



Aha moments

Description

Imagine walking along the pavement of an unfamiliar busy street. There's heavy traffic, roadworks and people moving in all directions. Then you encounter an open gate, with green space beyond. You go through the gate and something else is revealed – a grand promenade, wide vista, perhaps a view to a stately villa now serving as a museum.

You are momentarily taken aback, and remark favourably on the spectacle to anyone travelling with you. That's a classic "aha" moment. It's not just that you have progressed from the ugly to the beautiful, but from the congested and difficult to the clear and coherent. In the twinkling of an eye, and for a brief moment at least, the world makes sense effortlessly.

Here's something similar – climbing up a difficult ramp into Hohenwerfen Castle, Austria, followed by a sudden view of the surrounding mountains.



Insight

I've just translated the description of the aha moment from the domain of cognitive problem solving to something spatial. A scenario in the case of problem solving might go something like this: after several days worrying over the problem of how to get from Edinburgh to Nottingham without changing trains, the solution suddenly occurs to me - go by bus.

A helpful article by empirical psychologists Sascha Topolinski and Rolf Reber summarises 4 aspects of the aha moment, which they also describe as the moment of "insight" for someone trying to solve a problem. The moment of insight (1) happens suddenly, (2) it's an easy transition requiring little cognitive effort, (3) the outcome is pleasurable, and (4) we are momentarily convinced of the *truth* of the outcome.

There's a lot behind each of these propositions. Not least, Topolinski and Reber point out that if a solution arrives in this manner then we are likely to think it's the right answer to our problem, and to stick with it: "the ease and speed with which an answer pops into people's minds increase their belief in the truth of this answer - again, independently of its actual correctness" (403).

As anyone knows who's tried to persuade another person to re-evaluate their position, it takes some effort to wean people away from their conviction that a solution they arrived at easily, i.e. "by intuition," is the best solution.

Fluency

Another term for *insight* is "processing fluency." It seems that "stimuli that are processed easily and rapidly are preferred to stimuli that are difficult to process" (403). So as well as my tendency to believe a solution I arrived at effortlessly is true, there's the pleasure that comes from such instant insight. Topolinski and Reber claim a link between truth and aesthetic judgement here. Truth and beauty elide through the age-old concepts of the pure, simple and truthful - rebadged as "processing fluency."

So if you want something to be enjoyed and rated highly then shroud it in simplicity, whatever the content. If people *think* they understand the product then they are more inclined to like it. I guess advertisers work on this assumption, deploying really simple messages to encourage consumers to prefer their product, even products that are quite complicated. "Everything changes with iPad," says Apple's simple tagline. "Supporting you through life's important journeys," says RBS.

Hence academics and business people promote the idea of the USP (unique selling point), and in universities we encourage PhD students and fellow researchers to come up with a simple tagline or elevator pitch to describe their complicated research projects. If you want people to like it, keep the message simple.



Faking truth

Following the fluency hypothesis, experiences that are easier to process induce a kind of pleasure. That pleasure then gets translated back to the object. It seems that the 4 characteristics of the aha moment operate in multiple directions. For example, experimental psychologists can simulate something like a sudden aha moment (insight) in reverse, by presenting a message that everyone knows to be true, introduced via easy to understand words that follow something rather more complicated, and in a pleasurable setting. I've tried to illustrate this with the following statement:

The diurnal cycle dictates certain circadian celestial phenomena on which most species depend. Tomorrow the sun will rise in the east ð???

It might just happen that in the right context, and with a bit of elaboration, such a case may strike the reader as a revelation. I've placed the simple and obvious directly following the obtuse and complicated.

More interestingly you could also persuade someone that a controversial statement is true (e.g. 'the UK will be better off outside of the EU') by preceding it with a series of statements that compound the difficulties of comprehension (e.g. something difficult about fiscal policy and trade agreements). Do this with a friendly smile.

These are my examples, and perhaps overstretch the experimental science on which Topolinski and Reber draw. It's worth stating that they take it for granted that culture has a huge role here. What constitutes processional fluency varies according to background and context.

Back to space

Spatial experience that involves frustration (finding your way through roadworks), followed by an encounter with some *processional fluency* is the kind of phenomenon you might expect to show up in [EEG](#) readings.

See the blog post [Turning the corner](#), where I describe the 'Brideshead moment' which by this reading is a moment of coherence and easy comprehension, the achievement of a goal, an overview, a prospect, that follows a period of disorientation and frustration. As is the case in story-telling, a skilful architect, landscape architect or planner might modulate alternations between places that frustrate and those that present prospect and resolution, though of course this may happen in any case as people inhabit and use space as they see fit.

It occurs to me now that this posting might be a bit too complicated. In which case here's something simpler: thresholds are important in architecture.

Reference

- Topolinski, Sascha, and Rolf Reber. 2010. Gaining insight into the 'Aha' experience. *Current Directions in Psychological Science*, (19) 6, 402-405.

Category

1. Architecture

Tags

1. cognition
2. EEG
3. landscape
4. space
5. threshold
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