

THE CURSE OF KNOWLEDGE IN ESTIMATING JURORS' UNDERSTANDING OF MEMORY: ATTORNEYS KNOW MORE ABOUT MEMORY THAN THE GENERAL POPULATION

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When reasoning about the knowledge of others, we often use our own knowledge as a guide. Sometimes, though, we know significantly more than another person and succumb to the cognitive bias known as the “curse of knowledge:” individuals who know something find it difficult to imagine others *not* knowing the same information. In fact, we may erroneously conclude that the information we know is “common knowledge.” We investigated whether the curse of knowledge may contaminate attorneys’ judgments concerning how much jury members know regarding human memory in the context of eyewitness identification. We surveyed 132 attorneys at two different legal conferences, asking them the same questions about memory used by Simons and Chabris (2011). Attorneys’ beliefs, while not entirely correct, were considerably more accurate than those of the general population. Those in the legal community should be mindful of this potential curse of knowledge when they evaluate what jurors do and do not know regarding memory and eyewitness evidence.

Keywords: Eyewitness memory, misconceptions of memory

Most people believe they have an intuitive understanding of how memory works. After all, we all rely on memory in countless situations: remembering a phone number, recalling a past meeting, or reminiscing about childhood experiences. Do these personal experiences with our memories produce an accurate assessment of memory, one consistent with the findings of memory researchers? Recent research suggests the answer to this question is “no.” The consequences of these misunderstandings are trivial in some contexts. In legal contexts, however, the consequences can be enormous. If one believes memory to work like a video recorder, then the testimony of an eyewitness is treated as if it, too, were a videotape. These are not academic concerns: faulty eyewitness identification was a primary

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factor for approximately 75% of the more than 300 individuals who have been exonerated by the Innocence Project, (Innocence Project, 2014).

We no longer need to rely on simply guessing what jurors do and do not know about memory. Schmechel and colleagues (Schmechel, O'Toole, Easterly, & Loftus, 2006) surveyed over a thousand potential jurors in the District of Columbia in matters relating to eyewitness testimony (see Kassin, Tubb, Hosch, & Memon, 2001; Magnussen, et al., 2006; Mallard & Strelan, 2005). Jurors' "common sense" beliefs regarding memory were flawed in a number of different areas, including:

- (1) General understanding of memory: "46% of potential jurors believe that the witness on the stand is effectively narrating a video recording of events that she can see in her "mind's eye" (Schmechel et al., p. 196).
- (2) Weapon focus: less than one-third of the potential jurors recognized that the presence of a weapon decreases a witness' reliability (37% thought it would *improve* a witness's memory).
- (3) Stress and violence: again, less than a third of the potential jurors recognized that elevated levels of stress and violence decrease a witness's reliability.
- (4) Estimates of duration: less than 40% of witnesses realize that the actual events happen more quickly than witnesses believe.
- (5) Correlation between witness confidence and accuracy: less than 20% correctly identified that this correlation is quite modest.
- (6) Cross-racial identification: only 36% understood that cross-racial identification tends to be less reliable.
- (7) Double blind lineups: only about one-half of potential jurors understood the importance of having a lineup conducted by an investigator who was not aware of the identity of the suspect.

In a separate study, Benton and her colleagues (Benton, Ross, Bradshaw, Thomas, & Bradshaw, 2006) asked potential jurors in Tennessee to read and evaluate 30 statements about eyewitness memory and reliability. Their responses were compared to those given by a panel of eyewitness memory experts. The responses of jurors diverged from those of the experts nearly 90% of the time. In addition, responses of law enforcement officials—including judges—diverged more than one-half the time. Taken together, more than one-half of the 30 questions received a clear consensus among experts (two-thirds or more), yet the experts differed by *more than 30 percentage points* from the opinion of the jurors.

These misperceptions influence how jurors evaluate memory loss. In a recent study (Kassam, Gilbert, Swencionis, & Wilson, 2009), inspired by the trial of Scooter Libby, the former Chief of Staff for Vice President Dick Cheney, individuals were asked

to judge memory errors committed by others. Those making evaluations consistently expected people to recall more than they did. Mock “jurors” were particularly insensitive to the conditions present at the time of encoding. That is, they believed there was little difference between an individual who was motivated to remember *at retrieval*—the person realized that something was important at the time it happened—compared to one who was motivated to remember *at encoding*—the person came to realize the significance of an event only in hindsight:

Participants who were asked to judge another individual’s memory did not distinguish between information that was important when the individual encountered it and information that became important only later. Clearly, people’s theories about the effects of motivation on memory are imperfect. It is interesting to note, in light of these findings, that the U.S. District Court denied Libby’s motion to allow expert psychologists to testify about the foibles of memory and metamemory because, the court argued, such research would tell jurors little that they did not already know.

People do indeed encounter the frailties of memory as a matter of course, but this does not mean that they understand the nature or power of these frailties. Our study shows that people mistakenly expect MTR to be just as effective when it arises after information is encountered as when it arises beforehand. Thus, they sometimes expect others to remember more than they possibly can. (Kassam, et al., 2009, p. 552)

Simons and Chabris (2011) demonstrated the prevalence of misunderstandings of memory in the general population. Using sampling techniques commonly employed by political polling agencies, Simons and Chabris contacted nearly 2,000 participants, asking whether they agreed with a number of simple statements related to memory, such as “Human memory works like a video camera, accurately recording the events we see and hear so that we can review and inspect them later” (p. 4). A listing of questions asked is shown in the first column of Table 1. For comparison, Simons and Chabris asked the same questions of memory researchers (university professors with at least 10 years experience as publishing memory researchers, the last author included, attending the Psychonomic Society annual meeting in November, 2010). Columns 2, 3 and 4 of Table 2 display their findings. Simons and Chabris (2011) conclude “[t]he prevalence of mistaken beliefs in the general public implies that similar misunderstandings likely are common among jurors and could well lead to flawed analyses of testimony that involves memory” (p. 7). A follow-up study using Amazon Mechanical Turk to secure participants reported similar rates of misunderstanding (Simons & Chabris, 2012).

Table 1

Percentage of Attorneys Giving Each Response (N = 132) to Six Questions about Memory.

Statement	Strongly Agree	Mostly Agree	Mostly Disagree	Strongly Disagree	Don't Know
<u>Video memory</u> : Human memory works like a video camera, accurately recording the events we see and hear so that we can review and inspect them later.	0.8	12.1	31.1	53.8	2.3
<u>Permanent memory</u> : Once you have experienced an event and formed a memory of it, that memory does not change.	1.5	12.1	34.1	50.8	.5
<u>Hypnosis</u> : Hypnosis is useful in helping witnesses accurately recall details of crimes.	2.3	17.6	24.4	22.7	32.8
<u>Confident testimony</u> [*]: In my opinion, the testimony of one confident eyewitness should be enough evidence to convict a defendant of a crime.	7.6	25.8	28	37.1	0.8
<u>Amnesia</u> : People suffering from amnesia typically cannot recall their own name or identity	5.3	20.5	28	15.2	31.1
<u>Attention</u> : People generally notice when something unexpected enters their field of view, even when they're paying attention to something else	2.3	35.6	34.8	25	2.3

Note. [*]Prosecuting attorneys were significantly more likely (70%) to agree with this statement than were other responders (24%), $C^2(1) = 20.9, p < .05$

Despite this clear evidence of fundamental misconceptions regarding memory in the general population, some judges are still reluctant to admit expert testimony by memory researchers. One prominent example is the afore-mentioned Libby case, in which the judge excluded the testimony of a highly qualified memory expert because he believed that while “the average juror may not understand the scientific basis and labels attached to causes for memory error,” (Seidman, 2006, p. 2), the jury could understand memory problems as a “commonplace matter of course,” [and rely on their] “common sense” (p. 2). While expert testimony is generally admitted, prosecutors in many cases make similar arguments at Daubert or FRE 702 hearings: the testimony offered by the expert is nothing more than common sense. Cutler and Kovera (2011) provide an excellent review of admissibility of different kinds of psychological evidence.

Table 2

Comparison of the Percentage of Attorneys Agreeing to Each Statement with Respondents in the National Survey Data Reported by Simons & Chabris (2011) and MTurk Sample of Simons & Chabris (2012). Percentages Reported is the Composite of “Strongly Agree” and “Mostly Agree” Responses.

Concept	Attorneys	General Population (S&C, 2011)	General Population (S&C, 2012)	Experts
Video memory	13%*	63%	47%	0%
Permanent memory	13%*	55%	28%	0%
Hypnosis	20%*	48%	47%	0%
Confident testimony	33%	37%	33%	0%
Amnesia	26%*	83%	65%	0%
Attention	38%*	78%	78%	19%

Notes:

S&C (2011): A nationally representative sample of the United States population conducted in June, 2009. Using 2000 Census-based demographic data (gender, region, age, and race) each of the 1838 respondents was weighted to produce a nominal, demographically-representative sample size of 1500 people.

S&C (2012): Respondents from MTurk survey of 982 individuals, conducted in 2011, weighted using 2010 Census-based demographic data

Experts: Psychonomic Society Attendees and University Faculty with 10 or more years as a faculty member and memory researcher (see Simons and Chabris, 2011).

*notes percentages that differed significantly from the 2012 published norms. $C^2(1)$ ranged from 13.8 to 95.6

This mismatch between attorneys’ and judges’ presumed state of affairs (jurors have an accurate understanding of memory) and the actual state (jurors have fundamental misconceptions regarding memory) could result from several sources. One likely contributor: attorneys’ own understanding of memory. When reasoning about others’ knowledge and beliefs, we often rely on our own knowledge as a guide. Indeed, we often find it difficult to imagine that others do not know what we know, a phenomenon known as the “curse of knowledge” (Camerer, Loewenstein, & Weber, 1989). For example, Koriat and Bjork (2005) described Elizabeth Newton’s 1990 doctoral work on “listeners” and “tappers.” Tappers were asked to tap the rhythm of a familiar song, while listeners were asked to identify the song being tapped. Tappers predicted that listeners would be successful about half the time. In reality, those listening were successful less than 5% of the time. Knowing the song being tapped made it extremely difficult to judge the performance of those without such knowledge. Likewise, once individuals learn that memory does not work like a video recorder, it is difficult to imagine *anyone* believing that—hence the mistaken belief that understanding memory is simply common sense.

We investigated this possibility by surveying a group of attorneys, using the same questions developed by Simons and Chabris (2011). If attorneys are considerably more knowledgeable about human memory than are jury members, this might be a significant

factor driving their belief that understanding human memory requires nothing more than common sense.

METHOD

Participants

We distributed questionnaires to attorneys at the Hal Jackson Memorial Criminal Law Seminar in Denton, TX in December 2010 ($n = 46$) and the Texas State Bar Advanced Criminal Law Seminar in Houston, TX in July of 2011 ($n = 82$). About two-thirds of those responding were defense attorneys ($n = 89$), and the remainder identified themselves as prosecutors ($n = 27$), judges ($n = 12$), or others ($n = 4$) in the legal field. All data were collected anonymously and, given this anonymity, the study was given a waiver of consent by Baylor University's IRB. We also collected simple demographic information, such as years in the profession and whether the respondent had ever participated in a trial in which a member expert has been called (13% had).

Survey and Procedure

We used the items related to memory previously developed by Simons and Chabris (2011), shown in Table 1. For each item, subjects were asked to respond by circling one of the following responses (all of which were listed for each item): “strongly agree,” “mostly agree,” “mostly disagree,” “strongly disagree,” or “don't know.” Surveys were distributed in a 10-minute interval just before a conference session dealing with issues related to eyewitness identification (led by one of the authors). The surveys were collected prior to the beginning of the session, so that information learned in the session itself would not alter the responses.

RESULTS

As indicated, most participants were defense attorneys. However, with one exception, responses did not differ between professions, nor did responses differ across the two sessions tested. Thus, Table 1 displayed responses for all participants combined, broken down for each of the six questions. Responses to the statement regarding confident testimony—“In my opinion, the testimony of one confident eyewitness should be enough evidence to convict a defendant of a crime”—elicited significantly different responses from prosecuting and defense attorneys. While 70% of prosecutors agreed with that statement, only 32% of defense attorneys did, $C^2(1) = 20.9, p < .05$. Table 1 displays the percentage of respondents selecting each response category for all six questions.

Comparison to National Surveys

Table 2 displays the present results to those from two-large scale surveys of Simons and Chabris (2011, 2012). To facilitate comparison, we combined the two “agree” categories into a single number. The attorneys in our sample were considerably less likely to accept these misconceptions than were members of the general public. We confirmed that these were meaningful differences by conducting C^2 analyses for all six items, comparing attorneys' responses to the more conservative of the two national surveys (Simons &

Chabris, 2012). With the exception of the item regarding confident testimony, attorneys were significantly more likely to be accurate, significant $C^2(1)$ ranging from 13.8 to 95.6, all $ps < .01$.

DISCUSSION

Do attorneys share with the general public common misconceptions regarding memory? The answer appears to be “not really.” At the same time, their knowledge is not perfect: nearly one in eight, for example, believed memory worked like a video recorder. Though it is not particularly surprising, it is also worth noting that prosecuting attorneys were much more likely to accept eyewitness testimony as sufficient to convict an individual. (Perhaps more surprising is that more than 20% of defense attorneys believe the same thing!) Even experienced attorneys are likely to learn something when consulting an eyewitness memory expert, but they are far more knowledgeable than the general public.

If attorneys rely on their own knowledge to make inferences about jurors' understanding, they are likely to overestimate what a juror knows about memory. Few jurors are likely to have learned about the science of memory. Instead, they are likely to form beliefs based on things shown on television or in the movies or through anecdotal stories (“my sister went to school with a guy who had a photographic memory...”). On TV, actors recall past experiences through flashbacks, in which their past can be conjured as easily as making wavy lines appear on the screen.

The attorneys we surveyed have the benefit of education and experience that the typical juror does not. Many experienced attorneys have first-hand knowledge of memory's frailties, cases where earnest witnesses identified the wrong suspect, or investigators, in good faith, used identification procedures that distorted a witness' memory. Jurors have not shared those experiences, nor have they had formal educational experiences regarding memory as a science. As a result, jurors hold “common sense” views of memory that are fundamentally, sometimes dangerously, wrong.

Our sample may be non-representative in some ways. First, because of the nature of the conferences where these surveys took place, defense attorneys are overrepresented. Second, the attorneys who completed our surveys did so while attending educational conferences. This interest in education likely reflects a heightened sense of commitment and competence; our respondents are probably among the more successful attorneys in their field. Finally, ours is a geographically constrained sample of attorneys from Texas. This precludes us from making strong statements about the knowledge of a “typical” American attorney. It does not, however, distract from our primary point: those in the legal system should not use their knowledge as a barometer for what is “common sense.”

Attorneys are not unique in their susceptibility to the “curse of knowledge,” of course. Professors assume that students know things that they do not, and parents believe their children should know more than they do. In the legal system, however, the costs of assuming jurors to be more knowledgeable than they are can be life-altering. Fortunately,

we have clear data demonstrating the lack of knowledge in jurors, and expert testimony can address those shortcomings.

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