Isn't it all just obvious?

Tom Stafford *on a common accusation levelled at psychology.*

PSYCHOLOGY? Well it's all obvious, isn't it? Just common sense, but dressed up with big words to confuse people.

Many of us must be familiar with this kind of accusation. Tell someone you are a psychologist and it is nearly as popular as 'can you tell what I'm thinking then?'. Hell, I'm sure that during the long dark afternoons many a researcher has found themselves wondering if it might even be true. What, after all, is most published research really saying? When you convert it into everyday language what exciting message is there left to tell the ordinary person in the street about?

I used to keep a stock of 'unobvious' findings ready to hand for occasions like this. Is it really obvious that people can be made to enjoy a task more by being more poorly paid to recruit for it (cognitive dissonance: Festinger & Carlsmith, 1959)? That a saline solution can be as effective as morphine in killing pain (the placebo effect: Hrobjartsson, 2001)? That students warned that excessive drinking is putting many of their peers at risk may actually drink more, whereas advertising the fact that most students don't drink, or drink in moderation, is the thing that actually reduces binge drinking (Perkins *et al.*, 2005)? That over a third of normal people report having had hallucinations, something we normally experience solely with mental illness or substance abuse (Ohayon, 2000)? Or that the majority of ordinary Americans could be persuaded to electrocute someone to death merely by being asked to by a scientist in a white coat (Milgram, 1974)?

DISCUSS AND DEBATE

Do you think a lot of psychology research is obvious?

What is your favourite counter-intuitive finding?

What do people say to you when you introduce yourself as a psychologist?

Have your say on these or other issues this article raises. E-mail 'Letters' on psychologist@bps.org.uk or contribute to our forum via www.thepsychologist.org.uk.

Other notions that have been challenged include that children need to be taught language (Chomsky, Pinker), that parenting style has a significant effect on child development (Rich-Harris) or that anti-social behaviour is caused by low self-esteem (Baumeister). (Let's not dwell on the uncomfortable fact that many 'popular notions' were originally propagated by psychologists!)

What lies beneath the surface of research?

Another tack you can try in response to the 'obvious' accusation is attacking the very idea of what obvious is. Saying 'I could have told you that' after the fact is far easier than getting there first. Like inventions, the best psychological research findings *should* be obvious after they have been discovered – but it is surely the case that they aren't so obvious beforehand.

In fact, there is good evidence that most of us share a common cognitive bias in the form of the illusion of explanatory depth. This is that we mistake our familiarity with a situation for an understanding of how it works. Rozenblit and Keil (2002) showed this by asking people how well they understood certain common devices (such as a flush toilet, a clothes zip or a cylinder lock) and then asking them to describe in detail how these things worked. People's self-ratings of their understanding dropped as they were forced to confront their ignorance. Furthermore when asked detailed diagnostic questions about the devices, their self-ratings dropped still lower. We can speculate that additional evidence that they didn't really understand these devices as well as they thought (such as being asked to assemble them from component parts) would have produced even further drops in self-ratings of understanding. Perhaps, similarly, people don't realise how difficult it is to make psychological judgements before the fact – we know that in other domains people can be prevented from insight into inability by the same lack of knowledge that generates that inability (Kruger & Denning, 1999). In other words, what we don't know can get in the way of us figuring out that we don't know it and correcting the problem.

Some wise experimenters have insured themselves against being charged with proving the obvious by asking in advance what people would expect. Milgram did this with his experiments on obedience to authority. He described the procedure to psychiatrists and to ordinary people and asked for their predictions – both groups were wildly inaccurate about how few people would defy authority, and how many would proceed to the highest level of 'shock' (the psychiatrists were furthest out: Milgram, 1974). In another example, car drivers in low-status cars are more likely to be honked if they pause at green traffic lights: a finding in direct contradiction of the report of (male) interviewees who said they would be more likely to honk a high-status car driver than a low-status car driver (Doob & Gross, 1968).

The illusion of explanatory depth works

both ways, of course. Non-psychologists might have a tendency to mistake their familiarity with psychological processes for an understanding of their operation, but there is nothing that makes individual psychologists immune from this. Describing and categorising psychological phenomenon is vital to understanding, but within all of us the illusion of explanatory depth is primed to make us mistake a detailed description of *what* occurs for an understanding of *why* it occurs.

Obviously conflicting

People's everyday beliefs are rather wobbly foundations for psychological science. Things which people think to be 'obvious' don't make up a coherent theory of human behaviour (see the brief but excellent discussion in Stanovich, 1998). Research has shown that people are perfectly willing to endorse contradictory statements – so that something like 'absence makes the heart grow fonder' can be seen as obviously true, yet so is 'out of sight out of mind' (Teigen, 1986).

It has been argued that many currently popular beliefs are false (Kohn, 1990, see also Mackay, 1841/1995). This shouldn't surprise us when considered in the light of popular beliefs from the past and how ridiculous they seem now (for example the notion, popular in parts of Europe during the 14th century, that the Black Death was caused by the fashion of wearing pointed shoes: Hecker, 1844). Many modern beliefs have been overturned, or at least challenged, by psychologists. For example (provided in this context by Stanovich, 1998), there is the modern American dictum that making teenagers work during high-school is character building and a generally positive thing to do. Research has shown that working during high-school tends to harm teenager's academic work. What evidence there is on it being character building is also disappointing – work appears to make teenagers cynical about corporate culture and the value of hard work while promoting rather than deterring at least some forms of delinquent behaviour (Steinberg *et al*., 1993; Greenberger & Steinberg, 1986).

Embracing the obvious

Is the purpose of the study of psychology to produce wise and insightful individuals, to whom many things are obvious? It is not (and perhaps this is a good thing, given the history of abuses perpetrated by some psychologists who have considered themselves to have become wise and insightful: see Masson, 1989). Instead the purpose of psychological science is making findings about the human mind and behaviour available – obvious! – to everyone. By explicitly, rigorously, stating propositions about psychology and laying them open to testing we are democratising knowledge. We are making knowledge public, explicit and usable by everyone. That means stating the obvious, so that anyone can come and disagree with it (and so that we can be sure we aren't deluding ourselves about what is true or what we know).

If psychology is to be a science then the obvious needs to be thoroughly explored. Most research is Kuhnian 'normal science'. It is what happens between scientific revolutions; the monotonous process of confirming what we think is probably true, and disconfirming what we think probably isn't (Kuhn, 1962). But, in rare cares there is a unusual result – something we thought was obvious turns out not to be – and it is via these anomalies, Kuhn argued, that science progresses. Popper (1963; discussed in Chalmers, 1982) said something similar – that science progresses through the confirmation of bold conjectures and the falsification of cautious ones. By definition it would be unfair of us to expect the falsification of cautious conjectures to be routine. We have to test lots of statements that seem obvious before we find the door of discovery ajar and the situation reveals itself to be more complex than we thought.

Many of the activities of normal science are essential and involve delineating the exact form of a phenomenon, determining its magnitude, sphere of influence and limitations of effects. This kind of incremental addition to the heap of knowledge isn't headline grabbing – especially if an uninvolved media report the findings of the study, rather than why it was needed or novel.

A related point is that most psychology may be obvious, and indeed, possible to judge as worthless retrospectively, But perhaps this majority needs to exist so that the minority of unobvious, worthwhile, findings can be brought forth. After all, the majority of new products quickly fail, just like the vast majority of new species have rapidly become extinct (Ormerod, 2005). Theodore Sturgeon was generalising this even further when he famously said '90 per cent of everything is crap'. The point is that 90 per cent of psychology research might be worthless, but it is generated by the same processes that create the worthwhile 10 per cent. Individual readers can decide for themselves what they think true proportion of worthless to worthwhile research is – the essential point remains that it isn't possible to judge in advance the difference. Nor is it possible for any individual to judge on their own, and the collaborative sifting of findings, methods and theories is the wider process of science.

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