

Känner risken, kanske häktar senare:  
Påverkan av emotionell information på  
riskbedömningar i häktningsförhandlingar

Feeling risky, might detain later: The  
impact of emotional information on risk  
assessment in remand proceedings.

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# Feeling risky, might detain later: The impact of emotional information on risk assessment in remand proceedings.

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*A fair judicial system assumes that judgments and decisions are made based on quality of evidence rather than extraneous factors. The evidence in criminal cases usually carries emotional content. Previous research shows that lay-people, such as juries, can be affected by emotional content when making legal decisions. However, judges who finalize verdicts have extensive legal education. The purpose of this study is to investigate whether legal education can mediate or eliminate the effect of emotional content when making legal judgments. The focus of this study is the remand hearing (“häkttingsförhandling”), which is dependent on three risk judgments (risk of recidivism, risk of collusion and risk of flight). For this study a survey was used containing realistic remand hearing descriptions with emotional content, both legally relevant and irrelevant. 27 participants with a Swedish legal education (law degree or advanced law student) read the case descriptions and made judgments on the risks associated with a remand hearing. The participants later recalled the initial case description and made a second judgment in the same case, based on memory. As a measure of emotional impact on reasoning, emotional words in the participants’ recall were identified by two independent raters. Further, an independent sample of 16 students rated the valence of the identified emotional words. Proportion of emotional words and perceived valence was then used in a linear regression model as predictors of risk judgment. Results indicate that proportion of emotional words and the negative valence of emotional words could weakly predict higher judgments of some of the risks associated with detaining a suspect. These results indicate that a legal education alone is not enough to fully protect a judicial decision maker from the impact of emotional content.*

## 1 Introduction

The judicial system is built on the assumption of a fair trial and that any person who is accused of a crime should be able to defend themselves. The judge of the trial, who determines the verdict, is expected to be impartial and fair, meaning that all things being equal they should come to the same verdict for the same crime. However, it has been shown that this is not always the case. For instance, judges have been found to be sensitive to confirmation bias, i.e. looking for information that confirms their beliefs and ignoring evidence that disproves them when making judgments and verdicts (Nickerson, 1998; Lidén et.al., 2018; Lidén, 2020).

Legal professionals, especially those working in courtroom settings, are frequently subjected to emotionally challenging material, sometimes daily. It is at this point well known that working in a field that requires emotional

regulation while at the same time being highly emotionally challenging, e.g. healthcare, can have long term adverse effects on a person’s empathic ability (Cavanagh, 2020). However, the legal context differs significantly from other emotionally challenging areas such as health care. A doctor is allowed to express empathy with their patient, it is even encouraged since it is related to giving a higher quality care (cf. Flickinger et.al., 2016; Haque, 2019). A judge on the other hand is expected to remain impartial, only making a decision based on the quality of evidence presented. Whether or not a judge empathizes with a plaintiff or defendant should be irrelevant to their final verdict. Judges and other legal professionals have extensive education in the complexities of the law. The question then is whether the education of legal professionals can mediate or indeed eliminate the effects of emotional materials when making legal judgments.

There is a substantial amount of research on how jurors make judgments, and it has been found that jurors’ decisions can be affected by a variety of factors, such as victim and defendant age (Sheahan et.al., 2021), race (Maeder & Yamamoto, 2019), history of abuse (Holleran et.al., 2016) as well as the jurors’ own emotional reaction to gruesome evidence (Bright & Goodman-Delahunty, 2006). However, jurors are lay people without extensive training in legal decision making. There is a general lack of research on how emotional content affects legal professionals’ reasoning, especially in applied legal contexts. Furthermore, most research on legal decision making is conducted in the US. Other countries have other legal systems and other legal educations that might affect judgment outcomes in unique ways. For instance, research on legal experts is especially important for the Swedish legal system.

In Sweden, juries are only used in cases regarding freedom of the press (SFS 1942:740). For criminal cases, the Swedish courts have lay judges that rule in the cases with other professionally trained judges. The lay judges are in a slight majority for the lowest courts and a minority or nonexistent in the higher courts (SFS 1942:740). In other words, the outcome of all criminal trials in Sweden are heavily influenced or outright decided by legal experts. Since judges can be exposed to emotionally challenging materials daily, knowing if and how legal judgments by legal professionals are affected by emotional content is thus vital for the Swedish legal system to assure the guarantee of a fair trial.

The goal of this thesis will therefore be to investigate the impact of emotional content on legal decision making, in people with an education of the law. Of special interest for this study is the remand hearing (“Häkttingsförhandling”). The reason for focusing on the remand hearing is threefold. Firstly, the remand hearing occurs early in the legal process. It has

previously been identified (in the US) that an assumption of guilt as early as during initial interrogations can lead to a wrongful conviction, even if exonerating evidence is found before the conviction (Leo & Drizin, 2010). Identifying the effect of extraneous factors early in the judicial process is therefore vital. Secondly, in Sweden remand decisions are made exclusively by legal professionals. A single judge hears the plaintiff and suspect, and makes the decision whether or not to detain the suspect (SFS 1942:740). Thirdly, it is comparatively easy to isolate the occurrence of emotional information. A remand hearing consists of a written or verbal statement from both parties, after which the judge makes their decision (SFS 1942:740). Most emotional information will therefore be contained, written or verbally, in the statements by the two parties.

### *The Swedish remand system*

When a suspect is found for an alleged crime, it might be in the best interest of a fair trial to detain that person. However, detainment should be used cautiously, since it is essentially imprisonment before a fair trial is held to determine guilt. In Sweden, the decision regarding detainment stems from a judge's assessment of three risks (SFS 1942:740). First is the risk of recidivism<sup>1</sup> ("recidivfara"). The judge has to determine whether there is a substantial risk that the suspect will continue to commit crimes if released. Second is the risk of collusion<sup>2</sup> ("kollusionsfara"), e.g. how likely is it that the suspect will remove physical evidence such as drugs or weapons, or threaten potential witnesses. Third is the risk of flight ("flyktfara"), e.g. how likely is it that the suspect will hide from the law or flee the country while the investigation is ongoing. If a judge determines that any of these risks are substantial enough, it is a sufficient condition to detain the suspect. Thus, the Swedish system is very explicitly focused on risk judgments. The explicit focus on risk makes a remand decision comparable to a risk assessment. Overall, the judge must determine whether the fairness of the trial could be compromised by the suspect's continued freedom by assessing if the severity of one of the three risks is high enough to motivate detaining a potentially innocent person.

When making risk assessments such as these, emotions could influence the severity of the assessment. According to the Risk as feelings framework, negative affect increases perceptions of risk and decreases perceptions of benefit in choice situations (Slovic et al., 2004). Using the framework, it would be expected that if a judge has a negative feeling towards a suspect (i.e., perceiving them as "bad"), they will perceive the risks associated with the suspect as higher and the benefits associated with releasing the suspect as lower. Thus, since remand decisions are in essence risk assessments and negative affect can increase perceptions of risk, judgments

made during this part of the legal process should therefore be highly susceptible to emotional content.

### *Emotion and legal judgments*

To begin, emotional states have been shown to have a direct impact on legal judgments. For instance, Ask and Granhag (2007) investigated how different emotional states affected experienced investigators when trying to determine the probable guilt of a suspect. Induced to be either sad or angry, the participants were presented with a case description containing a description of the situation, a description of the suspect and two witness statements. One of the witness statements were manipulated so that it was either congruent or incongruent with the other witness statement. The sad participants were more likely to take the incongruity of the witness statements into account when determining probable guilt compared to angry participants. The angry participants did not differ in their assessment of probable guilt (Ask & Granhag, 2007). Ignoring situational information (such as an incongruent witness statement) in favor of personal variables (such as a description of a suspect) is a well-known bias, known initially as the fundamental attribution error and later as correspondence bias (Ross, 1977; Gilbert & Malone, 1995).

Similar results have been found by Sambrano et al. (2020) who had participants induced to be happy, angry, or sad make judgments of guilt for a suspected gunman who was described as a previous criminal. Participants who were angry and happy were more likely to judge the suspect as guilty compared to sad participants. Furthermore, Bodenhausen et al. (1994) found that anger leads to more reliance on stereotypes and heuristics when making judgments, compared to other negative emotions (such as sadness) and neutral emotions.

In sum, these studies indicate that experienced emotions can have an impact on judgment in the legal setting, especially in that negatively valenced, high-arousal emotions seem to bring focus to the personal traits of the suspect rather than situational information. However, in these studies an emotional state is first induced, and the participant then makes a legal decision. In an actual remand hearing, the emotional state of the judge is not previously known or controlled for, but might be influenced by the information presented through the materials needed to make a judgment (e.g. emotionally charged evidence or statements by plaintiffs and defendants). Indeed, Jacobs (2015) argues that emotional words alone could be enough to induce an emotional response, which is corroborated by fMRI-studies which show differential brain activation when reading negatively valenced emotional texts (Altmann et al., 2012) as well as for negatively valenced individual words (Ponz et al., 2014) compared to neutral texts and words. Since tests of emotional states for judges in the real-world context are unlikely to be implemented in the near

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<sup>1</sup> The official translation, according to the Swedish/English glossary by Sveriges Domstolar, is "risk of continued criminal activity". For ease of reading, I will instead use the term "recidivism", which has a comparable meaning in English. However, for this thesis "risk of recidivism" is meant as "recidivfara" by Swedish standards.

<sup>2</sup> Same as previously, but with the term "collusion" standing in for the official translation "risk of tampering with evidence"

future, this study will focus on the emotionality of the language used in the legal materials presented during a remand hearing and if emotional content in these materials directly impact judgment.

### *Emotional words, cognition, and memory*

A remand hearing, like most legal processes, involves weighing several pieces of evidence against each other, determining which evidence is relevant and which is not, and combining everything to make a final verdict. As mentioned previously, the remand hearing is highly focused on descriptive materials. If the judge encounters emotional information during a remand hearing, it is almost exclusively from written or spoken words.

Emotional words in themselves are connected to decisions in the legal setting. Black et.al. (2011) performed a study in which they counted all emotionally charged words that supreme court justices in the US used between 1979-2008, when directing a question or statement toward a petitioner. They found that the relative proportion of negatively valenced words (e.g. “idiotic”) that each justice used could predict how they were likely to vote in a given matter. While this is a study of judges using emotional words, not being subjected to emotional words, it does indicate a link between emotional language and judicial decision making. It also indicates the importance of specific word usage in the legal setting. The presence of emotional words in remand hearings can therefore be expected to have some impact on a judge’s decision.

The impact of emotional words could be explained by the effect that emotional words seem to have on our cognition. Kousta et.al. (2009) investigated the effect of emotional words on cognitive tasks. In their experiment, they let participants perform a lexical identification task, where they are shown a string of letters and asked to respond as quickly as possible if the string is an actual word or not. For stimulus they used words that were coded as positive, negative, or neutral. Following the experiment, they found that participants were both faster and more accurate at identifying valenced words (positive and negative) compared to neutral words (Kousta et.al., 2009). This indicates that words which carry emotional content are given a processing advantage over emotionally neutral words.

In addition, other studies have found that negatively valenced words hold attention for longer compared to neutral words (Fox et.al., 2001), and it has also been found that attention itself can increase emotional intensity. In a series of experiments, Mrkva et.al. (2019) showed that images which were attended to longer were rated as more emotionally intense than images which were not attended to as much.

To summarize, in these experiments emotional valence increases attention and attention increases the intensity of the emotional valence, which in turn affects performance on later tasks. During a remand hearing description of crime are by definition the focus and can carry negatively valenced emotional information, such as descriptions of rape, assault and murder. If emotional words are given a processing advantage and attention to these words intensifies the

emotional response in lay people, that is also likely the case for judges. If the emotional response to emotional words in judges is intensified, it could affect the judgment made by the judge.

Furthermore, attention has an effect on memory, and thus by extension has an effect on judgments made from memory. In a courtroom setting, a lot of information is presented, and judges must consolidate all information into a final verdict. Not all information is present simultaneously, so judges must at some point rely on their memory of the information. The same is true of a remand hearing; one side presents their case before the other so the judge must remember the initial information when reasoning before making a decision regarding detainment.

It has been known for a long time that attention to a stimulus increases its later accessibility in memory (Taylor & Fiske, 1978; Mulligan, 2008). Furthermore, Megalakaki et.al. (2019) found that emotional words in a read text are more correctly recalled compared to neutral words. Thus, emotional content is more likely to figure in memory, probably because emotional words increase attention which in turn increases accessibility in memory. In lay people then, a higher degree of emotional content in memory might influence judgments made from memory (Forgas, 2010; Mrkva et.al., 2020). However, legal expertise could still mediate these effects. A theory that aims to predict decision making from valence and the effects of memory, while accounting for expertise, is fuzzy trace theory (Reyna, 2012 SOURCE).

### *Decision making according to Fuzzy-trace theory*

Fuzzy trace theory (FTT) is both a memory theory and a theory of reasoning. The basic idea is that memory is a dual trace process, where verbatim information (e.g. “there is a 96% probability that it will rain today”) is encoded separately from the gist of the information (e.g. “It’s going to rain today”). When a decision is then to be made, reasoning will depend on what type of information is recalled: verbatim or gist.

Emotions can affect the retrieval and use of these memory traces. For instance, Bookbinder and Brainerd (2017) found that negative emotional valence of a picture increased the participants' retrieval of gist-traces when remembering if they had previously seen that picture. Indeed, valence seems to be the driving force of decision making from gist representations. When a choice is categorical (such as “detain suspect” versus “not detain suspect”), the representations of these alternatives will be compared and the alternative that is most positively (least negatively) valenced will be chosen (Broniatowski & Reyna 2018).

Furthermore, according to FTT, mature reasoners have a preference for reasoning in the “fuzziest” manner possible, i.e. using gist representations rather than verbatim representations when possible. What level of “fuzziness” that is acceptable depends on the decision situation, but simplified the requirement is essentially the most gist-like representation that is necessary to distinguish one alternative over one or several other decision alternatives (Broniatowski & Reyna, 2018). For

example, when getting ready to leave for the day and deciding whether or not to bring an umbrella, a reasoner will not try to recall the exact percentage probability of rain since “it’s going to rain” is enough to distinguish the consequences of the alternatives of bringing an umbrella or not. The reasoner will then weigh their personal perception of the valence of getting wet from rain versus the valence of having to carry an umbrella, and the final choice will depend on which alternative is the most positively (or least negatively) valenced option.

This sets FTT apart from other similar theories, such as Kahneman's (2011) two-system theory which in some cases predicts poorer decision making when using the fast system over the slow system. FTT on the other hand makes no predictions on the quality of the decision based on what memory trace is used. In fact, experience and expertise seems to increase gist-based reasoning from memory compared to those with less expertise (e.g., Reyna et. al., 2003; Reyna & Lloyd, 2006). However, this reliance on gist does not seem to have an adverse effect on the quality of the decisions made. Instead, it seems that when experts rely more on gist, they make better decisions (Reyna, 2012).

In sum then, negative emotional valence increases the retrieval of gist traces during recall tasks, and the valence is what drives the decision. In experts, reasoning is more likely to rely on gist-representations, so the valence of the gist representation will likely be paramount to their decision. Thus, emotional content in a remand hearing might affect the valence of the gist representation of the two options (detain or not detain). And since valence is the factor by which alternatives are chosen, emotional content could sway the decision.

#### *Using FTT to measure emotional impact*

Studies regarding the impact of emotion on legal decision making are usually conducted on lay people such as juries (Bright & Goodman-Delahunty, 2006) or regular students (Sambrano et.al., 2020). Ask and Granhag (2007) did an experiment on experienced criminal investigators, but investigators are usually not tasked with high level legal judgments and decisions. The present study aims to go one step further and investigate the impact of emotional content on advanced law students and law graduates. This population is expected to have a fairly high theoretical expertise in the complexities of the law and can one day be expected to make high level legal decisions such as in remand hearings. Investigating this group can hopefully reveal any mediating effects that a legal education might have on the impact of emotional legal material.

The study will be based on the framework of FTT. According to FTT, expertise in an area should lead to more gist-based reasoning when making a judgment. Gist-based judgments are in turn driven by the valence of the options, and the option with the most positive (least negative) valence can be expected to be chosen. If emotional content exists in the gist representation, it should be noticed in peoples’ experience and memory. To elaborate, it is likely that the more emotional

content that can be seen in their recollection of information from a legal case, the more salient the emotional content was for that person. Furthermore, the more salient the emotional content is, the more their reasoning should be affected by that emotional content. Since most information regarding the suspect in a legal case is negatively valenced (i.e. descriptions of violence, abuse, fraud etc.) we should expect more negative emotional content in the gist representation to lead to a higher negative valence appraisal of the situation for which the suspect is accused of causing.

In a remand hearing, a suspect’s detainment is decided based on the assessment of three risks: risk of recidivism, risk of collusion and risk of flight. When the judgment of one of these risks reaches a threshold, the suspect is detained. If the negative valence associated with the suspect is increased, it should also increase the negative valence of the risks associated with a detainment order. The increased negative valence should lead to a higher perception of risk, which should be reflected in a higher judgment of risks associated with detaining a suspect.

Negatively valenced emotional content should be able to be measured as the proportion of negatively valenced words found in recall, as proportional word count could be used by Black et.al. (2011) to predict decisions by legal experts. Furthermore, all negatively valenced emotional words do not necessarily carry the same emotional weight, some emotional words are more negatively valenced than others. Therefore, it is expected that a higher degree of negative valence of the emotional words recalled should further impact judgments. Thus, the hypotheses for this study are as follows:

**H1a:** A higher proportion of negatively valenced words that figure in the participant’s recall of a remand hearing will predict a higher initial judgment (i.e. judgment before recall) of the three risks that are associated with detaining a suspect (risk of recidivism, risk of collusion, risk of flight).

**H1b:** After controlling for the proportion of emotional words recalled, a higher degree of negative valence of the words that figure in the participant’s recall of a remand hearing will predict a higher initial judgment (i.e. judgment before recall) of the three risks that are associated with detaining a suspect (risk of recidivism, risk of collusion, risk of flight).

**H2a:** A higher proportion of negatively valenced words that figure in the participant’s recall of a remand hearing will predict a higher judgment of the three risks that are associated with detaining the suspect (risk of recidivism, risk of collusion, risk of flight), when the judgment is made after recall.

**H2b:** After controlling for the proportion of emotional words recalled, a higher degree of negative valence of the words that figure in the participant’s recall of a remand hearing will predict a higher judgment of the three risks that are associated with detaining the suspect (risk of recidivism, risk of collusion, risk of flight), when the judgment is made after recall.

## 2 Methods

### *Covid-19 disclaimer*

Due to the ongoing Covid-19 pandemic, it was more difficult than usual to conduct a study in a safe and responsible way. For example, the possibility of using controlled experimental settings with in-person participants was severely limited, which necessitated reliance on digital resources. Since only digital resources were available both to conduct the study and to recruit participants, there was a generally increased difficulty to reach out and make people interested enough to participate. With that in mind, I humbly present the methods and results of this study.

### *Participants*

This study was aimed at Swedish people with a legal education. Both current students of law as well as law graduates were accepted as participants. Legal skill in law graduates was assumed, and to control for the legal expertise of current students of law, only responses from those who had completed at least 5 semesters (i.e. 2.5 years) were accepted. The reasoning is that most law programmes offer at least one course on criminal law at around semester 3 or 4, so subjects who had studied law for longer than that should have the necessary knowledge to count as legally skilled for the purposes of this study.

A total of 27 participants (12 female, 15 male;  $M_{age} = 26.7$ ) answered the questionnaire. 1 participant was removed as an outlier, because all their answers after the first rating were on extreme ends of the scale (1 or 100). Removing the outlier did impact the results somewhat. Therefore, the most important results with this outlier included will be presented in the appendix. Participants were recruited remotely through contact with the legal departments of various universities in Sweden, as well as alumni from those universities.

All participation was voluntary, and answers were anonymous. No compensation was given for participation in the study.

### *Materials*

The questionnaire consisted of 5 fictional scenarios that were made to simulate actual remand hearings. The scenarios varied between around 500 to 900 words in length. The questionnaire also contained a recall-question, where the participant was asked to describe as much as they could recall from the first scenario they read and then answer the same questions as in the other scenarios. For all material, see the appendix.

With the help of a jurisprudence scholar, Moa Lidén, two of the scenarios were made to be approximately legally equivalent, i.e. a legal decision maker should come to roughly the same judgment in both cases. These approximately equivalent cases are called the *critical scenarios*. The critical scenarios contain, other than relevant legal information, around 100 words of negatively valenced, emotionally charged and legally irrelevant information (e.g. a description

of the accused having a tattoo with racist connotations or that the accused is described as offensive). The point of the irrelevant emotional information was to maximize emotional impact while keeping the remand descriptions as realistic as possible. The other three scenarios are used as filler cases, collected from Lidén et.al. (2019) with some modifications.

The description of each scenario was followed by questions regarding the decision of whether to detain the accused during the period of the investigation leading up to trial. First, the question “Would you like to detain [the accused]?” with yes or no alternatives followed by “How strong do you deem the overall evidence to be?” which was answered through a visual analogue scale with a range from “Not very strong” to “Very strong”. The scale was presented as a slider without markings or a midpoint. The purpose of the question was to get the participant’s overall judgment of the evidence presented in the case.

Following the overall judgment of the evidence and decision of detainment, there were questions for each of the risks associated with a detainment judgment. These were formulated in Swedish, translated as “How strong do you deem the evidence for [risk of recidivism/collusion/flight] to be?” which was answered through a visual analogue scale with a range from “Not very strong” (0) to “Very strong” (100), followed by the question “Do you determine there is a risk of [recidivism/collusion/flight]?” with alternatives yes or no. These questions determine on what grounds the participant was deciding to detain/not detain.

The recall question does not begin with a case description. Instead, the participant was asked to freely recall and describe as much as they could remember from the first critical scenario. They were provided with a textbox whose size initially could contain ~100 words, but automatically expanded in size when participants neared 100 written words. There was no upper or lower word limit.

For the recall-part only, a control question was also introduced, asking “Did you change your judgment?” and “Describe shortly how and why your judgment changed”. The purpose of the question was to investigate whether the participant was aware of any differences they might have made in judgments after recall.

At the end, two questions probed the state of the participant. One of the questions asked “How strenuous did you find it to decide on the detention order?”, with a visual analog scale ranging from “Not very difficult” (0) to “Very difficult” (100). The point of the question was to determine the level of fatigue that the participant accrued during the judgment of the case, which is relevant as a control factor in the later analysis. The other question asked “How much did you identify with the different persons’ experience of the described situation?”. The same scale as the previous question was used, bounded by “Not at all” (0) to “Very much” (100). The purpose of the question was to measure the empathetic state of the participant, also used as a control factor in the analysis.

For the study, the survey program Sunet was used, licenced by Lund University.

## *Procedure*

The survey was conducted entirely online, so no participant interacted directly with the experimenter during the experiment.

The survey started with participants giving consent and then answering a control question for legal skill. Since the purpose of this study was to test the impact of emotional content on the legal judgments of people who can be classified as skilled in legal decision making, those who answered that they do not have a law degree or that they are not currently studying law are immediately informed that their answers will be terminated. The remaining participants who fulfilled the criteria for legal skill were then asked some demographic questions such as age and gender.

The area of interest for this study is how emotional content affects legal judgment both directly and over time, using emotional but legally irrelevant information in the critical scenario descriptions. The two critical scenarios were counterbalanced pseudo-randomly, by asking participants to pick a random number from 1-8. The number picked determined which order the critical scenarios were presented. The filler scenarios were kept in the same order for all participants.

After the personal information and the pseudo-randomization, the study began. Depending on condition, the participants were first presented with one of the critical scenarios, version 1 or version 2. They then answered the questions regarding detainment, the three risks (recidivism, collusion, flight), fatigue and empathy. Following the first critical scenario were three filler scenarios. The filler scenarios were other remand hearings, and participants were asked the same questions in the same order as for the initial critical scenario. After reading and answering the filler scenarios, participants were asked the recall question, where they attempted to recall as much as possible from the first (critical) scenario. The purpose of the recall question was to access what the gist-representation of the case was for the participant, and specifically how much emotional material (both legally relevant and irrelevant) was part of that gist representation.

After recalling as much as they could from the first scenario, participants were asked to make a judgment once more in the case, answering the same questions as in all other cases. The main interest for this study is the impact of emotional content on judgment, and emotional impact is measured as how reliably emotional content in the participants' recall of the first scenario predicts the severity of the risk assessments.

Lastly, after the recall question, participants were presented with the other version of the critical scenario. The survey then ends with a question asking what participants thought the experiment was trying to test and allowed them to leave any other comments. After submitting, participants were taken to an end screen thanking them for their time.

## *Determining emotional content*

The independent variables in this study are proportion of emotional words in recall and the valence of those words. In order to first determine the total number of emotional words in recall, two independent raters counted emotional words based on a set of criteria (see appendix). The criteria were developed and tested before analysis. After both raters had identified emotional words, the counts were compared for agreement and discrepancies. Whenever a word was identified by both raters, it was counted as an agreement. If one rater but not the other identified a word, it was counted as a discrepancy. Discrepancies were not used in the analysis, only agreements. Agreement between raters (i.e. inter-rater reliability) was 0.88 (88% agreement). In order to determine the proportion of emotional words in recall, the amount of identified emotion words was divided by the total number of words in recall, to give each participant an "Emotion proportion score" (EPS) between 0-1 (0% - 100% emotion words used). To determine valence, a post test on the identified emotional words was performed.

## *Post-test of valence*

After all data was collected, a post test was performed to determine that the material rated as emotional did indeed hold negative emotional valence, and assess the degree of negative valence in the identified words. For the purposes of this study, valence is operationally defined as the subjective ratings of negative and positive valence found in the following post-test. A survey was sent out over one day to Lund University students and a total of 16 students participated (5 male, 11 female). The survey consisted of all unique words that were identified by both raters as emotionally charged according to the preset criteria. 59 unique words were identified, and the survey was split up into two randomly assigned groups, where one group rated 30 of the words and the other group rated the remaining 29 words. Words were presented in random order for each participant. The participants in this survey rated the words' emotional valence on a scale of 1-9 where 1 was "Very negatively" and 9 "Very positively". The valence ratings were averaged to give each word a mean valence and converted to a negative/positive scale (each rating was subtracted by 5, essentially transforming the scale to be -4 to +4, with negative values indicating negative valence). Then, mean valence ratings were applied to the identified emotional words in participants' recall texts, which gave each participant a total valence score (i.e. if a participant had 3 identified emotional words with mean valence ratings of -1, -3 and +1, the total valence score for that participant was -3). As a last step, the total valence score was multiplied by the EPS to give participants a proportion-controlled valence score (PVS).

**Table 1.** Presented are the mean judgements of risk for the three risks over time (i.e., at the initial rating, at the rating after recall and at the second rating of an approximately equivalent case). Standard deviations and standard errors are presented along the means. The high standard deviations are probably a result of the judgements not being normally distributed.

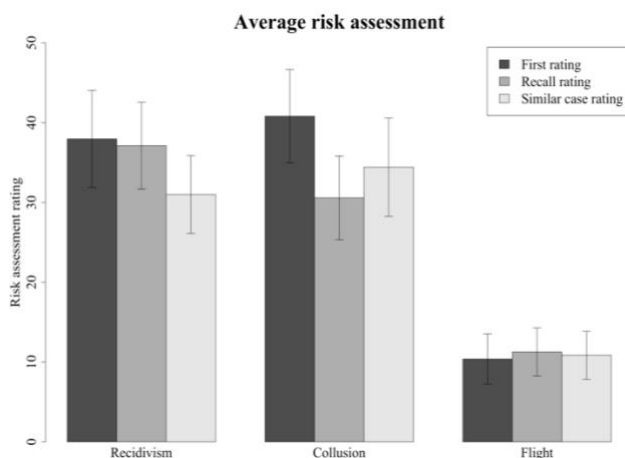
	Risk of recidivism			Risk of collusion			Risk of flight		
	M	SD	Std. Err.	M	SD	Std. Err.	M	SD	Std. Err.
First rating	37.96	31.05	6.09	40.81	29.80	5.84	10.38	16.12	3.16
Rating after recall	37.12	27.78	5.45	30.58	26.74	5.24	11.27	15.42	3.02
Second rating on legally equivalent case	31.00	24.83	4.87	34.42	31.40	6.16	10.85	15.37	3.01

### Analysis

In order to make statistical comparisons, all visual analogue scales are converted to scales with a range of 0-100. For the analysis, the program R was used. Raw data was visually analyzed for patterns, followed by regression analysis with risk judgment as dependent variable and EPS as explanatory factor. To account for variation in valence as an explanatory factor, regression analysis was also performed with PVS as an explanatory factor.

## 3 Results

Firstly, I investigated whether the ratings of the three risks (risk of recidivism, risk of collusion, risk of flight) had changed between the three ratings (first rating, rating after recall, new rating of legally approximate case). As shown in figure 1, the mean ratings of risk of recidivism and risk of flight did not change substantially over time. There is however a sharp decline in mean ratings of collusion between the first rating and rating after recall. Means and standard deviations are shown in table 1.



**Figure 1.** Mean risk assessments over time, divided by type of risk assessed. Error bars show standard error. Initial rating and rating after recall pertain to the same case, with initial rating occurring when first presented with the case and rating after recall occurring when asked to recall as much as possible from the initial case. Similar case rating is risk assessment for another case which is approximately legally equivalent to the initial case.

### Emotional content

Every participant wrote a free recall of the events in case 1, and then made another judgment based on their recollection of that case. The average total amount of words recalled was  $M = 82.10$ ,  $SD = 47.91$ . Of interest in this study is the proportion of emotional words that are recollected. The average amount of emotional words in recall was  $M = 7.23$ ,  $SD = 3.53$ , and the average proportion of emotional words (EPS) was  $M = 0.10$  (10%),  $SD = 0.04$  (4%).

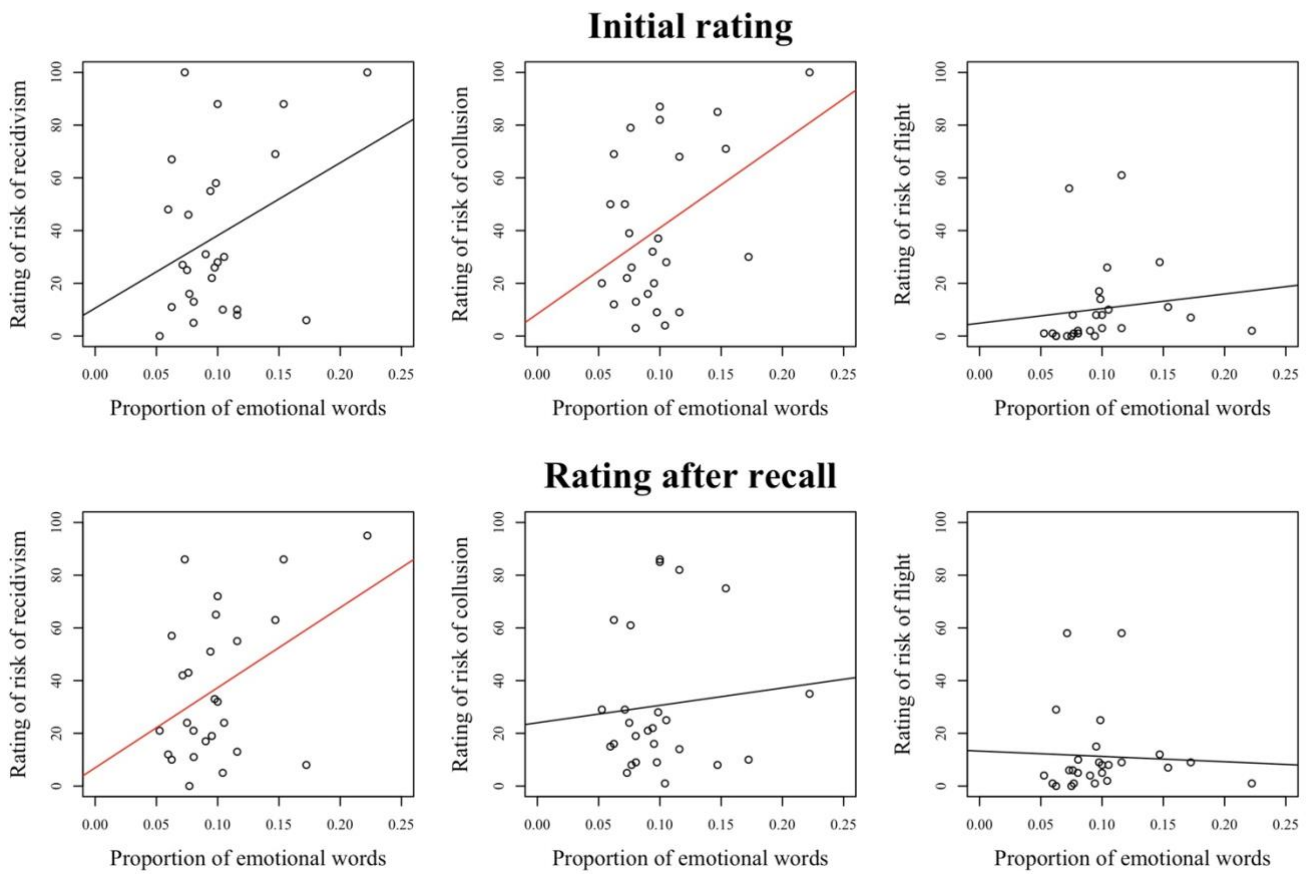
### Statistical analysis and hypothesis testing

The first hypothesis (H1a) of this study was that a higher proportion of emotional words in memory recall will predict a higher judgment of risk of recidivism, risk of collusion and risk of flight before recall, at the initial judgment. Figure 2 shows all plots with a regression line added. All regression plots show a positive trend; higher EPS is related to higher judgment on the initial risk judgments. Regression analysis shows only one statistically significant result, in this instance for judgments of risk of collusion ( $F = 5.13$ ,  $p = 0.03$ ,  $R^2 = 0.17$ ). Results for risk of recidivism and risk of flight were non-significant ( $F = 3.14$ ,  $p = 0.09$  and  $F = 0.42$ ,  $r = 0.52$  respectively).

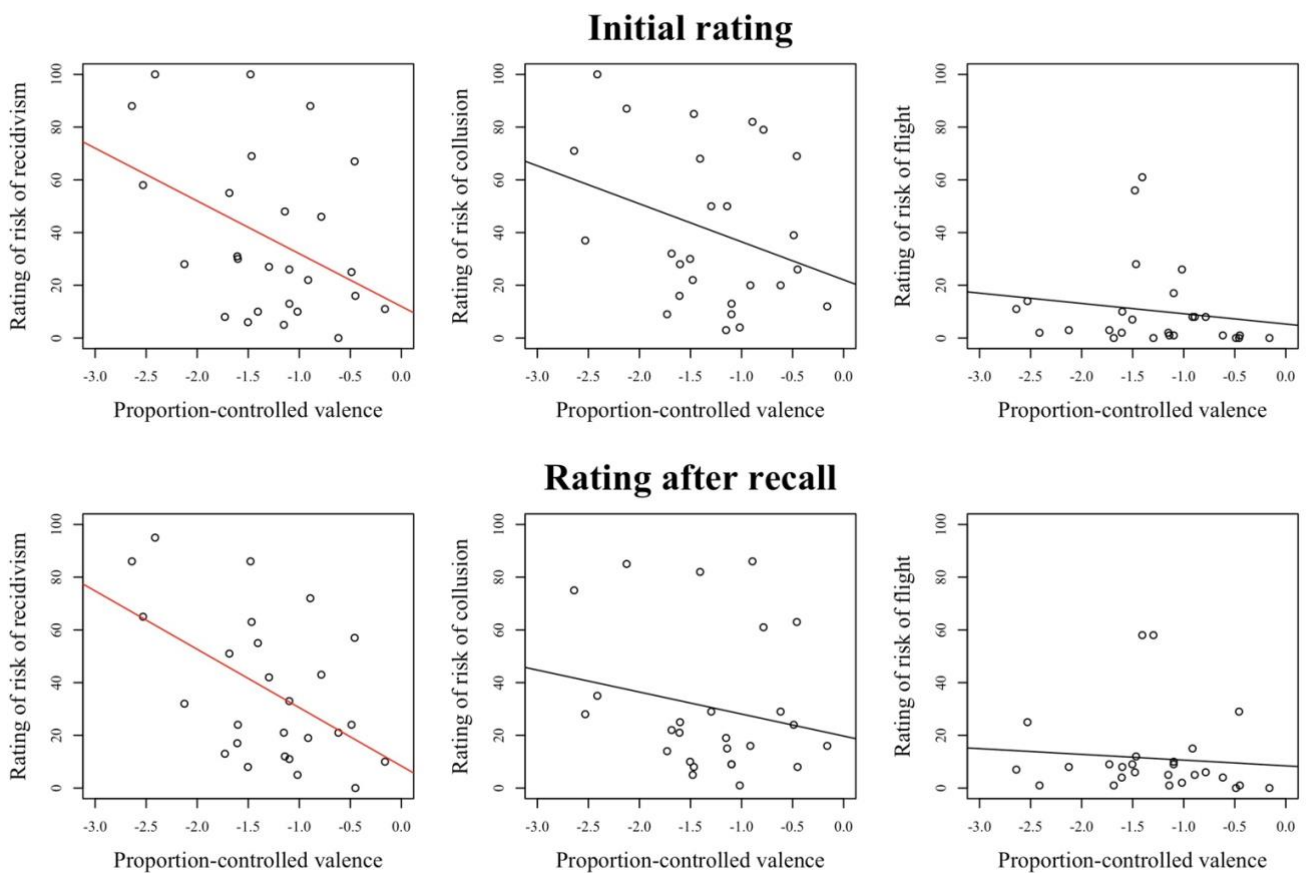
The second hypothesis (H2a) of this study is that a higher proportion of emotional words in memory recall will predict a higher judgment of risk of recidivism, risk of collusion and risk of flight after recall. As can be seen in figure 2, for risk of recidivism and risk of collusion, there is a positive trend with EPS; higher EPS predicts higher judgment of risk after recall. However, judgments on risk of flight trend the opposite direction, with higher EPS predicting lower judgment of risk of flight.

According to the regression analysis, only the result for judgment of risk of recidivism was significant ( $F = 5.12$ ,  $p = 0.03$ ,  $R^2 = 0.18$ ). Results for risk of collusion and risk of flight were non-significant ( $F = 0.22$ ,  $p = 0.65$  and  $F = 0.06$ ,  $p = 0.81$  respectively).





**Figure 2.** Linear model regression analysis on ratings before and after recall with *proportion of emotional words* as predictor. Statistically significant results are shown in red.



**Figure 3.** Linear model regression analysis on ratings before and after recall with *proportion-controlled valence* as predictor. Statistically significant results are shown in red.

For all regression analyses the low number of participants and the fact that responses were not normally distributed should be noted (for sample distributions, see appendix). It should further be noted, in relation to the statistically significant results, that residuals were normally distributed for judgment of risk of recidivism after recall, but not for initial judgment of risk of collusion.

### *Valence*

The post-test of emotional valence showed that the identified emotional words were generally considered negatively valenced ( $M = -1.64$ ,  $SD = 0.89$ ). The absolute highest mean valence for a word (“Angripen”) was  $M = 0.56$ , which is only slightly above neutral. Thus, the identified emotional content carried an overall negative valence.

The average total valence score for participants was  $M = -13.12$ ,  $SD = 5.43$ . Controlling for the proportion of recall that contained the valence by multiplying total valence score with EPS gave an average Proportion-controlled Valence Score (PVS) of  $M = -1.3$ ,  $SD = 0.65$ .

The sub-hypotheses (H1b & H2b) predict that when controlled for its proportional share in recall, the amount of valence (proportion-controlled valence, PVS) will predict a higher judgment of risk. As shown in figure 3, there is a trend for all risk assessments to decrease as PVS increases (i.e. as valence becomes more positive), both at the initial judgment and judgment after recall.

The strongest trend is seen with risk of recidivism, followed by risk of collusion, followed by risk of flight. Similar trends are also found for analysis with total sum of valence as predictor (see appendix).

Regression analysis reveals that the trend for risk of recidivism is significant, both for the first judgment ( $F = 5.07$ ,  $p = 0.03$ ,  $R^2 = 0.14$ ) as well as judgment after recall ( $F = 8.73$ ,  $p < 0.01$ ,  $R^2 = 0.24$ ).

The trends for risk of collusion were not significant at initial judgment ( $F = 2.62$ ,  $p = 0.12$ ) or after recall ( $F = 1.02$ ,  $p = 0.32$ ). Results for risk of flight were also not significant at initial judgment ( $F = 0.61$ ,  $p = 0.44$ ) or after recall ( $F = 0.20$ ,  $p = 0.66$ ).

Regarding distributions of residuals for the statistically significant results, they were normally distributed for initial judgment of risk of recidivism but not for judgment of risk of recidivism after recall.

### *Exploratory analysis*

To test for consistency in participant judgment, a correlation analysis was performed between the first risk judgment and the risk judgment after recall. The correlation between first judgment of risk of recidivism was 0.88, for collusion it was 0.72 and for risk of flight it was 0.36.

To exclude the potential impact of other factors, an exploratory regression analysis was performed with ratings of fatigue and empathy as predictors. None of the judgments of risk could significantly be predicted by fatigue or empathy

ratings. There was also no relation between judgment of risk and age or gender.

Since the participants differed in which one of two approximately equivalent legal cases they initially read and recalled, an analysis of similarities between case ratings was performed. The analysis showed the same trends for both cases as the overall analysis, except for one rating. Rating of risk of collusion after recall as a function of EPS and PVS showed opposite trends when comparing the two case descriptions. Due to the overall similarity and the very small sample size for the two groups, it is most likely a statistical anomaly. The rest of this thesis will therefore continue to discuss the overall analysis. For all trends and analysis regarding the anomaly, see the appendix.

## **4 Discussion**

The question of this study is if people with a law education are affected by emotional information when making judgments of risks relating to remand decisions. Based on Fuzzy-trace theory (Reyna & Brainerd, 1995; Reyna, 2012) and previous research on emotions in the legal field (e.g. Sambrano et.al., 2020; Ask & Granhag, 2007) I hypothesized that a higher proportion of emotional information that is available in participants' gist representation after recall of a remand hearing would predict a higher assessment of the risks associated with remand decisions, both at the initial judgment and after recall. Overall, the results show trends that support hypotheses 1a-b and 2a-b for risk of recidivism and risk of collusion, even though effect sizes are quite small.

### *Overall view*

Firstly, looking at the overall means reveals that there was generally an inconsistency between participant answers. Some participants regarded the risks as very high while others as very low, indicated by the fairly large standard deviations from risk assessment means. These large standard deviations probably occurred because the data was not normally distributed, which complicates comparisons between different risks' means and standard deviations.

However, relationships of judgments within each risk can still be discussed. For starters, risk assessments for recidivism and flight are relatively stable over time. One result that stands out is the difference between the initial judgment of risk of collusion and the risk of collusion judgment after recall, which has an overall drop of almost ten points. Interestingly, participants' answers for this risk has a fairly high within-subject correlation, which indicates that there is a systematic drop in judgment for all participants, not just a few participants who change their judgments dramatically. Such a substantial assessment difference is not seen in any other risk judgment. In contrast, the overall means for risk of flight change almost nothing over judgments, but correlation between the participants' own answers before and after recall are quite low. The low correlation indicates that participants unsystematically change their answers between initial

judgment and judgment after recall, even though it is ostensibly the same judgment they are making.

The risks associated with detainment are judged by different criteria, however these criteria are not formally defined. Jurisprudence scholar Moa Lidén (personal communication, May 20, 2021) confirms that there is a general lack of formally defined criteria for each risk assessment, something that is echoed by others in her field (Bylund, 1993). However, there are some informal criteria associated with each risk. Risk of recidivism is generally associated with an assessment of personal character as well as evaluation of previous criminal record. Risk of collusion is mostly a personal character assessment, as well as an assessment of the means available for the suspect to interfere with the investigation. Risk of flight is arguably more concrete than an evaluation of personal character, and usually entails determining if the suspect has strong enough ties to their current location that it would be unlikely that they would flee or hide (e.g. stable employment, permanent address, Swedish citizenship, strong family ties etc.).

These differences in the information related to each criterion could perhaps explain the differences in risk judgment. For example, risk of collusion judgment drops substantially between initial rating and rating after recall, which is not seen with the other risks. As explained previously, risk of collusion judgment is mostly based on the personality of the suspect rather than situational factors. Ask and Granhag (2007) found that more high-arousal negative valence was connected to a higher degree of correspondence bias in legal judgment, i.e. a greater focus on the person rather than the situational factors. It could be that generally, emotional arousal weakens over time, which pulls focus from the individual to more situational factors, even though the negative valence is retained in memory. Thus, judgment of risk of collusion is highest when the emotional information is presented for the first time but tapers off as arousal weakens.

The low correlation within risk of flight judgments is more difficult to explain. In a similar vein to the collusion explanation, it could be linked to the criteria regarding the risk of flight judgment. Compared to judgment of risk of collusion, the criteria for risk of flight are clearer and more definitive. A judgment regarding risk of flight requires situational verbatim information that evaluates how easily they would be able to hide from the law. According to FTT, the longer period of time that passes between learning information and recalling it, the more likely recall is going to be a gist representation (Brainerd & Reyna, 1995). At the initial judgment, all information is available, so the judgment regarding risk of flight can be made with verbatim information. At recall though, the verbatim information might not be available (depending on the memory capacity of the participant), so the decision must be made using a gist representation, which is by nature more inaccurate. Thus, the judgment of risk of flight after recall varies compared to the initial judgment, possibly because the verbatim information needed to make the judgment has faded into a more gist-like representation. In contrast, risk judgments of risk of recidivism and risk of collusion have less

strict criteria and can therefore already initially be made from gist representations, which would explain why the initial judgment of these risks have a higher within subject correlation with recall.

#### *Statistical analysis with EPS*

Another way to analyze these differences is through the statistical regression analysis. The overall results from the regression analysis gives partial support for hypothesis 1a and 2a. As can be seen in figure 2, the analysis shows a trend where judgments of both risk of recidivism and risk of collusion increase with the proportion of emotional words in recall. However, risk of flight shows the weakest trend, showing it is affected almost nothing by the proportion of emotional words in recall. Thus, it seems that emotional words in the participants' gist representation have the most effect on judgments of risk of recidivism and risk of collusion, while having barely any effect on judgments of risk of flight.

The result that risk of flight was not affected by emotional content could again be related to the type of information that each risk assessment relies on. It could be that the baseline rating for risk of flight is comparatively very low and combined with its relatively concrete criteria, there could simply not be room for emotions to moderate judgment for this risk. In contrast, judgment of the other two risks depend on less concrete criteria and are more a judgment of character, which might leave more room for emotions to impact judgments.

Another interesting finding is the fact that the impact of emotional content on judgment of risk of collusion seems to drastically lower after recall, as the impact of proportion of emotional words on judgment loses statistical significance between the two judgments. This could be related to the substantial drop in mean ratings for judgment of risk of collusion, as discussed in the previous section. In a similar vein of reasoning as in the previous section, it could be that arousal drops between the initial rating and rating after recall, which could lead to a lesser impact of emotional words on rating after recall. Indeed, it is not necessarily strange that the impact of emotions on reasoning drops with time. For instance, Feinberg et.al. (2012) found that reappraisal of a situation can lower the reliance on intuitive judgment and foster more deliberative reasoning. It could be that participants reappraise the situation during recall, and therefore reason more deliberately regarding risk of collusion.

However, that does not explain why emotional impact on judgments of risk of recidivism remained at nearly the same level between initial judgment and judgment after recall. It is perhaps linked to the information type used for each judgment. Judgments of risk of recidivism depends on the suspect's previous criminal records as well as individual personality factors. Judgments of risk of collusion on the other hand depends on personality and the means available for the suspect to interfere with the investigation. If judgments of risk of collusion relies comparatively more on gist information, and risk of recidivism relies comparatively more on verbatim

information, it could lead to differential effects of emotion. In order to make a definitive explanation, more research is needed into the underlying cognitive and informational mechanisms that affect the reasoning behind these separate types of judgments.

#### *Statistical analysis with valence*

The statistical analysis with EPS showed promising but somewhat contradictory results. While it shows that emotional words in general have an impact on risk assessment in legally skilled people, FTT specifically makes the prediction that it is the valence of the options that steer decision making (Broniatowski & Reyna, 2018). Indeed, the results from the statistical analysis with proportion-controlled valence rather than proportional emotional words corroborate this prediction. For all risks, there is a trend where more negative valence predicts a higher assessment of risk (see figure 3). Despite the relatively small number of participants, this relationship even reached significance for judgments of risk of recidivism, both at initial judgment and judgment after recall. In addition to fitting into the FTT-framework, these findings also fit neatly into the risk as feelings framework, which predict that a higher negative valence leads to a higher assessment of risk (Slovic et.al., 2004).

Overall, the regression analyses indicate that emotional information can impact judgments of risk. Since the participants in this study were skilled in the legal field, this shows that having a certain degree of legal education is not enough to withstand the effects of emotion on judgment. These findings also corroborate already existing research such as Black et.al. (2011) who showed that even supreme court judges' use of emotional words could predict their decisions. However, Black et.al. (2011) only looked at emotional words used by judges. What this study shows is that a more direct relationship is also true; the judgment of legally skilled people is affected by the exposure to negatively valenced emotional words. Furthermore, the findings presented here adds to previous research on legal decision making, such as Sambrano et.al. (2020), by showing that there is a direct connection between the emotional valence of emotional words and the effect of those emotional words on judgment.

These initial findings could have potential implications for the legal system. If legal decision makers are affected by the valence of emotional information presented to them when making judgments, it introduces a confound in the legal process. Instead of only judging a remand hearing based on the quality of the evidence, the judgment can be swayed by the specific words used and the emotional valence they carry. However, this study is only an initial survey into the impact of emotional words on legal judgment, and it is important to note that the findings presented here are limited by several factors.

#### *Limitations and future research*

This study has several limitations. One limitation is that it only measures emotional valence of recalled words, not the specific emotions connected to those words. Previous research has found that specific emotions can impact judgments in specific

ways, e.g. sadness leads to a more reflective thinking style compared to anger, even though they are both negatively valenced emotions (Ask & Granhag, 2007; Schwartz, 2012). This study was mainly an attempt to apply a new measure of emotional impact on judgments and test it on legally skilled people, not to investigate specific emotional impact. However, a differential impact of different emotions could also explain some of the variance and make the measure more sensitive. For example, some participants could have been saddened by the negative emotional information, while some might have been angered. Feelings as information theory would then predict different outcomes on judgments. For future research, it would therefore be of interest to apply the memory measure again, but also measure the specific emotional state of the participant. This could be done by letting the participant answer an emotional measure scale such as the Positive and Negative Affect Schedule (Watson et.al., 1988) or a more modern modified version thereof (Rhoades et.al., 2021) before and/or after they make a judgment. Another alternative is to induce specific emotions such as in Ask and Granhag (2007). If it is possible to identify specific emotional states in participants, it would likely capture more of the variance in the data and make the impact of specific negatively valenced emotions more clearly visible.

A second limitation is the legal expertise of the participants. Previous research in the field of emotional impact on legal judgment have either tested regular laypeople (Sambrano et.al., 2020) or criminal investigators (Ask & Granhag, 2007). Neither of these groups make higher level legal decisions (such as remand decisions) on a daily basis or at all. This study aimed to test people with a higher level of legal education. However, while the participants in this study are more legally educated than participants in comparable previous research, they are also not fully educated and experienced judges who actually make these decisions. The results from this study indicate that emotional information affects the judgments of even those with a high level of legal education, which is detrimental for a legal system built on impartiality, but there is yet no reason to doubt the legal system as a whole. Future research on the impact of emotional information on actual judges' decisions is needed to make strong conclusions regarding the foundations of the legal system.

Thirdly, the results of this study are limited in their generalizability. The study only managed to test a fairly small sample, and the significant effects found only had a small effect size. Furthermore, the data analyzed in the regression analyses was not normally distributed, probably due to the small sample size.

#### *Conclusion*

To summarize, emotional content can influence judgments even in people who have a legal education. More emotional content in the gist representation of the legal decision maker leads to a higher assessment of risk in remand hearings. This effect further seems to be driven by the negative valence of

the emotional content in the gist representation. While the effects are relatively weak, they do indicate that the legal process could be susceptible to small emotional manipulations, which could threaten the expected impartiality of the legal system. However, more research with actual legal experts is needed before making any certain conclusions.

## Acknowledgements

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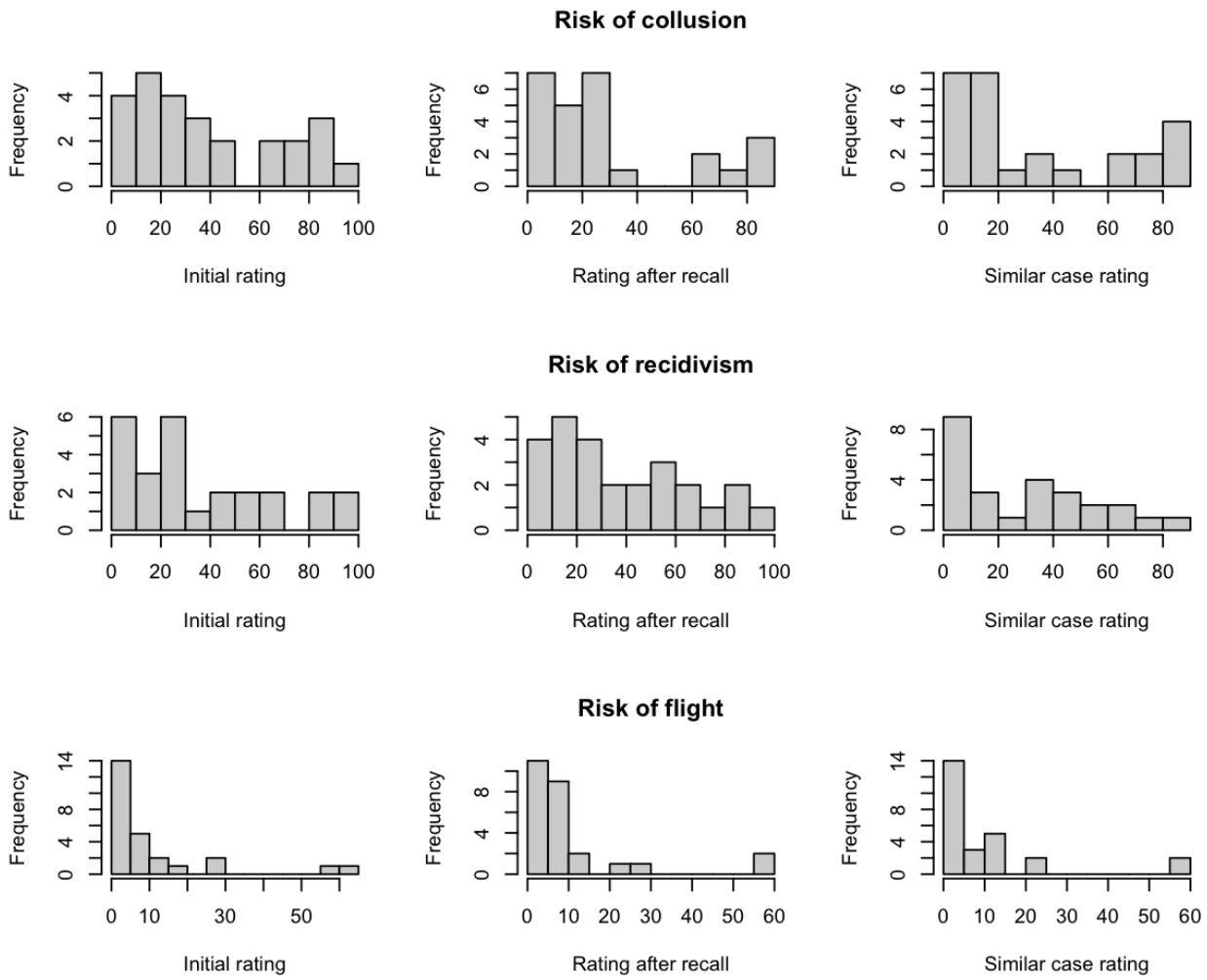
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# Appendix

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# Sample distributions



**Figure 4.** Histograms of rating distributions for initial rating, rating after recall and rating of a legally similar case as initially, for the three judgments of risk.



## Mean valence for identified emotional words

**Table 2.** The mean rated valence of the identified emotional words in participants' recall, as determined by the post-test of valence. In the original post-test, a scale of 1-9 was used. Presented here are ratings on the modified rating scale used in the main analysis of the thesis: -4 to +4, bounded by "Very negatively valenced" and "Very positively valenced" with  $\pm 0$  as "Neutral".

Identified word (A-M)	Mean valence rating	Identified word (M-Å)	Mean valence rating
Aggressiv	-1.71	Misshandel	-3.15
Alkoholpåverkad	-1.29	Narkotikapåverkad	-2.44
Angripen	-2	Skrikit nedsättande	-2
Attackerad	-2.71	Ont i nacken	-1.56
Berusad	-0.86	Otrevlig	-2.33
Blodet	-0.79	Putta	-1.56
Brottade	-1.14	Ramla	-0.78
Brottslighet	-2	Sitta gränsle	0.11
Bråka	-1.70	Skada	-2.11
Dispyt	-0.86	Skrika	-1.71
Dragit	-1.14	Slå	-2.22
Droger	-1.78	Slagsmål	-2.22
Drogpåverkad	-2	Slagen	-2.86
Falla	-1	Slänga	-0.44
Farlig	-2	Ställa till problem	-2.11
Fylla	-1	Stökig	-0.89
Gruff	-0.71	Sår i huvudet	-2.22
Gräla	-1.14	Ta droger	-3
Handgemäng	-0.71	Tjafsa	-0.89
Hora	-2.43	Trilla	-0.78
Huliganer	-3	Tuff	0.56
Hålla fast	-2.14	Vit makt	-3.11
Hätska ord	-1.43	Våldsam	-2.7
Kasta över	-0.57	Våldsbrott	-2.57
Knuffa	-1.29	Återfalla	-2.11
Konfrontation	-1.56	Åka över	-0.11
Krossa	-2		
Medtagen	-0.22		
Missbrukare	-2.78		

## Regression analysis with outlier included

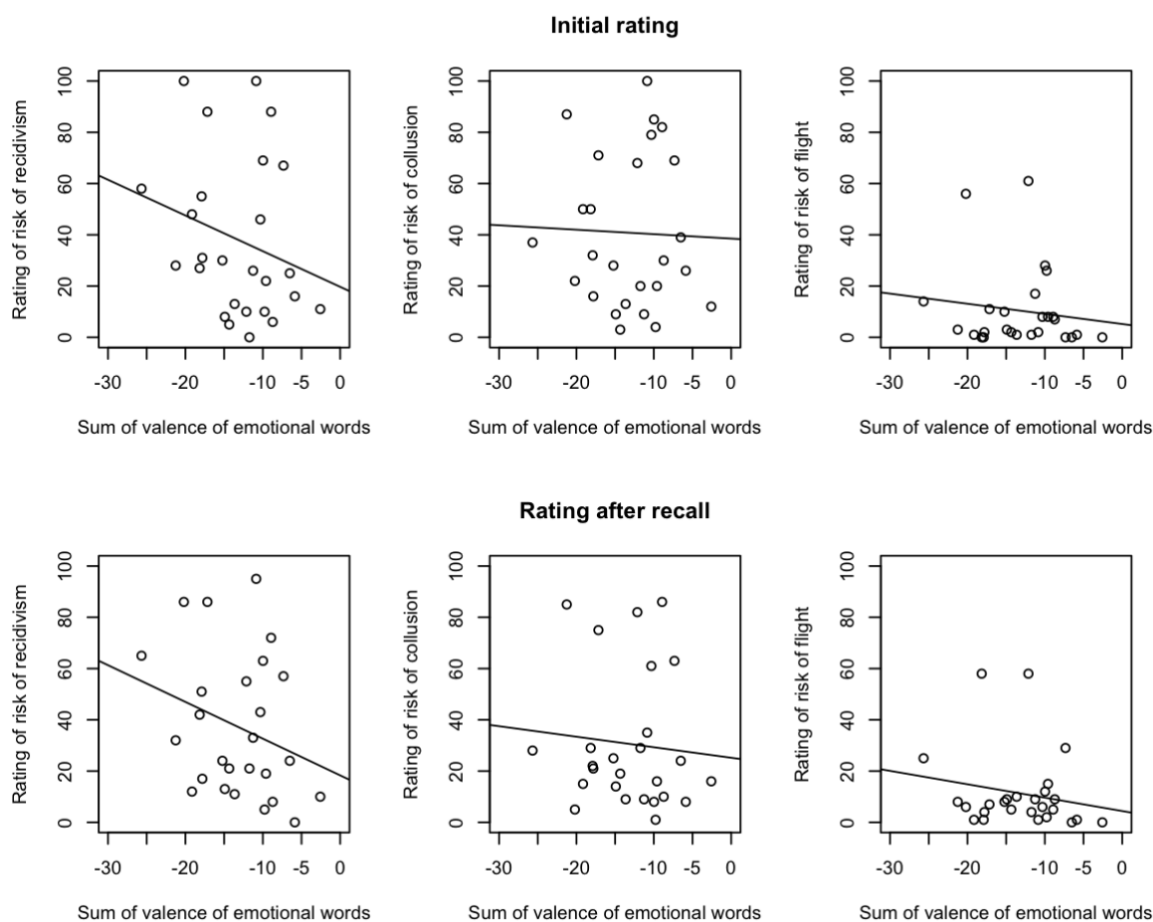
**Table 3.** Regression analysis performed with full sample (outlier included). Results that vary from the primary analysis with regards to statistical significance are shown in red. Other values also vary, but not with regards to reaching statistical significance.

As shown in the table, the regression analysis for judgement of risk of recidivism after recall as a function of proportion of emotional words in recall reaches significance only when the outlier is excluded.

\* =  $p < 0.05$

	Independent variable							
	Proportion of emotional words				Proportion-controlled valence			
	Initial judgment		After recall		Initial judgment		After recall	
	F	p	F	p	F	p	F	p
Recidivism	3.14	0.089	3.46	0.075	4.75	0.039*	4.49	0.044*
Collusion	5.17	0.032*	0.06	0.816	2.46	0.129	0.23	0.640
Flight	0.18	0.677	0.04	0.850	0.10	0.757	0.34	0.568

## Statistical analysis with total valence as predictor



**Figure 5.** Rating before and after recall as a function of *total sum of valence* from emotional words in recall. Similar trends are found when controlling for the proportion of emotional words that carry the negative valence, which is used in the main analysis.

**Table 4.** Regression analysis with total sum of valence from emotional words in recall. No results reach statistical significance.

	Initial judgment		After recall	
	F	p	F	p
Recidivism	1.51	0.23	2.05	0.17
Collusion	0.02	0.88	0.17	0.69
Flight	0.43	0.52	0.84	0.37

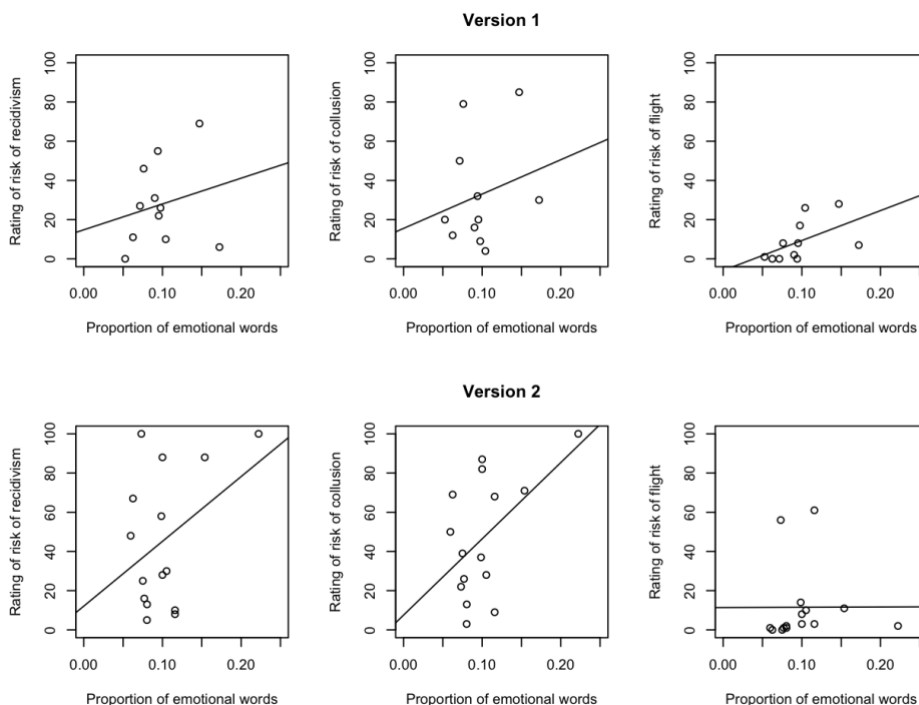
## Separate analysis between version 1 and version 2 of the critical scenario

In the survey used for the study, participants are asked to make an initial judgement of a case, called the critical scenario, and then asked to recall it later in the survey to make a second judgment in the same case based on memory. Two different versions of the critical scenario were used, which were made to be legally similar (i.e. the suspect is accused of the same crime, has a similar background, similar criminal history etc.). The critical scenario not used at the initial judgment is instead used as the last judgment of the survey. Below are separate statistical analyses for participants who first judged and recalled version 1 versus those who first judged and recalled version 2 first. Of the 26 participants (outlier excluded), 11 judged version 1 first and 15 judged version 2 first.

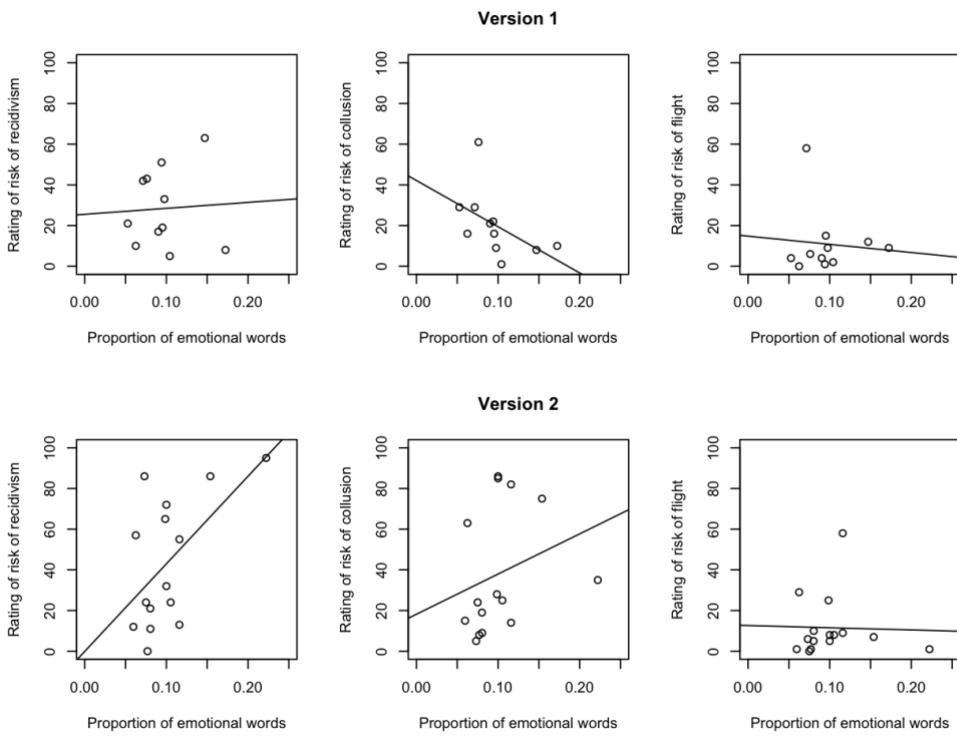
**Table 5.** Mean ratings of the three risks, divided by which critical scenario was judged initially (i.e. judged as the first case of the survey).

\* This is a judgment of the opposite case presented first, i.e. if they judged version 1 first, judgment of version 2 is the "Final rating of similar case".

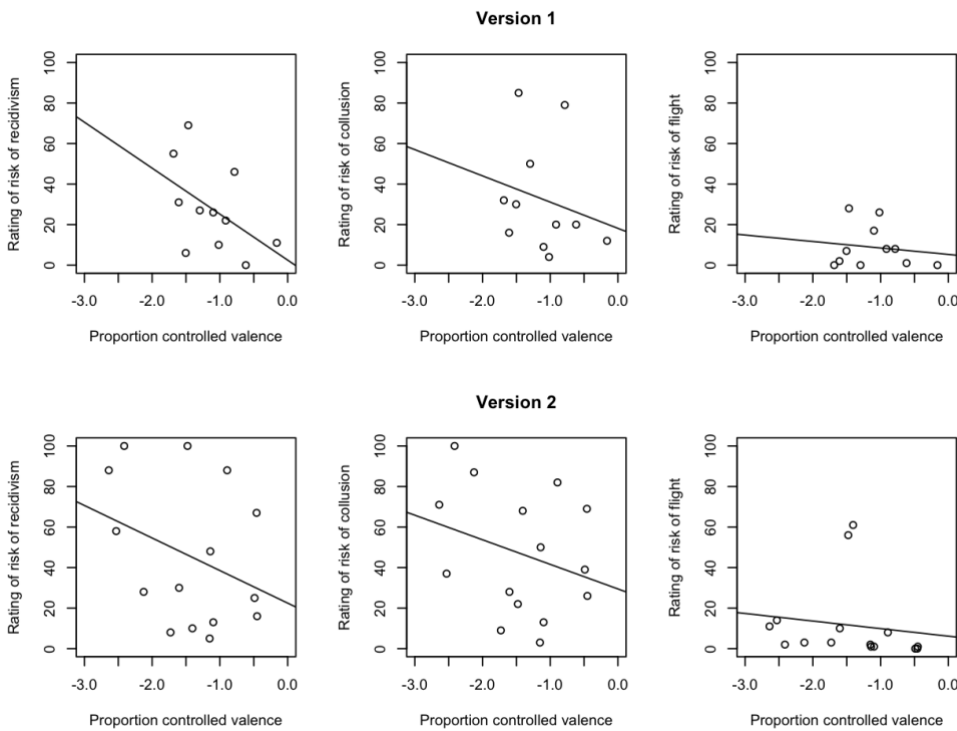
	Initial rating		Rating after recall		Final rating of similar case	
	Version 1	Version 2	Version 1	Version 2	Version 2*	Version 1*
Recidivism	27.55	45.60	28.36	43.53	27.91	25.93
Collusion	32.45	46.93	20.18	38.20	24.18	41.93
Flight	8.82	11.53	10.91	11.53	5.64	14.67



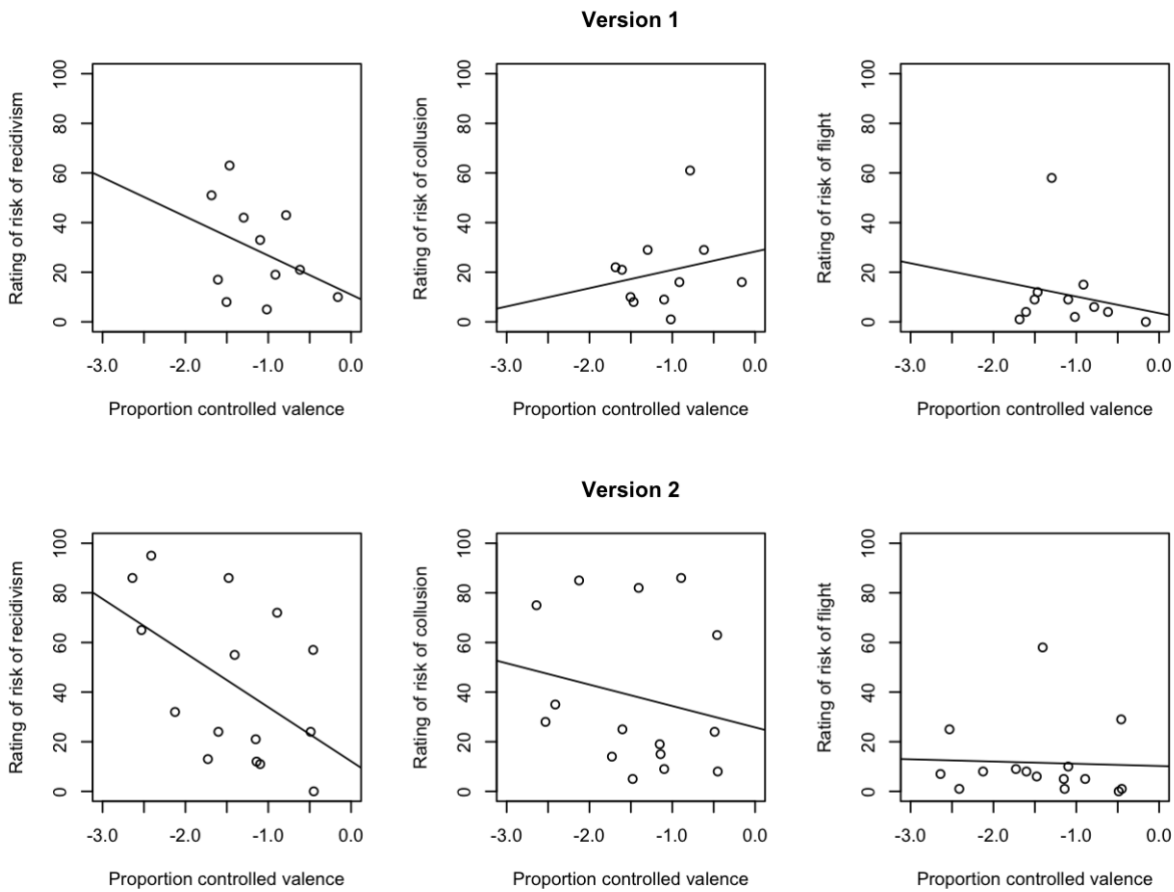
**Figure 6.** Rating before recall (initial rating) as a function of *proportion of emotional words* in recall. Separated by which version the participant judged and recalled.



**Figure 7.** Rating after recall as a function of *proportion of emotional words* in recall. Separated by which version the participant judged and recalled.



**Figure 8.** Rating before recall (initial rating) as a function of *proportion-controlled valence (PVS)* in recall. Separated by which version the participant judged and recalled.



**Figure 9.** Rating after recall as a function of *proportion-controlled valence* in recall. Separated by which version the participant judged and recalled.

**Table 6.** Statistical analysis of *initial judgement* of the three risks. Divided by factor used as predictor and which version of the critical scenario that was judged and recalled.

	Proportion of emotional words as predictor				Proportion-controlled valence as predictor			
	Version 1		Version 2		Version 1		Version 2	
	F	p	F	p	F	p	F	p
Recidivism	0.44	0.52	2.31	0.15	2.87	0.12	1.65	0.22
Collusion	0.48	0.51	4.91	>0.05*	0.46	0.52	1.20	0.29
Flight	3.37	0.10	0.00	0.99	0.19	0.67	0.26	0.62

**Table 7.** Statistical analysis of *judgment after recall* of the three risks. Divided by factor used as predictor and which version of the critical scenario that was judged and recalled.

	Proportion of emotional words as predictor				Proportion-controlled valence as predictor			
	Version 1		Version 2		Version 1		Version 2	
	F	p	F	p	F	p	F	p
Recidivism	0.03	0.88	5.98	>0.03*	1.55	0.25	4.47	0.05
Collusion	2.98	0.12	0.99	0.34	0.43	0.53	0.58	0.46
Flight	0.07	0.80	0.01	0.92	0.35	0.57	0.03	0.88

# All case descriptions

## Critical scenario, version 1 (Per)

### HÄKTNINGSFRAMSTÄLLAN

Per Sjöberg är en 43 årig man som anmälts för grov misshandel av målsägande Karl Henriksson. Åklagaren har gjort gällande att det föreligger sannolika skäl samt recidiv – och kollusionsfara för det fall att Per försätts på fri fot.

### HÄKTNINGSFÖRHANDLING

Under häktningförhandlingen anför åklagaren följande. Den 3:e juli 2019 kallades polisen till festivalen Summerburst på Ullevi i Göteborg med anledning av en pågående misshandel. På festivalområdet möttes de av en man, Johan, som visade dem vägen till målsägande Karl Henriksson, som låg på gräsmattan i närheten av baren. Karl hade blod och glassplitter i ansiktet samt på överkroppen. Karl sa till poliserna ”Rör mig inte, har så jävla ont i nacken!” och ville ligga stilla på gräsmattan. Johan berättade att en man vid namn Per Sjöberg krossat en ölfaska i ansiktet på Karl och därefter puttat ner Karl från en scen som de båda stod på under konserten. Sedan lämnade Per platsen tillsammans med några kompisar. Han känner Per eftersom de tidigare spelat i fotboll i samma korpliga.

Inne på festivalområdet fanns det ett flertal vittnen och hittills har polisen hört tre av dem. Utöver Karls kompis Johan har polisen även hört Daniella och Nicole som stod på samma scen som Karl och Johan.

Daniella och Nicole har berättat att de såg två killar tjafsas och puttas på scenen. De känner inte någon av killarna personligen men känner igen dem eftersom de brukar kolla på fotbollsmatcher där de spelar. De såg att båda killarna stod nära varandra och höll tag i varandra på ett ganska aggressivt sätt. Daniella berättar att hon sett Per krossa en ölfaska i ansiktet på Karl och att Karl därför föll ner från scenen. Nicole såg att något krossades men vet inte hur det hela gick till förutom att Karl helt plötsligt låg på marken och inte kunde röra sig. Både Daniella och Nicole berättar även att Per alltid är aggressiv på fotbollsplan och blir utvisad hela tiden eftersom han brukar hota och skrika på andra spelare. När de senast spelade match mot varandra skrek Per ”Dra hem din jävla blatte!” till en mörkhyad kille i deras lag.

Johan har berättat på följande sätt. När de var på scenen började Per och Karl att munhuggas om något larvigt, han minns inte vad, kanske någon tjej. Både Per och Karl svor mot varandra och knuffades. Därefter tog Per en ölfaska och krossade den i ansiktet på Karl. Karl började blöda och blev omtumlad. När Karl försökte ställa sig upp, vinglade han till och föll ner från scenen. Det var cirka 2-3 meter till marken. Karl blev liggandes på gräsmattan och hade jätteont i nacken. Per lämnade platsen tillsammans med några vänner. Johan berättar även att han alltid upplevt Per som obehaglig eftersom han gick till överdrift och t.ex. började skrika och hota fotbollsspelare från andra lag då de spelade match. Johan berättar också att Per har en stor, obehaglig, tatuering på en tors hammare som slår blixtar över bröstet, vilket Johan förknippar med vit makt-rörelser. Därför undviker han att umgås med Per så gott det går.

Enligt rättsläkarutlåtandet är Karls skador förenliga med det uppgivna händelseförloppet. Skadorna i ansiktet har utseende som starkt talar för uppkomst genom någon form av trubbigt våld, förenligt med t.ex. slag med den ölfaska som anges i utredningsunderlaget.

Åklagaren uppger att det som kvarstår av utredningen är att höra resten av vittnena från festivalområdet. Eftersom det är semestertider kommer det sannolikt att dra ut på tiden.

Om Per försätts på fri fot finns det en risk att han försöker påverka vittnena. Åklagaren uppger även att Per för 3 år sedan är dömd för två normalgradiga misshandlar där målsäganden var andra personer, samt att det finns risk för att Per kommer att ge sig på Karl igen för att hämnas för polisanmälan.

### Försvaret anför följande

Per Sjöberg förnekar att han misshandlat Karl Henriksson. Det uppstod munhugg mellan dem eftersom Karl var väldigt alkoholpåverkad och hela tiden dansade eller föll på Per. Per och Karl knuffade varandra och den ölfaska som Karl höll i handen gick sönder. Per fick sedan berättat för sig att Karl hade fallit ner från scenen, vilket inte förvånade honom med tanke på hur berusad Karl var. Han har ingenting med Karls skador att göra och det kommer de andra vittnena kunna berätta om. Det finns inte, och har aldrig funnits, något otalt mellan honom och Karl.



## Critical scenario, version 2 (Anders)

### HÄKTNINGSFRAMSTÄLLAN

Anders Lundberg är en 37 årig man som anmälts för grov misshandel av målsägande Jakob Engström. Åklagaren har gjort gällande att det föreligger sannolika skäl samt recidiv – och kollusionsfara för det fall att Anders försätts på fri fot.

### HÄKTNINGSFÖRHANDLING

Under häktningförhandlingen anför åklagaren följande. Den 13:e augusti 2019 kallades polisen till Laszlo's krog på Korsgatan 13 i Borås med anledning av en pågående misshandel. När de kom till platsen möttes de av en man, Fredrik, som visade dem till baksidan av krogens uteservering. En man, Jakob Engström, satt ner på marken lutad mot väggen. Han blödde från munnen och såg omtumlad ut. Det gick att prata med honom men eftersom han verkade ha ont när han talade sa han inte mer än ”misshandel” och ”jävla idiot”. Fredrik berättade att en man vid namn Anders Lundberg slängt Fredrik över uteserveringens staket och därefter krossat en askkopp i ansiktet på Jakob. Anders lämnade platsen med några kompisar. Fredrik känner Anders eftersom deras band övar i samma replokal

Det fanns ett flertal vittnen på uteserveringen och hittills har polisen hört tre av dem. Utöver Jakobs vän Fredrik har polisen även hört Nina och Erika som satt vid ett bord cirka 15 meter från Jakob och Fredrik. Nina och Erika har berättat att de såg två män skrika på varandra tvärs över staketet till uteserveringen och sedan ryka ihop. De känner inte några av männen personligen, men känner igen dem eftersom de har sett dem uppträda på lokala scener med sina band.

Nina och Erika kunde inte höra exakt vad som sades mellan men de såg att männen höll tag i varandra och det hela såg ganska aggressivt ut. Det såg ut som att Anders drog Jakob över staketet på uteserveringen och plötsligt var Anders och Jakob på marken på trottoaren precis intill uteserveringen och slogs. Båda männen utdelade slag. De vet inte vem som slog det första slaget men mitt i slagsmålet ställde sig Anders upp då Jakob fortfarande låg på marken. Han tog sedan en askkopp från ett bord på uteserveringen och satte sig gränsle över Jakob. Nina berättar att hon såg att Anders slog askkoppen mot Jakobs ansikte och att det sedan var glassplitter på trottoaren. Erika såg glassplitter men såg inte hur askkoppen gick sönder. Nina och Erika berättar även att de kände igen Anders eftersom det går många rykten om honom, t.ex. att han tar droger och har brutit sig in i folks hem. När de var ute på krogen för någon helg sedan skrek Anders till några andra tjejer: ”Jävla horor, vad fan glori ni på?”.

Fredrik har berättat på följande sätt. Anders är ofta mycket otrevlig och folk i Borås känner igen honom på grund av det. Han brukar ofta ta ut sin ilska på andra personer i replokalen, och skriker och hotar andra. Anders ser ofta drogpåverkad och ganska aggressiv ut, han har uppspärrade ögon och spända käkar, och har ofta en aggressiv framtoning med yvigt kroppsspråk. Därför undviker han Anders så gott det går.

När Anders kom gåendes på trottoaren intill uteserveringen skrek han massor av osammanhängande saker till Fredrik och Jakob. Eftersom Jakob blev irriterad ställde han sig upp intill staketet på uteserveringen. Staketet räckte upp till höfterna på Jakob. Jakob och Anders började knuffa varandra och tog tag i varandras kläder. Därefter utdelade Anders ett knytnävsslag mot Jakobs vänstra tinning. Jakob blev omtumlad men försökte slå tillbaka. Allting gick väldigt snabbt. På grund av staketet kunde han inte se allt som hände på marken men såg att Anders slog Jakob i ansiktet med ett askfat av glas en gång då Jakob fortfarande låg på marken. Anders försvann från platsen med några vänner och Jakob blev liggande.

Enligt rättsläkarutlåtandet är Jakobs skador förenliga med det uppgivna händelseförloppet. Skadorna i ansiktet har utseende som starkt talar för uppkomst genom någon form av trubbigt våld, förenligt med t.ex. slag med den askkopp som anges i utredningsunderlaget.

Åklagaren uppger att det som kvarstår av utredningen är att höra resten av vittnena från uteserveringen. Eftersom det är semestertider är det svårt att få tag på alla vittnen.

Om Anders försätts på fri fot finns det en risk att han försöker påverka vittnena. Åklagaren uppger även att Anders för 3 år sedan är dömd för två normalgradiga misshandlar där målsäganden var andra personer, samt att det finns risk för att Anders kommer att ge sig på Jakob igen för att hämnas för polisanmälan.

### Försvaret anför följande

Anders Lundberg förnekar att han misshandlat Jakob Engström. När han fick förbi uteserveringen ställde sig Jakob upp och började mucka gräl, han verkade jättefull. När de stod intill staketet slog Jakob honom med knuten näve i ansiktet och kastade sig över staketet för att slå mer på honom. När Jakob föll mot marken tappade han en askkopp som han höll i handen och askkoppen splittrades mot marken. Anders satte sig gränsle över honom och höll fast honom så tills att säkerhetsvakterna kom. Han har ingenting med Jakobs skador att göra och det kommer de andra vittnena kunna berätta om. Det finns inte, och har aldrig funnits, något otalt mellan honom och Jakob.

## Filler cases

### *Filler 1, Linda*

#### HÄKTNINGSFRAMSTÄLLAN

Linda Berggren är 38 år och har anmält Mats Alvarsson för misshandel, alternativt grov kvinnofridskränkning. Åklagaren har gjort gällande att det föreligger sannolika skäl samt recidiv – och flykttfara för det fall att den misstänkte försätts på fri fot.

#### HÄKTNINGSFÖRHANDLING

Under häktningförhandlingen anför åklagaren följande: Polisen kallades till en bostad efter att Linda Berggren anmält Mats Alvarsson för misshandel. När de kom till platsen mötte de en person i trappuppgången som på fråga uppgav att han var Mats Alvarsson. Polisen bad honom att följa med upp i lägenheten igen. I lägenheten förhöordes både Linda och Mats.

Under förhör uppger Linda Berggren att hon och Mats Alvarsson börjat bråka om orsaken till deras separation och diverse ekonomiska meningsskiljaktigheter. Under bråket blev Mats mer och mer aggressiv, och Linda uppger att hon trycktes mot sovrumsväggen, sedan ner i sängen och slutligen ner på golvet. Hon uppger att det gav henne bland annat skador på sin högra axel. Vid två tidigare tillfällen har den misstänkte slagit henne i magen, på benen och puttat ner på golvet samt vidrört håret. Detta har gett Linda blåmärken, svårt att andas och en sjukskrivning.

En av grannarna som rörde sig i trapphuset under polisens insats uppger att de har hört bråk från Mats och Lindas lägenhet men har avfärdat det som normala relationsproblem. De har bott i samma trappuppgång i cirka tre år. Grannen träffar och pratar regelbundet med Mats i trapphuset och tycker att han verkar vara en trevlig person. Grannen träffar sällan Linda men när de träffas betar sig Linda blygt och tillbakadraget, och verkar undvika att starta en konversation.

Åklagaren uppger att förhör ska hållas med Linda Berggrens väninna Marie Eriksson som för tillfället befinner sig utomlands. Linda har berättat för väninnan att den misstänkte har utsatt henne för misshandel vid flera tillfällen. Åklagaren styrker sitt åtal med mobilbilder som utvisar blåmärken på Linda Berggrens ben. Om den misstänkte försätts på fri fot finns det risk att han hämnas på Linda genom att göra henne illa igen. Det finns även risk att han, för att undgå ansvar, försöker påverka Linda eller Marie till att ändra sina utsagor.

#### Försvaret anför följande

Mats Alvarsson förnekar att han någonsin har misshandlat Linda Berggren. Vid det tillfället då det tillkallades polis hade en konflikt uppstått mellan honom och Linda Berggren när han höll på att packa sina saker. Efter några ordväxlingar låste Linda in sig i badrummet och polisanmälde honom felaktigt för misshandel. Han försökte få Linda att ta tillbaka sin anmälan men när han insåg att hon inte skulle göra det kände han sig tvungen att lämna bostaden. Det var då han mötte polisen i trappuppgången. På fråga från åklagaren om Mats kände till Lindas skador svarar Mats ja, och att Linda lätt får blåmärken. Den gången hon sjukskrev sig sa hon till honom att hon hade fått ryggsnitt och att hon därför hade svårt att röra sig.

### *Filler 2, Malik*

#### HÄKTNINGSFRAMSTÄLLAN

Malik El-Batal har den 8 januari 2020 på eller i närheten av Sergels Torg i Stockholm olovligt överlätit 5,03 gram heroin för 10000 kr.

#### HÄKTESFÖRHANDLING

Under häktningförhandlingen anför åklagaren följande. Vid spaningsarbete på Sergels torg fick polisen syn på Malik El-Batal som stod tillsammans med 3-4 andra män vid ingången till tunnelbanan. En av männen som Malik pratade med är känd sedan tidigare som medlem i ett kriminellt nätverk som bland annat säljer narkotika i Stockholms innerstad. Mannen skakade hand med Malik och gick från platsen med resten av gruppen. Polisen fattade misstanke. Malik stod kvar på Sergels torg i cirka 30 minuter och satte sig sedan ensam på ett café i ytterligare en timme. På caféet tog han emot två samtal. Metadata från Telia AB visar ett samtal kl. 13:53 som varade i 27 minuter till ett nummer som tillhör en Sharifa El-Batal, mor till Malik. Den visar också ett samtal kl. 14:22 som varade i 11 minuter till ett nummer som inte har kunnat kopplas till en person. Några minuter efter det senare samtalet lämnade han caféet och gick upp mot Mäster Samuelsgatan för att sätta sig i förarsätet på en parkerad bil.

Samtidigt som detta hände hade en annan spaningsgrupp börjat följa en man vid namn Johar Lind. Johar är av polisen en känd narkotikamissbrukare som brukar spendera tid på Sergels torg. Polisen började följa Johar efter att han uppträtt märkbart drogpåverkad. Polisen följde Johar när han gick in på tunnelbanestationen och rakt in på Pressbyrån där Johar fyllde på ett SL-kort med strax över 1000 kr. Utan att svara på personer som hälsade på honom gick Johar sedan direkt upp på Mäster Samuelsgatan där han mötte Malik som ställde sig på trottoaren utanför bilen.

En kort konversation följde mellan Johar och Malik. Plötsligt började Johar angripa Malik med knytnävsslag och försökte springa från platsen. Polisen ingrep och arresterade Johar för misshandel. Vid en kroppsvisitation hittade polisen en påse med något som såg ut som heroin i Johars ficka. Vid kroppsvisitering av Malik hittades 10 000 kr i kontanter i hans jackficka.

Malik är för två år sedan dömd för narkotikabrott. Om Malik försätts på fri fot finns det risk att han undanröjer eventuella bevis i bilen. Det finns även risk att han fortsätter med försäljningen av narkotika om eventuell narkotika i bilen inte tas ifrån honom.

#### **Försvaret anför följande**

Malik förnekar att han gjort sig skyldig till narkotikabrott. Han känner Johar eftersom han tidigare har sålt narkotika till honom, vilket han tidigare blivit dömd för. Nu har han slutat med sådant eftersom han blivit pappa. Han är arbetslös och träffar därför ofta vänner på Sergels torg. Det samtalet som inte har kunnat identifieras var till en av Maliks kompisar som han träffade på anstalt, som precis har blivit frikänd och inte har kunnat skaffa fast nummer än. De har tidigare pratat om att kompiserna ska få låna pengar, vilket är anledningen till att Malik bar runt på kontanter.

### *Filler 3, Karim*

#### **HÄKTNINGSFRAMSTÄLLAN**

Karim Lövgren har den 5 februari 2020 olovligen tillägnat sig ett kontokort, utställt av Nordea Bank AB för Elsa Englund och därefter samma dag i Uppsala använt kortet för uttag av kontanter i bankomat till ett belopp om 14 000 kronor. Lövgren har därvid olovligen påverkat resultatet av en automatisk process. Brottet har inneburit vinning för Lövgren och motsvarande skada för Englund, vars skada har ersatts av Nordea Bank AB.

#### **HÄKTESFÖRHANDLING**

Under häktningförhandlingen anför åklagaren följande. Den 6 februari 2020 ringde en man vid namn Patrick Englund till polisen för att göra en anmälan. Han berättade att hans 85-åriga mamma, Elsa Englund, har fått hjälp av en vän till Patrick som heter Karim Lövgren. Elsa hade ringt Patrick för att berätta att pengarna på hennes konto var slut. Eftersom Patrick hade tillgång till hennes bankdosa och när han loggade in såg han att det var helt tomt på Elsas konto. Tre kontantuttag, ett om 500 kr och två om 7 000 kr vardera hade gjorts på en bankomat. Varken i plånboken eller på något annat ställe i lägenheten fanns de 14 000 kronorna. Karim är den enda, förutom Patrick och Elsa som har koden till Elsas kort.

Patrick och Karim har känt varandra sedan de studerade på universitet och var under lång tid i ett förhållande. De är numera separerade, men håller fortfarande kontakten. För ca. 5 år sedan började Elsa visa tecken på demens och började behöva hjälp med vissa vardagliga sysslor. Eftersom Elsa har svårt att lita på hemtjänsten så tog Patrick i början på sig det mesta ansvaret med att ta hand om Elsa. Förra året började Patrick på ett nytt jobb som tar upp mer av hans tid, och vid den tidpunkten vände han sig till Karim för att be om ytterligare hjälp. Karim har alltså under det senaste året hjälpt Elsa med diverse sysslor som att handla mat och har därmed blivit betrodd med koden till Elsas kort. Detta var den första gången som Karim hjälpte Elsa med ett kontantuttag.

På kontoutdraget avseende Elsas kort visas det första uttaget på 500 kr kl 15:38 och de två uttagen på 7 000 kr har registrerats kl 16:13 samt kl 16:20. En övervakningsfilm från bankomaten visar 15:38 Karim och Elsa stå framför bankomaten tillsammans. Elsa ger Karim kortet och Karim trycker på tangenterna. Efter att de har fått pengarna går de tillsammans därifrån. 16:13 visar övervakningskameran en person gå fram till bankomaten och göra två uttag, för att sedan hastigt lämna platsen. Personen har samma längd och kroppsbyggnad som Karim men har en halsduk virad runt ansiktet, stora solglasögon och en mössa nerdragen över pannan.

Om Karim försätts på fri fot finns det risk att han försöker påverka Elsas utsaga eller på annat sätt gömma undan bevisning av relevans för utredningen.

#### **Försvaret anför följande**

Karim förnekar att han bedragit Elsa. Det stämmer att han kan koden till Elsas kort och att de handlade tillsammans i Luthagen. Han har då hjälpt Elsa att ta ut 500 kr som hon ville skicka till ett barnbarn i födelsedagspresent. I övrigt har han inte tagit ut något från Elsas kort, varken tillsammans med henne eller ensam. Mannen på övervakningsfilmen är inte han.

## All questions used in the survey

### *Demographic information*

1. Har du en juristexamen?
  1. Kategorisk: 1 ja, 2 nej
2. (Om ja på 1) Hur många hela år har det gått sedan du tog examen?
  1. Fritext
3. (Om nej på 1) Studerar du för tillfället till en juristexamen?
  1. Kategorisk: 1 ja, 2 nej
4. (Om ja på 3) Vilken termin läser du just nu?
  1. Skala, 1-12+
5. Ålder
  1. Fritext
6. Kön
  1. Kategori: 1 man, 2 kvinna, 3 annat, 4 vill ej ange

### *Pseudo-randomization*

1. Vänligen välj en av siffrorna slumpmässigt
  1. Radioknappar, 1-8
  2. 1-2 & 5-6 ger kritiskt scenario v1 (Per)
  3. 3-4 & 7-8 ger kritiskt scenario v2 (Anders)

### *Questions after reading/recalling the case description (identical for all cases)*

1. Anser du att [person] ska häktas?
  1. Beslut i häktningsfrågan
  2. Kategorisk. 1 ja, 2 nej
2. Vilket brott anser du att [person] ska häktas för?
  1. De får själva sätta ord på vad de anser att den åtalade är misstänkt för
  2. Fritext
3. Hur starkt bedömer du att den totala bevisningen talar för att [person] ska häktas?
  1. En sammantagen bedömning av bevisvärdigheten
  2. Skala 1-100, "inte starkt alls" till "våldigt stark"
4. Hur starkt anser du att åklagarens bevisning talar för recidivfara?
  1. De bedömer risken för att den åtalade kommer att göra brott om de försätts på fri fot.
  2. Skala 1-100, "inte starkt alls" till "våldigt stark"
5. Anser du att det föreligger en risk för recidivfara?
  1. De gör ett slugtilligt avvägande om risken är tillräckligt hög.
  2. Hur: kategorisk. 1 ja, 2 nej
  3. Ett "ja" innebär att personen kan häktas, ett tillräckligt villkor.
6. Hur starkt anser du att åklagarens bevisning talar för kollusionsfara?
  1. De bedömer risken för att den åtalade kommer att störa utredningen (t.ex. Förstöra bevis eller hota vittnen) om de försätts på fri fot.
  2. Skala 1-100, "inte starkt alls" till "våldigt stark"
7. Anser du att det föreligger risk för kollusionsfara?
  1. De gör ett slugtilligt avvägande om risken är tillräckligt hög.
  2. Hur: kategorisk. 1 ja, 2 nej
  3. Ett "ja" innebär att personen kan häktas, ett tillräckligt villkor.
8. Hur starkt anser du att åklagarens bevisning talar för flyktfara?
  1. De bedömer risken för att den åtalade kommer att fly om de försätts på fri fot.
  2. Skala 1-100, "inte starkt alls" till "våldigt stark"
9. Anser du att det föreligger en risk för flyktfara?
  1. De gör ett slugtilligt avvägande om risken är tillräckligt hög.
  2. Hur: kategorisk. 1 ja, 2 nej
  3. Ett "ja" innebär att personen kan häktas, ett tillräckligt villkor.
10. Hur ansträngande var det att bedöma häktningsframställningen?
  1. De bedömer hur jobbigt de tyckte att det var att göra hela bedömningen.
  2. Skala 1-100, "inte alls ansträngande" till "våldigt ansträngande"
11. Hur mycket levde du dig in i de olika personernas upplevelse av situationen som beskrevs i häktningsframställan?

1. Bedömer hur mycket de empatiserade med situationen
2. Skala 1-100, "inte alls" till "våldigt mycket"

#### *Recall case*

The following description and questions were unique for the recall question:

"Det första fall du bedömde handlade om en person som heter [Per/Anders] och en misshandel. Var snäll och beskriv så mycket av den häktningsframställan som möjligt."

Har du ändrat något i din bedömning av bevisningen i fallet som involverar Anders?

- a. Undersöker medvetenhet om ändrad uppfattning
- b. Ja = 1, Nej = 2

(Om Ja på ovanstående fråga)

Vänligen beskriv kort hur och varför din bedömning ändrades.

- a. Undersöker vad deltagaren anser är anledning till sin ändrade bedömning
- b. Fritext

#### *End of study*

Tryck på "Skicka nu" för att avsluta enkäten. Om du har några tankar om experimentet, eller om du vill gissa vad du tror att det gick ut på, vänligen skriv i rutan nedan.

- a. Fritext

## Criteria for indentifying emotional words

Both raters received the following information:

### Instruktioner

Målet är att identifiera ord och korta fraser som finns i texter, enligt en uppsättning kriterier. Varje ord eller fras räknas och ges en (1) poäng varje gång det dyker upp och markeras i texten. Så om t.ex. ordet "Kattunge" dyker upp tre gånger på olika ställen i texten räknas det alla tre gånger och bidrar med totalt tre (3) poäng. I slutändan kommer varje text att ha en totalpoäng som är det totala antalet räknade ord, kategoriserade baserat på kriterie.

Om ett ord passar in på flera kriterier ges det bara en (1) poäng varje gång det dyker upp. För kategorisering räknas ett ord som passar in på flera kriterier endast till det kriterium som du anser vara det mest passande.

### Kriterierna är:

- Beskrivning av fysiskt aggressivt beteende
- Beskrivning av fysisk skada
- Beskrivning av verbal attack
- Känsломässig upplevelse/uppfattning
- Beskrivning av rasism
- Beskrivning av substansanvändning
- Övrig kriminalitet

### Förtydliganden

För kriteriet "Beskrivning av fysiskt aggressivt beteende" räknas t.ex. ordet "slagsmål" och frasen "ryka ihop" som en (1) beskrivning vardera. Det kan även vara längre beskrivningar, som "Amanda slängde en sten på benet". I det senaste fallet räknas ordet "slänga" som det relevanta beskrivande ordet, och ordet/frasen som helhet ges endast en (1) poäng.

För kriteriet "Beskrivning av fysisk skada" räknas alla ord som relaterar till skador på kroppen. Det kan vara ord som "sår", "ont", "skada", "brutit armen", "smärta" etc.

För kriteriet "Beskrivning av verbal attack" räknas all ord som relaterar till att på ett verbalt sätt skada eller förnedra en annan människa. Det kan vara ord som direkt används som nedsättande, t.ex. "Fitta", "Miffo", "Kukhuvud", "Idiot" etc. Det kan även vara ord som beskriver själva handlingen att använda ord för att skada eller förnedra, t.ex. "Hota", "Gräla", "Skrika".

För kriteriet "Beskrivning av rasism" räknas alla ord/fraser som antyder till rasism. Sannolikt överlappar detta till stor del med "Beskrivning av verbal attack", men kan även innehålla andra beskrivningar, som t.ex. beskrivning av rasistisk symbolik eller anhörighet till rasistiska organisationer.

För kriteriet "Beskrivning av substansanvändning" räknas alla beskrivningar som relaterar till användningen av sinnesförändrande substanser (både lagliga och illegala), t.ex. Alkohol, heroin eller andra droger.

För kriteriet "Övrig kriminalitet" räknas alla beskrivningar av kriminellt beteende som inte redan täcks av de ovanstående kriterierna, t.ex. rån, bedrägeri, hämnd etc.