

# Negativity bias

**"When I have to assess a situation, negative events weigh more in the balance than positive events."**

## Definition

Negativity bias refers to the tendency to be more affected by negative information and contingencies than positive ones [1]. Thus, we retain more memories linked to negative emotions than positive ones. The vocabulary for describing pain is richer than that for describing pleasure [1]; and the prospect of loss is more frightening than the prospect of potential gain is reassuring [3]. The brain reacts differently to negative entities such as germs, while the opposite does not occur for positive entities [1]. Therefore, in everyday life, when it comes to reasoning, judging and acting, the negative very often outweighs the positive. This is considered universal [4,5], but some studies suggest that it may decrease with age [5].

## Example

A Russian proverb aptly sums up the essence of this bias and the resulting asymmetry: *"a spoonful can ruin a barrel of honey, but a spoonful of honey does nothing to a barrel of tar"* [1]. From this proverb we can imagine an example: A friend has shown unquestionable loyalty and virtue countless times. She has been there to help us move, to look after our dog and to discreetly lend us money. But one day she forgets to join us for the last concert of our favorite group. This lapse will mark our memory more, at least as much as, her series of kind and generous gestures. Thus, a single negative exception will have as much or more influence as all her positive gestures. Our friendship may not be called into question, but, for all its strength, it will not escape our tendency to give more weight to the negative when making an evaluation.

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## Explanation

There are at least three kinds of explanatory hypotheses for this bias. The first is based on experiential adaptability: in the face of negative events that could jeopardize our individual survival, we could develop a negativity bias in order to react quickly and effectively when imminent danger really arises [1]. The second is based on biology: in this perspective, the bias would not be learned or acquired through the experience of negative events, but would rather be an innate or genetically inscribed predisposition that increases the probability of survival [1, 4]. The third is based on neural mechanics: the brain uses separate and independent systems to categorize positive or negative effects. It is the right part of the cortex that reacts to negative or threatening stimuli, and would provide stronger and more striking responses than those provided by the part of the brain in charge of responding to positive or pleasant stimuli. The structure and operation of the brain therefore make negative representations more striking than positive representations [1].

## Consequences

## CONSEQUENCES

The impact of negativity bias in our lives is quite significant, since it is found in many contexts and very useful. Thus, in politics or in management, the bias manifests itself in particular at the level of the put in place to “avoid the worst” in the event of difficulty. A number of relevant decisions to reduce negative effects associated with the COVID-19 pandemic appear to arise from this bias. For example, apprehension about a catastrophic scenario served to trigger and justify the measures necessary to prevent it. But it can also be harmful. It can produce a distorted perception of reality and foster a pessimistic and negative emotions that make it difficult to analyze oneself or analyze a situation with neutrality. For instance, a single failure can be enough to destroy one’s self-confidence built up over time. This bias is found recurrently in the media and in the processing of information: bad news more often make headlines and holds our attention more.

## Thoughts on how to act in light of this bias

- Seek an external perspective from people who may not have experienced the negative events to gain some objectivity.
- Give yourself time to reflect and delay taking action when the negative facts are fresh, and their impact is too strong.
- Use the bias in politics to identify the major social evils to be addressed as a priority.

## How is this bias measured?

To demonstrate this bias, researchers must compare the effects of positive and negative phenomena on the reasoning of participants. For example, we can measure the effectiveness of positive and negative incentives in motivating people. In one experiment, participants are asked to solve anagrams. We give them an example: ETKBAS = BASKET. Among the 6 words proposed, 4 are simple and 2 are practically insoluble. Group A receives positively worded instructions: “*To encourage you to do your best, we will give you \$ 0.25 per successful anagram. If you decipher all the anagrams, you will get a total of \$ 1.50*”. Group B receives the same instructions, but formulated negatively: “*To encourage you to do your best, we will give you \$ 1.50 up front. This is the sum you will get at the end if you decipher all the anagrams correctly. When you are finished, we will take back \$ 0.25 for each incorrect anagram*”.

Participants have unlimited time to try to put the words back in order. The researchers then calculate the average time spent per group to try to complete the exercise. In this experiment, the group who received the negative prompt spent significantly more time trying to solve the exercise than the group who received the positive prompt: 15 minutes versus 9 minutes. Therefore, this experiment is taken to be a demonstration of the negativity bias since it suggests that loss aversion motivates more than the expectation of gain, as shown by the fact that participants who receive negative prompts spend more time trying to succeed at the task [6].

This bias is discussed in the scientific literature:



## References

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## Tags

Individual level, Emotional heuristic, Need for security

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