

The Merchants of Confusion – GMOs

GMOs are linked to monoculture systems that wipe out other crop and ecosystems

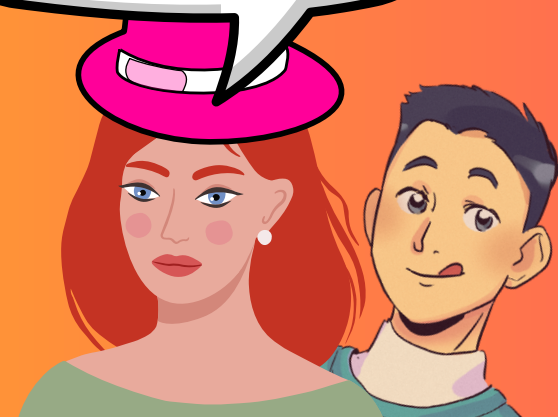
GMOs will usher in a future where all our food is engineered and controlled by big corporations

Since introducing GMO crops, there have been protocolled declines in many pollinators

Genuine environmentalists do understand the unacceptable risks GMOs pose

Scientists want you to believe that without GMOs, we'll face global famine

Surveys show a growing public unease about consuming GMOs



The one-sided Litigators

The slippery slope Scaremongers

The false-cause Fabricators

The exclusionary Scotsmen

The “Strawman” Architects

The *ad populum* Propagandists

Manipulating through "Information asymmetry"

Manipulating through "Hyperbolic Horror"

Manipulating through "Illusory Patterns"

Manipulating through "Special Pleading"

Manipulating through "Misrepresentation"

Manipulating through "Desire to Belong"

Information asymmetries pose a risk for opportunism in business, management and human relationships (Bergh D., 2018). Media manipulators can hijack information asymmetries in public understanding of science by providing only one-sided and select examples or anecdotes in support of false claims or hypotheses. This works because we tend to rely on a cognitive bias known as the availability heuristic to evaluate a claim's merit (Tversky & Kahneman, 1973)

A related tactic is to pronounce the (supposed) absence of any counter-evidence as evidence for a claim, which might mislead individuals to accept *prima facie* implausible claims or not reject them to preserve cognitive consistency (Vu L., et al., 2023)

A slippery slope argument claims an initial action will trigger a series of other events and lead to an extreme or undesirable outcome. However, these arguments are often fallacious because they imply inevitability, causality and necessity between individual stages.

Media manipulators use slippery slope arguments to instill horror in their audience by presenting (hypothetical) extreme consequences as inevitable (Jefferson A., 2014, Nikolopoulou K., 2023), thereby abusing our inherent aversion to loss or perceived threats at the expense of logical reasoning (Lerner & Keltner, 2001). Shared fears can also be abused to guide collective behaviors, socially reinforcing false beliefs about risks (Kasperson et al., 1988).

Humans have an innate desire to understand causality. Our pattern-recognition ability evolved to help us understand and predict our environment, but also imbued us with a tendency to overfit data to patterns, and perceive connections between random things (Fyfe S. et al., 2008, van Prooijen, 2017).

Media manipulators can abuse this predisposition to prompt us to falsely attribute causal relationships to events that correlate in time, or take advantage of our desire to shape scattered facts into coherent stories (Taleb, 2007). Collective memories and shared narratives can also amplify these false causalities, especially if they align with broader cultural stories or beliefs (Wertsch JV., 2021, Erll A., 2022).

When confronted with scientific information that contradicts our beliefs, we experience discomfort and cognitive dissonance (Harmon-Jones et al., 2009). To resolve these contradictions, we often fall into special pleading (Dim Y., 2018) by setting different standards for different arguments to unjustly reject inconsistencies.

Media manipulators can foment special pleading with appeals to purity, identity or moral credentialing of their in-group. By claiming that "no true scientist" would ever act or speak in a dissenting way to their beliefs (Manninen TW., 2018), they aim to assert their group's moral superiority (Monin & Miller, 2001) and give citizens license to disregard or devalue inconvenient counterexamples.

We have an innate tendency to view members of out-groups as more similar to each other than members of in-groups (Quattrone & Jones, 1980, Judd et al., 1991). We also judge probabilities through a representativeness heuristic by comparing an event to a prototype or stereotype that we already have in mind (Gilovits & Savitsky, 2012, Balia S., 2015)

Media manipulators play into these tendencies by treating the complex positions of out-group members as if they are monolithically simple and representative of a flawed or extreme stance. These oversimplified strawmen arguments are more easily processed (Kahneman, 2011) and can be pompously debunked to persuade and reinforce "in-group" solidarity (Harwood J., 2020).

We often do things because many other people are doing them, regardless of our own beliefs or supportive evidence. This bandwagon effect (Bindra S. et al., 2022) is innate to social beings influenced by pressures and norms of groups, from wisdom of the crowd (Surowiecki, 2004) to social proof (Cialdini, 1984).

Media manipulators abuse our tendency to look to others by appealing to the popularity of an unsubstantiated position (McCrew BW., 2018) or taking advantage on the individual's fear of being isolated or ostracized (Williams KD et al., 2022). A related tactic is to invoke common practice or tradition to asserts that a premise must be right because people have always believed or practiced it (Michaud N., 2018).