

**“The Court simply doesn’t know
enough!” To what extent can
witness testimony give knowledge
in determining someone’s culpability
in the Court?**

(Word Count: 3000)

Name : Goh Kee Chun Isaac

NRIC : 

Centre / Index: 3016 / 0008

School Name : Raffles Institution

Subject Name: H2 Knowledge and Inquiry

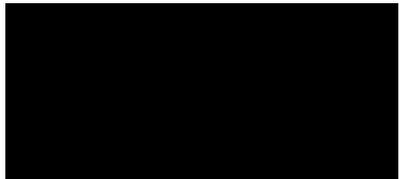
Subject Code : 9759 / 03



[To be attached to the front of Research Essay / Project / Independent Study]

RESEARCH ESSAY / PROJECT / INDEPENDENT STUDY

DECLARATION AND SUBMISSION FORM

Subject: H2 Knowledge and Inquiry	Subject Code: 9759
Candidate's Name: Goh Kee Chun Isaac	Index Number: 3016 / 0008
Centre Name: Raffles Institution	Centre Number: 3016
Teacher's Name: Ms Michelle Kwok	Year of Examination: 2024
Title of Research Essay / Project / Independent Study: "The Court simply doesn't know enough!" To what extent can witness testimony give knowledge in determining someone's culpability in the Court?	
Word count for Research Essay / Project / Independent Study: 3000 words	
Plagiarism Warning: Plagiarism is using someone else's work without acknowledging the source of that information. (Refer to the examination syllabus for more details on what constitutes plagiarism.) Plagiarism amounts to intellectual theft and is seen as an act of dishonesty. An investigation will be conducted when there is cause for suspicion of plagiarism. Where clear and convincing evidence exists, disciplinary action by the examining authority will be taken against any candidate found to have committed or aided the offence of plagiarism. Candidates who have contravened the examination regulations will not be given a grade and a 'T' symbol for the subject will be indicated.	
Candidate's Declaration: I declare that the attached work was produced solely by me. I also declare that the subject area and content used in this Research Essay / Project / Independent Study is not used in any other H2/H3 Research Essay / Project / Independent Study that I am submitting in the same examination year, or have submitted previously. I am aware that if I am submitting two or more pieces of research work, only one of the works will be assessed if it is found that there is substantial overlap of content in the various pieces of research work submitted.  Candidate's signature and date _____	

Teacher's Declaration:

In supervising this candidate, I declare that I **have / have not** supervised this candidate in accordance with the Notes of Guidance contained in the Examination Syllabus.

* If 'have not', please attach an Irregularity Report containing the details to this Form.

Teacher's signature and date _____

I have **no reason / reason**** to believe that the work submitted by the candidate contains plagiarised material (please circle accordingly).

** If there is evidence to suggest plagiarism may have occurred, please complete an Irregularity Report and submit it to SEAB with the candidate's work.

Teacher's signature and date _____

**School
Stamp**



RESEARCH ESSAY / PROJECT / INDEPENDENT STUDY

RECORD OF ADDITIONAL GUIDANCE

Subject: H2 Knowledge and Inquiry	Subject Code: 9759
Candidate's Name: Goh Kee Chun Isaac	Index Number: 0008
Centre Name: Raffles Institution	Centre Number: 3016
Year of Examination: 2024	NRIC / FIN: [REDACTED]
Title of Research Essay / Project / Independent Study: N.A.	

N.A.

The additional guidance given to this candidate is recorded above.

Teacher's Name: Ms Michelle Kwok	Signature:	Date:
Candidate's Signature: [REDACTED]		Date: 09 September 2024

School
Stamp

Table of Contents

1. INTRODUCTION	2
1.1 Knowledge from Testimony.....	2
1.2 Using Coherentism to Justify Claims of Culpability from Testimony	3
1.3 Thesis	3
2. WITNESS TESTIMONY	5
2.1 Knowledge Claims of Testimony	5
2.1.1 Construction	5
2.1.2 Justification.....	6
2.2 Problem of Fallibility of Memory	6
2.2.1 Subjectivity of A Witness's Viewing Perspective	7
2.2.2 Perception Theory-Ladenness in Remembering Events.....	8
2.2.3 Time Lag Between Remembering and Recalling Memories	8
3. CULPABILITY IN COURT	10
3.1 Knowledge Claims of Culpability	10
3.1.1 Constructing 'Justified' Knowledge Claims of Culpability in Court	10
3.1.2 Justification of Knowledge Claims of Culpability in Court	12
3.2 Problem of Interpreting Testimony	13
3.2.1 Loaded Questions and Ulterior Motives	13
3.2.2 Semantic-Theory Ladenness	14
4. A 'RESPONSIBLE BELIEF' APPROACH BETTER EXPLAINS EPISTEMIC INTELLECTUAL OBLIGATIONS	16
4.1 Problems with Justifying Knowledge Claims Using Coherentism <i>Alone</i>	16
4.2 "Responsible Belief" More Strongly Justifies Knowledge Construction	17
4.2.1 What Forming a "Responsible Belief" Entails.....	18
4.2.2 The "Responsible Belief" Approach Triumphs over Traditional Coherentism.....	19
5. CONCLUSION.....	21
BIBLIOGRAPHY	22

1. Introduction

1.1 Knowledge from Testimony

Picture this: As a judge in a courtroom evaluating an incident, you listen to a witness under intense cross-examination. A question lingers: Can you really rely on the witness's account to determine anyone's culpability?

Witness testimony — hereinafter called “testimony” — is oral or written evidence a witness gives under oath during a trial or other legal procedures in court.¹ It is commonly used in court proceedings and is crucial in the absence of alternate forms of evidence like forensics evidence.² Testimony recounts matters of fact and the witness's opinions on their sighting, enabling courts to reconstruct and make sense of an incident to determine culpability.

However, it is questionable whether testimonial knowledge justifiably gives judges knowledge claims of culpability. Testimony is highly linked to memory, which is well-documented to be a highly fallible source of knowledge, being unreliable during all three stages: constructing, recalling, and reporting.³ Additionally, the judge's interpretation of testimony in court further distorts an event's truth, undermining the justification of knowledge construction of culpability. The judiciary's lack of confidence in constructing knowledge raises doubts about its ability to **justify**.

¹ “Testimony,” *Legal Information Institute*, accessed September 1, 2024, <https://www.law.cornell.edu/wex/testimony>.

² Alvin Goldstein, June Chance, and Gregory Schneller, “Frequency of Eyewitness Identification in Criminal Cases: A Survey of Prosecutors,” *Bulletin of the Psychonomic Society* 27, no. 1 (1989): 71-74.

³ Carl Ginet, *Knowledge, Perception and Memory*, vol. 5 (Springer Science & Business Media, 1975), and New Zealand Law Commission, “Total Recall? The Reliability of Witness Testimony,” August 1999, <https://www.lawcom.govt.nz/assets/Publications/Miscellaneous-Papers/NZLC-MP13.pdf>.

beyond a reasonable doubt,⁴ knowledge claims of culpability based on witness testimony, hereinafter called “**K**”.

1.2 Using Coherentism to Justify Claims of Culpability from Testimony

Legal scholars traditionally favour the coherentist theory of justification because coherence maintains consistency, predictability, and rationality, thus aligning legal decisions with established principles and precedents.⁵

For instance, when one’s testimony has coherence with related beliefs, such as physical evidence placing a murder suspect at the scene and corroborating testimonies from other witnesses, the testimony’s credibility is strengthened, leading to a coherent and credible conclusion of the suspect’s culpability.

1.3 Thesis

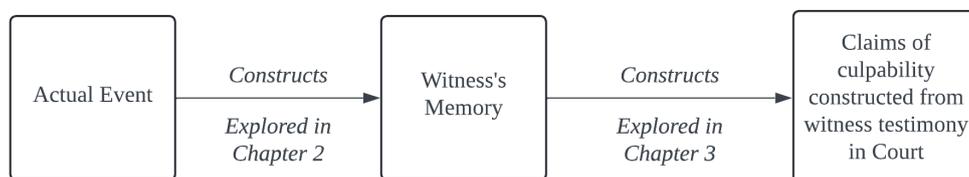


Figure 1: A roadmap of how K is constructed in the Court.

⁴ *Reasonable doubt* is commonly understood as a doubt “you could give a reason” for. See Larry Laudan, “Is Reasonable Doubt Reasonable?,” *Legal Theory* 9, no. 4 (2003): 295-331.

⁵ Kress, K., and Legal Reasoning. *Coherence Theories: Dworkin’s Rights Thesis*. Retroactivity, and the Linear Order of Decisions 72 (1984); S. L. Hurley, “Coherence, Hypothetical Cases, and Precedent,” *Oxford Journal of Legal Studies* 10, no. 2 (1990): 221.

Chapter 2 discusses how witness testimony is constructed and justified through coherentism — witnesses justify their knowledge from senses by cohering senses with each other and background knowledge. Chapter 3 examines how courts justify K by cohering information from a testimony with other testimonies, and the law to determine each party's rightful obligations and damages.

Consequently, K would not have been largely justified. Not only do problems with coherentism itself render the inferential process unreliable, but they also make the justifiability of a collection of evidence used to derive K less certain.

Finally, Chapter 4 re-assesses K's construction and justification using coherentism *alone*, and finds that the "responsible belief" approach better justifies the construction of K in court by accounting for the inescapable limitations of human brainpower while ensuring that judges follow "legal principles and intellectual values" to avoid unjust convictions, thereby upholding the court's role as the "arbiters of justice".⁶

⁶ Haight, Lois. "The Judiciary."

2. Witness Testimony

Judges primarily derive culpability through testimony, which enables them to reconstruct past events and assess culpability per the law.

2.1 Knowledge Claims of Testimony

2.1.1 *Construction*

Witnesses form memories of an event by first taking in information through their senses, storing it in memory, and later retrieving it to construct their testimony.

These can be respectively summed up into three processes: encoding, storage and recalling:

1. **Encoding:** How information is taken in and understood during an event.

Information is encoded using at least one of these methods: visual, acoustic, semantics and tactile.⁷

2. **Storage:** How, where, when and what information is stored and encoded.

Information can be classified into short-term — usually lasting for a few seconds — and long-term memory, which can last indefinitely.⁸

3. **Recalling:** The process through which individuals access stored information.

Short-term memory is retrieved in the order in which it is stored; long-term

⁷ Jeffrey K. Smith, review of *Make It Stick: The Science of Successful Learning*, by Peter Brown, Henry L. Roediger III, and Mark A. McDaniel, *The Journal of Educational Research* 108, no. 4 (2015): 346, <https://doi.org/10.1080/00220671.2015.1053373>.

⁸ Henry L. Roediger and Kathleen B. McDermott, "Creating False Memories: Remembering Words Not Presented in Lists," *Journal of Experimental Psychology: Learning, Memory, and Cognition* 21, no. 4 (July 1995): 803–14, <https://doi.org/10.1037/0278-7393.21.4.803>.

memory is retrieved through association.⁹ Witnesses utilise their long-term memory when recalling testimony.

2.1.2 *Justification*

Witnesses justify knowledge gained from their senses through coherentist methods by:

- (i) believing that their knowledge is true and accurate,
- (ii) validating their own knowledge from sensory experience,¹⁰
- (iii) cohering different parts of their senses, such as sight, hearing and past experiences, to determine the validity of their conceived knowledge claims,¹¹ which is belief-inducing, and
- (iv) not violating that obligation in (iii) such that with an internal contradiction, the witness will know that their knowledge is incoherent and unreliable.¹²

2.2 Problem of Fallibility of Memory

The fallibility of memory due to the:

- a) subjectivity of viewing perspective,
- b) perception theory ladenness in remembering events, and

⁹ *Ibid.*

¹⁰ Locke argues that it is through the entrance of an idea into our mind through the senses that we have knowledge of the external world. See Alexander Peter, *Ideas, Qualities and Corpuscles: Locke and Boyle on the External World* (Cambridge: Cambridge University Press, 1985).

¹¹ Z.Z. Shi, Progress in research on intelligence science. Keynotes Speaker, AGI-19, (2019), August 7, Shenzhen.

¹² Erik J. Olsson, *Against Coherence: Truth, Probability, and Justification* (Oxford: Oxford University Press, 2005), <https://doi.org/10.1093/0199279993.003.0002>.

c) the time lag between storage and recall,

undermines the certainty, credibility, and truth of knowledge, respectively.

Consequently, a witness's attempts at validating knowledge from testimony through coherentism, as per (iii), cannot sufficiently justify the belief that their knowledge is 'true and accurate', as per (i), undermining the testimony's certainty.

2.2.1 *Subjectivity of A Witness's Viewing Perspective*

Sources of error are prevalent in human perception. Some "perceptual limitations and distortions" in one's observation include:

- "Environmental conditions" like "weather and astronomical conditions" that affect "visibility" and "distance between the observer and a detail of interest",¹³
- "Observer characteristics" like "intoxication and stress" influence one's "attentional and cognitive-encoding processes" and,¹⁴
- "Situational factors" causing "inattention blindness", where, due to the mind's computational limitations, what is not being "attended to" is not processed and stored.¹⁵

Such problems undermine a witness's own knowledge of an event, as a witness's memory does not construct the past with absolute **certainty**, making knowledge from testimony less certain.

¹³ Paul L. Olson and Eugene Farber, *Forensic Aspects of Driver Perception and Response* (2003).

¹⁴ Michael A. Sayette and G. Terence Wilson, "Intoxication and Exposure to Stress: Effects of Temporal Patterning," *Journal of Abnormal Psychology* 100, no. 1 (1991): 56.

¹⁵ Daniel J. Simons and Christopher F. Chabris, "Gorillas in Our Midst: Sustained Inattention Blindness for Dynamic Events," *Perception* 28, no. 9 (1999): 1059–1074.

2.2.2 Perception Theory-Ladenness in Remembering Events

Cognitive biases in perception influence how one remembers an event. Different preconceived biases can cause people to perceive the same event under identical conditions in various ways. For instance, individuals might remember the appearance and actions of the same subject differently due to memory biases stemming from their differing background knowledge, better-remembering information that coheres with their existing beliefs.¹⁶ In the case of *Ronald Cotton*, who was wrongly accused of rape, pre-existing prejudices against those of dark skin tones caused the eyewitness — the victim — to wrongly identify Ronald Cotton as the rapist from a lineup of faces.¹⁷

The presence of differing cognitive biases in individuals can cause differences in memory perception between humans, leaving lingering uncertainty in the accuracy of testimony and jeopardising the testimony's **credibility**.

2.2.3 Time Lag Between Remembering and Recalling Memories

Alterations of memories can occur between observation and recollection in court. This passage of time can lead to a deterioration of the witness's direct memory of the incident, as original details could be forgotten.¹⁸ Post-event information created by the brain, in preserving 'long-term memory' through association, also gets

¹⁶ Anne-Laure Le Cunff, "Memory Bias: How Selective Recall Can Impact Your Memories," *Ness Labs*, November 19, 2020, <https://nesslabs.com/memory-bias>, and Peter Frost et al., "The Influence of Confirmation Bias on Memory and Source Monitoring," *The Journal of General Psychology* 142, no. 4 (2015): 238–252.

¹⁷ Jennifer Thompson, "I Was Certain, but I Was Wrong," *The New York Times*, June 18, 2000, <https://www.nytimes.com/2000/06/18/opinion/i-was-certain-but-i-was-wrong.html>.

¹⁸ Alan Baddeley, "Working Memory," *Comptes Rendus de l'Académie des Sciences-Series III-Sciences de la Vie* 321, no. 2-3 (1998): 167–173.

erroneously intertwined with the memory of the original incident,¹⁹ and new experiences can also alter the detail or emotional tone associated with the original memory.²⁰

The longer the time interval between memory storage and recall, the more likely external aids like memoranda are needed to recall details. Even with memoranda,²¹ upon further questioning, a witness will never restore their original memory due to the tendency for humans to make a “backward inference” from the memoranda, where witnesses make up information that is ‘logically inferable’, undermining the **truth**²² of their testimony.²³

¹⁹ Daniel L. Schacter, “Memory Distortion: History and Current Status,” in *Memory Distortion: How Minds, Brains, and Societies Reconstruct the Past*, ed. Daniel L. Schacter (Cambridge, MA: Harvard University Press, 1995), 1–46.

²⁰ William J. Friedman, “Memory for the Time of Past Events,” *Psychological Bulletin* 113, no. 1 (1993): 44.

²¹ A memorandum or record in witness testimony is a recorded statement, based on personal knowledge and made or adopted by the witness while the matter was still fresh in his or her mind. See “Recorded Recollection [Rule 803(5)]: NC Pro,” *NC PRO*, accessed July 3, 2024, <https://ncpro.sog.unc.edu/manual/708-06>.

²² “To state the truth, the whole truth, and nothing but the truth”. See *Oaths and Declarations Act 2000*, sec. 6 (Singapore: Revised Edition 2020).

²³ Sharon L. Hannigan and Mark Tippens Reinitz, “A Demonstration and Comparison of Two Types of Inference-Based Memory Errors,” *Journal of Experimental Psychology: Learning, Memory, and Cognition* 27, no. 4 (2001): 931.

3. Culpability in Court

3.1 Knowledge Claims of Culpability

3.1.1 *Constructing 'Justified' Knowledge Claims of Culpability in Court*

In deciding whether knowledge claims from testimony are justified, we must examine the justificatory bar required for a claim to be considered knowledge in court.

Common law generally ties it to two substantive reasons justifying decisions: teleological and deontological. Teleological reasons focus on the consequences of decisions, while deontological reasons emphasise adherence to certain duties or principles.

For example, in a common tort case like a traffic accident,²⁴ the court might consider the teleological reason of promoting public safety (a consequentialist approach) alongside the deontological reason of holding individuals accountable for their actions (a duty-based approach).

In such cases, the standard of proof is typically “preponderance of the evidence”, making a claim justifiable if the evidence shows that it is *more likely than not* that the claim is true. This standard is lower than the “beyond a reasonable doubt” standard used in criminal cases, where all evidence must almost eliminate *any* reasonable doubt about the defendant’s guilt.²⁵

²⁴ While traffic accidents technically fall under civil law, where the term ‘*negligence*’ is more appropriate than ‘*culpability*’ (which is typically used in criminal law), this paper focuses on the aspect of ‘guilt’ common to both concepts of negligence and culpability when deriving K.

²⁵ Robert S. Summers, “Two Types of Substantive Reasons: The Core of a Theory of Common-Law Justification,” *Cornell Law Review* 63 (1977): 707.

Courts apply coherentist principles in the following ways to achieve K:

1. **Making Findings of Fact:** Judges, acting as triers of fact and law, determine whether specific legally significant facts are established based on the evidence presented by the parties. This involves reconstructing the events related to the case as accurately as possible by corroborating witness testimonies, documents, and other forms of evidence.

2. **Applying the Law to Facts:** Judges apply the relevant legal rules to these findings after establishing the facts. This process involves using legal reasoning to determine the applicable laws and how they influence the outcome based on the established facts.

3. **Determining Rights and Obligations:** Finally, judges use their findings and legal applications to determine the rights and obligations of the parties involved, thereby resolving the disputes – like questions of culpability – presented before the court.²⁶

Judges who see a consistent and mutually reinforcing set of evidence are more likely to conclude that it supports the claim's truth.²⁷ Therefore, judicial decision-making often seeks coherence by restructuring legal materials to support a particular outcome, which the judge perceives as necessitated by law.²⁸ This mental restructuring, by creating a coherent narrative that aligns with the final decision, meets the justificatory standard for a courtroom knowledge claim.

²⁶ Joseph Raz, "The Relevance of Coherence," *Boston University Law Review* 72 (1992): 279.

²⁷ David A. Schum and Anne W. Martin, "Formal and Empirical Research on Cascaded Inference in Jurisprudence," *Law & Society Review* 17 (1982): 105.

²⁸ Dan Simon, "A Psychological Model of Judicial Decision Making," *Rutgers Law Journal* 30, no. 1 (Fall 1998): 1–142.

3.1.2 *Justification of Knowledge Claims of Culpability in Court*

K is justified through coherentism when a witness's knowledge satisfies the following:

- 1. Propositional Relations:** By logically cohering with and ensuring testimonies do not contradict facts from other testimonies through scrutinising cross-examinations,²⁹ ensuring justified links between propositions in a coherentist web of beliefs,³⁰
- 2. Coherence:** Where testimony fits coherently within the broader context of the case, ensuring they contribute to a consistent understanding of the events,³¹
- 3. Justification:** Where a witness provides credible knowledge. This initial belief by judges is typically satisfied in the absence of evidence attacking the witness's credibility, leading courts to presume that witnesses are truthful. Furthermore, witnesses affirm their honesty before giving testimony in court, which enforces their credibility and strengthens coherentism's justification.³²

These belief-inducing actions “completely satisfy the jury's need for information upon which to base credibility assessments” and help judges “develop an accurate picture” for K.³³

²⁹ Patricia Wedding, “The Degree of Corroboration Required for a Witness' Testimony to Be Considered Credible by the Trial Chamber” (unpublished manuscript, 2001); Jack B. Swerling, “I Can't Believe I Asked That Question: A Look at Cross-Examination Techniques,” *South Carolina Law Review* 50 (1998): 753.

³⁰ Either deductive or inductive; see *Ewing, A.C., “Idealism, A Critical Survey.” London: Methuen, 1934.*

³¹ Achieved when judges do “Making Findings of Fact”; see *Constructing ‘Justified’ Knowledge Claims of Culpability in Court*, section 3.1.1.

³² Paul I. Rosenthal, “Specificity, Verifiability, and Message Credibility,” *Quarterly Journal of Speech* 57, no. 4 (1971): 393–401.

³³ Steven I. Friedland, “On Common Sense and the Evaluation of Witness Credibility,” *Case Western Reserve Law Review* 40 (1989): 165.

Evidently, coherentism is satisfied when courts gain knowledge of one's culpability from testimony, establishing K *prima facie*.

3.2 Problem of Interpreting Testimony

Leading questions, ulterior motives, and semantic theory-ladenness undermine a judge's ability to cohere testimony through cross-examination, undermining judges' achievement of K from testimony.

3.2.1 *Loaded Questions and Ulterior Motives*

Ironically, cross-examination can diminish the reliability of testimony. Cross-examination inevitably introduces styles of questioning, such as loaded leading questions, designed to prompt witnesses to answer in the cross-examiner's favour. Such questioning exploits a witness's knowledge of normal conversational rules, causing them to infer that the questioner had an evidentiary basis for that question, even if this is not the case.³⁴ This can lead the witness to provide answers that may not accurately reflect their true memory or perspective.

For example, the word "threaten" in the following leading question, "*Did you see the defendant threaten the victim?*" presupposes an act of threat, prompting most

³⁴ H. Paul Grice, "Logic and Conversation," in *Syntax and Semantics*, vol. 3, ed. P. Cole and J. Morgan (New York: Academic Press, 1975), and Herbert H. Clark, "Comprehension and the Given-New Contract," (paper presented at the conference on "The Role of Grammar in Interdisciplinary Linguistic Research," University of Bielefeld, Bielefeld, 1973).

witnesses to accept that implicit premise and constrain their responses accordingly.³⁵

In this case, the question may prompt a witness to hyperfocus on specific instances where the accused appeared to be acting violently, causing them to perceive the accused as more violent than they were in reality if the witness had considered events that took place over a longer period, for instance. Because humans tend to rely on one's behavioural evidence,³⁶ judges will ignore the constraining influence of loaded questions and infer solely from a misled witness's answers.³⁷

Even repeated questioning to clarify testimonies might influence witnesses' memories. When questioning exposes gaps in a witness's knowledge, witnesses will deem their original answers unsatisfactory. As humans are motivated to live up to others' expectations,³⁸ witnesses will be inclined to form inferences to fill those gaps with potentially untruthful information, by logically relating past life experiences to existing knowledge from perception.³⁹ This undermines the judge's certainty of their belief that a witness "provides credible knowledge".

3.2.2 *Semantic-Theory Ladenness*

A witness's presentation of events is subjected to semantic theory-ladenness, leading to differences in how an action is perceived. This causes individuals to glean

³⁵ William B. Swann, Toni Giuliano, and Daniel M. Wegner, "Where Leading Questions Can Lead: The Power of Conjecture in Social Interaction," *Journal of Personality and Social Psychology* 42, no. 6 (1982): 1025.

³⁶ Edward E. Jones and Keith E. Davis, "From Acts to Dispositions: The Attribution Process in Person Perception," in *Advances in Experimental Social Psychology*, vol. 2, ed. Leonard Berkowitz (New York: Academic Press, 1965), 219–266.

³⁷ *William B. Swann et al., supra note 35*

³⁸ Robert Sugden, "The Motivating Power of Expectations," in *Rationality, Rules, and Structure*, ed. Julian Nida-Rümelin and Wolfgang Spohn (Dordrecht: Springer Netherlands, 2000), 103–129.

³⁹ Frederick E. Chemay, "Unreliable Eyewitness Evidence: The Expert Psychologist and the Defense in Criminal Cases," *Louisiana Law Review* 45 (1984): 721.

different ideas from the same words when a sentence is ordered differently.⁴⁰ One example is the unconscious switch between passive and active voices due to “theoretical assumptions”. Someone focusing on agency might use the active voice in assigning greater responsibility to the subject, while another person focusing on context might view the passive voice as downplaying the perpetrator’s role:

- Passive: “The pedestrian was hit by the car.”
- Active: “The car hit the pedestrian”.⁴¹

In the active voice, the car, being the subject, is subtly assigned a higher level of culpability in hitting the pedestrian, while the passive voice suggests that the subject – the pedestrian – has greater culpability in being hit because of the pedestrian’s actions. Because witnesses are naturally inclined to present their interests positively,⁴² they might *unconsciously* change an event’s presentation,⁴³ influencing a judge’s perception of one’s culpability.

⁴⁰ Kristen Intemann, “Feminist Perspectives on Values in Science,” in *The Routledge Handbook of Feminist Philosophy of Science*, ed. Sharon Crasnow and Kristen Intemann (New York: Routledge, 2020), 201–215.

⁴¹ Jimalee Sowell, “Don’t Pass on the Passive Voice,” *International Journal of English: Literature, Language & Skills* 4, no. 3 (October 2015), www.ijells.com.

⁴² Barry R. Schlenker, “Self-Presentation,” in *Handbook of Self and Identity*, 2nd ed., ed. Mark R. Leary and June Price Tangney (New York: Guilford Press, 2003), 542–570.

⁴³ Adrienne Gibbs, “Passive Voice Is Dangerous. These Examples Show Why,” *Medium*, September 3, 2020, <https://momentum.medium.com/check-your-privilege-and-your-passive-voice-6b301a9bcccc>.

4. A 'Responsible Belief' Approach Better Explains Epistemic Intellectual Obligations

4.1 Problems with Justifying Knowledge Claims Using Coherentism Alone

If courts are supposed to be the arbiters of justice, their judgments must be well-justified. But if flaws in traditional coherentism heavily undermine K, how can these judgements be well-justified?

After all, even when a court coheres knowledge of testimony, the knowledge claim of culpability can still be false. Sometimes, courts make decisions that later prove unjustified when new evidence contradicts earlier findings. In *Juan Rivera (1992)*, the accused was convicted of rape and murder when the court considered the coherence of his confession and an eyewitness's allegation that he committed those acts.⁴⁴

Later on, DNA evidence, together with the revelation that the confession was coerced, emerged and was considered by the court, proving his innocence.

Together, these formed stronger evidence against that two-year-old eyewitness, who lacked the necessary cognitive abilities to retrieve memories precisely at that age,⁴⁵ leading to Juan's eventual exoneration.⁴⁶

⁴⁴ Jennifer Thompson, *supra* note 17

⁴⁵ That "eyewitness" was a young two-year-old child, whom the deceased cared for, and at that age, children may not yet have developed the necessary cognitive abilities to recall information in response to memory demands reliably, causing less precise memory retrieval, see Hilary Horn Ratner, "Memory Demands and the Development of Young Children's Memory," *Child Development* 55, no. 6 (1984): 2173–91, <https://doi.org/10.2307/1129790>.

⁴⁶ Jennifer Thompson, *supra* note 17

Evidently, coherentism *alone* is insufficient in explaining K, leaving lingering uncertainty if judges can credibly derive knowledge from culpability.

4.2 “Responsible Belief” More Strongly Justifies Knowledge Construction

A “responsible belief” approach harmonises the strengths of coherentism and reliabilism, effectively answering what the judge’s adequate diligence should entail by ensuring that beliefs are formed through reliable and responsible processes.

Judges’ “adequate diligence” entails carefully evaluating the evidence and ensuring that the decision-making process aligns with legal principles and epistemic values, such as truth and reliability, to avoid unjust convictions based on insufficient or misleading evidence.⁴⁷ Likewise, any evaluation of evidence must account for inherent constraints on our mental processes that affect how we perceive, recall, and process information. As such, unreasonable obligations should not be placed on judges when deciding what “adequate diligence” should entail. Judges lack the ability to transcend time and seek evidence from the future and can only validate K by cohering evidence they currently possess. How can we ensure that judges do not merely use coherentism to selectively fit the evidence into a predetermined narrative just because the evidence makes that narrative ‘more likely than not’ true?⁴⁸

⁴⁷ Clayton Littlejohn, “Truth, Knowledge, and the Standard of Proof in Criminal Law,” *Synthese* 197, no. 12 (2020): 5253–5286.

⁴⁸ See *Constructing ‘Justified’ Knowledge Claims of Culpability in Court*, section 3.1.1.

4.2.1 What Forming a “Responsible Belief” Entails

A “responsible belief” is an *epistemically* justified belief. The criteria in Table 1 determine if a given belief (p) constitutes a “responsible belief” by subject (S) using a series of belief-influencing actions (A).⁴⁹

“Ignorance” is excusable when one is unaware of some facts not owing to their negligence,⁵⁰ and “force” is excusable if external factors, like coercion or manipulation, cause those false beliefs.⁵¹

(i)	S believes p ,
(ii)	S has certain epistemic intellectual obligations,
(iii)	S could have performed A such that if A successfully doubts p , S would not have believed p , and
(iv)	S has not violated any original intellectual obligation to which S 's belief that p is non-accidentally related such that if S had met that obligation, then certain belief-influencing factors would have changed in such a way that S would not have believed that p , or
(v)	S has violated (iv) but is excused by <i>force or ignorance</i> .

Table 1: The definition of a “responsible belief” that is *epistemically* justified.⁵²

⁴⁹ Rik Peels, “Responsible Belief and Epistemically Justified Belief,” in *Responsible Belief: A Theory in Ethics and Epistemology* (New York: Oxford University Press, 2017; online ed., Oxford Academic, November 17, 2016), <https://academic.oup.com/book/4746/chapter-abstract/146999516>, accessed June 30, 2024.

⁵⁰ René van Woudenberg, “Ignorance and Force: Two Excusing Conditions for False Beliefs,” *American Philosophical Quarterly* 46, no. 4 (2009): 373–86, <https://www.jstor.org/stable/40606913>.

⁵¹ *Ibid.*

⁵² Rik Peels, *supra* note 49

4.2.2 The “Responsible Belief” Approach Triumphs over Traditional Coherentism

While traditional coherentism emphasises the *internal consistency* of beliefs as per (i) and (iii), the “responsible belief” approach also considers that *external* factors and obligations can limit belief formation as per (ii) and (iv). Doxastic responsibility – responsibility for one’s beliefs – does not refer to having direct control over beliefs, as we often lack that control due to *external* factors, like cognitive biases and situational inferences. This excuses witnesses for failing to construct an event’s knowledge and judges for failing to achieve K to one-hundred-percent precision, as given by (v). Instead, one should examine our influence over the factors that lead to belief formation since humans have control over constructing these knowledge claims of culpability. These influences are:

- “Doxastic mechanisms” and “cognitive situatedness”: Shape testimony and cause the witness’s perceptions and recollections to be influenced by specific circumstances, like physical and mental conditions during event observation. *Understanding* these pushes judges to assess the extent to which external factors might influence the testimony or if it should be taken at face value.⁵³ Judges can strengthen the corroboration of testimony with other kinds of evidence.⁵⁴
- “Intellectual virtues and vices”: Significantly impact the quality and reliability of testimony, positively affecting how knowledge of culpability is derived in legal proceedings. This entails witnesses giving a precise recount of events in testimony to the best of their abilities and judges being intellectually obligated

⁵³ Gary L. Wells, Amina Memon, and Steven D. Penrod, “Eyewitness Evidence: Improving Its Probative Value,” *Psychological Science in the Public Interest* 7, no. 2 (2006): 45–75.

⁵⁴ For instance, DNA testing in the Juan Rivera’s Case (1992). *Jennifer Thompson, supra note 17*

to seek the truth and impartially considering all *presently* available evidence rather than conveniently discrediting evidence that appears not to cohere with 'stronger' groups of evidence.⁵⁵

Ultimately, the responsible belief approach is superior to traditional coherentism in explaining K because it ensures coherence within a belief system, and beliefs of culpability are formed from *presently available* evidence through reliable and responsible processes while accounting for unavoidable limitations in human brainpower. Therefore, the processes that derive K, though not *completely* certain, will be *sufficiently* certain and useful in giving judges knowledge in the courtroom.⁵⁶

⁵⁵ Courts already have processes to admit crucial and relevant evidence that emerges later on through appeal processes. See *Ladd v Marshall* [1954] 1 W.L.R. 1489; [1954] 3 All E.R. 745, and Wong Woon Kwong and Yap Zong En, Samuel, *Adducing Fresh Evidence on Appeal: Guidance from Recent Court of Appeal Decisions*, [2020] SAL Prac 8 (Singapore: Singapore Academy of Law, 2020), 1–32.

⁵⁶ See *Problem of Fallibility of Memory*, section 2.2, and *Problem of Interpreting Testimony*, section 3.2.

5. Conclusion

Having determined what a 'responsible belief' entails, the answer becomes obvious: judges are fairly justified in deriving claims of one's culpability from witness testimony.

While K is traditionally justified through coherentism, human limitations — the fallibility of memory recall and the interpretation of testimony — undermine it. This inevitable evil prevents judges from achieving absolute certainty in judicial decisions, but they cannot escape this if they wish to derive knowledge of culpability from testimony. Embracing the 'responsible belief' approach balances certainty with practical considerations by negotiating a middle ground for a *sufficiently* justified K.

With this approach, the court's pursuit of justice is grounded in a reasoned and balanced assessment of testimony. K is better justified by courts, *inter alia*, and through the judgments that follow from K, the court reinforces their roles as impartial arbiters of the law, thereby enhancing public trust in the judicial system's commitment to fairness.

(Word Count: 3000 words)

Bibliography

“Recorded Recollection [Rule 803(5)]: NC Pro.” *NC PRO*. Accessed July 3, 2024.

<https://ncpro.sog.unc.edu/manual/708-06>.

“Testimony.” *Legal Information Institute*. Accessed September 1, 2024.

<https://www.law.cornell.edu/wex/testimony>.

Baddeley, Alan. "Working memory." *Comptes Rendus de l'Académie des Sciences-Series III-Sciences de la Vie* 321, no. 2-3 (1998): 167-173.

Chemay, Frederick E. "Unreliable Eyewitness Evidence: The Expert Psychologist and the Defense in Criminal Cases." *Louisiana Law Review* 45 (1984): 721.

Clark, Herbert H. "Comprehension and the Given-New Contract." Paper presented at the conference on "The Role of Grammar in Interdisciplinary Linguistic Research," University of Bielefeld, Bielefeld, 1973.

Dan Simon, "A Psychological Model of Judicial Decision Making," *Rutgers Law Journal* 30, no. 1 (Fall 1998): 1-142.

Ewing, A.C., "Idealism, A Critical Survey." London: Methuen, 1934.

Friedland, Steven I. "On Common Sense and the Evaluation of Witness Credibility." *Case Western Reserve Law Review* 40 (1989): 165.

Friedman, William J. "Memory for the time of past events." *Psychological bulletin* 113, no. 1 (1993): 44.

Frost, Peter, Bridgette Casey, Kaydee Griffin, Luis Raymundo, Christopher Farrell, and Ryan Carrigan. "The influence of confirmation bias on memory and source monitoring." *The Journal of general psychology* 142, no. 4 (2015): 238-252.

Gibbs, Adrienne. "Passive Voice Is Dangerous. These Examples Show Why." *Medium*, September 3, 2020. <https://momentum.medium.com/check-your-privilege-and-your-passive-voice-6b301a9bcccc>

Ginet, Carl. *Knowledge, perception and memory*. Vol. 5. Springer Science & Business Media, 1975

Goldstein, Alvin G., June E. Chance, and Gregory R. Schneller. "Frequency of eyewitness identification in criminal cases: A survey of prosecutors." *Bulletin of the Psychonomic Society* 27, no. 1 (1989): 71-74.

Grice, H. Paul. "Logic and conversation" In Cole, P., and Morgan, J.(Eds.)." *Syntax & Semantics* 3 (1975).

Haight, Lois. "The Judiciary."

Hannigan, Sharon L., and Mark Tippens Reinitz. "A demonstration and comparison of two types of inference-based memory errors." *Journal of Experimental Psychology: Learning, Memory, and Cognition* 27, no. 4 (2001): 931.

Hurley, Susan L. "Coherence, hypothetical cases, and precedent." *Oxford J. Legal Stud.* 10 (1990): 221.

Intemann, Kristen. "Feminist Perspectives on Values in Science." In *The Routledge Handbook of Feminist Philosophy of Science*, edited by Sharon Crasnow and Kristen Intemann, 201–215. New York: Routledge, 2020.

Jones, Edward E., and Keith E. Davis. "From Acts to Dispositions: The Attribution Process in Person Perception." In *Advances in Experimental Social Psychology*, vol. 2, edited by Leonard Berkowitz, 219–266. New York: Academic Press, 1965.

Kress, K., and Legal Reasoning. "Coherence Theories: Dworkin's Rights Thesis." *Retroactivity, and the Linear Order of Decisions* 72 (1984).

Ladd v. Marshall. [1954] 1 W.L.R. 1489; [1954] 3 All E.R.

Laudan, Larry. "Is reasonable doubt reasonable?." *Legal Theory* 9, no. 4 (2003): 295-331.

Le Cunff, Anne-Laure. "Memory Bias: How Selective Recall Can Impact Your Memories." *Ness Labs*, November 19, 2020. <https://nesslabs.com/memory-bias>.

Littlejohn, Clayton. "Truth, Knowledge, and the Standard of Proof in Criminal Law." *Synthese* 197, no. 12 (2020): 5253–5286.

New Zealand Law Commission. "Total Recall? The Reliability of Witness Testimony." August 1999.
<https://www.lawcom.govt.nz/assets/Publications/MiscellaneousPapers/NZLC-MP13.pdf>.

Olson, Paul L., and Eugene Farber. *Forensic aspects of driver perception and response*. 2003.

Olsson, Erik J. *Against Coherence: Truth, Probability, and Justification*. Oxford: Oxford University Press, 2005. <https://doi.org/10.1093/0199279993.003.0002>. Accessed August 31, 2024.

Peels, Rik. "Responsible Belief and Epistemically Justified Belief." In *Responsible Belief: A Theory in Ethics and Epistemology*. New York: Oxford University Press, 2017; online ed., Oxford Academic, November 17, 2016. <https://academic.oup.com/book/4746/chapter-abstract/146999516>. Accessed June 30, 2024.

Peter, Alexander. *Ideas, qualities and corpuscles: Locke and Boyle on the external world*. Cambridge University Press, 1985.

Ratner, Hilary Horn. "Memory Demands and the Development of Young Children's Memory." *Child Development* 55, no. 6 (1984): 2173–91. <https://doi.org/10.2307/1129790>.

Raz, Joseph. "The Relevance of Coherence." *Boston University Law Review* 72 (1992): 273.

Roediger, Henry L., and Kathleen B. McDermott. "Creating False Memories: Remembering Words Not Presented in Lists." *Journal of Experimental Psychology: Learning, Memory, and Cognition* 21, no. 4 (July 1995): 803–14. <https://doi.org/10.1037/0278-7393.21.4.803>.

Rosenthal, Paul I. "Specificity, verifiability, and message credibility." *Quarterly Journal of Speech* 57, no. 4 (1971): 393-401.

Sayette, Michael A., and G. Terence Wilson. "Intoxication and exposure to stress: effects of temporal patterning." *Journal of Abnormal Psychology* 100, no. 1 (1991): 56.

Schacter, Daniel L. "Memory Distortion: History and Current Status." In *Memory Distortion: How Minds, Brains, and Societies Reconstruct the Past*, edited by Daniel L. Schacter, 1–46. Cambridge, MA: Harvard University Press, 1995.

Schlenker, Barry R. "Self-Presentation." In *Handbook of Self and Identity*, 2nd ed., edited by Mark R. Leary and June Price Tangney, 542–570. New York: Guilford Press, 2003.

Schum, David A., and Anne W. Martin. "Formal and Empirical Research on Cascaded Inference in Jurisprudence." *Law & Society Review* 17 (1982): 105.

Shi, Z.Z. "Progress in Research on Intelligence Science." Keynote speaker, AGI-19, Shenzhen, August 7, 2019.

Simons, Daniel J., and Christopher F. Chabris. "Gorillas in our midst: Sustained inattentive blindness for dynamic events." *perception* 28, no. 9 (1999): 1059-1074.

Singapore. *Oaths and Declarations Act 2000*. Revised Edition 2020.

Smith, Jeffrey K. Review of *Make It Stick: The Science of Successful Learning*, by Peter C. Brown, Henry L. Roediger III, and Mark A. McDaniel. *The Journal of Educational Research* 108, no. 4 (2015): 346.
<https://doi.org/10.1080/00220671.2015.1053373>.

Sowell, Jimalee. "Don't Pass on the Passive Voice." *International Journal of English: Literature, Language & Skills* 4, no. 3 (October 2015). www.ijells.com.

Sugden, Robert. "The Motivating Power of Expectations." In *Rationality, Rules, and Structure*, edited by Julian Nida-Rümelin and Wolfgang Spohn, 103–129. Dordrecht: Springer Netherlands, 2000.

Summers, Robert S. "Two types of substantive reasons: The core of a theory of common-law justification." *Cornell L. Review* 63 (1977): 707.

Swann, William B., Toni Giuliano, and Daniel M. Wegner. "Where leading questions can lead: The power of conjecture in social interaction." *Journal of Personality and Social Psychology* 42, no. 6 (1982): 1025.

Swerling, Jack B. "I Can't Believe I Asked That Question: A Look at Cross-Examination Techniques." *South Carolina Law Review* 50 (1998): 753.

Thompson, Jennifer. "I Was Certain, but I Was Wrong." *The New York Times*, June 18, 2000. <https://www.nytimes.com/2000/06/18/opinion/i-was-certain-but-i-was-wrong.html>.

Wedding, Patricia. "The Degree of Corroboration Required for a Witness' Testimony to Be Considered Credible by the Trial Chamber." Unpublished manuscript, 2001.

Wells, Gary L., Amina Memon, and Steven D. Penrod. "Eyewitness Evidence: Improving Its Probative Value." *Psychological Science in the Public Interest* 7, no. 2 (2006): 45–75.

Wong Woon Kwong and Yap Zong En, Samuel. *Adducing Fresh Evidence on Appeal: Guidance from Recent Court of Appeal Decisions*. [2020] SAL Prac 8. Singapore: Singapore Academy of Law, 2020. 1–32.

Woudenberg, René van. "Ignorance and Force: Two Excusing Conditions for False Beliefs." *American Philosophical Quarterly* 46, no. 4 (2009): 373–86.
<https://www.jstor.org/stable/40606913>.