



Global Risk Perceptions Q3 2020



DEEP • LEARNING
TACTIX RISK COMMUNICATIONS

Preface

We first launched this Global Risk Perceptions Report by sharing three of the risk indices we use to understand and predict risk perceptions. This month, we reveal three more.

- **Dread:** risks feel catastrophic and generate feelings that someone is profiting from the harm done to others;
- **Unknown:** people feel the risks are not properly understood; and,
- **Disgust:** feeling something is gross or revolting.

To understand the power of these indices, consider the differences between plastic pollution with microplastics.

Plastic pollution (bottom right in figure 1) evokes powerful feelings others are profiting off of their proliferation (dread). Microplastics do not. In contrast, concern around microplastics is grounded in the feeling that the risks are unknown (and the unknown is terrifying).

Mitigating these risks perceptions takes two very different strategies. Mitigating risk when disgust is involved (page 4) is an altogether different set of strategies.



Paul S Hillier
Co-Lead,
Risk Communications Practice



Classic Drivers of Risk Perception: Dreaded and Unknowable

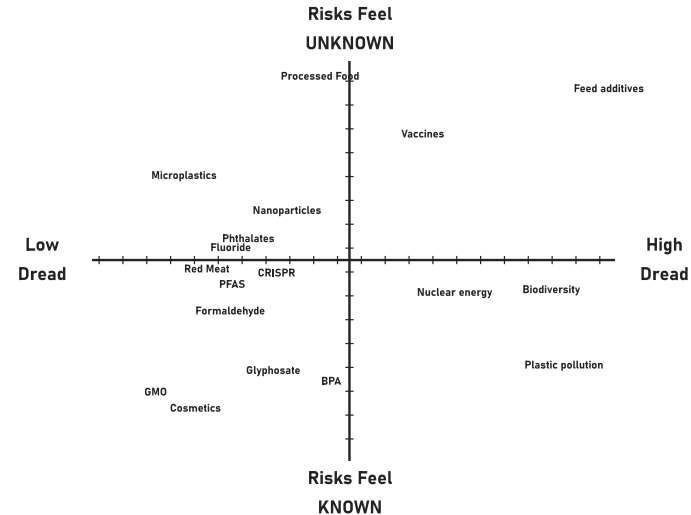


Figure 1. Dr. Paul Slovic first posited these two risk indices in 1987, asking participants whether a given risk felt dreaded or unknown. We build off his work, but instead of asking people (which introduces a host of psychological biases), we analyze how people actually engage with the topics.

In so doing, we can uncover what people believe (not just what they say they believe) and use that to build a product defence strategy that responds to real concerns.

Methodology

Using Deep Learning

With over two decades managing product defence campaigns, we understand what drives people to feel outrage, fear, or uncertainty towards technologies.

TACTIX' Risk Indices are measured using a proprietary sentiment analysis algorithm. We built the algorithm specifically to analyze controversial products and practices.

If you are looking for historical data, weekly breakdowns, deeper analysis, or for another issue to be added to the tracker, reach out to us at paul.hillier@tactix.ca.

Measure Behaviours, not Attitudes

Why do we not poll people like many other risk reports do? Because polling asks people what they think they are concerned about.

Problem one: people often do not know what they are concerned about. **Problem two:** they are unable to answer why they are concerned about something.

Ultimately, we want to anticipate the public's behaviors. And so, it only makes sense, to build risk indices based on actions - the comments people post on social media, their mobilization, what they search and what they read. Behaviours drive attitudes, not the other way around. So we measure behaviours.

Proprietary Risk Indices

Severity Index: measures the percentage for public conversation that is expressing concern about severe harm.

Personalization Index: measures the percentage of public conversation that is associating the concern with a family member.

Mobilization Index: measures the percentage of public conversation that is calling for a ban, boycott, or political change.

Dread Index: measures the percentage of public conversation where the issue is discussed in terms of being catastrophic, global, involuntary or inequitable.

Unknowable Index: measures the percentage of public conversation expressing concern about our inability to observe, detect, or understand the issue.

Disgust Index: measures the percentage of public conversation presenting the issue as something that is revolting or offensive.

Disgust is a Moral Emotion

When people believe something is gross or revolting, they are more likely to be scared of it, opposed to it, and find it offensive.

The power of disgust is grounded in both:

- **Evolutionary psychology:** our ancestors were more likely to survive if they avoided contaminations and infections; and,
- **Social psychology:** communities are bound together by a shared sense of what is considered taboo.

When feelings of disgust are combined with concerns about severe harm (the top right quadrant in figure 2) risk perceptions climb to dangerous levels.

Every product defence strategy needs to answer the question, *what are we doing to reduce feelings of disgust?* If the answer is to provide more data or science, then there is a fundamental misunderstanding about what disgust is.

Over the next four pages, we provide a deep dive into how disgust can help explain risk perceptions, and also how it can serve as a leading indicator to anticipate when risk perceptions will boil over into mobilized efforts to ban or boycott products.

New Drivers of Risk Perception: Disgust and Severity

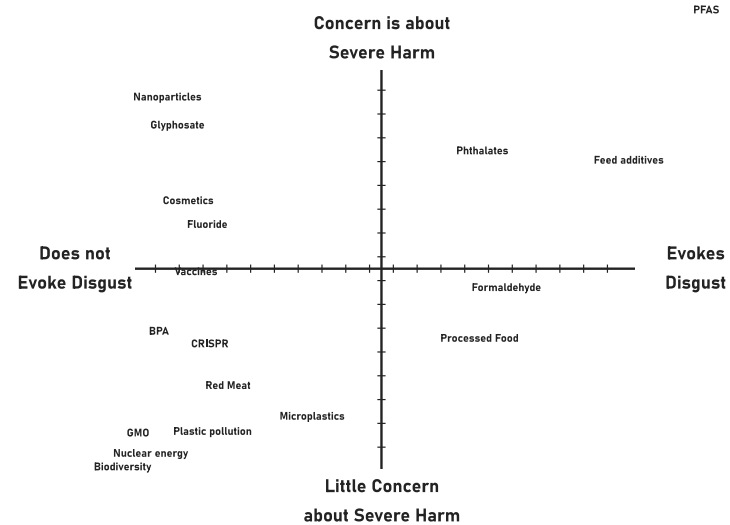


Figure 2. When people find something disgusting, they make a moral judgment that it is bad. Every product defence strategy needs to be able to answer the question, *what are we doing to reduce feelings of disgust?*

Risk Perceptions towards Food and Agriculture

Average Risk Perceptions:
September 2019 to June 2020

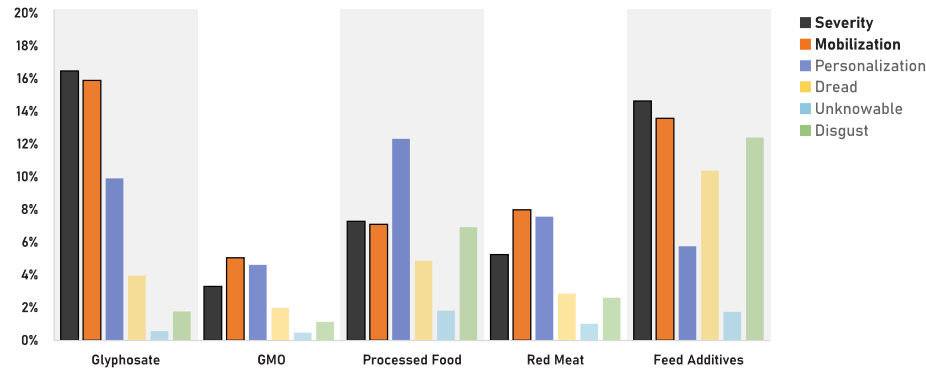


Figure 3. Mobilized efforts to ban and boycott specific substances in food and agriculture most often result from concerns over severe harms. GMOs are the notable outlier, where product defence strategies must actively manage feeling of dread and disgust more than concerns of severe harm.

Percentage of the Conversation
Expressing DISGUST

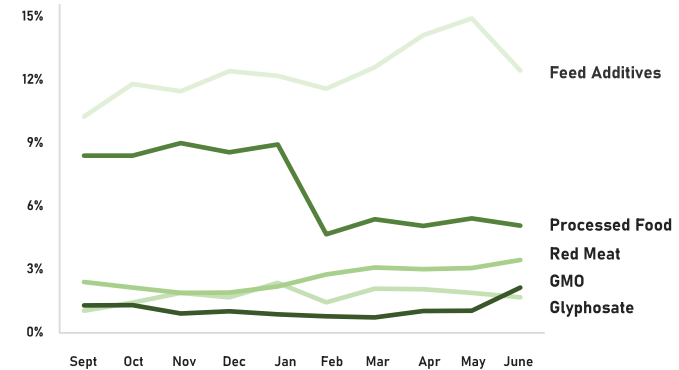


Figure 4. Feed additives (e.g. hormones, antibiotics) evoke the strongest feelings of disgust, with concern steadily growing over the past year. Processed foods, in contrast, are seen to be susceptible to sudden declines caused by specific events.

Risk Perceptions towards Consumer Products

Average Risk Perceptions:
September 2019 to June 2020

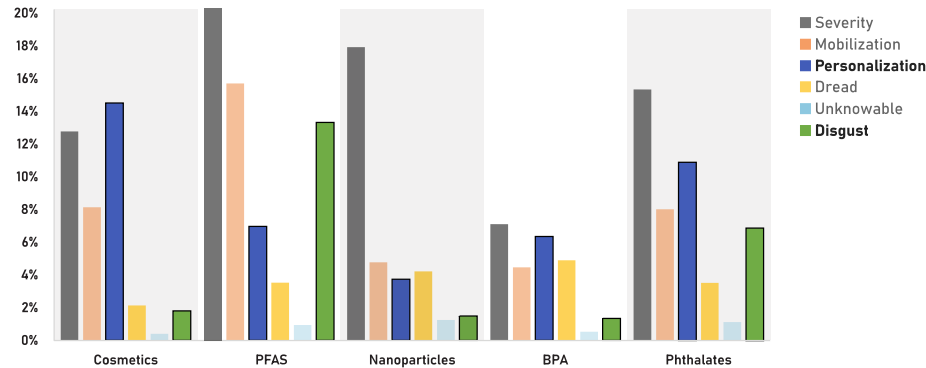


Figure 5. For most consumer products, the most reliable indicator for when the population will mobilize in opposition is personalization (the degree to which concern is expressed about oneself and one's immediate family members). However, disgust plays a key role in understanding risk perceptions towards the most controversial products, such as PFAS and phthalates.

Percentage of the Conversation
Expressing DISGUST

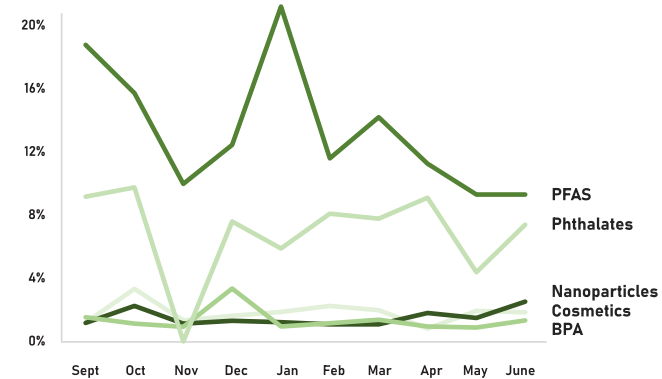


Figure 6. Activist campaigns have successfully evoked feelings of disgust in specific ingredients. Product defence initiatives have not yet been able to defend against these attacks. This is of particular concern for PFAS, where we have seen disgust to be a very strong leading indicator of mobilization.

Risk Perceptions towards Environmental Issues

Average Risk Perceptions:
September 2019 to June 2020

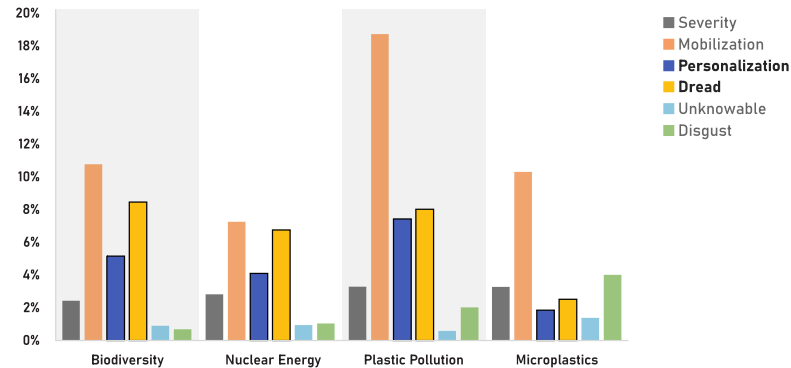


Figure 7. Environmental issues are often defined by a sense of dread, resulting from their potential global implications and feelings of unfairness. Although these risks tend to score low on personalization, it is the most reliable leading indicator for when the public will mobilize around an issue. Although the conversations are difficult to detect, product defence campaigns must keep a careful eye on when environmental issues begin to be expressed in personal, familial ways.

Percentage of the Conversation
Expressing DISGUST

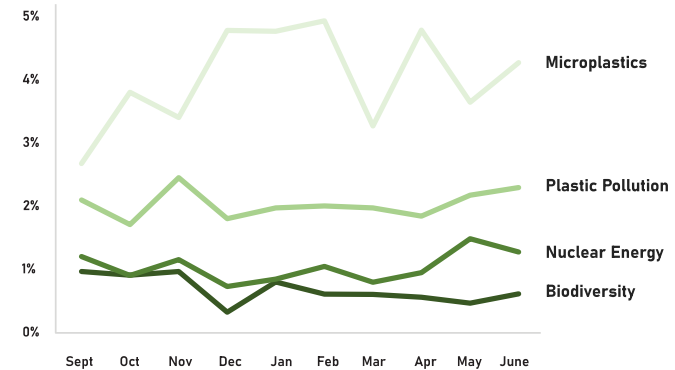


Figure 8. It is rare that environmental issues evoke powerful feelings of disgust – microplastics is the moderate exception. Disgust not only accounts for a larger amount of the microplastics conversation compared to other environmental issues, but more importantly disgust is also a strong leading indicator for mobilization against microplastics.

Risk Perceptions towards Life Sciences

Average Risk Perceptions:
September 2019 to June 2020

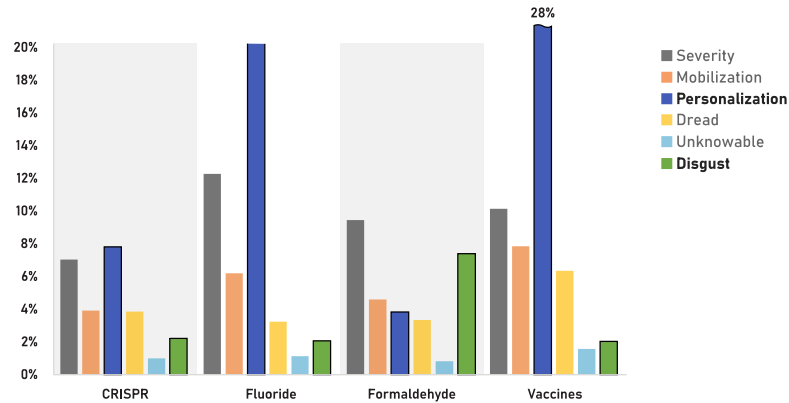


Figure 9. Risk perceptions in the life sciences sector are unique in their high level of personalization. However, when forecasting when the public will mobilize against a life sciences issue, disgust is often the most reliable leading indicator.

Percentage of the Conversation
Expressing DISGUST

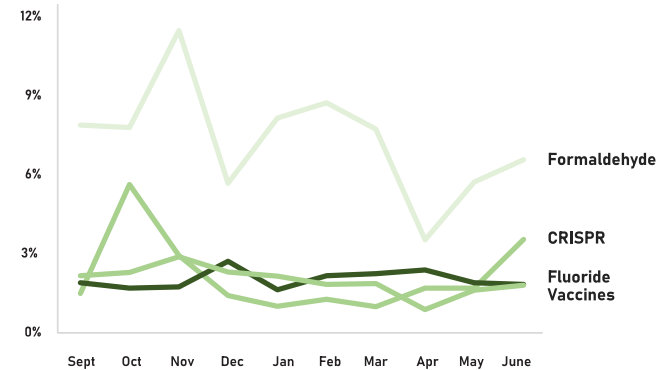


Figure 10. Disgust plays an enormous role in understanding risk perceptions towards formaldehyde. For CRISPR and vaccines, disgust is substantially lower than for formaldehyde, yet in all three cases disgust is the most reliable leading indicator when anticipating mobilization.

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Managing complex issues? Talk to us at paul.hillier@tactix.ca