

The War Against Terrorism: Type I Versus Type II Errors

Mark Harrison

Professor of Economics
University of Warwick
Coventry CV4 7AL
+44 24 7652 3030 (tel.)
+44 24 7652 3032 (fax)

Mark.Harrison@warwick.ac.uk

What is going on in the war against terrorism? Is it a war against terrorism, or a war against Islam? Is it a war against fanatical killers or a war against civilians? Is it a war at all? We all need, urgently, to know.

It seems to me that around the world hundreds, maybe thousands of millions of people are asking these questions, and as they look for answers they have been making mistakes, including me. That's natural: making mistakes is absolutely normal for every single person on the planet. But some mistakes are worse than others.

Evolution has programmed human beings to look for patterns and find significance in chains of events. Our ability to do so has given us huge advantages as a species. Without it there would be no science, technology, religion, or culture: we could not understand the universe, manipulate the laws of physics, build social relationships, or peer into the future. Imposing significance upon chains of events so as to look into the future is something from which an extraordinarily wide range of people can make a living both for themselves and for others, for example politicians, priests, tipsters, entrepreneurs, novelists, journalists, economists, and historians.

Our propensity to discover patterns in what we observe is also a source of immense danger. The danger arises when we make mistakes. The mistakes we make can be of two kinds that statisticians call "Type I" and "Type II".

* An error of **Type I** is to see a pattern in the data where there is none.

* An error of **Type II** is to miss a pattern in the data that is actually present.

So when the Central Intelligence Agency sieved through its intelligence data on 10 September 2001 and failed to pick out the pattern that would have predicted the next day's catastrophic events, it committed a Type II error. In contrast, those people who subsequently claimed that the next day's attack on the World Trade Centre had been predicted by Nostradamus or the prophet Isaiah committed an error of Type I.

But which is worse? Type II errors certainly carry dangers. People and organisations that persistently make errors of Type II can be described as over-cautious or complacent. They fail continually to see what's round the corner. They don't recognise that your daughter's beefburger isn't safe at all, that the global climate is heating up, that nuclear and biological weapons have spread beyond the reach of multilateral regulation, or that war is looming and has become inevitable. They prefer the cock-up theory to the conspiracy theory. The only compensation for Type II errors is that some turn out not to have been mistakes after all. For example, ignoring reports of UFOs and doing nothing about the threat of invasion by extra-

terrestrial aliens has proved to be the right thing to do (so far). As for those who make Type II errors, they can usually be woken up in the end but only after they and others have suffered significant damage which, given better foresight, could have been avoided. Thus Type II errors can be corrected but correction is often costly.

Type I errors are in some ways worse. The people and organisations that persistently make errors of Type I can be called either arrogant or paranoid. They see conspiracies everywhere. They don't recognise that the world is complex and many things in it are random; they can't accept that things may happen by accident or by mistake. Nor can they accept that anything can happen in the world without being about *them*. For example, Osama bin Laden appears to think that the west is engaged in a crusade against Islam, which is a Type I error. Italian Prime Minister Silvio Berlusconi also committed a Type I error when he described the conflict as a clash of two civilisations, one superior and one inferior. Ordinary people can also make Type I errors, often quite understandably: a civilian who is bombed is liable to conclude that the purpose of the war is to bomb *him*.

Errors of Type I make too much out of history. Those who instantly compared the attack on the World Trade Centre with Pearl Harbor ran the risk of a Type I error. So do recent comparisons of the "war against terrorism" with the Gulf War, the Cold War, and Hundred Years' War. Prime Minister Blair edged away from this error when he recommended that voices of caution should not be equated with those who urged appeasement of Hitler in the 1930s.

The worst aspect of Type I errors is that they are often difficult to correct. This happens when they give rise to further chains of events that appear to provide the evidence to justify the original mistake. The expectations they create tend to be self-fulfilling; as a result, self-correction of Type I errors may not take place. For example, by declaring a crusade against terrorism, President Bush made a polarisation of Islam against the west more likely. Simultaneously, by declaring a jihad against the west, Osama bin Laden encouraged a polarisation of the west against Islam. Through their actions, each has helped to bring about a state of affairs that can be used after the event for self-justification.

One point to remember is that mistakes of either kind are not always genuine. Sometimes it suits people, especially politicians, to make one kind of mistake or another. In particular, having made one sort of mistake at the beginning of a sequence of events, they may self-interestedly subscribe to further errors so as not to have to admit to the first one for the sake of their reputations. Here again, however, there is a difference between errors of Types I and II. Type II errors are usually exposed by events: there comes a point where the realities of vCJD, global warming, or international terrorism can no longer be denied, whatever the cost to politicians' standing. On the other hand Type I errors are more likely to be buried by events, and this suggests that politicians are less likely to be punished for making them. As a result, we are much less aware of the costs of making them.

What kinds of errors are our leaders making today in our name? When Prime Minister Tony Blair assures us that this is not a "war against Islam", he is commendably avoiding a Type I error. But he is also making an error of Type II, because although the war is not *against* Islam, it is unquestionably *about* Islam; the west is mounting a military intervention *within* Islam and as a result Islam will be changed irreversibly by the war, one way or the other. In the same way it may not be a war *against* civilians, but it is certainly *about* civilians and anyway the distinction is a fine one for those civilians who find themselves under American bombs.

However, when President Bush interpreted the events of 11 September as a declaration of war on the west by terrorism it seems likely that he responded to a Type II error with an error of Type I that was also very dangerous. The Type II error was the failure to detect a criminal conspiracy. One aspect of the Type I error that followed was to interpret an act of monstrous and violent aggression as the first action in a war, inviting a military response rather than a police action. Another aspect was to identify the agents of 11 September as soldiers of an army supplied by a coalition of states rather than as members of an international conspiracy with links to public officials in many countries similar to other kinds of organised crime.

The danger of this error is that the actions that it has led to may create the state of the world that it wrongly diagnosed in the first place; a state even worse than the one that truly existed. The costs of making this error are literally incalculable. And those who have made it are unlikely ever to be called to account.