

# DRAFT

## Busting myths

### A practical guide

There are a lot of myths around. Particularly regarding how our society works, why it is the way it is, and how we can change it for the better.

Consider just a couple of examples:

- In 2011, researchers found that Americans vastly underestimated levels of inequality in the US. On average they estimated that the top 20% received 59% of total income (it's actually 84%), and that the bottom 40% received 9% (it's actually only 0.7%).<sup>1</sup>
- In early 2013, a TUC/YouGov survey found that Britains thought unemployment benefit accounted for 41% of the welfare budget, when it's actually 3%. They also thought 27% of welfare was claimed fraudulently; the Government's best estimate is 0.7%.<sup>2</sup>
- In 2011, the Transatlantic Immigration Survey found that on average Britains thought 32% of the population was foreign-born. The actual figure is 11%.<sup>3</sup>

Obviously, the problem is not just that people believe something false, it's that these false beliefs also influence how people think things *ought* to be. If you believe benefit fraud is high you are more likely to support a reduction in benefits; if you think immigration is high, you are more likely to view it as a bigger problem.<sup>4</sup>

### Why we believe myths

The most important thing to understand when mythbusting is that humans aren't rational. Although we might think we form our opinions and attitudes based on the available evidence, this is not the case. For example, research has shown that touching money makes us more likely to tolerate inequality;<sup>5</sup> judges are less likely to give prisoners parole the longer it's been since a food break;<sup>6</sup> and we're more likely to say we believe in climate change if we're in a room with a dead plant.<sup>7</sup>

Nor do we just take everything we read and hear at face value. Instead, we judge it by what we already think is true and important. As the American cognitive linguist George Lakoff notes, if the facts don't fit our values or identity "the facts bounce off."<sup>8</sup> The way that we think – including our response to factual information – tends to work to protect our current identity. As the American psychologist David G. Myers once said: "There is an objective reality out there, but we view it through the spectacles of our beliefs, attitudes, and values."

What this all means is that in order to effectively mythbust it's not enough to know *what* people think; it's essential to know *how* they think as well.<sup>9</sup> Busting myths is not simply a matter of countering one fact with another. In fact, research suggests that if done badly, attempts to mythbust can actually end up reinforcing the myth.<sup>10</sup>

Nobody wants to do that.

Which is what this guide is for: to help you avoid that situation. Below are some recommendations, drawing on relevant psychological research.

## Recommendations

### Be nice

While shock messaging and antagonism are often seen as the only way to get a message across, research shows that people are actually more open to persuasion when they're feeling positive. Whether it's support for the death penalty,<sup>11</sup> belief that environmental catastrophe is imminent,<sup>12</sup> or dismissal of the health effects of caffeine,<sup>13</sup> a message is more likely to change our minds if we're first asked to think about an important belief or relationship we have, or (in one study) just thinking about kindness.<sup>14</sup>

People are also, in general, more supportive of policies that they believe will make society *nicer* or *kinder* than they are of policies that will make it richer or more technologically advanced.<sup>15</sup> And we're less motivated to advocate policies with mixed outcomes, i.e. that address climate change but simultaneously increase poverty.<sup>16</sup>

**Study:** Researchers asked students who were in favour of the death penalty to think about a time they had been kind, or when humour had been important. Another group were asked to write down what they'd eaten the previous day. After some other filler tasks, they read some evidence on the ineffectiveness of the death penalty as a deterrent. The group that had been made to think positively about themselves were significantly more likely to be persuaded by this evidence.<sup>17</sup>

### Avoid loss and threat messages

Messages that focus on loss and fear, such as the threat of environmental damage, terrorist attacks, or social breakdown, can make people feel threatened or afraid. To reduce these feelings, research shows we often use strategies such as avoidance, blaming others, or trying to find some control in the situation – either by exerting control in other areas or submitting to the authority of others to control it. This means we often gravitate towards values of authoritarianism and social dominance (“the government will sort it out”; “the foreigners caused it”), and security and militarism (“we may need to use force to fix this”).<sup>18</sup> This avoidance and desire to exert control can even manifest itself in increased self-interest, materialism, and consumption.<sup>19</sup>

One study showed, for instance, that if we think of our society becoming a threatening place in the future, we're more likely to embrace attitudes of authoritarianism and social dominance in the present.<sup>20</sup> Another study showed that imagining being unemployed made people more materialistic and concerned about image.<sup>21</sup>

The unhelpful consequences of threat messaging are particularly salient when it comes to communicating urgent social and environmental issues, such as climate change. When these messages aim to frighten or to guilt trip us into taking action, they tend to backfire by making us feel disempowered, helpless and detached.<sup>22</sup>

**Study:** Following calls from academics to look more closely at images used in climate change communication, one international research team has analysed the impact that pictures have on our motivation. They used three types of climate imagery, representing scary or destructive climate impacts (e.g. flooding and bushfire), positive energy futures (e.g. wind farms and solar panels) and political/celebrity endorsements (e.g. Geldof in concert). The climate impact images, which were deliberately powerful and shocking, made the issue of climate change seem important, but they undermined people's belief that they could personally do something to help. Instead, people felt distanced and disengaged from the issue. The research highlights that, while it's tricky to communicate climate change in a way that is both captivating and inspiring, it's particularly unwise to use messages that make people feel threatened or afraid.<sup>23</sup>

## **Avoid directly repeating the myth**

Repetition is key to the strength of myths.<sup>24</sup> The more we hear something, the more we tend to think it's true. In 1943 one study found the more frequently people heard false wartime headlines, the more likely they were to believe them.<sup>25</sup>

Even saying something *is not* the case can strengthen the memory that it *is*, because we create an association between the two things. For example, if someone is told that something is "**not** North", they will still subconsciously look to the North. And, to use the title of George Lakoff's famous book on political framing, if someone says "don't think of an elephant" you just can't help but think of one.

Bizarrely, it seems that even if the source of the myth is discredited, the strength of the myth remains. This is because it's the myth itself that will remain in memory, not necessarily where it came from.<sup>26</sup> So telling people not to believe a particular news source because of all the times they've lied before won't necessarily help in busting the myth they're promoting.

**Study:** Patients were offered leaflets designed to bust health myths such as "The side effects of flu vaccination are worse than flu". The leaflets contained relevant facts, such as "Side effects of the flu vaccination are rare and mild". They found people correctly identified myth from fact immediately after

reading them, but 30 minutes later, readers of the leaflets identified more myths as ‘facts’ than people who never read a leaflet to begin with! Not only this but, more importantly, they were then less likely to go and get vaccinated.<sup>27</sup>

## Be careful with language

Words have a lot more weight than we give them credit for. Language is connected in memory in chunks of associations (known as *frames*). This is important to myth busting as using particular words can have unintended consequences.

Myths are often tied up with frames. US linguist George Lakoff documents the Republicans’ shift from talking about *tax cuts* to talking about *tax relief*. This tiny word change cleverly moves from something implicitly negative (‘*cuts*’) to something positive: a burden removed (‘*relief*’).<sup>28</sup> The more the term is used, the more it also implicitly strengthens the belief that tax is a burden, to be removed. Even if a Democrat won a debate on tax, if they’d used the terms “term relief” to do so they are likely to have strengthened the idea that tax is a burden and therefore setback their cause.

We might say something similar about the term ‘taxpayer’s money’ (used instead of a term such as ‘public resources’) in the UK: an individualised term that promotes self-interest rather than the common good.

In fact, talking about money in particular, and ideas related to self-interest more generally, can have a powerful effect on people’s responses. The reason for this is because *frames* connect with *values*. We all hold values related to status, materialism and wealth (“me-values”), but we also all hold values related to family, society, and the environment (“we-values”). These two sets of values – me versus we values – can’t be in play in decision-making at the same time. It’s important to choose words that will evoke associations with “we” – the public good (if that’s why you’re mythbusting).

**Study:** In one important study published last year, participants were split into two groups to complete identical surveys, one of which was titled a “Consumer Reaction Study” and the other a “Citizen Reaction Study”. Although the questions in the survey were identical, those in the “Consumer” group were subsequently more attracted to wealth and materialism related words. Reading consumption-related words also made people more competitive and less collaborative, less likely to want to be involved in civic activities, and less likely to conserve resources in a game.<sup>29</sup>

## Fill the gap you’ve created

When you’re de-bunking a myth, try to provide an alternative explanation to fill ‘the gap’ you’ve created. If someone doesn’t have an explanation for something, they’re

more likely to fall back on the myth again.<sup>30</sup> If possible, the alternative should also explain why the myth was used in the first place.<sup>31</sup>

We like things to be coherent, and we tend to go by a sort of “there’s no smoke without fire” principle. We also like to know why we were told something else to start with – why were we told that there were WMDs when there was so little evidence?

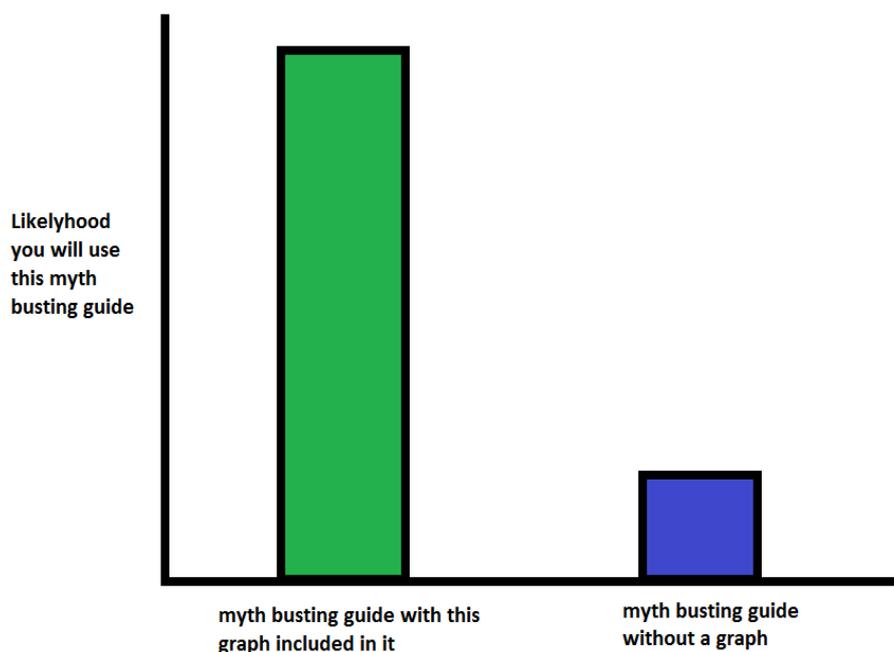
## Keep it simple, focus on the core arguments

We have a natural preference for simplicity and coherence.<sup>32</sup> If we hear long complex counter-arguments, we may well stick with the myth. We seem to have an innate feeling that “the lady doth protest too much”.

Even if a myth is so ridiculous that there are multiple ways of busting it, it’s best to stick to the simple core: and make it memorable. Simple explanations are also just easier to remember.

## Use graphs where possible

If you have the opportunity to use graphs, do so. Research suggests that visual cues can often be more persuasive than words alone.<sup>33</sup>



## Focus on the undecided

Mythbusting often reaches its limit with strong believers. People whose identities or worldviews are strongly bound up with a myth are unlikely to change their mind.<sup>34</sup>

When you're thinking about your audience, it's worth remembering this – you're not aiming to change everyone's mind, and so going for those most wedded to the myth is unlikely to be the most effective use of time.

And finally,

## **Speak up!**

At this point, some readers may be thinking, “This all sounds a little too complicated, why bother if I could only make things worse?”

Well, it seems that the worst thing you can do is stay silent. Research shows that accusations or assertions that are met with silence are more likely to feel true.<sup>35</sup>

So speak up!

## **Useful resources**

- The Debunking Handbook by John Cook and Stephan Lewandowsky – available at [skepticalscience.com](http://skepticalscience.com)
- Don't Think Of An Elephant by George Lakoff.
- Thinking, Fast and Slow by Daniel Kahneman
- Talking Climate – [talkingclimate.org](http://talkingclimate.org)

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