

On the Fallibility of Memory and the Importance of Evidence

Tyler Watkins: Brett Kavanaugh and Christine Blasey Ford gave testimonies before the U.S. Senate Judiciary Committee. Both were highly emotional and heartfelt. Ford sounded like someone who had experienced a trauma, and Kavanaugh sounded like a man falsely accused. Both left you wanting to believe the person on the stand, even if neither's story remained completely consistent. But who should we believe? Shall we "believe the victim" or assume that the accused is "innocent until proven guilty?" A closer look at the science and nature of human memory, the historical trends on the accuracy of eyewitness testimony, and the prevalence of wrongful convictions demonstrates that the most reasonable assumption is to believe both.

The Constructive Nature of Episodic Memory

Sometime in the early 1980s, Sigmund Freud's theories of the subconscious and the psychosexual stages of childhood experienced a resurgence in popular culture. However, there was one important difference: his descriptions were no longer believed to be metaphorical, but real. According to researchers M.F. Mendez and I.A. Fras: This paved the way for a decade of "uncovering" of memories, whose technique, particularly in children, was fraught with suggestion, and which culminated in bizarre and tragic phenomena such as the McMartin Preschool case of the late '80s, in which innocent adults were falsely imprisoned on the basis of children's suggested "memories" of often lurid and theatrical sexual abuse. In the wake of these events, investigators demonstrated that false or altered memories of events, even very traumatic ones, can be endorsed as "real" by otherwise normal people.

The science of "recovered memories" has since been mostly discredited, and according to the American Psychological Association, "Little or no empirical support for such a theory" has been found. But these events introduced the public to a concept that researchers had been quietly uncovering for years: memories are not concrete, nor do they simply deteriorate with age. They are malleable, changeable, and easily influenced by suggestion. These changes are incorporated into the original memory to a degree that they seem every bit as real as its truest aspects. As Yale researchers Marcia K. Johnson and Carol L. Raye noted, "All experience is constructed in that people use their general knowledge of the world to fill in 'missing elements.'" For this reason, memories are subject to what is known as the Misinformation Effect.

Misinformation Effect: In 1978, three researchers from the University of Washington and the University of Houston conducted a study in which 195 students were shown slides depicting a car stopped at either a stop sign or a yield sign. The students then filled out a 20-question sheet containing one question that mentioned the presence of either a stop or a yield sign. For 100 of the subjects, the sign specified in the question was incorrect.

Students were then shown two slides—one with a stop sign and one with a yield sign—and asked to choose the image that they'd seen earlier. Those who had been given the misleading questionnaire chose the correct slide only 41 percent of the time; roughly half the rate of those with the consistent questionnaire, who were correct 79 percent of the time. For many of the students, the misinformation in the questionnaire had altered their visual memory to include the incorrect sign.

A similar study conducted in 1988 yielded similar results. Researchers showed participants

slides depicting a burglar stealing a hammer from someone's office. Then they read a brief report of the incident. Some of them were given reports correctly mentioning a stolen hammer—or more generically, a stolen tool—and others were given reports incorrectly mentioning a stolen wrench. They were then given a test which included a question about the stolen item in which they could choose either "hammer" or "wrench." Those who had read the misleading report chose the correct tool only 43 percent of the time, compared to a 74 percent accuracy rate from those that had read a report with the generic term "tool." "Misled subjects," the authors remarked, "responded as quickly and confidently to these 'unreal' memories as they did to their genuine memories."

It can be argued that these events weren't consequential enough to be readily remembered. Clearly, a bored college student misremembering pictures on a slide is very different from a victim misremembering the details of a sexual assault or other crime. Taking this into account, psychologists developed a term specifically to describe the memories of such traumatic events: flashbulb memories.

Flashbulb Memories: A flashbulb memory is a memory encoded in a time of intense psychological stress that is supposedly extraordinarily vivid and accurate, like a snapshot illuminated by the light of a camera's flash. While not mentioned by name, this is the type of memory to which psychiatrist Richard Friedman is referring in his New York Times article, "Why Sexual Assault Memories Stick." Interestingly, he cites only one study—which involves participants reading an "emotionally arousing short story"—to back up his claim that trauma leads to memories that are "indelible."

This claim runs in direct contradiction to the majority of research on flashbulb memories. As researchers McCloskey, Wible, and Cohen have noted, flashbulb memories use the same neural mechanisms, decay at the same rate, and are no more nor less accurate than typical memories overall. The only notable difference seems to be the confidence with which people speak about their flashbulb memories.

However, not all researchers agree that flashbulb memories operate via the same neural mechanisms as typical memories, nor do they all agree that they are so similar in accuracy. In fact, many researchers argue that flashbulb memories are less accurate.

In a 2013 study, New York University neurologists Christina Alberini and Joseph LeDoux examine memory reconsolidation, in which the act of reconstruction at the time of retrieval leaves a memory "susceptible to change" each time it is remembered. Operating under the assumption that different kinds of memories are stored via different mechanisms, Alberini and LeDoux demonstrate that amygdala-dependent memories—those based on threat conditioning and intense fear emotions like in "flashbulb" memories—might be more susceptible to disruption and alteration via reconsolidation.

So, while these flashbulb memories might be described more vividly and with greater confidence than a typical memory, each of the details is no more—and probably less—accurate than those of a normal memory. It is not so much like a camera's snapshot of an event as it is like an impressionist painter's interpretation of it. As City University of London professor of psychology Mark L. Howe explained in a 2013 paper entitled, "The Neuroscience of Memory Development: Implications for Adults Recalling Childhood Experiences in the Courtroom": There is another 'common sense' belief about memories of stressful and traumatic experiences, namely, that they are protected from being lost or distorted (...) Indeed, stress and trauma can have either a positive (memory enhancing) or a negative (memory impairing) effect: extreme levels of stress impair memory, whereas moderate levels can strengthen memory. Although hormones released dur-

ing stress (e.g., epinephrine, cortisol) modulate consolidation and memory strength, this does not mean that these memories are immune to forgetting, distortion, or even possible erasure. In addition, stress impairs retrieval, particularly of autobiographical memories, and stress during reconsolidation can also lead to systematic distortions.

A natural question to ask in the face of this might be, “Even if a traumatic memory is naturally more susceptible to disruption, wouldn’t that be countered by the fact that you’d likely think of it more often than a typical memory?” It is a reasonable question, once again based on common sense notions of memory. Shouldn’t frequent remembering and/or rehearsal of a memory protect it from deterioration? As is normally the case when attempting to apply common sense to memory science, the evidence shows the exact opposite to be true.

Memory Rehearsal Increases Forgetting: In yet another variation of the misinformation studies mentioned above, researchers had students watch an episode of 24, which none of them had seen before. In this episode, a terrorist knocks out a flight attendant with a syringe. Some of the students were immediately given a non-multiple choice recall test including questions such as, “What did the terrorist use to knock out the flight attendant?” while the rest played Tetris for the duration of the test. Then, all of the students listened to an 8-minute narrative of the video, with some of the narratives containing factual information, (e.g. knocked out with a syringe), some containing misinformation, (e.g. knocked out with chloroform), and some containing neutral information which didn’t specify the method used to knock out the attendant. Finally, all students took the same recall test mentioned above, with those in the initial testing group taking it a second time.

The experimenters initially believed that those who were immediately asked to recall the episode would be more greatly protected from future misinformation about it. What they found instead was the opposite: taking the test the first time did not protect students from the misinformation effect. In fact, those who had taken the test previously were more likely to be influenced by the misinformation.

Figure 1: This shows the probability of a student choosing the correct item vs. the misinformation item in the final recall test. Consistent items were those in the narrative that overtly stated the correct item (e.g. knocked out with a syringe), control items were generic mentions (e.g. knocked out), and misleading items were incorrect items mentioned in the narrative (e.g. knocked out with chloroform). Those who had taken the first test (gray bars) were more likely than the no-test group (white bars) to incorporate the misinformation into their memories when the narrative had been misleading, resulting in more incorrect answers in the final test. (Chan, Thomas, & Bulevich (2009) Recalling a Witnessed Event Increases Eyewitness Suggestibility)

These findings are consistent with the findings of researchers Alberini and LeDoux, who found that each retrieval of a memory leaves it susceptible to alteration. Thus, memories that are called upon quite frequently—as traumatic memories often are—will decrease in accuracy at a more rapid pace than those that are retrieved less often. Over a long enough period of time, this can lead to a memory that’s virtually unrecognizable when compared to the original event. “When memories are retrieved they are susceptible to change, such that future retrievals call upon the changed information.” Naturally, these inaccuracies in memory can have devastating effects in a courtroom.

Prevalence of Wrongful Convictions via Eyewitness Misidentification: In 1992, the Innocence Project was founded in response to the large number of falsely incriminated individuals that were being exonerated due to advancements in DNA testing and analyses in criminal investigations. Since then, they have documented 362 cases in which a prisoner was exonerated due to exculpatory DNA evidence. These innocent people served an average of 14 years in prison for crimes they did not commit.

By far, the leading cause of false imprisonment in these cases was eyewitness misidentification, which played a role in 70 percent of the convictions. Nearly half of those misidentifications (46 percent) involved multiple eyewitnesses “identifying” the same, innocent person. Separate findings noted in the case of Perry vs. New Hampshire suggest that as many as one out of every three eyewitness identifications are incorrect.

Contrary to what one might expect, a 2013 study found that eyewitness testimonies of victims are far more likely to play a role in wrongful convictions than those of bystanders. (It should be noted that in the case of sexual assaults, this is partially attributable to the prevalence of cases in which there is no non-victim eyewitness.) Out of 71 people wrongfully convicted of rape, 73 percent were misidentified by an eyewitness. 92 percent of these misidentifications were by the victim alone or both the victim and a third party eyewitness, making victims four times more likely to be the one who had misidentified the perpetrator (only 23 percent of misidentifications were by a third party). Figure 2: Irazola, Williamson, Stricker, and Niedzwiecki (2013) Study of Victim Experiences of Wrongful Conviction

In a smaller sample of 22 cases (9 of which were of rape), 52 percent of victims actually knew the wrongfully convicted person prior to the crime. Though this sample is too small and the data too scant to make any accurate predictions about the percentage of misidentifications of known persons on a larger scale, it is enough to suggest that this is something that can and does happen given that 90 percent of reported sexual assaults are by someone previously known to the victim.

Of course, much of this depends on the broad definition of a “previously known person.” For example, it would likely take an extraordinary set of circumstances for a person to misidentify a close friend as their attacker. However, studies have shown that our recognition of casual acquaintances—people we may see quite often but with whom we rarely interact—is often no better than chance.

In a study of “Non-Stranger Identification,” researchers tested 157 high school sophomores and juniors in a small, private high school on their ability to recognize the faces of students who were seniors during their freshman years (for the juniors, those that had graduated two years prior, and for the sophomores, those that had graduated the previous year). While most of these would not have been close friends of the participants (those with family members in the classes were excluded), they would have come in casual contact with them on a daily basis over the course of the school year.

The participants were shown 50 senior yearbook pictures that would either be of students from their own high school or students from a distant high school, and they were then asked to determine whether each of the images was “familiar” or “unfamiliar.” Amazingly, participants only correctly judged former students from their own high school as “familiar” 45 percent of the time, while they falsely judged students from other high schools to be familiar 28 percent of the time. In the words of the researchers, these results suggest that “an eyewitness’s report that he can recognize a perpetrator because he has seen him casually in the past is of dubious reliability.”

The faults of memory are clear, and their influence on the accuracy of eyewitness testimony equally so. But the failure of memory is not the only source of inaccuracy. The second source, while less palatable—and likely less prevalent—is unfortunately more in line with “common sense” expectations. But, while the #MeToo movement has thankfully reduced the tendency towards this assumption, it is still undoubtedly a possibility that must be considered in each and every criminal case.

False Accusations: In 2006, an exotic dancer and escort by the name of Crystal Mangum accused three lacrosse players at Duke University of sexually assaulting her. Durham District Attorney Mike Nifong suggested that the white lacrosse players should also be charged for a hate crime against

Mangum, who is black. The accusations turned out to be false. Nifong—who had allegedly used this case as a means to gain publicity in the midst of his campaign to retain his seat as North Carolina’s DA—was disbarred for his improper handling of the case. Mangum suffered no penalty for her false accusations, but she would later go on to be convicted for murdering her boyfriend and sentenced to 14–18 years in prison five years after the Duke incident.

In 2014, Rolling Stone ran a story about a woman who claimed to have been a victim of gang rape by a University of Virginia fraternity. In 2015, the magazine was forced to retract the article when the allegations turned out to be false, and the Columbia Journalism School issued a report which stated that the magazine did not employ “basic, even routine journalistic practice” to verify the accuser’s claims. The fraternity filed a defamation lawsuit against Rolling Stone, which would eventually settle the suit with a payment of \$1.65 million.

Over the course of the last year alone, a woman was sentenced to ten years in prison for making a series of false allegations of sexual assault and rape against a total of 15 men in the U.K. A New Jersey man filed a \$6 million suit against a woman who had accused him of rape—an accusation that led to his expulsion from Syracuse University. After “a months-long investigation, which included a medical exam, rape kit, and bloodwork within 26 hours of the incident, found no evidence [she] was assaulted, drugged or even had a sexual encounter with [the man].” Nine current and former Minnesota football players have opened a defamation and discrimination suit against the university after four players were expelled and one suspended following a Title IX investigation when a subsequent police investigation led to no charges by the county attorney office for an alleged gang rape.

Still, it’s reasonable to argue that these were simply extreme or unusual cases that garnered disproportionate media attention. Confronted with stories like these, activists routinely point to data that shows the rate of false claims is only about 5.9 percent. However, they invariably neglect to mention that this figure only covers those cases that were unequivocally proven to be false by authorities. It does not include cases dropped due to insufficient evidence or otherwise left unresolved because the victim withdrew from the process, or was unable to identify the perpetrator, or mislabeled an incident that does not fit the legal definition of sexual assault. The number of cases that fall into one or more of these categories is 44.9 percent, not including the 5.9 percent figure, above. It’s therefore impossible to tell what the true percentage of false accusations is, but even a 6 percent (or one in 17) chance that an innocent person may be convicted ought to be too great a risk.

Without corroborating evidence, a false memory would be impossible to detect, especially given the tendency for such memories to be held with a particularly unusual sense of certainty. But isn’t there at least a surefire way to detect an outright lie?

Can Polygraph Tests Ensure Accuracy? In short, no. The popular use of the term “lie detector” in reference to a polygraph test is somewhat of a misnomer. Polygraphs measure changes in physiological arousal, such as increases in heart rate, blood pressure, or sweating. The idea is that a lying person might feel anxious due to fear of being caught, leading to such arousal. There are at least three problems with this method.

The first is that if a person does not fear being caught or does not have an emotional reaction to their own lie—e.g. a person who is familiar enough with the methods of a polygraph not to fear it or a person with sociopathic tendencies—the polygraph will obtain no significant reading. The second is that a person might feel anxious even when telling the truth due to the intimidating nature of the polygraph or when questioned about a traumatic event, leading to a

false positive reading. Finally, if the interviewee is already in a particularly emotional or otherwise physiologically aroused state—which often happens when one is questioned about a traumatic event—any further increases in arousal due to a lie might be too small for the polygraph to obtain a significant reading.

A polygraph may be an accurate method of measuring changes in physiological arousal, but it cannot give a definite reason for that arousal. In other words, it cannot actually detect a lie. This is why, in a survey of members of the Society for Psychophysiological Research and Fellows of the American Psychological Association: Most of the respondents believed that polygraphic lie detection is not theoretically sound, claims of high validity for these procedures cannot be sustained, the lie test can be beaten by easily learned countermeasures, and polygraph test results should not be admitted into evidence in courts of law.

So, while a person’s answers to questions given during a polygraph test may be used as evidence in a court of law, the readings of the polygraph itself are generally considered inadmissible. The purpose of the polygraph is not to use the readings, but it is more generally used to test whether a layperson unfamiliar with its methods would be willing to take a so-called “lie detector test” in the first place. As Houser and Dworkin noted in their paper, “The Use of Truth-Telling Devices in Sexual Assault Investigations”: “The debate around the accuracy of truth-telling devices is a central reason for the VAWA 2005 provisions limiting the use of such devices with victims of sexual assault.”

Polygraphs do not serve the function that most people tend to assume. Outside of the world of science fiction, there is no such thing as a true “lie detector.” Sexual assaults, generally being particularly traumatic and emotionally disturbing, are the perfect storm of confounding variables, making these polygraphs even less useful. This is only one of many aspects which make sexual assault cases particularly difficult to navigate.

The Unique Difficulty of Sexual Assault Cases: Sexual assault often carries with it severe psychological trauma for the victim; trauma which long outlasts any physical damage from the attack. For this reason, it is vastly underreported, with estimates placing the number of unreported rapes at 69 percent. When it is reported, the difficulty of obtaining hard, physical evidence leads to only an 18 percent chance that the report leads to an arrest. And, even when there is an arrest, the punishment is often inadequate, with fewer than 11 percent of arrests leading to incarceration. The mandatory minimum sentence for a first degree sexual assault can be two, five, or ten years, depending on the circumstances, which means it is often less than or equal to the minimum sentence for the sale of marijuana.

All of this combined with the rarity of supporting physical evidence and/or a third party witness in cases of sexual assault makes the evidence against the validity of eyewitnesses—victim or non-victim—all the more troublesome. It is imperative that the needs of victims are addressed, giving them the proper encouragement and support through a highly traumatizing experience. Admittedly, knowledge of the fallibility of eyewitness testimony may do more harm than good in some ways, only serving to further detract victims from reporting an assault.

But it is also important to acknowledge the seriousness of the allegation, as it is one that will often ruin the life of the accused even if they are found to be innocent. It is important to acknowledge that an uncorroborated eyewitness testimony runs the serious risk of leading to an innocent person being incarcerated. At the very least, even in the face of inadequate evidence, an acquitted person will always carry an accusation of one of Western societies’ most stigmatized crimes.

It is a uniquely difficult field to navigate, but there must be a balance between believing

the accuser and the presumption that the accused is innocent. It is both logically impossible and vitally important that both of these beliefs be held simultaneously. This is why we must be scrupulous when weighing the evidence in support of either presupposition.

The Importance of Corroborating Evidence: We tend to treat our memory of an event as the whole picture—as something concrete—because it is our whole picture, and we consider ourselves concrete. But neither of these beliefs is true; we are as malleable as the memories that define us. Our views of ourselves and the world change, and our memories are altered accordingly. For this reason, Mark Howe argues: Whether the witness is a child or an adult, all memory-based evidence is reconstructive. This is because memories are not veridical records of experience but are fragmented remnants of what happened in the past, pieced together in a “sensible” manner according to the rememberer’s current worldview.

The burden of proof in law does not exist only for the sake of a more entertaining courtroom drama. It exists because prosecuting someone without corroborating evidence—because the accuser seems believable—often leads to innocent people going to prison. Whether it be by a victim or by a third party, eyewitness testimonies are by far the least reliable form of criminal evidence. There is some risk of misidentifying a perpetrator even with testimonies by multiple eyewitnesses, but there is no scenario more likely to lead to false incrimination than a prosecution based on a single, uncorroborated account. There is no scenario more likely to end in the loss of an innocent person’s freedom and the subsequent destruction of their life. All of this must be considered in the judgment of Brett Kavanaugh.

The Case of Kavanaugh and Ford: The importance of the case of Kavanaugh and Ford is the precedent that it will set. This is not a movie, in which the authorities know the mob boss is guilty, but just can’t seem to nail him for his crime. This is two people who both have a legitimate case to make, and neither can prove or disprove the other’s claims. It is possible that Ford’s allegations are true, and to deny that possibility is to admit bias in the case.

However, to deny the possibility that Kavanaugh is innocent would require a similar bias. Were he on trial, he would not be convicted unless that possibility can be disproved beyond a reasonable doubt. Even if Ford is right, it’s not enough to take one person on their word, as the law states that a court must operate on the presumption of innocence with respect to the accused. Memory is not so infallible that one person’s account of an event 36 years ago is sufficient to overcome that presumption. This law is in no danger of being changed.

But, as individuals making personal judgments about the truthfulness of Kavanaugh and Ford, we are not held to the same standards as our justice system. While the law on the burden of proof is clear, we are free to believe whatever we choose. Will we choose to align those beliefs with the law and say that people are “innocent until proven guilty?” Or will we be harsher in our judgment; quicker to presume guilt than those who carry a gavel? To answer this in a fair-minded manner, it is important to remember why our laws were written to favor the defendant.

Accusations are not always justly made, and even when they are, they may be misattributed based on the malleable and reconstructive nature of human memory. Lawmakers and enforcers do not want to risk ruining the life of someone who they can’t be sure, “beyond reasonable doubt,” is guilty. So, as our knowledge in the field of memory science and the wealth of troubling statistics concerning the inaccuracy of eyewitness accounts continue to grow, trust in both is justifiably waning, and a preference for physical evidence has strengthened. For it is better to risk a guilty man going free than to risk an innocent man losing his freedom. Or, more aptly, it is better to risk a guilty man’s reputation remaining untarnished than to risk ruining the life and career of an innocent one.

CCRC Chair Richard Foster’s Farewell Speech

“Miscarriages of injustices can only be avoided if all concerned in the investigation of crime, and the preparation of criminal prosecutions, observe the very highest standards of integrity, conscientiousness and professional skill”.

“This brings me to the heart of the Commission’s work and the reason, as I see it, for continuing tension between ourselves and campaigning groups. The great historic miscarriages, such as the Guildford 4, Birmingham 6, were corrected by campaigners who fought tooth and nail for justice. This Commission grew out of that campaigning. It is understandable that campaigners want us to carry on as if we too were campaigners, acting in a campaigning manner. Understandable but, for us, impossible.”

We no longer hang people. But I have to tell you that the experience of this CCR Commission, having reviewed over 23,000 cases since being set up, is that even today we all too often still see instances where the investigation and preparation of criminal prosecutions fall well short of the highest standards of integrity, conscientious and professional skill called for by the Court over 20 years ago.

I drew attention 5 years ago in my 2012/13 annual report to disclosure failures as the continuing biggest single cause of miscarriages of justice. I repeated those concerns in subsequent Annual Reports. This led to a joint police/cps inspection into disclosure in 2017. Sadly, that report showed that our concerns were all too well founded. The report makes chilling reading. It spoke of a routine failure to comply with disclosure requirements. Disclosure issues were often only dealt with at the last minute, if at all. The situation was so bad that the Report’s authors spoke of a culture of defeated acceptance by police and prosecutors.

A particularly worrying aspect of the CPS review’s findings were the number of instances where material that was already in the prosecution’s possession when charges were brought - and which undermined the prosecution fundamentally - had still not been looked at at point of charge. Equally worrying, the CPS report points to instances where lines of enquiry which might have stopped the case in its tracks had simply not been identified by investigators at all, or if identified not followed up. This is supported by our own experience. A frequent ground of Commission referrals is a line of enquiry followed up by ourselves, which could and should have been identified by the original investigation, and which was completely missed by investigators.

What underlies this, in my view, is a widespread and worrying lack of grip by too many investigators in the basics of criminal investigation. A lack of grip which is resulting in those who should be brought to justice not being properly investigated, in trials collapsing at the courtroom door or during trial itself; and still worse convictions which prove unsafe and which were entirely avoidable.

But do not just take my word for it. Consider what Her Majesty’s Inspectorate of Constabulary said in a report published just last year. The inspectors did not find a single police force which was outstanding at crime investigation. They found 10 – that’s almost a quarter of all police forces - required improvement in the basic policing task of investigating crime. And they found a dire shortage of trained investigators with one in five investigator positions either vacant or filled with untrained officers.

What do serving front line officers themselves say? Almost half the police officers surveyed told inspectors they felt their force was not very effective, or not at all effective, at investigation. The Inspectorate describe the shortage of qualified detectives and other investigators as, “a continuing national crisis”. Police officers must have a sound knowledge and understanding of the fundamentals and essentials of criminal law, including the rules of evidence and procedure. Cases can then be investigated, and if the evidence is there, the accused brought to trial. False accusations can be flushed out and the wrongly accused protected.

Identifying and pursuing appropriate lines of enquiry which might support the defence case or undermine the prosecution case is not inimical to, or a distraction from, good police work and good prosecuting. It is good police work and good prosecuting. And for those of us concerned with miscarriages, ensuring that these basic police and prosecution shortcomings are acknowledged and put right has to be a top priority. Any analysis of miscarriages needs to be seen in the context of these fundamental shortcomings.

It is this Commissions' practice, whenever a systemic CJS failing comes to light, to double check all the cases we have reviewed which might conceivably have been touched by that failure. Thus we re-reviewed cases relating to discredited H.O. pathologists, and, following our referral of the Sean Hodgson case we re-reviewed all similar cases which had come to us to see if there was any scope for further DNA testing. That is why we are currently, looking again at a range of conviction cases we have closed to double check for non-disclosure issues, even though looking searchingly at disclosure is something we already do routinely in case reviews as part of our standard operating procedures.

But we can look only at the cases which come to us. We now know that there are systemic problems in police and prosecution investigative and disclosure work which have persisted for some years. And however good police and prosecutors are at improving their current approach – and I am in no doubt that serious efforts are now being made – there is a real risk, amounting in my view to a near certainty, of a number of unsafe convictions including people still in custody arising from these poor past practices and which have not and may never come to us for the Commission to review.

This is a gap which must be filled. Those in prison are amongst the most disadvantaged in society. Many struggle with basic literacy and numeracy. They have none of the advantages we enjoy. And by definition, those to whom disclosable material has not been disclosed (or, still worse, where relevant lines of enquiry were simply never pursued) will not know of this. In my view the only proper course now is for police and prosecutors to themselves initiate a targeted review of existing convictions; starting perhaps with those from police forces where we know from inspectorate work there are ongoing problems with the quality of their criminal investigative work. If the State gets it wrong, it is the State's responsibility to put things right. The Commission has been in touch with the Law Officers and the CPS to propose such a review and to offer to assist. That offer has not been taken up. This is disappointing. In my view there is a risk that serious miscarriages of justice will go undetected and unrectified as a result.

I have stressed these matters because I believe there is a serious problem in need of urgent action and because one of this Commission's responsibilities is to draw attention to systemic weaknesses. And I do not think this problem has had the attention it deserves.

But I want to turn now to this Commission's own review work and the ongoing challenges we face. First, resources. The last decade has seen a huge increase in our work load against significant cuts in our budget, though with efforts latterly by the MoJ to protect us from further downward resource pressure, for which we are grateful. We have responded by looking hard at our processes so as to maximise efficiency and effectiveness, and in particular to reduce queues. When I first joined the Commission applicants could wait years for reviews even to start. That problem is now behind us. Today if you apply to us, work on your case will start right away. This is a considerable step forward and represents a great deal of hard work by the Commission's leadership and staff. To all of whom I pay tribute here. We have also reduced the length of time reviews take. In the past, even routine reviews could take years to complete. Now most take months. That said we still have a number of very long running cases. Usually, these are

cases which are either very complex or are very troubling to us. Troubling in the sense that we have not been able to find evidence to justify a referral to the courts, but where we remain concerned and accordingly wish to continue to search for evidence.

Obviously reviews cannot go on for ever. People need certainty. Victims and their families and friends as well as claimants cannot have their lives on hold indefinitely. But equally we do not ever want to let go of a case where in our own minds we think there may be reason to doubt even if we have yet to find sufficient evidence that the conviction maybe unsafe.

This brings me to the heart of the Commission's work and the reason, as I see it, for continuing tension between ourselves and campaigning groups. The great historic miscarriages, such as the Guildford 4, Birmingham 6, were corrected by campaigners who fought tooth and nail for justice. This Commission grew out of that campaigning. It is understandable that campaigners want us to carry on as if we too were campaigners, acting in a campaigning manner. Understandable but, for us, impossible.

We cannot be a campaigning body. We are a statutory body operating under a statutory remit. The only basis on which we can refer cases back to the courts is if they meet the "Real Possibility" test – a test not of this Commission's devising but laid down for us by Parliament. And that means finding credible new evidence or argument, not before the court at trial or on appeal. As a statutory body and part of the criminal justice system we are, and will always have to be, evidence led. We do not and cannot simply act for the applicant. We have to consider the interests of accused and accuser equally, be evidence led and act in, and only in, the interests of justice. I realise that this can generate tension between the Commission and those who believe passionately, that a particular convicted person is innocent.

But within our system a miscarriage of justice cannot be demonstrated by belief, however strongly that belief is held and however passionately it is argued. Unpicking wrongs requires objectivity, hard work, the laborious examination of material that is voluminous, complex and often hard to trace; it requires identifying and pursuing new lines of enquiry and new sources of expertise. Evidence has to be found. And since no-one, at trial or on appeal, holds back any evidence which they think might support their cause, it almost invariably means finding things people were not previously aware of – and finding it often many, many years after the event in question. In our justice system evidence and evidence alone are what establish innocence, guilt and the safety of convictions. There are jurisdictions, where the courts approach things differently. Thankfully the jurisdiction we live in is not one of them.

And to those who say that even if such evidence cannot be found, and that there is in the Commission's judgment no real possibility a conviction will be quashed by the court, we should still nevertheless refer it, I say this. If we do after long and careful deliberation conclude that there really is no realistic likelihood of the court quashing a conviction, what useful purpose would such a referral serve other than to raise false hope in the convicted person and pointless pain and concern to the victim, their friends or family?

There is a separate point about whether the courts are unduly restrictive in their approach to safety and whether the rules which the court itself applies should be changed. For example in cases of lurking doubt. This is an area the Justice Select Committee thought the Law Commission might consider further. We are on record as saying we would welcome such a review. But absent that, I do not believe that referring cases which do not meet the court's criteria is a productive way forward.

A word here about what might be loosely termed "celebrity cases", cases where there is

strong interest by the public and strong campaigning support for what is invariably characterised as an obvious miscarriage of justice. In the Commission's experience there is little if any correlation between the media profile of a case and the likelihood of its being a genuine miscarriage. I can think of high profile cases where no basis has been found for supporting a referral, where investigation has actually strengthened the case against the accused or even where the convicted person, having maintained their innocence for years, has subsequently admitted guilt. Equally, some of the most shocking miscarriages of justice this Commission has seen have attracted little if any public interest even after the full extent of the miscarriage has come to light.

Take the case of 17 year old T; trafficked into this country, raped, assaulted and forced to work as a prostitute. T escapes from her tormentors but is arrested as she seeks to flee the country and then pleads guilty to possessing a false identify document. Fortunately, we were able to refer this conviction. We saw the prosecution as an abuse of process, and the conviction was quashed. The right outcome eventually. But isn't it extraordinary that a young girl who was the victim of such brutalising treatment should have been treated this way in the first place. What she did might have been in some literal sense a breaking of the law. But how she was treated hardly chimes with what most of us would see as justice.

Or the case of A, convicted of seriously sexually assaulting a woman. The Commission's investigation uncovered something the police investigation had completely missed. It turned out the woman had made under different names a series of similar accusations against several different men, none of which previous allegations had been found to be credible. Again a conviction the Court had no hesitation in quashing.

Or the case of B accused of a vicious assault on a woman with a chisel. The case at trial turned on whether it was him or someone else. The court believed her not him. It subsequently became apparent that the real issue was whether anyone had assaulted her at all or whether the case was one of self-harm. Again conviction quashed following our referral.

None of these cases hit the headlines. All were notable miscarriages of justice.

A criticism often made of this Commission is that in adhering to Real Possibility we are applying the wrong test. But the test is not our own invention. It is the test laid down for us in legislation. I can see that there is an argument whether Parliament got it right. But that is not down to us. Public bodies are rightly criticised for not doing the job they were asked to do. It is slightly odd to criticise a public body for doing precisely what Parliament has laid down in law it should.

As to whether Parliament did get it right, I myself think that the form of the current test is an inevitable consequence of the decision to leave the final say on safety with the Court. If it is the Court's decision then the Court's criteria will always be the criteria which matter and therefore the ones we have to take account of in reaching our referral decisions. To have us referring on one test, and the Court applying another, would simply be to institutionalise chaos.

A word about openness. The Commission has considerable, and potentially highly intrusive, investigative powers. These give the Commission the ability to access not only police and security intelligence of the most sensitive kind, but also to look into the most intimate details of people's private lives. Obviously if we refer a case our review findings, subject to the usual constraints, are available to the Court and so in the public domain. But if we conclude a case and do not refer it, Section 23 of the 1995 Act makes it a criminal offence for us to disclose anything we found during the review, save in the most limited of circumstances, so as to protect the privacy of individuals and to protect sensitive information.

I know that can be a source of frustration to campaigning groups, journalists and others. It can

also, believe me, be a source of frustration to ourselves. I can think of many cases we have reviewed which not only found no basis for referral but where our investigation turned up new evidence which strengthened the prosecution case. In our statement of reasons this will properly have been disclosed to the applicant and their legal representatives. But we cannot disclose this new evidence more widely ourselves. And, for obvious reasons, the applicant will seldom want to do so.

In such cases the applicant may continue to maintain their innocence, as they are of course fully entitled to do, perhaps releasing selected parts of our findings – those which support their case – or simply rest on the assertion that our review was not sufficiently thorough and complete. It is extremely difficult for the Commission to respond to this other than in the most general terms. Not only because of the Section 23 prohibition on disclosing anything found in our review but also because the Commission must always keep – and be seen to be keeping – an open mind about cases. Applicants are free to re-apply to the Commission at any time. And if they do so we must be able to consider their new application entirely afresh and in a completely unbiased way.

That said, I do not think the current situation is satisfactory. Apart from the obvious reputational issue for the Commission, we live in an age that places a high premium on transparency; and rightly so. Obviously sensitive personal and security information needs appropriate safeguarding. But I would myself like the Commission to be able to be more open about what reviews have covered and what they've found. This would require a change to legislation. But I think such a change would be both timely and desirable.

The Commission's referral rate is a constant point of discussion. Do we refer too few cases? Are we in thrall to the Court of Appeal? Do we miss cases? And so on. First some myth busting. We do not have and have never had a target – of any sort, shape or description - for the proportion of our referrals to the Court that we expect to be successful, in the sense of resulting in the conviction being quashed. All we do, all we have ever done, is to record the number of cases we refer and record the number of quashed convictions that result. We keep score. But that is all. That said our statutory test is real possibility. And a real possibility is – as Bingham LCJ said – somewhere below a racing certainty but above an outside chance. This in turn suggests that if we are applying the test properly a year on year “success” rate of 80 to 90% would be too high; too close to racing certainty. While a year on year rate of 20 to 30% would be too low – too close to outside chance. Our rate fluctuates year on year between about 70% and 40% which I think is what one might expect.

On whether we miss miscarriages, no one knows how many unsafe convictions there are in the system. Not you, nor I, nor anyone. It is unknown and unknowable. We can say how many people apply to us and we can say when we have found something. What we cannot say, where evidence supporting a referral has not been found, is whether that is because we've missed it or whether it wasn't there to be found in the first place. There is, in short, no objective benchmark against which our effectiveness in detecting miscarriages can be judged.

I can, however, say this. We measure, and have always measured our referral rate as a percentage of the total applications to the Commission. Measured in this way our referral rate over the lifetime of the Commission has been 2.7%. Some people think that a low rate. However, around 40% of the total applications to the Commission are from those who have not exhausted their normal rights of appeal or are ineligible in some way. And the 1995 Act says we should not consider “No Appeal” cases for potential referral unless there are exceptional circumstances, which as the words imply are exceptional. So we have to turn away around 40% of all applications we receive. This means that only somewhat more than half

of the applications to the Commission, over its lifetime, have actually been reviewable and therefore potentially referable. And if we look at our referral rate against these cases it nearly doubles to over 5%. Is that percentage surprisingly low; or worryingly high?

One final word about referrals. The Commission is not just here to identify potential miscarriages. We also quality assure, and promote confidence in, the justice system. A review which concludes that a conviction, on the evidence available, is well-founded – provided it is a thorough review – is not a failed review. If the trial and appeal process is working as it should, we should expect the great majority of our reviews to conclude that the original verdict was well founded. Which is exactly what we do find.

Are we really investigators or just people with our noses buried in the files? Almost invariably, the key to establishing a conviction's unsafety is to uncover weaknesses in the prosecution's case as it was presented at trial. And establishing how a case ran at trial in practice means a detailed review of the case papers, the prosecution and defence files, the judge's summing up and so on. But that is just the starting point. We start with the paperwork to ensure we have the fullest possible understanding of the case, the forensic decisions taken and so on. Starting there is also the chance to check up on disclosure and whether all the potentially relevant information which was in the possession of the prosecution was in fact disclosed. Only by starting from there, from what happened at trial and why, can one decide what further lines of investigative enquiry might then be worth pursuing.

There is of course an important distinction between lines of enquiry which can in theory be pursued, and lines of enquiry which it is actually sensible to pursue. There is little point, for example, in DNA testing with a view to see if the accused's DNA is present at the scene of crime if several witnesses have already placed the accused there and the accused themselves admit they were present. The questions we ask are, will undertaking a certain test or tests resolve a particular review question and what, put at its highest, might a line of enquiry show by way of building the case for a referral. Evidence is often cumulative. A line of enquiry may be worth pursuing even if, on its own, it can never be determinative. But there must be a clear line of sight between pursuing a line of further investigation and the possibility of demonstrating unsafety. And lest you think that this way of thinking might lead us to being unduly restrictive in our approach, consider this.

Last week I asked one of our team leaders what sort of investigative work they had been up to. They said that in current review work, expert evidence had been requested from psychologists, forensic linguists, forensic accountants, experts in Asperger's and Autism, experts in ESDA (electrostatic detection analysis – or indentation on paper several sheets below the original, to you and me), medical experts, experts in intoxication and so on. To say nothing of commissioning DNA testing, reviewing CCTV footage, tracing and interviewing new witnesses, investigating potential non-disclosure of phone evidence, making enquiries relating to police officers' disciplinary records and in relation to medical records. And that was just some of the investigative work, being carried out currently by just one of our investigative teams, in just some of our current reviews.

I want finally to say something about two of the most persistent myths about the Commission and how we approach our work – that we are somehow subservient to the Court of Appeal and that this can make us unduly cautious in our approach to referring cases. I can assure you, having spent 10 years as Commission Chair, that nothing could be further from the truth. Commissioners are chosen above all else for their independence of mind, powers of analysis and persistence. Stubbornness in pursuit of a point is in our DNA. Believe me I deal with Commissioners on a daily basis and I can vouch for that particular trait.

Commission staff spend their working lives sifting through cases in the knowledge that, for all the hundreds of cases they look at, they will find at most a handful where there is the real possibility of a referral. So when they get the slightest hint they may be onto something, nothing and no one could be more determined than they are to pursue the point. Or more resolute in pressing forward with every possible and appropriate line of enquiry.

As to being subservient to the Court of Appeal I can only say that those who suggest that cannot have been reading Court of Appeal judgments with enough attention recently. Sometimes the Court is complimentary about our work and means it. Sometimes the Court's apparently friendly words conceal a somewhat less sympathetic appreciation of our work, "thorough and painstaking" being the polite gloss behind which the words, "but quite mistaken and completely wrong", lie but barely concealed. And sometimes the criticism is sharp and direct. In short the court sometimes agrees with our analysis, sometimes is unpersuaded, and sometimes differs profoundly.

That is as it should be. Our responsibility is to decide whether a referral is justified according to the statutory test. Whether to actually uphold or quash a conviction is for the court. That is their decision. But the referral decision is ours and ours alone. We take it very seriously. And as an independent body we reach our conclusions on the evidence, and solely on the evidence, and without fear or favour from anyone.

I stand down this month after ten years as Chair of the Commission. It has been an honour and privilege to serve in that capacity. I would like to pay tribute to all Commission members, staff, Commissioners and Non Executives, both past and present, I have worked with throughout that time. And on the basis of that 10 years I say this. What unites the Commission and provides its life's blood is a burning sense that there are injustices out there and it is the Commission's job to find them and when it finds them to remedy them. And I am confident the Commission will be as resolute in that role under my successor, to whom I wish all the very best, as it has in the last 21 since its inception. Thank you.

Young Offenders Cannot Get Off 'Scot-Free'

Scottish Legal News: Two teenagers who were given custodial sentences after one pled guilty to behaving in a threatening and abusive manner and the other admitted a charge of assault have had their appeals against the sentences imposed rejected. The appellants claimed that the sheriff failed to properly take into account their age when sentencing the pair to detention, but the Appeal Court of the High Court of Justiciary ruled that while the age of a young offender was an "important factor", that did not mean they could get off "scot-free".

Lord Menzies and Lord Turnbull heard that the appellants "LR" and "DM" appeared at a trial diet at Dumbarton Sheriff Court in February 2018 on an indictment which narrated certain events which were alleged to have occurred on a train journey between Westerton and Bearsden on the evening of 21 December 2015. Each of the appellants had appeared on petition in May 2017 and pleas were tendered some nine months later.

LR pled guilty to an amended charge 1 on the indictment that on the date specified he did behave in a threatening or abusive manner which was likely to cause a reasonable person to suffer fear or alarm in that he did shout, swear, utter threats of violence, utter lewd remarks and chase passengers from said train contrary to section 38(1) of the Criminal Justice & Licensing (Scotland) Act 2010. At the time of the offence LR was 17 years old and had no previous convictions, but the sheriff sentenced him to detention for 32 months, discounted from 36 months to reflect the plea of guilty and imposed a 12 month supervised release order.

DM pled guilty to an amended charge 3 on the indictment that on the date specified he did assault one of the passengers on the train and did repeatedly punch him on the head, knock him to the ground and repeatedly kick him on the body all to his injury. At the time of this offence DM was 15 years old and the criminal justice social work report indicated that he first began offending at the age of 12 years, and that he had accrued a significant number of offences since then, most of which had been dealt with via the Children's Hearing system. He first appeared before the court aged 15 years and his offending behaviour since this time appeared to be influenced by peer relationships, excessive alcohol and drug misuse. His offences were disposed of by way of non-custodial and custodial sentences, the latter within the Young Offender's Institute and it appeared that a pattern of persistent offending had developed. The sheriff sentenced him to detention for 18 months, discounted from a headline sentence of 24 months to reflect his plea of guilty and imposed a supervised release order of nine months. However, they both appealed against the sentences imposed.

On behalf of LR, it was argued that the sheriff had failed to give "adequate regard" to the appellant's personal circumstances and in particular his age, the "very difficult upbringing" which he had had and which is narrated in the criminal justice social work reports and his "poor decision making". Counsel submitted that section 207 of the Criminal Procedure (Scotland) Act 1995 applied to LR and also referred to authorities to the effect that a young offender of approximately LR's age "should be treated differently from an adult offender" and that conduct could be and should be "deemed less reprehensible and more capable of forgiveness" in respect of a young offender. Any disposal, it was submitted, should "promote the growth of a healthy adult personality and identity", referring to the remarks made by the court in *McCormick v HM Advocate* 2016 SLT 793. Counsel for both appellants also referred to the cases of *Kane v HM Advocate* 2003 SCCR 749, *Smart v HM Advocate* 2016 SLT 1035, as well as *Hannon v HM Advocate* 2015 SLT 585 and *Divin v HM Advocate* 2013 JC 259. The appeal judges took no issue with the principles established in those cases, but upheld the sheriff's disposals.

Delivering the opinion of the court, Lord Menzies said: "Clearly the age of a young offender is an important factor to which a sentencer must have regard and, as in any case, a sentencer must have regard to factors such as a deprived or difficult upbringing. "It does not appear to us that the sheriff in either of these two appellants has failed to have regard to their young age nor has he failed to have regard to the difficulties that they have experienced in their young lives. In paragraph 15 of his report to us in the appeal by LR (and this is echoed in the equivalent paragraph in his report in relation to DM) the sheriff seeks to distinguish the circumstances of these appellants from the circumstances of the appellants in *Kane* and *Smart*. We consider that he was correct to do so." He added: "We take no issue with those observations in the circumstances of those cases but those cases are not authority for the proposition that young offenders can go scot-free or never require a punitive element to sentencing. Each of the cases to which we were referred contained positive pointers for the future. Each contained some hope for improvement in the appellant's circumstances if the appellant was provided with adequate support in a non-custodial disposal. We have been unable to find any similar positive pointers in either the appeals of LR or DM. We are also unable to agree with the submissions that the sheriff has failed to pay adequate attention or to give adequate weight to factors such as the appellants' ages and their difficult background circumstances. Indeed it is clear that the sheriff would have imposed more severe sentences were it not for the age of each of the appellants and the sentences which he did impose were such as to indicate that he paid full attention to these factors. Accordingly, each of these appeals must be refused."

Inspection of HMP Chelmsford - Further Deterioration

31 recommendations from the last inspection had not been achieved. HMP Chelmsford, a medium-sized local prison, held just under 700 men at the time of this inspection. The population mainly consisted of adult men who were either remanded by the courts or were awaiting or serving a prison sentence. The prison also held over 70 young adults. The layout of the prison was unusual, comprising older buildings dating back to the 1830s as well as modern accommodation. At our last inspection in 2016, we reported that progress had stalled and that outcomes had deteriorated, which led to the prison being rated as not sufficiently good in all four of our healthy prison tests. Any optimism we had in 2016 was not borne out at this inspection, where some outcomes had deteriorated markedly. We had significant concerns about the safety of the establishment. Levels of violence were far too high and not enough had been done to ensure the underlying causes were understood or addressed. Until recently the prison's strategy relied almost exclusively on punishing poor behaviour when it occurred. There were early signs that a more proactive approach was being adopted, and some enthusiastic safer custody staff wanted to make a difference. This new focus needed to be maintained and developed. Much of the violence was related to the supply and use of illicit drugs, and the positive drug testing rate was among the highest we have seen at over 40%. There was a focus on reducing the supply of illicit drugs and providing drug users with support, but these challenges remained significant. The level of finds was consistently high: in a single month, the prison had seized 28 drug packages, 44 mobile phones and 18 parcels that had been thrown over the perimeter wall. The estimated value in the prison of the items seized during that month alone was in excess of £ 15,000. Perhaps the most worrying issue was how men who were at risk of suicide and self-harm were managed. There had been 16 self-inflicted deaths over the previous eight years, and four since the last inspection. However, too many recommendations from the Prisons and Probation Ombudsman (PPO) had not been implemented. Levels of self-harm and the use of constant watch were very high, and the care provided was often not good enough. Many staff had become very risk adverse, which meant these procedures were often overused, which in turn risked masking the needs of particularly vulnerable men. The almost complete lack of a broad strategic response to these issues was a concern. Sadly, we were notified of yet another self-inflicted death at the prison a few weeks after our inspection.

The accommodation was very mixed. The older wings were in a poor state, cleanliness was not good enough and there was too much graffiti. Problems with the failed Carillion contract and subsequent facilities management arrangements had not helped, and we were told over 3,000 maintenance jobs were still outstanding. There were shortages of many items, and prisoners were frustrated because they could not obtain timely answers to legitimate questions or complaints.

Hostages: Sally Challen, Naweed Ali, Khobaib Hussain, Mohibur Rahman, Tahir Aziz, Roger Khan, Wang Yam, Andrew Malkinson, Michael Ross, Mark Alexander, Anis Sardar, Jamie Green, Dan Payne, Zoran Dresic, Scott Birtwistle, Jon Beere, Chedwyn Evans, Darren Waterhouse, David Norris, Brendan McConville, John Paul Wooton, John Keelan, Mohammed Niaz Khan, Abid Ashiq Hussain, Sharaz Yaqub, David Ferguson, Anthony Parsons, James Cullinane, Stephen Marsh, Graham Coutts, Royston Moore, Duane King, Leon Chapman, Tony Marshall, Anthony Jackson, David Kent, Norman Grant, Ricardo Morrison, Alex Silva, Terry Smith, Hyrone Hart, Glen Cameron, Warren Slaney, Melvyn 'Adie' McLellan, Lyndon Coles, Robert Bradley, John Twomey, Thomas G. Bourke, David E. Ferguson, Lee Mockble, George Coleman, Neil Hurley, Jaslyn Ricardo Smith, James Dowsett, Kevan & Miran Thakrar, Jordan Towers, Patrick Docherty, Brendan Dixon, Paul Bush, Alex Black, Nicholas Rose, Kevin Nunn, Peter Carine, Paul Higginson, Robert Knapp, Thomas Petch, Vincent and Sean Bradish, John Allen, Jeremy Bamber, Kevin Lane, Michael Brown, Robert Knapp, William Kenealy, Glyn Razzell, Willie Gage, Kate Keaveney, Michael Stone, Michael Attwooll, John Roden, Nick Tucker, Karl Watson, Terry Allen, Richard Southern, Jamil Chowdhary, Jake Mawhinney, Peter Hannigan.