



# CONFIRMATION BIAS

## *The blue lens viewed through tinted glasses*

by Brad Fawcett

Several coroner's inquests and public inquiries have recommended front line police officers wear cameras to assist in determining 'what really happened' in encounters with subjects. The underlying assumption is that more information, especially images and audio, can only be better.

The truth, unfortunately, may be that we now spend vast amounts of time and energy examining irrelevant images and ascribing meaning to them meaning that may be a product of the viewer's imagination and bias. The video may not speak for itself but it may tell you what you want to hear.

Surprisingly, studies have generally shown that more information leads to poorer decisions. In one study college counsellors were given access to high school students' transcripts, test scores, results of personality and vocational tests and university entrance essays. They conducted personal interviews and were then asked to predict the students' grades in university.

As you would likely guess, those provided all the information felt extremely confident about their predictions. The counsellors were competing against a simple mathematical formula which used the students' grade point average and score on a standardised test. The simple formula significantly outperformed the predictions of the experts, with access to many more variables.

The proliferation of economic and investment data hasn't assisted professionals in

making better investments. A study by Paul Andreassen in the late 1980s demonstrated that investors given extremely limited information (they could only see changes in stock prices without any insight into what caused the change) significantly outperformed other investors (they earned twice as much) given access to a wide variety of stock information. The extra information simply distracted the first group as they searched for patterns that would help them predict the unpredictable market (Lehrer, 2009).

Another Lehrer example relates to the increase in the use of invasive procedures to resolve back pain. Magnetic resonance imaging (MRI) provides physicians with high definition images of tissues and structures. Back specialists could now identify bulging and degenerative discs, aggravated nerves and everything else beneath the skin. One would assume that this wealth of previously unobtainable images would lead to accurate diagnoses and improved outcomes for those suffering chronic back pain.

The increased diagnostic information resulted in more surgeries but back pain sufferers were likely to receive just as much relief from following the treatment regimen that predated MRIs bed rest. While imaging may identify disc abnormalities in great detail, the abnormality may have nothing to do with the subject's discomfort.

As Lehrer noted, the doctors simply saw too much. They were overwhelmed by the information available to them and simply couldn't distinguish between the relevant and

the irrelevant. As a result, they operated on people to fix disc problems that at times were not related to their back pain. Lehrer expressed the problem succinctly: seeing everything made it harder for the doctors to see what they should be looking at.

Readers may be familiar with the Yerkes-Dodson Law, which states that human performance at any task varies with arousal in a predictable curve. As arousal increases, so does performance but only to a point, after which increasing arousal decreases performance. Similarly, an increase in available information may improve understanding, but only to a point. Once inundated with information, especially in the form of video and audio, our ability to make sense of the situation may actually decrease as we attempt to discern patterns and meaning from the data (Cherry, 2014).

A tangential issue inherent in the discussion of body cameras, and one not central here, is that the proliferation of video (digital and analogue), forensic evidence, court-qualified experts in various fields and computerization hasn't resulted in speedier trials; rather, they appear to have added grist to the grinding wheel of justice, nearly bringing it to a halt. Would anyone assert that the courts are more efficient today than 30 years ago?

Politicians and police administrators provide annual reports trumpeting additional reductions in the crime rate (Lindell, 2012), yet it takes far longer to prosecute offenders for even the most mundane crimes. Adrian Humphries (2013) summed the situation up

succinctly: "The system is sick: Canada's courts are choking on an increase in evidence."

Added to the burden will be digital video, binders of frame captures, enhanced audio files and other minutiae from the body camera that will now be picked over as the viewer attempts to discern a cause, identify patterns and seek explanations for human behaviour. One can only hope that the officer's recall and video record will be similar enough, but not too similar, so that the trier of facts can conclude that normal errors in recall occurred, but not that an officer embellished or lied.

How do these examples relate to police body cameras? Viewing videos of a use of force incident, after the fact, may cause the viewer to seek meaning and opportunities for interventions that might have changed the outcome. Human beings experience a number of subconscious biases, which assist in making decisions. They are important because of our limited ability to process information. We have a working memory of seven items, plus or minus two (*Miller, 1956*), which is assisted by these biases, otherwise we would be overwhelmed.

Haberland (1997) noted: "At the hub of all cognition and behaviour, including behaviour under threat, lies working memory...." The process of perception is a highly selective, interpretive process. The sensory data we perceive is processed in light of experience, learning, preference, biases and expectations (*Fradella, 2006*). Video directs our attention



and limits our focus to the visual stimuli, which is further directed and limited by commentators pointing out aspects of the video to which we may have been previously blind.

One of the biases that cause viewers to 'hear what they want to hear' is confirmation bias (*Rabin & Schrag, 1999*). Simply put, people often believe too strongly in their favoured hypothesis and an erroneous belief is not likely to be overcome by an infinite amount of information to the contrary. Subtle cues can cause us to form certain beliefs for which we then subconsciously find supportive evidence. For example, an experienced colleague tells a young teacher that boys named Jason are always trouble. The young teacher may find this to be true because the conversation primed them to find evidence

supporting the hypothesis.

Viewers of police encounters with resisting or violent subjects should be educated regarding the neuroscience of moral judgment (*Greene, 2009*). Functional MRI (fMRI) studies have shown that the mental states of those involved in an incident are important and will be decidedly different than those viewing the video. Those directly involved are more likely to be making deontological and emotionally based moral decisions while those watching (in many cases with full knowledge of the outcome or being primed by the lead in to the video) will be making utilitarian-based, cognitive decisions.

Similarly, Delgado (*Delgado, Frank, & Phelps, 2005*) researched the effect of reputation on moral-economic interactions using fMRI. They found that being characterised as "bad" affected subjects' willingness to trust them and partially overrode the effect of feedback. In other words, characterising the officers as "bad" may affect viewers' willingness to trust them and may override evidence to the contrary present in the video or other evidence. Also, the description of the subject, the person having force applied to them, matters when making moral judgments.

The reader can imagine a situation in which a news broadcaster introduces a video of a police-citizen encounter using language such as "Police say they used reasonable force you be the judge." The tone might imply that the broadcaster feels the force used wasn't reason-

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able. The viewer has now been primed to see things in the video that will support that biased position, blinding them to overwhelming evidence to the contrary. This is known as the Focus of Judgement Effect, which drastically alters a person's attitudes and beliefs through slight changes in wording or format (Lehman, Krosnick, West, & Li, 1992).

According to Graziano et al., "Journalists manage the arena and by "framing" the problem in a specific way they influence public perception of the underlying causes of the problem, the potential consequences of the problem and they help establish criteria for evaluating proposed solutions to the problem" (Graziano, Schuck, & Martin, 2010).

As an example, media coverage of the Braidwood Commission focused at times on the black "slash" gloves worn by some of the officers involved, alleging that they were worn to intimidate subjects (Theodore, 2009). Evidence indicating the gloves were issue uniform items intended to protect the officers from edged weapons, broken glass and blood-borne pathogens and that they were advised the suspect had shattered a glass window becomes lost to the viewer, who now identifies the gloves as further evidence of wrongdoing or support for characterising the officers as "bullies."

The statements made prior to viewing another "disturbing" video captured by the body cameras of police officers can have a significant anchoring effect on viewers (Strack & Mussweiler, 1997). The reality is many of the images shown are likely to be troubling and the volume sheer number of images available will exponentially increase as body cameras come into vogue with legislators. Mundane images of police officers engaged in routine work are not likely to receive media and, therefore, public attention.

Interestingly, the same arguments put forward to entice police administrators and legislators to adopt force options such as conducted energy weapons are now being parroted when it comes to body worn cameras. In fact, they are almost identical: a picture of a police chief quoted saying something to the effect of, "Our agency has seen a 40 per cent reduction in the use of force by officers and a 30 per cent reduction in force used against officers since adopting XYZ body worn camera system. The mere presence of the camera has resulted in subjects surrendering and pleading guilty without the need to even go to trial."

Sound familiar? What was the criticism directed at most police agencies for adopting CEW's? That they relied on the manufacture's claims and allegedly biased research when deciding to adopt the CEW. It appears that that criticism might apply in this situation too. The significant difference, of course, is one is related to a force option, the other to police accountability. Legislators, police administrators and oversight groups appear quite willing to move forward with body worn cameras while waiting for the research to catch up.

The adoption of body camera technology appears to be a given. The White House en-

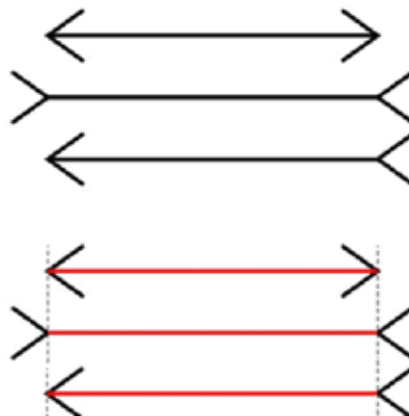
dorsed their use for police (Breitman, 2014) as recently as September 16, in the belief that had the Ferguson, MO officer worn one, the shooting might not have taken place and video evidence might have prevented the subsequent rioting (Reuters, 2014).

Police agencies are unlikely to impact on the public perception of a police action that has been broadcast and framed as excessive force. Agencies can have an impact in public hearings and other processes arising out of the action during which they may have the opportunity to make the trier of facts aware of these subconscious processes and thereby limit their effect on the viewer. However, the information is not likely to be provided to the public at large by the media covering the hearing, leading to an angry citizenry who cannot understand why the jury, judge, coroner or commissioner did not find fault in the actions of the officers when the evidence was right before their eyes.

There are many other issues to be resolved with respect to body worn cameras. These include, but are not limited to, the nature of technology adopted (officer activated, motion or voice activated, etc.), how long the data is retained, who retains it, camera capabilities (low light sensitivity, performance superior to the human eye?), Charter implications (will agencies have to add an official video recording warning to their Charter cards?), etc. This article is not focussed on these issues, but rather the neurological, subconscious effects which may occur when viewing recordings of police incidents.

Most readers will be able to point out examples of incidents captured on video that were crucial in exonerating an officer; however others may be able to identify videos that only captured a portion of the incident and created the appearance that an officer acted improperly.

Many readers will be aware of the Muller-Lyer Illusion (Proulx & Green, 2011) in which the viewer is asked to state which line is longer:



We know (measure them with a ruler) that the lines are the same length but you will never see them that way. Despite all the evidence to the contrary, we still see one line longer than the other. Similarly, the viewer of a controversial police incident captured on a body-worn

camera, primed by an introduction, may view the officer actions as wrong, despite all evidence to the contrary, due to subconscious processes such as the Focus of Judgement Effect and Confirmation Bias.

Educating triers of fact in these issues may be a necessary step as more agencies adopt the technology.

The opinions expressed herein are entirely those of the author and do not reflect those of the Justice Institute of British Columbia or the Vancouver Police Department.

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