

# Manual on mitigating the belief perseverance bias after the retraction of misinformation

## Misinformation

Misinformation is false or incorrect information that is spread by mistake or with the intention to mislead. False information presented as news with the intention to mislead is called fake news.

Misinformation can negatively influence our opinions and decisions. Misinformation thus can have severe consequences for individuals and society.



## Misinformation sticks even after the retraction



The research has shown that simple retraction of misinformation, such as through fact-checking, is often insufficient to eliminate its negative influence on individuals. Indeed, individuals may base their opinions and judgments on misinformation and then persevere in these opinions and judgements even after the misinformation has been retracted. This phenomenon is called the belief perseverance bias.

## Belief perseverance bias

The belief perseverance bias is the tendency to persevere in beliefs or opinions even after the initial information on which the beliefs or opinions were based has been retracted.

The effect of the belief perseverance bias can be illustrated on **the most damaging medical hoax of the last 100 years**. In 1998, a paper stating that the measles-mumps-rubella vaccine causes autism was published and triggered a lot of debate over vaccine safety. As a consequence, vaccination compliance dropped sharply in the years after the publication. Later, the paper was officially labelled as a fraud and fully retracted. Numerous well-controlled follow-up studies found no link between the vaccine and autism. If people were to act rationally, they would have to completely disregard the fraudulent information about the link between the vaccine and autism. Nevertheless, many parents still refuse to vaccinate their children, and members of anti-vaccine movements still promote conspiracy theories linking vaccination and autism.



## Prevention – belief perseverance radar

The best protection is prevention. Indeed, being aware of the belief perseverance bias and its potential negative impact on our opinions and judgments can make us more resilient to it after the misinformation has been retracted.

Use **belief perseverance radar**:



1. **Be aware of the belief perseverance bias** and its potential negative impact on your opinions and judgments in combination with misinformation when encountering new information or consuming news.
2. Actively **search for possible retractions** or corrections of information and news in the media you regularly consume.
3. After the misinformation has been retracted (e.g. labelled as fake, incorrect or misleading), actively **try to accept the retraction** while being aware of the belief perseverance bias.

## Correction

If it is not possible to prevent the belief perseverance bias, **try to correct it**:



1. When you learn about the retraction of misinformation and think you might suffer from the belief perseverance bias, **search for additional information correcting** the initial misinformation and reflect it critically.
2. **Reevaluate the original misinformation and its corrections** while being aware of the belief perseverance bias.
3. Actively **reconsider your opinions** and judgments.

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