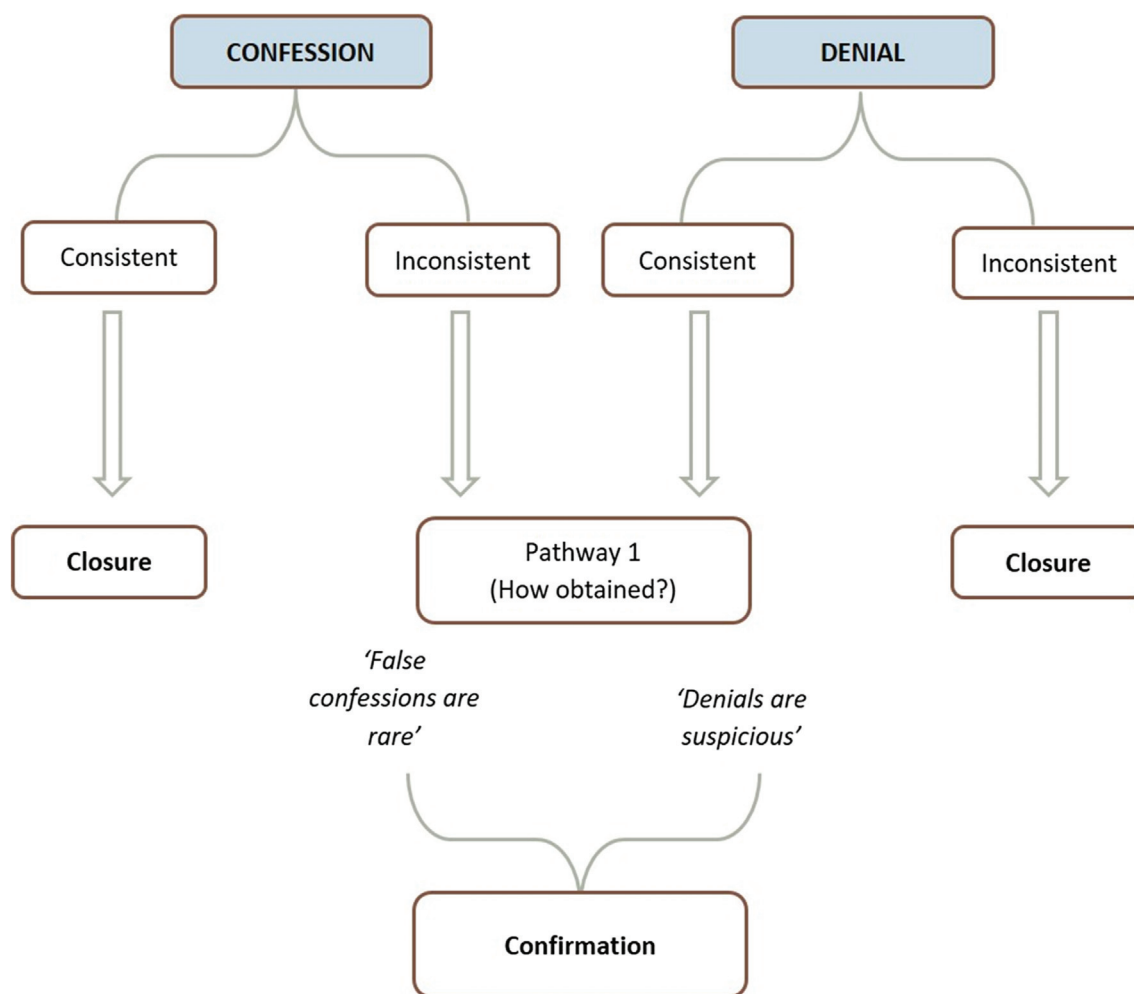


Figure 2. Confessions and denials in the second pathway.

they consider the risk of a false confession rather small, they are more suspicious toward a denial, which suggests a confirmatory process using a top-down approach. In doing so, they omit any attempt to falsify the indictment. Figure 2 shows how the approach to confessions and denial following the second pathway reflects a confirmatory model.

Van Koppen (2011) states that it is the scenario that should be proven not the evidence. In order to convict a defendant, (a) there must be a guilty scenario that is of good quality and evidence that can anchor the scenario in facts of general acceptance (verification), and (b) the evidence should better fit the guilty scenario than other innocent scenarios (falsification). Engagement in this process of falsification is not seen in cases where it is actually most needed: when suspects confess, especially when the confession corresponds with the other evidence. The risk of flawed decision-making in these scenarios is compounded since the case files contained more incriminating than exculpatory evidence. This is an unsurprising finding given they are brought to court only after the prosecution consid-

ers there is sufficient evidence to convict. This is potentially problematic because it appears to prime the judge to almost exclusively verify the guilty scenario and eschew falsification. Only one judge referred to this one-sided composition of the case file and found it particularly troublesome if a suspect denies the allegations. This highlights the importance of assessing how the statement was obtained as a complement to the process of comparing the (in)consistencies with the evidence.

## Conclusion

In the assessment of a suspect's statement, the second pathway was predominantly chosen to evaluate both confessions and denials, but judges differed in their process depending on the position adopted by the suspect. The relationship between convictions and the consistency of confessions with other evidence is stronger than the relationship

between acquittals and the consistency of denials with other evidence.

The combination of a strong second pathway and a weak first pathway leads to (1) an incomplete evaluation of the statement and (2) the failure to engage in falsification.

In short, judges might engage in possibly problematic decision-making processes as a result of a top-down approach, namely being focused on proving the indictment (verification process), where primarily the second pathway is examined. The more an alternative scenario approach (falsification) is called for, the less attention is paid to further investigation. Such a flawed decision-making process does not *necessarily* lead to a wrongful conviction but does give rise to the risk that one might occur. This process might present less risk in relation to volume crimes like burglary than more serious crimes such as murder, where miscarriages of justice have mostly been found to have occurred (Van Koppen, 2011). The risk might be reduced for volume crimes because, as identified in the case file analysis, where there is a confession the conviction is often also supported by other (consistent) evidence, even if not the “objective” type preferred by judges.

In the context of volume crimes like burglaries, judges must adjudicate many case files, meaning bounded time and energy and consequently less opportunity for thorough and rational analysis of each case file and the evidence within (De Keijser, 2017). Where this is so, judges are more inclined to use intuitive heuristic processes (Kahneman, 2011). In some cases, fast and frugal decision can be equivalent to, if not better than, rational decision making on the basis of all the information, resulting in a “less is more” effect (Gigerenzer & Gaissmaier, 2011). However, research also demonstrates that even judicial experts are subject to biases when engaging in automated decision making (e.g., hindsight bias, anchoring) (Guthrie, Rachlinski, & Wistrich, 2001). Higher quality assessment of suspect statements, and consequently of legal decision-making therefore arguably requires sufficient time “to do the job.”

In addition, from a more legal perspective, the presumption of innocence as highly valued within the law in the books is eroded when looking at the law in action. Although judges claimed to comply with this and similar legal rules, as well as with legal-psychological insights on suspect interviewing, this did not appear to be borne out in practice.

These findings suggest judges need more training and to have more information at their disposal. Training is particularly needed about the interview process, not only regarding risks for false confessions but also contamination issues like forensic confirmation bias and the protective value of examining alternative scenarios against wrongful convictions.

In addition, systematic audio-visual recording should be implemented to enable judges to independently assess the

statement and the process by which it was obtained. The foregoing recommendations require sufficient time to facilitate more accurate decision-making, at minimum in cases where the confession is inconsistent with other evidence or the denial is consistent.

## References

- Allison, M., & Brimacombe, C. (2010). Alibi believability: The effect of prior convictions and judicial instructions. *Journal of Applied Social Psychology*, 40, 1054–1084. <https://doi.org/10.1111/j.1559-1816.2010.00610.x>
- Appleby, S. C., Hasel, L. E., & Kassin, S. M. (2018). Police-induced confessions: An empirical analysis of their content and impact. *Psychology, Crime & Law*, 19, 111–128. <https://doi.org/10.1080/1068316X.2011.613389>
- Ask, K., Rebelius, A., & Granhag, P. A. (2008). The “elasticity” of criminal evidence: A moderator of investigator bias. *Applied Cognitive Psychology*, 22, 1245–1259. <https://doi.org/10.1002/acp.1432>
- Baldwin, J. (1993). Police interview techniques. Establishing truth or proof. *British Journal of Criminology*, 33, 325–352. <https://doi.org/10.1093/oxfordjournals.bjc.a048329>
- Bartels, B. L. (2010). Top-down and bottom-up models of judicial reasoning. In D. Klein & G. Mitchell (Eds.), *The psychology of judicial decision making* (pp. 41–55). Oxford, UK: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780195367584.003.0003>
- Bartol, C., & Bartol, A. (2004). *Psychology and law: Theory, research, and application* (3rd ed.). Belmont, CA: Thomson/Wadsworth.
- Bryman, A. (2008). *Social research methods*. Oxford, UK: Oxford University Press.
- Buruma, Y. (2009). Betrouwbaar bewijs [Reliable evidence]. *Delikt en Delinkwent*, 39, 303–324.
- Charman, S. D. (2013). The forensic confirmation bias: A problem of evidence integration, not just evidence evaluation. *Journal of Applied Research in Memory and Cognition*, 2, 56–58. <https://doi.org/10.1016/j.jarmac.2013.01.010>
- Clarke, C., & Milne, R. (2001). *National evaluation of the PEACE investigative interviewing course*. Police Research Award Scheme (PRAS; No. 149). London, UK: Home Office. Retrieved from [https://www.researchgate.net/profile/Colin\\_Clarke3/publication/263127370\\_National\\_Evaluation\\_of\\_the\\_PEACE\\_Investigative\\_Interviewing\\_Course/links/53da3b620cf2e38c63366507.pdf](https://www.researchgate.net/profile/Colin_Clarke3/publication/263127370_National_Evaluation_of_the_PEACE_Investigative_Interviewing_Course/links/53da3b620cf2e38c63366507.pdf)
- Costanzo, M., & Leo, R. A. (2007). Research and expert testimony on interrogations and confessions. In M. Costanzo, D. Krauss, & K. Pezdek (Eds.), *Expert psychological testimony for the courts* (pp. 69–98). London, UK: Erlbaum.
- Crombag, H. F. M., van Koppen, P. J., & Wagenaar, W. A. (2010). De waarde van bewijs [The value of evidence]. In P. J. van Koppen, H. L. G. J. Merckelbach, M. Jelicic, & J. W. de Keijser (Eds.), *Reizen met mijn rechter: Psychologie van het recht* [Travels with my judge: Psychology of law] (pp. 335–348). Deventer, The Netherlands: Kluwer.
- Culhane, S., & Hosch, H. (2006). An Aiibi Witness’ Influence on Mock Jurors’ Verdicts. *Journal of Applied Social Psychology*, 34, 1604–1616. <https://doi.org/10.1111/j.1559-1816.2004.tb02789.x>
- Cutler, B. L., Findley, K. A., & Loney, D. (2014). Expert testimony on interrogation and false confession. *UMKC Law Review*, 82(3), 1–36.



- Dahl, L., Brimacombe, C., & Lindsay, D. (2008). Investigating investigators: How presentation order influences participant-investigators' interpretations of eyewitness identification and alibi evidence. *Law and Human Behavior*, 33, 368–380. <https://doi.org/10.1007/s10979-008-9151-y>
- Damaška, M. (2018). *Evaluation of evidence: Pre-modern and modern approaches*. Cambridge, UK: Cambridge University Press.
- De Keijser, J. W. (2017). *Als de waarheid eraan moet geloven. Alledaagse bedreigingen voor de waarheidsvinding in de strafprocedure*. Leiden, The Netherlands: Oratie Universiteit Leiden.
- De Wolf, D. (2010). *De rol van de rechter bij de waarheidsvinding in correctionele procedure: Een rechtsvergelijkend onderzoek naar Belgisch, Frans en Nederlands recht* [The role of the judge in the search of the truth during criminal trials: a comparative research of Belgian, French and Dutch law]. Kortrijk-Heule, Belgium: UGA.
- Drizin, S., & Leo, R. (2004). The problem of false confessions in the post-DNA world. *North Carolina Law Review*, 82, 891–1007.
- Elffers, H. (2017). Waarschijnlijkheidsargumentatie in het strafproces [Probability arguments in the criminal procedure]. In H. Elffers, P. Van Koppen, H. Merckelbach, M. Jelicic, & J. De Keijser (Eds.), *Routes van het recht. Over de rechtspsychologie* [Routes of the law. About legal psychology] (pp. 413–438). Deventer, The Netherlands: Kluwer.
- Findley, K. (2009). Toward a new paradigm of criminal justice: How the innocence movement merges crime control and due process. *Texas Tech Law Rev*, 41, 133–173.
- Garrett, B. L. (2015). Contaminated confessions revisited. *Virginia Law Review*, 101, 395–454. Retrieved from [http://www.virginialawreview.org/sites/virginialawreview.org/files/Garrett\\_101-395.pdf](http://www.virginialawreview.org/sites/virginialawreview.org/files/Garrett_101-395.pdf)
- Garrett, B. L. (2010). The substance of false confessions. *Stanford Law Review*, 62, 1051–1119. Retrieved from <https://www.semanticscholar.org/paper/The-Substance-of-False-Confessions-Garrett/564ae42b23cbc59997644ff62922af99250f8606>
- Gigerenzer, G., & Gaissmaier, W. (2011). Heuristic decision making. *Annual Review of Psychology*, 62, 451. <https://doi.org/10.1146/annurev-psych-120709-145346>
- Grebler, G. (2011). (False) confessions become compelling at trial. In A. Wagner & L. Cheng (Eds.), *Exploring courtroom discourse. The language of power and control* (pp. 49–80). Surrey, UK: Ashgate.
- Greenspan, R., & Scurich, N. (2016). The interdependence of perceived confession voluntariness and case evidence. *Law and Human Behavior*, 40, 650–659. <https://doi.org/10.1037/lhb0000200>
- Groscup, J., & Tallon, J. (2009). Theoretical models of jury decision-making. In J. Lieberman & D. A. Kaus (Eds.), *Jury Psychology: Social aspects of trial processes (Psychology in the Courtroom)* (Vol. 1) (pp. 41–66). Farnham, UK: Ashgate Publishing.
- Guthrie, C., Rachlinski, J. J., & Wistrich, A. J. (2001). Inside the Judicial Mind. *Cornell Law Review*, 86, 777–830. <https://doi.org/10.2139/ssrn.257634>
- Henry, P. (1985). De l'intime conviction [About the intimate conviction]. In Barreau de Liège. (Eds.), *Les droit de la défense en matière pénale: actes de colloque des 30-31 mai, 1er juin 1985* [Defence rights in criminal proceedings: Transcripts of the colloquium of May 30–31, June 1st 1985] (pp. 201–238). Liege, Belgium: Jeune Barreau.
- Horselendberg, R., & Van Koppen, P. J. (2017). Valse Bekentenissen. In P. J. Van Koppen, J. W. De Keijser, R. Horselendberg, & M. Jelicic (Eds.), *Routes van het recht. Over de rechtspsychologie* [Routes of the law: About legal psychology] (pp. 687–710). Deventer, The Netherlands: Kluwer.
- Israëls, H., & Van Koppen, P. J. (2006). Daderkennis, politiekennis en sturend verhoren [Suspect knowledge, police knowledge and steering interrogations]. *Netherlands Journal of Legal Philosophy*, 35, 8–18.
- Kassin, S. M. (2008). Confession evidence: Commonsense myths and misconceptions. *Criminal Justice and Behavior*, 35, 1309–1322. <https://doi.org/10.1177/0093854808321557>
- Kassin, S. M. (2012). Why confessions trump evidence. *American Psychologist*, 67, 431–445. <https://doi.org/10.1037/a0028212>
- Kassin, S. M., Drizin, S. A., Grisso, T., Gudjonsson, G. H., Leo, R. A., & Redlich, A. D. (2010). Police-induced confessions: Risk factors and recommendations. *Law and Human Behavior*, 34, 3–38. <https://doi.org/10.1007/s10979-009-9188-6>
- Kassin, S. M., Dror, I. E., & Kukucka, J. (2013). The forensic confirmation bias: Problems, perspectives, and proposed solutions. *Journal of Applied Research in Memory and Cognition*, 2, 42–52. <https://doi.org/10.1016/j.jarmac.2013.01.001>
- Kassin, S. M., & Neumann, K. (1997). On the power of confession evidence: An experimental test of the fundamental difference hypothesis. *Law and Human Behavior*, 21, 469–484. <https://doi.org/10.1023/A:1024871622490>
- Kassin, S. M., & Sukel, H. (1997). Coerced confessions and the jury: An experimental test of the “harmless error” rule. *Law Human Behavior*, 21, 27–46. <https://doi.org/10.1023/A:1024814009769>
- Kahneman, D. (2011). *Thinking, fast and slow*. New York, NY: Farrar, Straus and Giroux.
- Klaver, J. R., Lee, Z., & Rose, V. G. (2008). Effects of personality, interrogation techniques and plausibility in an experimental false confession paradigm. *Legal and Criminological Psychology*, 13, 71–88. <https://doi.org/10.1348/135532507X193051>
- Komter, M. (2003). The construction of records in Dutch police interrogations. *Information Design Journal*, 11, 201–213. <https://doi.org/10.1075/idj.11.2.12kom>
- Leo, R. A. (1996). Inside the interrogation room. *Journal of Criminal Law and Criminology*, 86, 266–302. <https://doi.org/10.2307/1144028>
- Leo, R. A. (2009). False confessions: Causes, consequences and implications. *Journal of the American Academy of Psychiatry and the Law*, 17, 249–253. <https://doi.org/10.1111/j.1467-8721.2008.00584.x>
- Leo, R. A., Neufeld, P. J., Drizin, S. A., & Taslitz, A. E. (2013). Promoting accuracy in the use of confession evidence: An argument for pretrial reliability assessments to prevent wrongful convictions. *Temple Law Review*, 85, 759–838.
- Malsch, M., De Keijser, J., Kranendonk, P. R., & de Gruijter, M. (2010). Het verhoor op schrift of op band? De gevolgen van het „verbaliseren” van verhoren voor het oordeel van de jurist [The police interview in writing or on tape? The consequences of the recording of police interviews on the legal judgment]. *Nederlands Juristenblad*, 37, 1931–2407.
- Malsch, R., Kranendonk, J., de Keijser, H., Elffers, M., Komter, M., & de Boer, M. (2015). *Kijken, luisteren, lezen. De invloed van beeld, geluid en schrift op het oordeel over verdachtenverhoren* [Look, listen, read. The influence of visuals, audio and written word on the judgement of suspect interrogations]. Politiewetenschap 79, Politie en Wetenschap, Apeldoorn. Amsterdam, The Netherlands: Reed Business.
- McConville, M., & Baldwin, J. (1982). The role of interrogation in crime discovery and conviction. *British Journal of Criminology*, 22, 165–175.



- Moston, S., & Stephenson, G. (1993). The changing face of police interrogation. *Journal of Community & Applied Social Psychology*, 3, 101–115. <https://doi.org/10.1002/casp.2450030204>
- Nirider, L., Tepfer, J., & Drizin, S. (2012). Combating contamination in confession cases. *The University of Chicago Law Review*, 79, 837–862. <https://doi.org/10.2307/41552914>
- Olson, E., & Charman, S. (2012). “But can you prove it?” – Examining the quality of innocent suspects’ alibis. *Psychology Crime and Law*, 18, 453–471. <https://doi.org/10.1080/1068316X.2010.505567>
- Palmer, M., Button, L., Barnett, E., & Brewer, N. (2014). Inconsistencies undermine the credibility of confession evidence. *Legal and Criminological Psychology*, 21, 161–173. <https://doi.org/10.1111/lcrp.12048>
- Pennington, N., & Hastie, R. (1991–1992). A cognitive theory of juror decision making: The story model. *Cardozo Law Review*, 13, 519–557.
- Pivaty, A., Vanderhallen, M., Daly, Y., & Conway, V. (2020). Contemporary criminal defence practice: Importance of active involvement at the investigative stage and related training requirements. *International Journal of the Legal Profession*, 27, 25–44. <https://doi.org/10.1080/09695958.2019.1706528>
- Shaked-Schroer, N., Costanzo, M., & Berger, D. E. (2015). Overlooking coerciveness: The impact of interrogation techniques and guilt corroboration on jurors’ judgments of coerciveness. *Legal and Criminological Psychology*, 20, 68–80. <https://doi.org/10.1111/lcrp.12011>
- Simon, D. (2011). The limited diagnosticity of criminal trials. *Vanderbilt Law Review*, 64, 143–223.
- Stridbeck, U., & Granhag, P. A. (2010). Psychological perspectives on the evaluation of evidence. In P. A. Granhag (Ed.), *Forensic Psychology in Context Nordic and international approaches* (pp. 191–209). London, UK: Willan Publishing.
- Tersago, P., Vanderhallen, M., & Rozie, J. (2017, May). *The side effect of Salduz: Heuristic acceptance of suspects’ statements*. Poster presented at the European Association of Psychology and Law Conference, Mechelen, Belgium
- Traest, P. (1992). *Het bewijs in strafzaken* [Evidence in criminal cases]. Ghent, Belgium: Mys & Breesch.
- Traest, P. (2011). Hard bewijs: Wanneer is de rechter overtuigd? [Hard evidence: When is the trial judge convinced?] In *Bewijs in strafzaken = La preuve en droit penal* [Evidence in criminal proceedings] (Vol. 18) (pp. 59–79). Brussel, Belgium: La Charte - Die Keure.
- Van Koppen, P. J. (2009). Finding false confessions. In R. Bull, T. Valentine, & T. Williamson (Eds.), *Handbook of psychology of investigative interviewing: Current developments and future directions* (pp. 53–68). Chichester, UK: Wiley.
- Van Koppen, P. J. (2011). *Overtuigend bewijs: Indammen van rechterlijke dwalingen* [Convincing evidence: Reducing the number of miscarriages of justice]. Amsterdam, The Netherlands: Nieuw Amsterdam.
- Van Koppen, P. J. (2013). *Gerede twijfel: Over bewijs in strafzaken* [Reasonable doubt: On evidence in criminal cases]. Amsterdam, The Netherlands: Uitgeverij De Kring.
- Van Koppen, P. J., & Nieuwkamp, R. (2017). Alibi’s. In P. J. Van Koppen, J. W. De Keijser, R. Horselendberg, & M. Jelicic (Eds.), *Routes van het recht. Over de rechtspsychologie* (pp. 249–260). Deventer, The Netherlands: Kluwer.
- Verstraeten, R. (2012). *Handboek Strafvordering* [Handbook of criminal procedure law]. Antwerpen, Belgium: Maklu.
- Wallace, D. B., & Kassin, S. M. (2012). Harmless error analysis: How do judges respond to confession errors? *Law and Human Behavior*, 36, 151–157. <https://doi.org/10.1037/h0093975>
- Wojciechowski, B. W., Grans, M., & Liden, M. (2018). A true denial or a false confession? Assessing veracity of suspects’ statements using MASAM and SVA. *PLoS One*, 13, e0198211. <https://doi.org/10.1371/journal.pone.0198211>

## History

Received November 25, 2019

Revision received March 10, 2020

Accepted March 11, 2020

Published online July 15, 2020

## Miet Vanderhallen

Faculty of Law

Antwerp University

Venusstraat 23

2000 Antwerp

Belgium

[miet.vanderhallen@uantwerpen.be](mailto:miet.vanderhallen@uantwerpen.be)