Stephen Colbert defined a new word – **_Truthiness._**

> The belief or assertion that a particular statement is true based on the intuition or perceptions of some individual or individuals, without regard to evidence, logic, intellectual examination, or facts.

Colbert states that, "I am no fan of dictionaries or reference books, constantly telling us what is or isn't true". For some, a believe that our "intuition" or "feeling" is a much more reliable guide to judge if a fact is true instead of annoying facts.

This is very similar to the ideas that Galileo Galilei wrote in a letter to the Grand Duchess Christina of Tuscany 400 years ago. [1]

> But I do not feel obliged to believe that that same God who has endowed us with senses, reason, and intellect has intended to forgo their use.

A number of popular commentators write that we should trust our intuition (without explaining what that may be) rather than relying on what we read. Most of these commentators have written many, many books to tell us that we do not need these books.

Whilst there is not an agreement among psychologists as to a definition of intuition, the unconscious (or subconscious) recognition of previous patterns is frequently a common theme. It is the ability to see things and ideas, often unconsciously, as connected rather than a series of isolated fragments. Intuition is not the same as doing what feels right.

Below are some definitions of intuition.

- The unconscious recognition of previous patterns – Carl Jung
- Intuition is nothing but the outcome of earlier intellectual experience – Albert Einstein
- Nothing more and nothing less than recognition – Herbert Simon, Nobel Prize winner, economist, political scientist, cognitive psychologist, computer scientist
- Intuition is the spontaneous knowledge gained through experience – Zen
- Intuition is the ability to see things and ideas as connected rather than a series of isolated fragments
- Knowledge that has come inside
- The ability to make successful decisions without rational, analytical thought or interference. [2]

Psychologists tells us that we use 5 criteria to judge if information is true. How we do this depends on whether we use *analytical evaluation* or *fluent evaluation*. Analytical evaluation requires effort to seek additional information to confirm the validity whilst fluent evaluation is more based on what feels right.[3]

Criteria	Analytical Evaluation	Fluent Evaluation
Social consensus Do others believe it?	Search databases, look for supporting statistics, or poll a group or audience.	Does it feel familiar?
Support Is there much supporting evidence?	Look for corroborating evidence in peer-reviewed scientifc articles or news reports, or use one's own memory.	Is the evidence easy to generate or recall?
Consistency Is it compatible with what I believe?	Recall one's own general knowledge and assess the match or mismatch with new information.	Does it make me stumble? Is it difficult to process, or does it feel right?
Coherence Does it tell a good story?	Do the elements of the story logically ft together?	Does the story flow smoothly?
Credibility Does it come from a credible source?	Is the source an expert? Does the source have a competing interest?	Does this source seem familiar and trustworthy?

How We Evaluate

Social consensus

If there is consensus among the group of people that we associated with, then this reinforces

the idea that our beliefs are correct. If we belong to a group that shares our beliefs, such as a religious, political or Facebook group, we may have only limited view of an alternative.

Support

If there is much evidence to support a view (such as the world is round), people are likely to believe it.

For more complicated ideas, people can find evidence by searching scientific articles in peer-reviewed journals or from their own knowledge of the subject.

But a less rigorous and quicker approach can involve making a judgement on how easy it is to obtain information. For many people this involves an internet search.

Providing many examples to support an idea is *less* effective than having a few. Provide two or three examples at the most to support your idea otherwise it becomes overwhelming.

Consistency

Is the information consistent with existing knowledge? In the absence of knowledge of a particular subject, it is easy to rely on our beliefs or feelings.

We are much more likely to believe something that is consistent with our own beliefs. It can be very difficult for people to change their beliefs.

In *Life, the Universe and Everything* (part of the *Hitchhiker's Guide to the Galaxy* series), Douglas Adams explains our inability to see new information as a result of the *Someone Else's Problem* field. Effrafax of Wug utilised the SEP field to create an invisibility device that would run for a hundred years on a single torch battery. It relied on people's inability to see anything that they:

- do not want to,
- were not expecting or
- cannot explain

Coherence

Does the evidence form a coherent story? Is the evidence consistent (analytical evaluation)? Or does the the narrative and message appear plausible, fluent and eloquent (fluent evaluation)?

If there are gaps in a story, then people can fill the gaps in unexpected ways.

Credibility

People are more likely to accept an idea if it is from a credible source. This is not very surprising. What can be difficult is judging whether the source is credible or not.

Websites offer a wide range of diverse views. How can we decide which are credible?

Many of our health organisations, such as Cancer Societies, accept a great deal of money from the food industry, which distorts their messages relating to diet.

University researchers also can accept money from food industry.

Most research involves comparing one or more groups of participants with a control group. By manipulating the members of the control group, researchers can manipulate their outcomes.

One study [4] published in *Nature*, compared a diet containing lean red meat with a diet containing tofu. There was a slight decrease in cholesterol and triglycerides in the tofu-diet group.

> However, to minimise the differences in fat intake between the two diets, the researchers added 5 g of butter, 5 g of lard and 8 ml of olive oil to the daily intake of those on the tofu diet.

The researchers noted that, in practice, replacement of meat with tofu would normally be accompanied by a reduction of saturated fats and fats. The addition of the extra fats to the tofu diet is fraudulent.

Suggestions

Repeating an idea three times reinforces the message

It does not matter whether the information comes from different sources or the same source, but once we have heard or seen something three times, then the idea is reinforced and given more credibility.

Do not attack opposing view

Repeating false information is a bad idea. Attacking an opposing view can have the opposite effect. A number of factors contribute to this.

- If a person believes in an idea then attempting to dispel it results in a defensive

attitude. It is much less likely for an alternative idea to be considered.

- Repeating an idea three times reinforces the idea, irrespective of the truth.
- If possible, ignore the opposing view and concentrate on the view that you wish to espouse.

Use pictures

Using pictures can have a big impact on the credibility of a story, irrespective of whether the picture actually supports the view or not. Having a picture of a gorilla in a news item about gorillas can reinforce the message even though the picture does not convey a message to support the story. Shown is a picture of a young Richard – for credibility.

This is unlikely to work for a political, religious or medical story where the message is contradictory to the reader's existing beliefs. If the reader is staunchly conservative then a picture of a liberal politician is likely reinforce the negative response to any liberal message.

Highlight important points

Highlight important points by changing font, **use of bold or italics** or changing colour to highlight text.

Poetical devices such as alliteration, rhyming and rhythm

A message is much more powerful if it is easy to remember and is "poetical".

- No pain, no gain.
- Give me liberty or give me death. – Patrick Henry
- The threefold yoke of ignorance, tyranny and vice. – Simon Bolivar
- I have nothing to offer but blood, toil, tears and sweat. – Winston Churchill
- Does the flap of a butterfly's wings in Brazil set off a tornado in Texas? – Edward Lorez (It is a question – no, it does not.)
- Free at last! Free at last! Thank God Almighty, we are free at last. – Martin Luther King

Grouping items in threes

1. love, hope and charity
2. liberty, equality, fraternity
3. blood, sweat and tears

Make use of white space

Presenting text as in a novel, with pages and pages of words lacks impact.

> Use headings, lists or boxes to give impact to your pages.

Tell a story

Whilst ultimately, studies and statistics help determine the credibility of a hypothesis, it is a story – an anecdote, that has a much greater impact.

This is why William Banting, a very overweight English carpenter and undertaker in the mid 1800s, is still an influence one and a halve centuries later. In a pamphlet, a *Letter on Corpulence,* [5] Banting describes his experience.

Over a period of 12 months, he lost 46 pounds (21 kg) resulting in a weight of 167 pounds (76 kg). It was a big improvement but not exactly slim. His recipe for achieving this is:

> For breakfast, I take four or five ounces of beef, mutton, kidneys, broiled fish, bacon, or cold meat of any kind except pork; a large cup of tea (without milk or sugar), a little biscuit, or one ounce of dry toast.

For dinner. Five or six ounces of any fish except salmon, any meat except pork, any vegetable except potato, one ounce of dry toast, fruit out of a pudding, any kind of poultry or game, and two or three glasses of good claret, sherry, or Madeira – Champagne, Port and Beer forbidden.

For tea. Two or three ounces of fruit, a rusk or two, and a cup of tea without milk or sugar.

For supper. Three or four ounces of meat or fish, similar to dinner, with a glass or two of claret.

For nightcap, if required, A tumbler of grog – (gin, whisky, or brandy, without sugar) or a glass or two of claret or sherry.

According to Banting, this led to a good night's sleep.

Related articles

Tornadoes, Seagulls, Grasshoppers and the Butterfly Effect
But we are all individuals

Footnotes

1. Galileo Galilei – Letter to the Grand Duchess Christina (1615)
2. Lufityanto, G., Donkin, C., & Pearson, J. (2016). Measuring intuition: Nonconscious emotional information boosts decision accuracy and confidence. *Psychological Science*, 27(5), 622–634
3. Schwarz, N., Newman, E., & Leach, W. (2016). Making the truth stick & the myths fade: Lessons from cognitive psychology. *Behavioral Science & Policy*, *2*(1), 85–95.
4. Ashton, E. & Ball, M. (2000) Effects of soy as tofu vs meat on lipoprotein concentrations. *European Journal of Clinical Nutrition*. 54 (1), 14–19.
5. Banting, W. (1864) *Letter on Corpulence*. Third Edit. London: Harrison, 59 Pall Mall.