Appendix A - **Refusing to Face Facts**

Over more than 10 years of bringing obvious errors to the attention of the authorities, this engineer-turned-analyst became wearily familiar with the "***My mind is made up, please don't confuse me with the facts***" responses with which officials and vested interests dismissed his evidence out of hand. Some refer to such respondents as being "***in denial***", others to "***cognitive dissonance,*** "**groupthink**" and "**confirmation bias**"- see:
https://en.wikipedia.org/wiki/Denial,
https://en.wikipedia.org/wiki/Cognitive_dissonance.
https://en.wikipedia.org/wiki/Groupthink
https://en.wikipedia.org/wiki/Confirmation_bias
https://en.wikipedia.org/wiki/Cherry_picking

cognitive dissonance *is……experienced by a person ……. confronted with new information that contradicts said beliefs, ideals, and values…….people reduce……their cognitive dissonance* [by *ignor*ing] *or* [denying] *information that conflicts with existing beliefs……..when confronted with disconfirming evidence—expend great effort to justify retaining the challenged perspective…… restores psychological consonance to the person, either by mis-perception, by rejection, or by refutation of the contradiction; by seeking moral support from people who share the contradicted beliefs; and acting to persuade other people that the contradiction is unreal…..*

*……**confirmation bias** identifies how people prefer to read information that confirms their established opinions than information that contradicts them.*

This analyst was of course aware of this problem long before he became involved in speed cameras, one obvious example being the automatic reaction *"**Oh no!**"* of those who receive bad news. He remembers too how the architect of the **Ronan Point tower block**, standing on rubble caused by a gas explosion said to a television interviewer "***I consider these buildings to be perfectly safe***". Not to be outdone, the board of directors of a North Sea company whose ferry had sunk with massive loss of life told assembled reporters that "***Our safety standards are of the highest***".

As most camera analyses since the first significant one in 2001 have been riddled with serious errors (copies on request) despite peer review and presentation to conferences audiences, he is not in the least persuaded by defensive replies such as "*Paper XYZ has been subject to rigorous scrutiny by a large number of peers*", not least because peer review automatically leads to what George Orwell's called "***group think***":

a psychological phenomenon that occurs within a group of people in which the desire for harmony or conformity in the group results in an irrational or dysfunctional decision-making outcome. Group members try to minimize conflict and reach a consensus decision ***without critical evaluation of alternative viewpoints by actively suppressing dissenting viewpoints, and by isolating themselves from outside influences****…….The dysfunctional group dynamics of the "ingroup" produces an "illusion of invulnerability" (an inflated certainty that the right decision has been made). Thus the "ingroup"* ***significantly overrates its own abilities in decision-making and significantly underrates the abilities of its opponents****".*

https://en.wikipedia.org/wiki/Confirmation_bias quotes Leo Tolstoy's words from more than 100 years ago:

*I know that most men—not only those considered clever, but even those who are very clever, and capable of understanding most difficult scientific, mathematical, or philosophic problems—**can very seldom discern even the simplest and most obvious truth if it be such as to oblige them to admit the falsity of conclusions they have formed**, perhaps with much difficulty—conclusions of which they are proud, which they have taught to others, and on which they have built their lives.*
[End quote]

Similarly:

*A distinguishing feature of scientific thinking is the search for falsifying as well as confirming evidence.[123] However, many times in the history of science, **scientists have resisted new discoveries by selectively interpreting or ignoring unfavourable data**.[123] Previous research has shown that the assessment of the quality of scientific studies seems to be particularly vulnerable to confirmation bias. It has been found several times that **scientists rate studies that report findings consistent with their prior beliefs more favourably than studies reporting findings inconsistent with their previous beliefs**.[83][124][125]*

*However, assuming that the research question is relevant, the experimental design adequate and the data are clearly and comprehensively described, **the found results should be of importance to the scientific community and should not be viewed prejudicially, regardless of whether they conform to current theoretical predictions.**[125]*

In the context of scientific research, confirmation biases can sustain theories or research programs in the face of inadequate or even contradictory evidence;

*An experimenter's confirmation bias can potentially affect which data are reported. **Data that conflict with the experimenter's expectations may be more readily discarded as unreliable**, producing the so-called file drawer effect. To combat this tendency, scientific training teaches ways to prevent bias.[128] For example, experimental design of randomized controlled trials (coupled with their systematic review) aims to minimize sources of bias.[128][129] The social process of peer review is thought to mitigate the effect of individual scientists' biases,[130] even though **the peer review process itself may be susceptible to such biases.***

https://link.springer.com/article/10.1007%2FBF01173636

*Confirmation bias may thus be especially harmful to objective evaluations regarding nonconforming results since **biased individuals may regard opposing evidence to be weak in principle and give little serious thought to revising their beliefs**.[124] **Scientific innovators often meet with resistance from the scientific community, and research presenting controversial results frequently receives harsh peer review**.[133]*

https://en.wikipedia.org/wiki/Cherry_picking

*Choosing to make selective choices among competing evidence, so as to emphasize those results that support a given position, while ignoring or dismissing any findings that do not support it, **is a practice known as "cherry picking" and is a hallmark of poor science or pseudo-science**.[5]*

END