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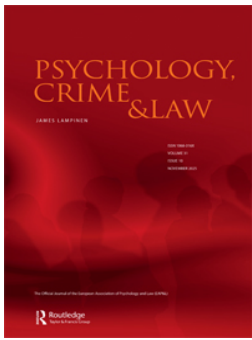
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REVIEW ARTICLE



The 'emotional defendant effect': a systematic review of experimental studies

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ABSTRACT

The (un)desirable impact of emotions on legal decisions has been a subject of timely discussion. However, an overview of what experimental research has revealed about the influence of a defendant's emotions on legal decisions – an 'emotional defendant effect' – is lacking. Furthermore, where the discussion about defendants' emotions mainly centers around remorse, the role of other emotions remains unclear. The current systematic review aims to fill these knowledge gaps by scrutinizing the available literature to see whether defendants' emotions influence guilt and sentencing decisions. Results suggests that the expression of emotion by defendants might be beneficial in terms of guilt and sentencing decisions as compared to showing no emotion. However, this finding does not account for all types of emotions. Furthermore, the effect of a defendant's emotionality on legal decisions includes a set of boundary conditions (moderators), and is almost exclusively found in student samples. It is important for legal professionals to be able to gain knowledge about the rich palette of emotions defendants can experience, how they arise, and how they are expressed, to make informed decisions, but also in order to regulate their own emotions. Hence, we recommend emotional intelligence training among legal practitioners.

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defendant; emotion;
remorse; guilt; legal decision

The role of emotions in legal decision-making has been a topic of extensive debate among legal scholars (e.g. Bandes, 2016, 2020; Bennett, 2016; Feigenson & Park, 2006; Heath, 2009; Proeve & Tanvir, 2022). Part of the discussion includes the emotions defendants display in the courtroom. Defendants can experience anger, arising from feeling hurt or wronged (DeCelles et al., 2021), but defendants may also adopt a neutral stance, suppressing emotions to maintain composure. Yet, in exploring the impact of defendant emotions on legal decision-making, scholarly attention has predominantly focused on expressions of remorse. In certain (common law) countries, such as the United States and England, remorse evaluations can play a pivotal role in various legal decisions, including determinations of guilt and sentencing outcomes (Antonio, 2006;

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Berryessa, 2022, 2023; Devine & Kelly, 2015; Garvey, 1998; Proeve & Tanvir, 2022; Rossmannith, 2015; Van Oorschot et al., 2017; Zhong et al., 2014). What role other emotions may or ought to play is not formally recognized in legal documents.

Traditionally, lawyers consider emotions as a potential impediment for sound and rational judgments and legally correct decisions (Feigenson, 2000). Whether this attitude toward emotions is justified remains uncertain, as a comprehensive overview of emotional effects in legal decision-making is lacking. Furthermore, the impact of defendant emotions beyond remorse remains unclear. To address these gaps, the current literature review critically scrutinizes existing experimental studies on the influence of defendants' emotions on guilt and sentencing decisions during criminal proceedings, aiming to shed light on a potential 'emotional defendant effect'. In what follows, we more extensively discuss offender emotions and the theoretical considerations that can explain their effect on legal decision-making.

(Offense-related) emotions

Emotion scholars teach us that emotions have a signaling function: a person's emotional experience signals how s/he judges a situation and what that person deems important (Frijda, 1988; Schwarz, 1990, 2002). Put differently, emotions arise in response to an event, context, or outcome that is considered relevant to an individual's goals, motives, or concerns (Frijda, 1988). For example, someone can experience anger when seeing injustice (Van Doorn et al., 2014), or experience sadness over something desirable that is lost and unattainable (Frijda, 1988; Roseman et al., 1994).

In relation to defendants' emotions, most attention has been given to the emotion remorse (e.g. Bandes, 2016, 2020; Bennett, 2016; Proeve & Tanvir, 2022; Proeve & Tudor, 2010), as evaluations of remorse play a crucial role in a variety of legal decisions, including determinations of guilt as well as sentencing decisions (e.g. Bandes, 2016, 2020; Van Oorschot et al., 2017). At the same time, critiques exist about the accuracy of remorse evaluations, questioning the role remorse ought to play in criminal proceedings (e.g. Bennett, 2016; Heath, 2009; Lippke, 2022; Proeve et al., 1999; Rossmannith et al., 2018). Furthermore, it might be difficult to set remorse apart from other emotions. Remorse arises from feeling sorry for a morally offensive act, for which personal responsibility is taken, and creates discomfort or distress (Proeve & Tudor, 2010). It is often thought to be similar to emotions such as regret and guilt. However, although related, there are some differences. For example, while remorse is focused on 'disapproving' past behaviors, regret can stem from both past actions and *inactions* (e.g. Gilovich et al., 1998; Zeelenberg et al., 2002). Furthermore, regret originates from a *comparison* between a factual outcome and an outcome that might have occurred if one had chosen another action (Sugden, 1985; Zeelenberg et al., 2002).

Offense-related emotions are not confined to remorse and regret. From a moral injury perspective we can expect other emotions (in response to their criminal act) to occur in offenders as well (Roth et al., 2022; Tallon et al., 2015). Moral injury pertains to the suffering that is caused by actions that go against one's moral worth and expectations (Litz et al., 2009; Molendijk, 2018), and can have severe consequences on the emotions of the perpetrator (Griffin et al., 2019). For example, displaying certain behavior that is in contrast with one's core moral values can lead to the experience of guilt, shame,

regret, sadness, remorse, and anger (Atuel et al., 2021; Molendijk, 2018). This applies to both deliberately committed crimes and culpable crimes, and is largely due to violations of their own morality. From this perspective one could argue that an offender can also be a victim of their own actions or negligence.

Further tapping into the cause of specific emotions, research shows that guilt arises from transgressions and motivates behavior to rectify the situation (Roseman et al., 1994; Tangney et al., 2011). Shame is experienced when someone feels inferior because of one's behavior (showing one's shortcomings). As a result, shame is also seen as a more painful emotion than guilt; it encompasses more than transgressive behavior only (Tangney et al., 2011). Anger, on the other hand, is an emotion that mainly stems from injustices committed by some else (Van Doorn et al., 2014), which is common in false accusations of a criminal offense (Reisig et al., 2004). Repeated violations of one's (sense of) justice might also fuel hate and feelings of revenge (Van Doorn, 2018). Finally, a defendant might experience sadness, resulting from the experience or anticipation of loss (e.g. due to feelings of failure or the feeling that things are falling apart) (Roseman et al., 1994). From the above, we take that it is a worthwhile investigation to set apart the potential influence of different types of emotions instead of emotionality per se.

Theoretical considerations on emotion expression and legal decisions

The literature proposes roughly two underlying mechanisms for explaining the influence of defendants' emotions on legal decisions. Firstly, it is stated, for example in *affect control theory*, that the defendant's emotional display might affect their moral identity (Heise, 1989). More specifically, the affect control theory poses that emotions signal whether one's current behavior is congruent with one's identity (Heise, 1989). In view of this theory it can be argued that the display of certain emotions such as remorse or guilt signals a 'distance' between a person's moral character and their moral transgressions (Gold & Weiner, 2000). How this translates into a legal decision is not so clear-cut, and might differ based on the type of legal decision. On the one hand, research suggests that remorseful defendants might be more likely to be considered guilty as the expression of such an emotion signals responsibility (e.g. Niedermeier et al., 2001), whereas other research suggests that showing remorse positively affects perceptions of moral character and the belief that future wrongful behavior is less likely (e.g. Gold & Weiner, 2000). This, in turn, might attenuate the offender's sentence (e.g. Lo et al., 2016).

Another perspective is provided by *expectancy violation theory* (e.g. Ask & Landström, 2010; Bond et al., 1992). This theory suggests that the offender's emotional demeanor might affect perceptions of credibility or honesty if they do not fit with observers' prior expectations (Heath, 2009; also see Porter & Ten Brinke, 2009). When it comes to emotions, there are certain 'display rules'; people see low emotion as a cue for deception because it violates normative expectations (Wessel et al., 2012). Put differently, the display of no or calm emotion after committing a criminal offense is deemed inappropriate and unexpected, whereas the display of guilt or remorse is not. People assume that an emotional demeanor fits the profile of a reliable and credible person. This mechanism holds for the emotional demeanor of victims (see Nitschke et al. (2019) and Van Doorn and Koster (2019) on the emotional victim effect) and, presumably, also for offenders.

Certain stereotypical ideas, expectations about, or ‘appropriateness’ of the emotional demeanor of offenders also reach beyond the emotion remorse. For example, research seems to suggest that the display of anger is less accepted in court contexts (DeCelles et al., 2021; also see Van Doorn and Koster (2019) and Schuster and Proppen (2010)). Anger is viewed as a negative emotion, associated with irrational and even aggressive behavior (Van Doorn et al., 2014). People seem to form negative impressions of others who communicate anger (e.g. Van Beest et al., 2008), and it can make people come across as untrustworthy (Dunn & Schweitzer, 2005). This might seem counterintuitive as anger could actually be considered a cue of *honesty*; it is reasoned that anger is more prevalent in truth-tellers who are falsely accused of a crime than in lie-tellers who are guilty (Ekman, 1985; Hatz & Bourgeois, 2010). However, research on deception relates dishonesty to negative emotions (DePaulo et al., 2003; Yip & Schweitzer, 2016). This, in turn, might negatively affect judgments of guilt (DeCelles et al., 2021). Whether or not the defendant’s anger is deemed justified and appropriate in the context of court, and in turn whether it negatively affects guilt and sentencing decisions, remains unclear though.

The current review

The role of defendant emotions in directing legal decisions has been suggested in numerous studies (e.g. Antonio, 2006; Berryessa, 2022, 2023; Devine & Kelly, 2015; Garvey, 1998; Proeve & Tanvir, 2022; Rossmannith, 2015; Van Oorschot et al., 2017; Zhong et al., 2014). However, a synthesis of experimental research is necessary to determine the validity of this claim, and to see how and under which circumstances an emotional offender effect might occur. No efforts to date have been made to systematically scrutinize this literature and to compare the potential influence of different types of emotions. The current systematic literature review is aimed at providing such an overview, also paying attention to different types of emotions, types of crime, and the methodological quality of the experimental studies. In doing so, we aim to answer the question: (how) do defendant’s emotions influence guilt and sentencing decisions? Such insights might also be helpful for legal professionals about potential biases in decision making and adds to the discussion whether or not emotions in the courtroom are (un)desirable.

Method

We have followed the ‘Preferred Reporting Items for Systematic Review and Meta-Analysis’ (PRISMA), including the PRISMA-Protocol checklist (Page et al., 2021).¹

Literature search

A search string that combined synonyms (inspired by the thesauri of the included databases) for the topics of interest – emotions, offenders, and legal decisions – was created to identify relevant studies: ((‘guilt feeling*’ OR shame* OR embarrass* OR angry OR anger OR hat* OR rage OR resentment OR fury OR furious OR indignation OR repentant* OR remorse* OR regret* OR sorrow OR empath* OR calm* OR composure OR indifferen* OR apath* OR unconcerned OR emot* OR demeanor OR attitude) AND

(offender OR delinquent OR suspect OR accused OR culprit OR defendant) AND (conviction OR sentenc* OR verdict* OR puni* OR penal* OR ruling OR culpa* OR 'legal response' OR guilt OR blame)). The search string was entered in the databases that include publications on the intersection of law, criminology, and psychology, namely: Web of Science (core collection), EBSCO host (Academic Search Alumni Edition, Academic Search Premier, APA PsycArticles, APA PsycInfo, Criminal Justice Abstracts, MEDLINE, ERIC, Psychology and Behavioural Sciences Collection), and ProQuest (PTSDpubs, Publicly Available Content Database, Sociological Abstracts, Worldwide Political Science Abstracts). The selection of databases was based on similar previous systematic literature reviews (e.g. Kunst et al., 2021; Van Doorn & Koster, 2019), as well as on consultation with a librarian from Leiden University. Furthermore, we examined the reference sections of the studies we decided to include to see if relevant studies were missing in our initial search. Both authors executed this literature search in August 2023.

Selection of literature

The following inclusion criteria were used to select studies: (1) articles were peer-reviewed; (2) full text publication was available in English; (3) the research was experimental – in order to test for potential causal effects – in which the emotionality of the suspect/offender was manipulated. This manipulation was allowed to include both the degree of emotionality and specific types of emotions; (4) the outcome of the study should include a legal decision pertaining to guilt or sentencing; (5) all types of crime and types of samples (such as students or professionals) were included. Disagreements in the initial selection of literature between both authors were solved during a consensus meeting in September 2023.

The literature search yielded 6699 hits (Web of Science: $n = 2590$; ProQuest: $n = 1381$; EBSCOhost $n = 2728$). EBSCOhost only displayed the first 1000 hits (sorted on relevance). After exportation of the results and removal of duplicates within each database, a total of 4457 titles and abstracts were screened for relevance by the two authors independently. A total of 27 articles potentially met the inclusion criteria. Two articles were excluded because we could not access the full-text, and we did not receive a response after requesting the full-texts (Harrel, 1981; Tsoudis & Smith-Lovin, 2001). Although the article by Rumsey (1976) was also not available full-text, we were able to retrieve a paper copy via our university library. Another study was excluded because it did not include a specific manipulation of emotionality and therefore did not meet the inclusion criteria (Pryor & Buchanan, 1984), leaving us with 24 relevant studies based on the database search. Based on an inspection of the reference sections of the potentially relevant articles, two more articles were included that did not come up in the initial search (Pipes & Alessi, 1999; Tsoudis, 2000). In total 26 articles were included, reporting on 32 unique studies. See Figure 1 for the PRISMA flow diagram of the literature search and selection process.

Quality assessment

To determine the quality of the specific studies, we combined aspects from the Cambridge Quality Checklist (CQC; Murray et al., 2009) with aspects from a systematic

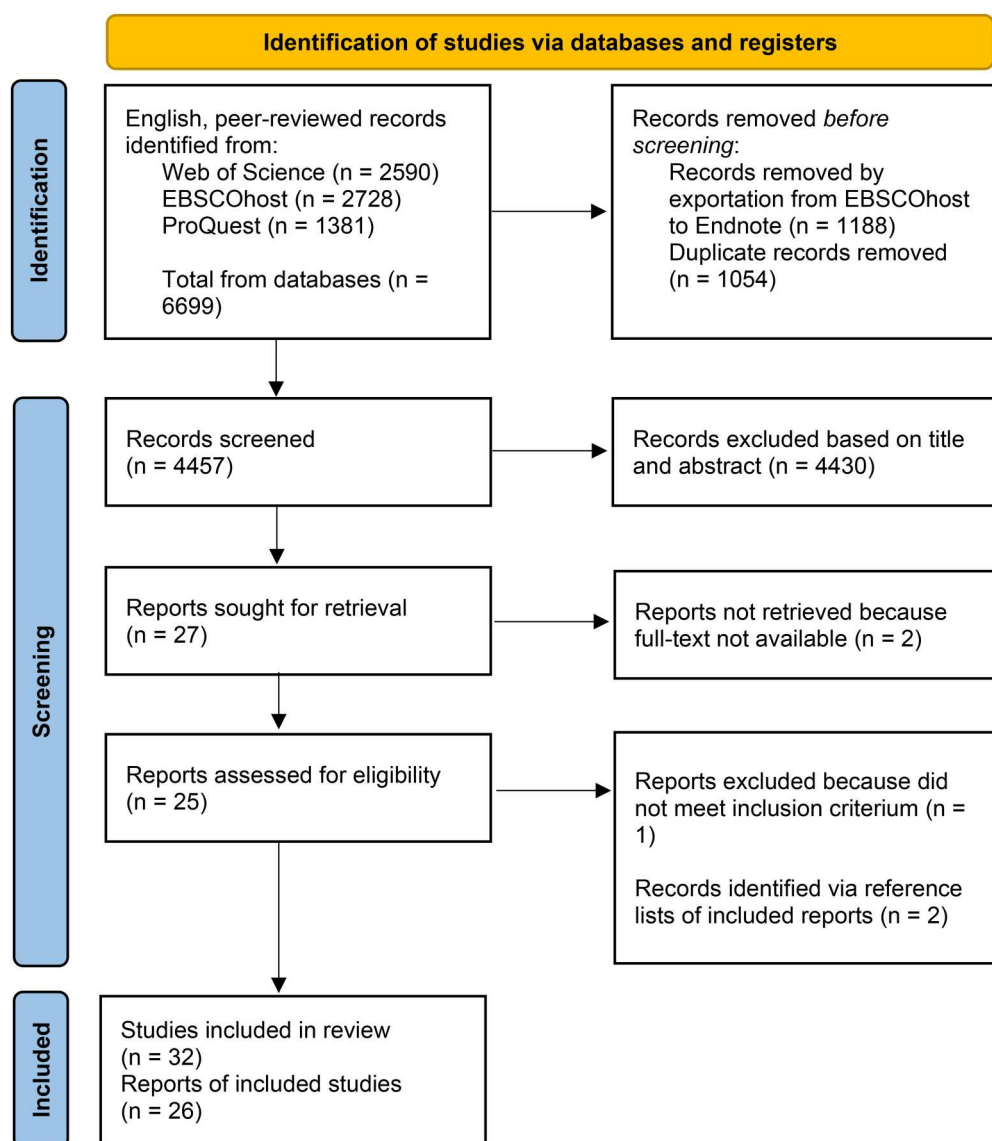


Figure 1. PRISMA flow diagram of the literature search and selection process.

literature review on the emotional victim effect containing experimental studies (Van Doorn & Koster, 2019). This combination of quality assessment lists was necessary to fully capture all aspects relevant to experimental studies specifically. From the CQC we take the important aspects of the data collection method and sample size. However, for experiments it is important to not only look at the general sample size, but the sample size in each condition. A rule of thumb is to have at least 50 participants per condition for properly powered experiments (Simmons et al., 2018). Furthermore, for experimental studies it is important that a manipulation check is present to verify that participants correctly perceived or interpreted the manipulated stimulus (Ejelöv & Luke,

2020). From the quality assessment in the review on the emotional victim effect (Van Doorn & Koster, 2019) we take that it is important to check for the measurements of variables, in this case emotion(al)ity and emotion expression modality.

Hence, the following criteria – each scored 0 (inadequate) or 1 (adequate) – were included: (a) data collection method (random or total population sample = 1; convenience sample (e.g. students) or case–control = 0); (b) sample size (≥ 50 participants per condition = 1; < 50 participants per condition = 0); (c) manipulation check emotionality (present = 1; absent = 0); (d) emotion expression modality (multiple (written/video/audio) = 1; single = 0); (e) manipulation emotionality (type of emotion varied = 1; other = 0). The maximum possible score on study quality is five. See Table 1 for an overview of the quality assessment. Both authors completed the quality assessment and disagreements were solved during the consensus meeting in September 2023.

Results

Study characteristics

Participants. Out of 32, 23 studies included university students as participants. Two studies included (legal) professionals, one community members, one ‘people’, and five studies used a (nationally representative, MTurk, or Prolific) online panel. Sixteen studies were conducted with participants from the United States, while four single studies used participants from Hong Kong, Canada, Australia, and Norway, respectively. In eleven studies the country of participant recruitment was unreported.

Crime Type. In 13 studies the crime type was (attempted) murder, manslaughter or negligent homicide, in six studies a sexual offense, in six studies a form of robbery or theft, in one study assault, in one study fraud (i.e. cheating on an exam), in two studies (deliberately) distributing HIV-tainted blood, and three studies used two or more different crimes.

Operationalization of Emotion and Legal Decision. In 19 studies, the defendant’s emotions were conveyed in written format, in six studies via video, two studies via audio, and in five studies a combination of a written format, video and/or audio was used. Seven studies manipulated the *degree* of the defendant’s emotions (i.e. the presence or absence of an emotional demeanor; being ‘upset’, ‘distressed’ or crying versus being unemotional), whereas 25 studies manipulated one or more specific *type(s)* of emotion(s) (for example, the expression of remorse, anger, or feelings of guilt). Finally, 11 studies investigated guilt decisions (whether or not the defendant committed the crime), 15 studies investigated sentencing decisions, and six studies investigated both guilt and sentencing decisions.

The effect of emotionality on legal decisions

The studies have been categorized according to the dimension of emotionality and type of legal decision (guilt and sentencing). Some studies have investigated the influence of the degree of emotionality, whereas others have investigated specific types of emotions. Categorizing the results on this dimension, allows us to see whether it is emotionality per se, or a specific type of emotion that drives potential effects on legal decisions. For clarity

Table 1. Quality assessment of included studies.

Study	Data collection method	Sample size	Emotion manipulation check	Emotion expression modality	Manipulation emotionality	Total (max = 5)
1. Appleby et al. (2013) – study 2	0	0	1	0	0	1
2. Corwin et al. (2012)	0	0	1	0	0	1
3. DeCelles et al. (2021) – study 2a	0	1	1	0	1	3
4. DeCelles et al. (2021) – study 2b	1	1	1	0	1	4
5. DeCelles et al. (2021) – study 2c	0	1	1	0	1	3
6. DeCelles et al. (2021) – study 3	0	1	1	0	1	3
7. DeCelles et al. (2021) – study 4	1	0	0	0	1	2
8. Douglass et al. (2016) – study 1	0	0	1	1	0	2
9. Douglass et al. (2016) – study 2	0	0	1	0	0	1
10. Heath et al. (2004) – study 1	0	0	1	1	0	2
11. Heath et al. (2004) – study 2	0	0	1	1	0	2
12. Hendry et al. (1989)	0	0	1	1	0	2
13. Hogue and Peebles (1997)	1	0	1	0	0	2
14. Jehle et al. (2009)	0	0	1	0	0	1
15. Kleinke et al. (1992) – study 1	0	0	1	0	0	1
16. Kleinke et al. (1992) – study 2	0	0	1	0	0	1
17. Leys et al. (2011)	0	0	1	0	0	1
18. Lo et al. (2016)	0	0	1	0	1	2
19. McKelvie (2013)	0	0	1	0	0	1
20. Niedermeier et al. (2001) – study 1	0	1	0	0	0	1
21. Niedermeier et al. (2001) – study 2	0 (unclear)	0	1	0	0	1
22. Pipes & Alessi (1999)	0	0	0	0	0	0
23. Proeve and Howells (2006)	0	0	1	0	1	2
24. Robinson et al. (1994)	0	0	1	0	1	2
25. Rumsey (1976)	0	0	1	0	0	1
26. Salekin et al. (1995)	0	0	1	1	0	2
27. Savitsky et al. (1976)	0	0	0	0	1	1
28. Silver and Berryessa (2023)	1	1	0	0	1	3
29. Tallon et al. (2015)	0	0	1	0	0	2
30. Tsoudis (2000)	0	0	1	0	0	1
31. Tsoudis and Smith-Lovin (1998)	0	0	1	0	0	1
32. Wessel et al. (2012)	0	0	0	0	1	1

purposes, only moderating or mediating variables that had a *significant* influence are reported in the text (Table 2 also reports non-significant moderators and mediators). Please note that where some authors might have interpreted marginally significant effects (a *p*-value between .05 and .10) as fully significant, the results section of the current systematic review only interprets findings as significant when having a *p*-value below .05.

Guilt

A total of 17 studies investigated guilt decisions (whether or not the defendant committed the crime).

Degree of Emotionality. Six studies manipulated the degree of the defendant's emotionality (Douglass et al., 2016 – Study 1 and 2; Heath et al., 2004 – Study 1 and 2; Hendry et al., 1989; Salekin et al., 1995). Only one study did not find any significant effects on guilt (Heath et al., 2004 – Study 2). In three of the five studies with significant effects, there was either an effect on the dichotomous guilt decision (guilty/not guilty) but not on the continuous measure (degree of guilt) (Douglass et al., 2016 – Study 2), or on the degree of guilt only (Heath et al., 2004 – Study 1; Salekin et al., 1995). Furthermore, three studies showed moderation by a third variable (Douglass et al., Study 1; Hendry et al., 1989; Salekin et al., 1995), and two studies showed mediation by a third variable (Heath et al., 2004 – Study 1 and 2).

All six studies varied emotion by comparing a flat or low emotional demeanor to a moderate and/or high emotional demeanor. Only Douglass et al. (2016 – Study 2) also included a control condition with a no demeanor testimony. The studies that found a significant effect showed that defendants with a flat or low emotional demeanor were rated guilty to a higher degree (Douglass et al., 2016 – Study 1; Heath et al., 2004 – Study 1; Hendry et al., 1989; Salekin et al., 1995) or more frequently (Douglass et al., 2016 – Study 2) than defendants having a moderate or high emotional demeanor. Only the results from Hendry et al. (1989) are somewhat different: in a fraud case (exam cheating) an anxious (deceptive) defendant was rated as guiltier than a calm defendant, but only when the evidence favored the defendant (proacquittal/the evidence indicated innocence). Other moderators included 'expected demeanor' and the defendant's gender. Douglass et al. (2016 – Study 1) found that a defendant with a flat demeanor was rated as guiltier than a defendant with an emotional demeanor, but only when participants were told to expect an emotional demeanor (i.e. the suspect had also been emotional during the initial police interview). Salekin et al. (1995) also found that a defendant was rated guiltier in the case of low emotionality as compared to other levels of emotionality, when the defendant was female. Finally, Heath et al. (2004 – Study 1 and 2) showed that the effect of emotionality on level of guilt was mediated by an increase in the defendant's impression in terms of credibility, honesty, and sympathy.

Type of Emotion. Eleven studies manipulated the type of emotion. Five studies manipulated remorse (Appleby et al., 2013; Hogue & Peebles, 1997; Jehle et al., 2009; Niedermeier et al., 2001 – Study 1 and 2), five studies manipulated anger (DeCelles et al., 2021 – Study 2a, 2b, 2c, 3 and 4), and one study manipulated both negative (despair) and positive emotional demeanor (i.e. a lighthearted attitude, laughing sometimes) (Wessel et al., 2012). Eight studies measured the degree to which a defendant was found guilty (Appleby et al., 2013; DeCelles et al., 2021 – Study 2a, 2b, 2c, 3 and 4; Niedermeier

Table 2. Overview of study characteristics and results.

Study	Participants	Crime type	Design	Emotion expression modality	Emotion measure/manipulation check	Measure	Legal decision	Effect emotion on guilt	Effect emotion on sentencing
Appleby et al. (2013)	141 psychology students (gender unreported), country unreported	Murder	2 (details of crime: present vs absent) × 2 (motive explanation: present vs absent) × 2 (apology: present vs absent) with an additional no-confession control group, between-subjects design	Written	Type of emotion Whether an apology was present in the confession (yes/no) In the apology-present condition, the confession included an expression of remorse for having committed the crime, an apology to the victim's family, and a promise to not commit such a crime again	Guilt – dichotomous verdict: Render a verdict (guilty or not guilty) Guilt – degree: Rate their confidence in their verdict (1 = not at all; 10 = very)	Guilt – dichotomous verdict: n.s. Ceiling effect: 95% of participants across conditions voted guilty Guilt – degree: n.s.	/	
Corwin et al. (2012)	184 students (66,5% female), U.S.	Murder	2 (remorse: remorseful vs. non-remorseful) × 2 (behavior: verbal vs. non-verbal) between-subjects design	Video	Type of emotion Remorse (1 = strongly disagree; 5 = strongly agree)	Sentence – type: Sentence of life in prison without parole or the death penalty	/	Sentence – type: Moderation: Congruent verbal and non-verbal remorseful behavior > Incongruent verbal and non-verbal behavior	
DeCelles et al. (2021) – study 2a	402 MTurk workers (46,3% female), U.S.	Armed robbery	One factorial (emotion: silent vs. angry vs. irritated vs. calm) between-subjects design	Written	Type of emotion Anger Calmness Irritation (1 = not at all; 7 = extremely)	Guilt – degree: Perceptions of the accused's guilt (1 = extremely unlikely; 7 = extremely likely)	Guilt – degree: Silent > angry > irritated > calm Mediation: Anger → less authentic and less trustworthy → guiltier	/	
DeCelles et al. (2021) – study 2b	1578 ROI Rocket online panel members (50,8% vrouw), U.S.	Armed robbery	One factorial (emotion: silent vs. angry vs. irritated vs. calm) between-subjects design	Written	See DeCelles et al. (2021) – study 2a	See DeCelles et al. (2021) – study 2a	Guilt – degree: Silent > angry > irritated > calm Mediation: Anger → less authentic and less trustworthy → guiltier	/	
DeCelles et al. (2021) – study 2c	375 MTurk workers (47,5% female), U.S.	Armed robbery	One factorial (emotion: silent vs. angry vs. irritated vs. calm) between-subjects design	Written	See DeCelles et al. (2021) – study 2a	See DeCelles et al. (2021) – study 2a	Guilt – degree: Silent > angry > irritated > calm Mediation: Anger → less authentic and less trustworthy → guiltier	/	



DeCelles et al. (2021) – study 3	708 Prolific participants (50,7% female), country unreported	Cheating in a romantic relationship and theft	2 (crime: cheating vs. theft) × 2 (emotion: angry vs. calm) between-subjects design	Written	Type of emotion Anger Calmness (1 = not at all; 7 = very)	Guilt – degree: Perceptions of the accused's guilt (1 = extremely unlikely; 7 = extremely likely)	Guilt – degree: Angry > calm No moderation	/
DeCelles et al. (2021) – study 4	136 legal professionals (gender mostly unreported), country unreported	Theft	One factorial (emotion: silent vs. angry vs. calm) within subjects design. The order was randomized	Written	Type of emotion Unreported	Guilt – degree: Perceptions of the accused's guilt (1 = extremely unlikely; 7 = extremely likely)	Guilt – degree: Angry > calm Silent > calm Angry vs. silent: n.s.	/
Douglass et al. (2016) – study 1	60 students (gender unreported), U.S.	Murder	2 (expectation demeanor: flat vs. emotional) × 2 (suspect demeanor: flat vs. emotional) between-subjects design	Video Written	Degree of emotionality How emotional (1 = not at all; 7 = very much) How flat/emotionally unresponsive (1 = not at all; 7 = very much)	Guilt – degree: Suspect's guilt (1 = not guilty; 7 = guilty) Sentence – length: Sentence if the suspect were convicted (1 = 1 year; 7 = life in prison).	Guilt – degree: Moderation: When participants were told to expect an emotional demeanor, guilt was higher for the flat demeanor suspect than for the emotional demeanor suspect	Sentence – length: Suspect demeanor n.s.
Douglass et al. (2016) – study 2	147 students (gender unreported), U.S.	Murder	2 (confession evidence: confession vs. no confession) × 3 (police demeanor testimony: flat vs. emotional vs. no demeanor testimony) between-subjects design	Written	Degree of emotionality How the emotionality of the defendant was described (0 = highly unemotional; 10 = highly emotional)	Guilt – dichotomous verdict: Suspect's probable guilt (guilty or not guilty) Guilt – degree: Confidence in their guilt rating on a scale from 0% (not at all confident) to 100% (extremely confident)	Guilt – dichotomous verdict: Flat demeanor testimony > no demeanor testimony Flat demeanor testimony > emotional demeanor testimony No demeanor testimony vs. emotional demeanor testimony: n.s. No moderation Guilt – degree: Police demeanor testimony: n.s.	/
Heath et al. (2004) – study 1	178 students (71,3% female), U.S.	Murder	2 (presentation mode: audiotape vs. videotape) × 3 (level of emotion: low vs. moderate vs. high) between-subjects design	Written Audio Video	Degree of emotionality Rating of the level of emotion the defendant displayed (scale not reported)	Guilt – dichotomous verdict: Suspect's probable guilt (guilty or not guilty) Guilt – degree: Rate how guilty (1 = low	Guilt – dichotomous verdict: n.s. Guilt – degree: Low level of emotion > moderate level of	Sentence – length: n.s.

(Continued)



Table 2. Continued.

Study	Participants	Crime type	Design	Emotion expression modality	Emotion measure/manipulation check	Measure legal decision	Effect emotion on guilt	Effect emotion on sentencing
Heath et al. (2004) – study 2	286 students (59,4% female), U.S.	Murder	2 (evidence strength: weak vs. strong) × 3 (level of emotion: low vs. moderate vs. high) between-subjects design	Written Video	See Heath et al. (2004) – study 1.	level of guilt; 11 = high level of guilt) Sentence – length: If their verdict was guilty, participants were asked to sentence between 10 and 50 years. Transformed into 4 categories (1 = 0-15 years; 2 = 16-20 years; 3 = 21-35 years; 4 = 36-50 years)	emotion High level of emotions vs. moderate or low level of emotion: n.s. No moderation Mediation using a continuous measure of emotion: higher level of emotion → increase in defendant's general (positive) impression, credibility, honesty and sympathy → lower level of guilt	Sentence – length: Low level of emotion > moderate or high level of emotion No moderation Mediation not tested
Hendry et al. (1989)	120 students (50% female), U.S.	Fraud (cheating on an exam)	3 (evidence: proconviction vs. balanced vs. proacquittal) × 2 (testimonial demeanor: anxious (deceptive) vs. calm) between-subjects design	Written Video	Degree of emotionality Testimonial demeanor: How likely it is that the defendant was sincere (1 = very unlikely; 5 = very uncertain; 9 = very guilty)	Guilt – degree: Impressions of the defendant's probable guilt (1 = very unlikely guilty; 5 = uncertain; 9 = very likely guilty)	Guilt – degree: Moderation: When the evidence favored the accused (proacquittal), participants judged the anxious (deceptive) defendant	/

as guiltier than the calm defendant

likely) and how likely it is that the defendant was telling the truth (1 = very unlikely; 5 = uncertain; 9 = very likely)

Hogue and Peebles (1997)	50 professionals working with perpetrators or victims of sexual violence (66.0% female), country unreported	Rape	2 (intent: spontaneous vs. planned) × 2 (remorse: remorseful vs. unremorseful) between-subjects design	Written	Type of emotion Remorse: Rate whether the man feels remorse for raping (on a scale of 1–5; scale labels unreported)	Guilt – dichotomous verdict: Should the man be convicted of rape? Sentence – type: If convicted, should the man go to jail or be placed in probation? (on a scale of 1–5; scale labels unreported) Sentence – length: Provide the length of the sentence or warrant.	Guilt – dichotomous verdict: n.s.	Sentence – type: Remorse: n.s. Effects of factorial design unreported
Jehle et al. (2009)	188 students (64% female), country unreported	Manslaughter/ murder	4 (accounts: excuse vs. justification vs. denial vs. no explanation) × 2 (remorse display: remorseful vs. remorseless) between-subjects design	Video	Type of emotion Remorse (1 = not at all remorseful; 9 = extremely remorseful)	Guilt – dichotomous verdict: Verdict (guilty of second-degree murder, guilty of voluntary manslaughter, guilty of involuntary manslaughter, or not guilty). The first three verdict were collapsed into a single guilty verdict category Sentence – length: How much should the defendant be punished? (1 = the least the law will allow; 9 = the most the law will allow)	Guilt – dichotomous verdict: Moderation: Remorseful > remorseless, when no explanation/account is provided. Remorseful < remorseless, when in denial. Mediation: indication for a mediation effect of attributions of responsibility, but specific effects are unreported.	Sentence – length: remorse display n.s.
Kleinke et al. (1992) – study 1	98 students (58.2% female), country unreported	Rape	2 (participant gender: male vs. female) × 2 (intent: expressed intent vs. denied intent) × 2 (remorse: expressed remorse vs. denied remorse) between-subjects design	Video	Type of emotion Remorse (1 = very low; 10 = very high)	Sentence – length: Number of years the rapist should spend in prison		Sentence – length: Remorse n.s.

(Continued)



Table 2. Continued.

Study	Participants	Crime type	Design	Emotion expression modality	Emotion measure/manipulation check	Measure legal decision	Effect emotion on guilt	Effect emotion on sentencing
Kleinke et al. (1992) – study 2	184 students (50% female), country unreported	Rape	2 (participant gender: male vs. female) × 3 (intent: intent vs. denial of intent vs. no intent mentioned) × 3 (remorse: remorse vs. denial of remorse vs. no remorse mentioned) between-subjects design	Written	Type of emotion Remorse (1 = the man feels no remorse; 10 = the man feels remorse)	Sentence – length: Number of years the rapist should spend in prison		Sentence – length: Remorse n.s.
Leys et al. (2011)	99 psychology students (gender unreported), country unreported.	Robbery	2 (feelings of guilt: defendant: present vs. absent) × 2 (suppression instruction: present vs. absent) between-subjects design Suppression instruction: participants were asked to suppress the information related to the offender's emotions	Written	Type of emotion The perception of the defendant's feeling of guilt ('The defendant feels guilty') on a 7-point scale (specific labels unreported)	Sentence – severity: Two items assessed the severity of the penalty ('Must the penalty be severe or mild?'), $\alpha = .89$.	/	Sentence – severity: Guilt absent > guilt present No moderation Mediation: Guilt present → attribution of the transgression to external circumstances + perception of the defendant's personality as warm → less severe penalty
Lo et al. (2016)	124 students (63.7% female), Hong Kong	Manslaughter	2 (offender gender: male vs. female) × 3 (expression: remorse content, neutral tone vs. neutral content, remorseful tone vs. neutral content, neutral tone) between-subjects design	Audio	Type of emotion Remorse (1 = not intense; 7 = very intense) Tested for correlations with: Guilt Shame Sorrow (1 = not intense; 7 = very intense)	Sentence – length: Severity of the recommended imprisonment (1 = 0-5 years; 2 = 5-10 years; 3 = 10-15 years; 4 = 15-20 years; 5 = 20-25 years; 6 = life)		Sentence – length: Neutral tone > remorseful tone, irrespective of content No moderation of offender gender
McKelvie (2013)	174 students (54% female), country unreported	Sexual assault	First sample: One factorial (remorse: expressed remorse vs. denied remorse vs. no mention of remorse) between-subjects design Second sample: One factorial (remorse: expressed remorse vs. denied remorse vs. no response) between-subjects design	Written	Type of emotion Remorse (1 = very strongly disagree; 7 = very strongly agree)	Sentence – length: Jail sentence in years and months Eligible for parole? If yes, minimum time to be served before parole is granted	/	Sentence – length: First sample, based on Bonferroni results: Remorse: n.s. Second sample, based on Bonferroni results: n.s.



Niedermeier et al. (2001) – study 1	362 students (gender unreported), U.S.	Distributing HIV-tainted blood (willful neglect/negligent homicide)	2 (charge: fair (willful neglect) vs. unfair (negligent homicide) × 2 (defendant remorse: present vs. absent (cold and unsympathetic)) between-subjects design	Audio	Type of emotion Unreported	Guilt – degree: Guilt rated by individual jurors (1 = completely not guilty; 10 = completely guilty) Juries were then told that they were to reach a unanimous verdict and were given 45 min to deliberate. At the end of deliberations, juries also indicated their verdict (1 = completely not guilty; 10 = completely guilty)	Guilt – degree: Moderation: For both individual jurors and juries: Remorseful > unremorseful, when the law was fair (charged with willful neglect).	/
Niedermeier et al. (2001) – study 2	264 people (57.5% female), U.S.	Distributing HIV-tainted blood (willful neglect/negligent homicide)	2 (gender physician: male vs. female) × 2 (defendant status: high (medical director) vs. low (medical resident) × 2 (defendant remorse: present vs. absent (cold and unsympathetic)) between-subjects design	Written	Type of emotion Remorse: rated the defendant's contrition (scale unreported).	Guilt – degree: Guilt rated individually (1 = completely not guilty; 10 = completely guilty)	Guilt – degree: Moderation: Remorse > no remorse when high status male physician. No remorse > remorse when low status male physician.	/
Pipes & Alessi (1999)	149 students (81.8% female), U.S.	Assault & broken confidentiality	2 (previous punishment similar violation: yes vs. no) × 2 (remorse expression: present vs. absent) between-subjects design for both assault and broken confidentiality (within subjects)	Written	Type of emotion Unreported	Sentence – length: Assault: Assign a sentence in years and months in jail Broken confidentiality: Assign a sentence in years and months for losing professional license	Sentence – length: Interaction effects unreported Expressed remorse < no expressed remorse	/
Proeve and Howells (2006)	123 students (majority of them with occupations related to justice) (46.3% female), Australia	Rape	2 (occupational experience in criminal justice: experienced vs. unexperienced) × 3 (remorse: no feelings vs. feelings of remorse vs. feelings of shame) between-subjects design	Written	Type of emotion Remorse Shame (on a scale of 1–5; scale labels unreported)	Sentence – type: Imprisonment; sentence other than imprisonment; no conviction Sentence – length: Indicate the length of sentence recommended, whether imprisonment or other	Sentence – type: Remorse: n.s. Shame: n.s. Sentence – length: Remorse: n.s. Shame: n.s.	/
Robinson et al. (1994)	80 students (demographic details unreported),	Manslaughter	One factorial (emotional display: emotionally distressed vs. neutral/relaxed) between-subjects design	Written	Degree of emotionality Perceived emotional distress: Sad/unhappy Sorry/apologetic	Sentence – length: Severity of the recommended imprisonment (1 = 0–5 years; 2 = 5–10 years; 3 =	Sentence – length: Emotional display n.s. (see footnote 4 in the original article)	/

(Continued)



Table 2. Continued.

Study	Participants	Crime type	Design	Emotion expression modality	Emotion measure/manipulation check	Measure legal decision	Effect emotion on guilt	Effect emotion on sentencing
Rumsey (1976)	country unreported 96 psychology students (50% female), country unreported	Negligent homicide	2 (remorse: present vs. absent) × 2 (defendant background: fortunate vs. unfortunate) between-subjects design	Written	Remorseful (on an 11-point scale; scale labels unreported) Type of emotion Remorse (on a bipolar scale: remorseful/not remorseful).	10–15 years; 4 = 15–20 years; 5 = 20–25 years; 6 = life) Sentence – length: Recommend a prison sentence of 1–25 years (pre – and post-discussion)		Sentence – length: Pre-discussion: remorseful < nonremorseful Post-discussion: n.s. No moderation
Salekin et al. (1995)	175 students (64% female), Canada	Second degree murder	2 (defendant gender: male vs. female) × 3 (affect: flat vs. moderate vs. high) between-subjects design	Written Video	Degree of emotionality Affect (1 = flat: flat tone and not upset; 5 = moderate: upset and with crying; 10 = high: excessive emotion and extreme crying)	Guilt – dichotomous verdict: Guilty or not guilty Guilt – degree: How guilty do you think the defendant is? (scale unreported) Sentence – length: Participants are asked to deliver a length of sentence for the defendant	Guilt – dichotomous verdict: n.s. Guilt – degree: Moderation: Flat > moderate or high, when defendant was female	Sentence – length: n.s.
*Savitsky et al. (1976)	90 students (37.8% female), country unreported	Petty theft	2 (subject gender: male vs. female) × 2 (defendant age: adult vs. child) × 4 (emotion: anger vs. distress vs. joy vs. neutral/nonemotional) between-subjects design	Video	Type of emotion Unreported	Sentence – length: Recommendation disposition (1 = immediate release; 7 = one month of incarceration)	/	Sentence – length: Moderation: Joy > neutral or anger > distress for both the adult and child defendant, with the adult defendant receiving a longer sentence than the child defendant.
*Silver and Berryessa (2023)	352 online panel members (63% female), U.S.	Assault	One factorial (remorse type: no remorse vs. affective remorse vs. verbal remorse vs. restitutive remorse) between-subjects design Affective remorse: negative emotions about offending, such as guilt and shame	Written	Type of emotion Unreported	Sentence – length: Indicate preferred sentence for the offender (1 = a fine; 2 = probation, 1 year or less; 3 = probation, 2–3 years; 4 = probation, 4–5 years; 5 = probation, 6 years or more; 6 = prison, 1 year or less; 7 = prison, 2–3	/	Sentence – length: Direct comparison of all conditions unreported. Compared to the control (no remorse condition), the effect on sentencing was largest for verbal



remorse and affective
remorse, with a
smaller effect
observed for
restitutive remorse
Mediation:
Each form of remorse
→ reduced
perceptions of
offender immortality
→ shorter sentence

years; 8 = prison, 4–5 years;
9 = prison, 6–10 years; 10
= prison, 11–14 years; 12 =
prison, 15–19 years; 13 =
prison, 20 years or more,
but not life in prison; and
14 = prison, life)

Sentencing – type:
Interaction effect n.s.
Main effect
defendant's behavior
on sentencing
unreported
Mediation:
Defendant emotional
during sentencing →
perceived in a more
positive manner →
less likely to be
sentenced to death

Sentence – severity:
Specific effects per
condition unreported
Mediation:
Sad criminal →
perception of
criminal's identity as
more positive → less
harsh sentence

Sentence – type:
Specific effects per
condition unreported.
Mediation (emotion
→ perpetrator identity
→ sentence): n.s.

Verbal remorse:
statements of confession, regret,
or apology
Restitutive remorse: reparations
voluntarily
provided to victims

2 (pre-sentencing publicity about
defendant's behavior: emotional
vs.
unemotional) × 2 (defendant's
behavior at sentencing:
emotional (sorrowful voice and
sobbing) vs. unemotional (flat
tone and no emotional behavior))
between-subjects design

2 (criminal's emotion: sad vs.
unconcerned) × 2 (victim's
emotion: sad vs. unconcerned) ×
2 (prior record: none vs. auto
theft) between-subjects design

2 (crime type: mugging vs. assault)
2 × 2 (emotion perpetrator: sad
vs. unconcerned) × 2 (emotion
victim: sad vs. unconcerned)
between-subjects design

Tallon et al.
(2015)

100 death-qualified
community
members (58%
female), U.S.

Murder

Video

Degree of emotionality
The defendant's
behavior at
sentencing:
How emotional was
the defendant?
How sad was the
defendant?
On a 9-point scale
(specific labels
unreported). This
item is part of a
composite score on
the defendant's
sincerity

Sentencing – type:
Sentencing decision (0 =
life without parole; 1 =
death).

/

Tsoudis
(2000)

152 students
(62.6% female),
U.S.

Attempted
murder

Written

Type of emotion
Unreported (available
upon request)

Sentence – severity:
How much punishment
should the offender
receive?
(0 = not at all harsh; 10 =
very harsh)

/

Tsoudis and
Smith-
Lovin
(1998)

143 students
(59.4% female),
U.S.

Mugging &
assault

Written

Type of emotion
Sadness:
In your opinion, how
sad/unhappy was
(perpetrator's name)?
Unconcerned:
In your opinion, how
unconcerned/relaxed
was the
(perpetrator's name)?
(0 = not at all; 5 =

Sentence – type:
If you were one of the
members of the jury, what
sentencing would you
recommend upon finding
(perpetrator's name) guilty
of (the crimes mentioned in
the testimony)?
Which is the least
punishment you would
agree upon?

/

(Continued)



Table 2. Continued.

Study	Participants	Crime type	Design	Emotion expression modality	Emotion measure/manipulation check	Measure legal decision	Effect emotion on guilt	Effect emotion on sentencing
Wessel et al. (2012)	175 students (50,8% female), Norway	Rape	2 (version of statement: denies using force vs. admits using force) × 3 (emotional expression: negative/despair vs. neutral vs. positive emotion) between-subject design	Video	Type of emotion ² Unreported	Guilt – dichotomous verdict: Guilty or not guilty Guilt – degree: Rate the likelihood of the accused being guilty on a 10-step percentage scale (0–100%), which translates into a 10-point scale (1 = unlikely to be guilty; 10 = likely to be guilty)	Guilt – dichotomous verdict: Emotional expression n.s. Guilt – degree: Emotional expression n.s. Mediation ('displayed emotion' was analyzed as a quantitative variable with negative emotional expression coded as 0, the neutral condition coded as 1 and positive emotional expression coded as 2): More positive emotion → lower credibility → more likely to be guilty	

Note. n.s. = not significant. Only the effects pertaining to **emotion** are reported.

Some authors might have interpreted marginally significant effects (a *p*-value between .05 and .10) as fully significant. However, the results in the current table only reports findings as significant when having a *p*-value below .05.

et al., 2001 – Study 1 and 2; Wessel et al., 2012), and three studies (also) measured guilt as a dichotomous verdict (guilty/not guilty) (Appleby et al., 2013; Hogue & Peebles, 1997; Jehle et al., 2009; Wessel et al., 2012).

Eight studies found a significant effect of a specific emotion on guilt (DeCelles et al., 2021 – Study 2a, 2b, 2c, 3 and 4; Jehle et al., 2009; Niedermeier et al., 2001 – Study 1 and 2). Two studies did not find any significant effects on guilt (Appleby et al., 2013; Hogue & Peebles, 1997), while one study only found indirect but no direct effects on guilt (Wessel et al., 2012). Of the eight studies finding a significant effect, three studies showed moderation, and four studies showed mediation by a third variable.

Of the five studies investigating remorse, three found a significant effect on guilt and two did not (Appleby et al., 2013; Hogue & Peebles, 1997). All three significant studies included moderation. Jehle et al. (2009) found an interaction effect of remorse display and the defendant's account (that potentially minimizes responsibility) for the accused offense (excuse, justification, denial or no explanation). More specifically, they found that the percentage of guilty verdicts was higher when the defendant showed remorse as compared to showing no remorse, when no account for the accused offense was given. However, remorse does seem to favor the defendant when the defendant denies the accused offense: the percentage of *not-guilty* verdicts was higher for remorseful defendants in the denial condition than in all other account conditions. Niedermeier et al. (2001 – Study 1) showed that (for both individuals and juries deciding) the remorseful defendant was rated guiltier than the unremorseful defendant, but only when the participants were informed that the defendant was charged with willful neglect. Niedermeier et al.'s (2001) Study 2 showed a moderating effect of defendant medical status and defendant gender: the remorseful male defendant was rated guiltier than the unremorseful male defendant when the defendant had a high status (i.e. being a medical director). In contrast: the unremorseful male defendant was rated guiltier than the remorseful male defendant when the defendant had low status (i.e. being a medical resident).

All five studies investigating anger (DeCelles et al., 2021) found a significant effect on guilt. All studies varied emotion by comparing an angry defendant to a silent and/or calm and/or irritated defendant. Results from all studies – including a defendant's denial of armed robbery, cheating in a romantic relationship, or theft – showed that the angry defendant is rated guiltier than the calm defendant. Furthermore, an angry defendant was rated guiltier than a silent defendant in three of the four studies investigating this. Finally, DeCelles et al.'s Study 2a, 2b, and 2c investigated and showed that the effect of anger on guilt was mediated by a decrease in the defendant's authenticity and trustworthiness.

Wessel et al. (2012) compared the defendant's emotional demeanor on three levels: negative (despair), neutral or positive. Despite not finding a direct effect of the defendant's type of displayed emotion on any of the guilt measures, the authors did find a mediating effect: the more positive the emotion displayed by the defendant, the lower their credibility, and the more likely the defendant was to be rated guilty.

Synthesis. In sum, the majority of studies – either manipulating the degree of emotionality or (a) specific type(s) of emotion – showed a significant influence of emotion on decisions of guilt. It was found that defendants with a flat or low emotional demeanor were rated guiltier than defendants having a moderate or high emotional demeanor. Furthermore, studies on a specific type of emotion seem to suggest that a guilty verdict is

more likely when the defendant showed remorse or anger as compared to showing no remorse or anger.

However, six studies pointed to a variety of moderators that qualify any direct effects: it seems to matter whether an observer expected the defendant to have an emotional demeanor, whether the evidence was in favor of the accused, whether the defendant's gender was male, whether the charge was fair, what the defendant's account (that potentially minimizes the responsibility) for the accused offense was, and whether the defendant's had high (medical) status. Six studies showed that the defendant's image or impression as being credible, authentic or trustworthy mediated the effect of emotion on guilt decisions. A flat or positive emotion was found to negatively affect the defendant's image, making it more likely that the defendant receives a guilty verdict.

Finally, the finding that only three studies did not find any significant effects on guilt might be attributed to ceiling effects. In Appleby et al. (2013), 95% rated the defendant guilty; in Hogue and Peebles (1997) 89% rated the defendant guilty. The specific guilt rating percentage in Heath et al. (2004 – Study 2) was unreported.

Sentencing

A total of 21 studies investigated sentencing decisions.

Degree of Emotionality. Six studies manipulated the degree of the defendant's emotionality (Douglass et al., 2016 – Study 1; Heath et al., 2004 – Study 1 and 2; Robinson et al., 1994; Salekin et al., 1995; Tallon et al., 2015). All but one study investigated sentence length: Tallon et al. (2015) investigated the type of sentence (life with parole or death sentence). Four of the six studies did not find any significant effects on sentencing (Douglass et al., 2016 – Study 1; Heath et al., 2004 – Study 1; Robinson et al., 1994; Salekin et al., 1995). Heath et al. (2004 – Study 2) showed a main effect of emotionality on sentencing, indicating that a defendant with a low level of emotionality received a longer sentence than a defendant with a moderate or high level of emotion. Tallon et al. (2015) reported mediation: when the defendant appeared emotional during the presentation of his apology at sentencing, he was perceived in a more positive manner, and, subsequently, less likely to be sentenced to death.

Type of Emotion. Fifteen studies manipulated the type of emotion. Eleven studies manipulated remorse (Corwin et al., 2012; Hogue & Peebles, 1997; Jehle et al., 2009; Kleinke et al., 1992 – Study 1 and 2; Lo et al., 2016; McKelvie, 2013; Pipes & Alessi, 1999; Proeve & Howells, 2006; Rumsey, 1976; Silver & Berryessa, 2023). Two studies manipulated sadness (Tsoudis, 2000; Tsoudis & Smith-Lovin, 1998), one study manipulated guilt feelings (Leys et al., 2011), and one study manipulated anger, distress, and joy (Savitsky et al., 1976). Eleven studies investigated sentence length/severity, two studies investigated sentence type (Corwin et al., 2012; Tsoudis & Smith-Lovin, 1998), and two studies investigated both sentence type and length (Hogue & Peebles, 1997; Proeve & Howells, 2006).

Of the 11 studies that investigated remorse, five found a significant effect on sentencing (Corwin et al., 2012; Lo et al., 2016; Pipes & Alessi, 1999; Rumsey, 1976; Silver & Berryessa, 2023), and six did not (Hogue & Peebles, 1997; Jehle et al., 2009; Kleinke et al., 1992 – Study 1 and 2; McKelvie, 2013; Proeve & Howells, 2006), albeit not all in the same direction (as explained below). Of the five significant studies, two studies included moderation

(Corwin et al., 2012; Lo et al., 2016), and one mediation (Silver & Berryessa, 2023), by a third variable.

Pipes and Alessi (1999), and Rumsey (1976) showed that a defendant expressing remorse was sentenced less harshly than a defendant not expressing remorse. In the studies from Corwin et al. (2012), Lo et al. (2016), and Silver and Berryessa (2023) both verbal remorse (verbal statements of remorse/remorseful content) and affective remorse (remorseful tone) were investigated. Whereas Corwin et al.'s study suggested a moderating effect of type of behavior (verbal versus non-verbal) – congruent verbal and non-verbal remorse leads to harsher sentences than incongruent verbal and non-verbal behavior – Lo et al. found that a neutral tone leads to harsher sentences than a remorseful tone, irrespective of the (congruency with) the verbal content. Manipulating different types of remorse, Silver and Berryessa showed that, compared to the control condition (no remorse), affective and verbal remorse had the largest effect on sentencing (comparisons of other conditions are unreported). The mediation effect provides more insight into the direction of the effect: each form of remorse leads to reduced perceptions of offender immorality which resulted in a shorter sentence.

The two studies that manipulated sadness only reported a mediation analysis (Tsoudis, 2000; Tsoudis & Smith-Lovin, 1998): Tsoudis (2000) found a significant mediating effect of the perception of the criminal's identity. When a criminal is sad (versus unconcerned), their identity is perceived as more positive, which results in a less harsh sentence (specific effects per condition were not reported). Tsoudis and Smith-Lovin (1998) tested for a similar mediating effect, but did not find significant effects (specific effects per condition were not reported).

Leys et al.'s (2011) results showed that defendants who experience feelings of guilt are sentenced less severely than defendants who do not. Two cognitive processes mediated this effect: when a defendant shows feelings of guilt, (1) the transgression is attributed to external factors/the situation more, and (2) the defendant's personality is perceived as warmer, which led to a less severe penalty.

Finally, Savitsky et al. (1976) showed that both an adult and a child defendant received the harshest sentence when they expressed joy, whereas the distressed (child or adult) defendant received the most lenient sentence. Neutral or angry defendants were in between and did not significantly differ from each other. More generally, the adult defendant received a longer sentence than the child defendant.

Synthesis. In sum, the 21 studies testing the influence of emotion on sentencing decisions – either manipulating the degree of emotionality or (a) specific type(s) of emotion – showed mixed results, with 10 studies showing a direct or moderating/mediating effect of emotion on sentencing decisions. These mixed findings might be attributed to the large variety in measurements of sentencing decisions. For example, some studies ask participants to indicate whether or not a sentence should be harsh, others provide the opportunity to choose between very specific types of sentencing, and some studies let participants decide between a death penalty or not. Furthermore, results also seemed to vary as a function of crime type. For example, of the five studies that investigated the effect of emotion on sentencing decisions in a rape or sexual assault case, none found an effect. (Note that the single study on guilt in a rape case did not find such an effect either).

The majority of studies investigated the influence of the *type* of emotion, and remorse specifically. For a remorseful defendant, results are mixed and often qualified by a moderating effect. Two moderators were found: defendant age and whether the emotion is expressed verbally/as a statement or non-verbally/in tone. Finally, in two studies on sadness and one study on guilt feelings it was shown that the way the identity or moral character of the offender is perceived acts as a mediator. Finally, a minority of studies investigated the influence of the *degree* of emotionality, and mostly did not find significant effects. The significant effect found by Tallon et al. (2015) might be attributed to the fact that they measured the influence of the degree of emotionality on choosing a sentence *type* instead of sentence length.

The latter finding is especially interesting when looking at all the studies that included the choice for a *type* of sentence as dependent measure. Only the studies that specifically ask participants to choose between a sentence of life in prison versus the death penalty (Corwin et al., 2012; Tallon et al., 2015) find significant influences of emotionality (irrespective of whether type or degree of emotionality is manipulated), whereas studies measuring the type of sentence in a different and more elaborate fashion do not find significant results (Hogue & Peebles, 1997; Proeve & Howells, 2006; Tsoudis & Smith-Lovin, 1998).

General discussion

Despite the importance defendants' emotional demeanor seems to play in legal decision making, no efforts to date have been made to systematically scrutinize experimental studies on this topic, and to compare the potential influence of different types of emotions. In the current systematic literature review, we sought to review the role of defendant emotion in legal decisions. In doing so, we have paid attention to different types of emotions/emotionality, types of crime, and the methodological quality of the experimental studies. The research question of the current review was: (how) do defendant's emotions influence guilt and sentencing decisions? Put differently, is there an 'emotional defendant effect'? We reviewed 32 experimental studies, stemming from 26 articles. Despite large differences between studies, we see a few patterns in the results which we will discuss below.

Main results

Taking a specific look at studies on decisions of guilt, the majority of studies – either manipulating the degree of emotionality or (a) specific type(s) of emotion – showed a significant influence of emotion on decisions of guilt. In general it was found that defendants with a flat or low emotional demeanor were rated guiltier than defendants having a moderate or high emotional demeanor. Furthermore, studies on a specific type of emotion seem to suggest that a guilty verdict is more likely when the defendant showed remorse or anger (see DeCelles et al., 2021 about this somewhat surprising finding) as compared to showing no remorse or anger. However, a significant effect of remorse on guilt was often qualified by a moderating effect of another factor. This latter finding is in line with findings on sentencing decisions. More generally speaking, only about a third of the studies showed significant direct or moderating effects of emotion on sentencing.

The emotion that has received most attention in studies on both legal decisions is remorse. Of the five studies investigating the role of remorse in decisions on guilt, three found a significant effect: the expression of remorse was more likely to result in a guilty verdict. In contrast, of the 11 studies investigating the role of remorse in sentencing decisions, only five found a significant effect: the expression of remorse was more likely to result in a lower sentence (the other six studies did not find a significant effect). Generally speaking, the significant results seem to indicate that expressions of remorse are associated with a higher likelihood of a guilty verdict, but also with a higher likelihood of a lower sentence. However, an explanation of this contrasting effect of remorse on type of legal decision might also lie in the methodological variation of the studies. Looking at the methodology, we observe a larger variety in the way that sentencing decisions are measured as compared to the way in which guilt decisions are measured. For example, some studies ask participants to indicate whether or not a sentence should be harsh, others provide the opportunity to choose between very specific types of sentencing, and some studies let participants decide between a death penalty or not. Of course, it might still be possible that the influence of remorse on sentencing is ambiguous, but on the basis of current studies we cannot make such a conclusion.

Furthermore, results might also vary as a function of crime type. For example, of the five studies that investigated the effect of emotion on sentencing decisions in a rape or sexual assault case, none found an effect (the single study on guilt in a rape case also did not find an effect). Why defendants' emotions do not influence legal decision for these specific crimes is unclear. A possible explanation might be that in rape and sexual assault cases, people are more likely to assign blame to both the offender and the victim (e.g. Van der Bruggen & Grubb, 2014), irrespective of the emotions a defendant displays. However, since we are unable to draw firm conclusion about this, future studies should include a variety of crimes in their design.

Results also indicate that a diverse set of moderators is at play. For guilt decisions, it seems that a flat demeanor might more easily result in a guilty verdict than an emotional demeanor, but only when an observer expected the defendant to have an emotional demeanor (Douglass et al., 2016), or when the defendant was female (Salekin et al., 1995). In contrast, an anxious demeanor was more likely to lead to higher guilt ratings than a calm demeanor, but only when whether the evidence was in favor of the accused (Hendry et al., 1989). Pertaining to remorse, a remorseful demeanor resulted in more/higher guilty verdicts than an unremorseful demeanor, but only when no explanation/account for the defendant's behavior was given (Jehle et al., 2009); when the charge was fair (Niedermeier et al., 2001); or when the defendant was a high status male (Niedermeier et al., 2001).

For sentencing decisions, it seemed that both an adult and a child defendant received a longer sentence when expressing joy as compared to a neutral or angry expression, and the lowest sentence when expressing distress, with the adult defendant generally receiving a longer sentence than the child defendant. For the emotion remorse specifically, it seemed to matter whether the emotion is expressed verbally/as a statement or non-verbally/in tone (Corwin et al., 2012; Lo et al., 2016; also see Silver & Berryessa, 2023), which translates into different types of remorse (as suggested by Silver & Berryessa, 2023): verbal remorse referring to the verbal statement of remorse and affective remorse referring to the non-verbal behavior of expressed remorse. In the studies from Corwin et al.

(2012), Lo et al. (2016), and Silver and Berryessa (2023) these different forms of remorse were investigated, but results point into a somewhat different direction. In one study the congruency between verbal and non-verbal remorse seemed to matter (Corwin et al., 2012), whereas in another study it did not (Lo et al., 2016). It should be noted though, that Lo et al.'s study did not include a condition in which both the verbal and non-verbal behavior was (congruently) remorseful, making a direct comparison between the studies impossible. Furthermore, as Silver and Berryessa did not directly compare their four conditions (no remorse, verbal remorse, affective remorse, and restitutive remorse) it is also difficult to paint a single picture from these three studies on types of remorse. Given these inconsistencies, caution is warranted when drawing conclusions about the role of remorse expression modality.

What the moderators in the included studies have in common is that they provide context information about the case (more specifically, about the defendant, the defendant's account, or the charge). Context information might steer legal decisions beyond the emotional expression of the defendant (for example, see Kelman et al., 1996), as more elements need to be considered and balanced. Furthermore, having to take in additional information – besides the defendant's emotional demeanor – might motivate systematic processing instead of heuristic processing (Chaiken, 1980; Chaiken & Ledgerwood, 2012; Chen et al., 1999). If observers use systematic processing, more careful consideration of the available information is undertaken. In heuristic processing – which is more likely when limited information is available – one relies more on existing cognitive schema's such as stereotypes and expectations (Chaiken & Maheswaran 1994). The emotionality of a defendant, without any other context information, can form a 'heuristic cue' that determines judgments of that person. This underscores the importance of conducting research within actual court contexts, to verify whether heuristic processing of information is indeed less likely to occur in legal professionals that balance all case information.

In attempt to explain effects of emotion on legal decision making, several studies have tested for potential mediating effects. Both in studies on guilt and sentencing decisions one mediator stands out: how the defendant's character is perceived. Studies name this mediator somewhat differently though. The studies by Tsoudis (2000) and Tsoudis and Smith-Lovin (1998) name it the perception of 'perpetrator/criminal identity', Tallon et al. (2015) call it 'offender impression', Leys et al. (2011) talk about 'defendant personality', and Silver and Berryessa (2023) use the term 'offender immorality'. In most studies, this mediator is investigated to find support for the affect control theory. As mentioned in the introduction of the current article, affect control theory poses that the offender's emotional display might affect their moral identity (Heise, 1989). People might view the defendant more positively when displaying certain emotion, with 'spill overs' to more leniency in legal decisions.

More specifically, whether or not the defendant was deemed credible, authentic or trustworthy mediated the effect of emotion on guilt decisions (DeCelles et al., 2021; Heath et al., 2004; Wessel et al., 2012) (this specific mediator was not tested in studies on sentencing decisions). A flat, positive, or angry demeanor has a negative influence on the defendant's credibility, despite the variety of emotions that defendants might genuinely experience. This is very much in line with findings from the emotional victim effect, showing that a victim's credibility is influenced by (stereotypical ideas about) his or her

emotional demeanor. More specifically, *victims who express strong negative emotions when talking about their victimization are perceived as more credible than victims who display little emotion or positive feelings* (Wrede & Ask, 2015, p. 903). Certain emotional expressions that do not fit the stereotypical 'sad' victim, and hence are unexpected, may raise doubt, suspicion, or mistrust (Van Doorn & Koster, 2019). For defendants, similar processes seem to be at play, which can have far-reaching consequences: a lower perceived credibility results in more guilty verdicts (DeCelles et al., 2021; Wessel et al., 2012). These findings are also relevant in light of the discussion on detecting genuine emotion in defendants, which has proven to be challenging (see Bandes, 2020; Bennett, 2016).

Suggestions for policy and future research

The results from the current systematic literature review show that different types of emotions influence legal decisions differently. This is problematic, because emotions may vary substantially across offenders and do not necessarily indicate guilt or sentencing needs. Emotions (of different nature) may rather point to moral injury or even offense-related traumatization. A large number of studies have shown that committing a severe offense may have dire emotional consequences for the offender as well (see Badenes-Ribera et al., 2021). Decision makers should be aware of the manifold experience and manifestation of emotions in suspects and offenders to ensure a fair trial, and to make correct decisions about guilt and sentencing. Law enforcement officers might benefit from receiving training in emotional intelligence, in order to understand and effectively regulate their own emotions, to be able to recognize emotional cues (from defendants), and in order to be aware of their own emotional biases (e.g. Maroney & Gross, 2014). Implementing strategies to manage emotions during legal proceedings ensures fair and impartial decision-making. To date, such a 'trauma-informed' approach is sometimes used by juvenile courts (see McKenna & Holtfreter, 2021). In our view, it is necessary that trauma- and emotion-informed approaches should be implemented in other criminal courts as well.

In addition, it is important to look at specific emotions and not just emotionality per se. In order to test for the exact influence of different emotions, we deem it necessary for future studies to be more diverse in the included emotions in both guilt and sentencing decisions. Not only from a methodological point of view, but also because defendants experience a richer palette of emotions than the current studies portray. From a moral injury perspective, emotions such as guilt, shame, regret, sadness, and anger are likely as well (Atuel et al., 2021; Molendijk, 2018). However, these emotions barely receive any attention or are discussed under the 'veil' of remorse. Furthermore, anger has mainly been studied in guilt decisions, but less so in sentencing decisions.

Another reason for pursuing research into different types of emotions, is that some emotions are less accepted (anger) in the courtroom than others (remorse). As mentioned previously, people are more likely to display anger when they are falsely accused, and are more likely to express remorse when they (implicitly) admit to being responsible for the wrongful behavior. Although anger might be the rightfully experienced emotion in cases of false accusations (DeCelles et al., 2021), from a legal point of view it might be more recommendable to express remorse or remain silent than to express anger.

The majority of studies used a student sample to test for the effect of emotion on legal decisions. Another important suggestion for future research is therefore to study as well as compare responses from different groups of professionals. Only two studies used a sample of (legal) professionals, but none of the included studies used a sample of judges. This is problematic, given that students' legal knowledge – but also that of certain professionals – is of a vastly different level than that of judges. This makes us question how reliable and valid the current results are (also see Batista & Myers, 2012). In addition, in order to allow for a meaningful comparison of results, it is also important to have more uniformity in study designs and outcome measures.

Finally, whether or not it is accepted to express certain emotions is culturally determined. A large study mapping differences in emotion display rules shows that individualistic and collectivistic cultures differ in their emotional expression (Matsumoto et al., 2008). As a consequence, people might have different expectations about the emotion expression of defendants (Everett & Nienstedt, 1999). Furthermore, culture also seems to influence attitudes toward punishment (Everett & Nienstedt, 1999). Yet, the included studies in the current review mainly represent western countries with individualistic cultures. It might be worthwhile to investigate whether the role of defendant emotion differs between different cultures and criminal justice systems. Because of the large amount of studies conducted in the United States, the latter – a comparison of criminal justice systems as an additional analysis in the current systematic review – was not possible.

Limitations

A few limitations of the current systematic literature review should be noted. Firstly, the quality assessment score of the included studies showed that some studies were of rather low quality, and we decided not to exclude any of the studies based on their score in the quality assessment. The quality assessment helped to explain contrasting findings and also allowed for a richer overview of studies that test for the effect of defendant emotionality on legal decisions. However, this also means that for some of the lower quality studies it was more challenging to answer our research question, which we took into account in discussing the findings. Secondly, we only included studies that were published in English. Consequently, unpublished experiments and those in other languages were not considered. This means that the current systematic review may not provide a complete picture of the overall scientific literature. Furthermore, systematic differences between published and unpublished articles can introduce bias, as research with non-significant results is less likely to be published (Ahmed et al., 2011; Petticrew & Roberts, 2008). Including studies from other languages might also more readily foster a comparison of different judicial characteristics (e.g. common law versus civil law and lay versus professional judges) and cultural aspects of emotion. Finally, we chose not to perform a meta-analysis because of the large methodological differences between studies – as seen in the variety of moderators, mediators, outcome measures, and unreported effects – as well as methodological concerns such as low sample sizes. This would have problematized a proper meta-analysis (Hernandez et al., 2020). As mentioned by Hernandez et al. (2020, p. 100): *in most cases, we do not recommend performing meta-analyses in the presence of high heterogeneity. Summarizing large amounts of information using a single number can also be controversial.*

Conclusion

The current systematic review showed that the expression of emotion by defendants might be beneficial in terms of guilt and sentencing decisions as compared to showing no emotion. However, this finding does not account for all emotions. Some emotions reflect badly on the perceived identity, and more specifically credibility, of the defendant. For example, the expression of anger can result in *more* guilty verdicts. It thus seems that, as with victims, people have a very specific idea about the appropriateness of certain emotions of defendants. Furthermore, the effect of a defendant's emotionality on legal decisions includes a set of boundary conditions (moderators), and is almost exclusively found in student samples. Should we worry about an 'emotional defendant effect'? Not necessarily, but it is important for legal professionals to be able to gain knowledge about the rich palette of emotions defendants can experience, how they arise, and how they are expressed, to make informed decisions. The remorse 'debate' already signals the difficulty in judging whether someone is genuinely remorseful (Bandes, 2016, 2020). In the end, legal professionals, defendants, *and* victims are helped with an emotion-informed justice system.

Notes

1. The data, analytic code, and other materials used in the review are available upon request.
2. One could argue that these authors have also manipulated the degree of emotionality instead of the type of emotion. However, we chose to classify it as 'type of emotion', because the study compares both a negative and *positive* emotional demeanor instead of a certain degree of emotionality being higher or lower.

Disclosure statement

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- * References marked with an asterisk refer to studies that were included in our systematic review (see Table 2).
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