



FEAR

What now?

From coronavirus to climate change: in a world full of risks, we become prisoners of fear. The BfR embarks on a search for confidence.

Mandatory use of masks, lockdown, apocalyptic images and bleak forecasts – the fear of the novel coronavirus has had the world under its control since spring 2020. For the BfR, this crisis is the current opportunity to discuss the question of how risks and their perception challenge society. The BfR frequently addresses this topic area with regular surveys, such as the “BfR Consumer Monitor” and “BfR-Corona-Monitor” as well as social science studies.

“One could think that our society is on permanent alert,” states BfR President Professor Andreas Hensel. In addition to the coronavirus pandemic, he also refers to topics such as climate change, biodiversity, microplastics and glyphosate, and asks whether the alarm is always justified. Because thanks to scientific testing, some risks turn out to be exaggerated or even imaginary – like the dangerous giants that Don Quixote fought against and that turned out to be windmills.

First of all: fear is essential for survival because it warns humans and animals of acute, sometimes even deadly threats. It is innate and deeply rooted in evolution, an archaic heritage.

On the level of a chicken

“We have a fear system in the brain that is on the level of a chicken,” says Professor Borwin Bandelow, psychiatrist and expert on fear from the University of Göttingen. Like a fire alarm, it is calibrated to quickly sound the alarm and make the body capable of flight – or fight. The central element of this “survival system” is the thalamus, located in the diencephalon. As a “switching station”, the thalamus must react promptly to a threat and carry out a precise analysis of the situation.

In an emergency, the fear system kicks in within fractions of a second. Via the switching stations of the amygdala, hypothalamus and pituitary gland, it leads to the release of stress hormones, increasing the pulse, blood pressure and breathing rate. Blood is pumped into the arms so that we are able to fight better and into the legs to run away faster. All of this happens within a few thousandths of a second. The thalamus actually also initiates a precise analysis of the situation, but this would take too long to survive an attack. The part of the brain responsible for reasoning takes over the analysis.



Fight or flight? There are even more ways to deal with fear.

And in a crisis? That is when the primitive part of the brain responsible for fear takes control and reason takes a step back. “Fear is not a good statistician,” says Bandelow. The rather simple-minded fear system tends to initially estimate new and uncontrollable threats, such as terrorist attacks or viruses, as disproportionately high – as well as threats that address genetically programmed primal fears, such as those posed by wild animals (spiders, snakes, wolves) or high altitudes (plane crashes). On the other hand, known threats, such as cardiovascular disease or accidents in the home, are underestimated, as are invisible threats such as radioactivity and cyber-crime.

How do you meet a challenge like the novel coronavirus? How do we cope with fear? “With awe and healthy fatalism”, according to Bandelow. “Awe because we must not underestimate the virus, and healthy fatalism because it will work out and we probably won’t die from it.” Life is easier with a pinch of gallows humour.



Many think the worst that can happen is no longer behind us, but in front of us.

Fears imprinted from the Stone Age

“Why is it that most people think too negatively and have a too negative view of the world?” asks Maren Urner, Professor of Media Psychology at the University of Applied Sciences for Media, Communication and Economics in Cologne (see page 12). She too locates the answer in the human race’s evolutionary past, putting the “Stone Age brain”, with both its limitations and possibilities, at the centre of her observations. “It is optimised in a way that processes negative things much faster than positive things,” explains Urner.

In the Stone Age, the quick reaction to fear could be decisive when it came to life and death. But in the modern era, this imprint on the brain is only an advantage in certain circumstances. This becomes noticeable when the brain – Urner refers to it as a prediction machine – has to make decisions. Fear, uncertainty and stress, as they prevail in times of corona, dominate thinking and lead us astray.

“Decisions driven by fear are bad decisions,” says Urner. Added to this is the force of habit, which shapes the majority of our actions and prevents new and constructive solutions. Force of habit leads to fatalism. To the feeling that nothing can be changed anyway. This results in learned helplessness, a state of resignation. “We have to get away from permanent fear,” Urner demands, calling for positive learning experiences. “That is at the heart of solution-orientated thinking, which always concerns the question: what now? How do we keep going? If we don’t ask ourselves that, every thought and action will be reduced to absurdity.”

But the Stone Age problem brain also has its advantages. Urner considers our own critical thinking as an approach to achieving action from powerlessness. She assigns three essential qualities to this critical thinking: naivety, indulgence and curiosity. Naivety can help to overcome groupthink. For example, it can turn a specific fan of Borussia Dortmund into a general football fan or help to view the coronavirus as a global problem that transcends borders – so naivety means something like a fresh and genuine view of the world. Indulgence is the ability to talk to each other – “even if we all see the world differently”. And by curiosity, Urner means the ability to discover new things and to reflect, speak and act in a solution-orientated and constructive way when it comes to the future.

A formula for the moment

The sociologist and author Heinz Bude, professor at the University of Kassel, recalls the underlying feeling in the post-war era. It was characterised by cautious optimism because with war and genocide, people had already overcome “the worst that can happen”. “It’s over, and it won’t happen again.”

According to Bude, this sentiment has been reversed among the younger generation. “Many think that the worst that can happen is no longer behind us, but in front of us”, says Bude. The era of peace, freedom and prosperity could be followed by a period of crises, primed by the coronavirus pandemic, climate change, economic warfare and the demise of traditional economic sectors, such as the car industry.

In this situation, “life-enriching forgetfulness” is helpful in coping with everyday life. At the same time, it is important to stay alert. The feeling of powerlessness and helplessness that grips the individual in the pandemic must not be transferred to the whole of society. However, the most important thing for Bude is something he calls a “metaphysical quantum”. This is about regaining confidence in the world and seeing in it not only a collection of threats but also a horizon of possibilities. “Hope without optimism” is how Bude refers to his formula for the time being.

Reflection in advance

Bude encourages taking better precautions for pandemics, economic crises and other major risks. “We need a focused scientific reflection that prepares us for extreme threats, a systematic reflection in advance for general crises in society.” The aim is greater resilience in society. However, so far there is no place, an institution, in which this reflection can take place. “We should come up with something quickly,” says Bude.

“We are always afraid of the future,” states Wolfgang Freitag, Professor of Theoretical Philosophy and Philosophy of Language at the University of Mannheim. Anyone who wants to understand fear must therefore also deal with the future. Freitag contrasts fear with anticipation and establishes the categories of risk and opportunity for the future. He presents a formula with which the “probability of expectation” can be calculated. It should enable the assessment and estimation of opportunities and risks for a future event.

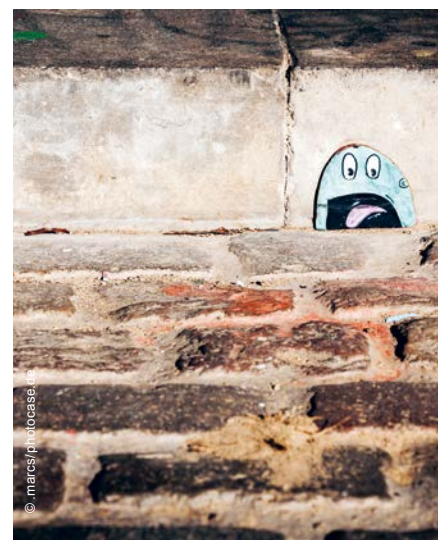


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In a crisis, the primitive part of the brain responsible for fear takes the lead.



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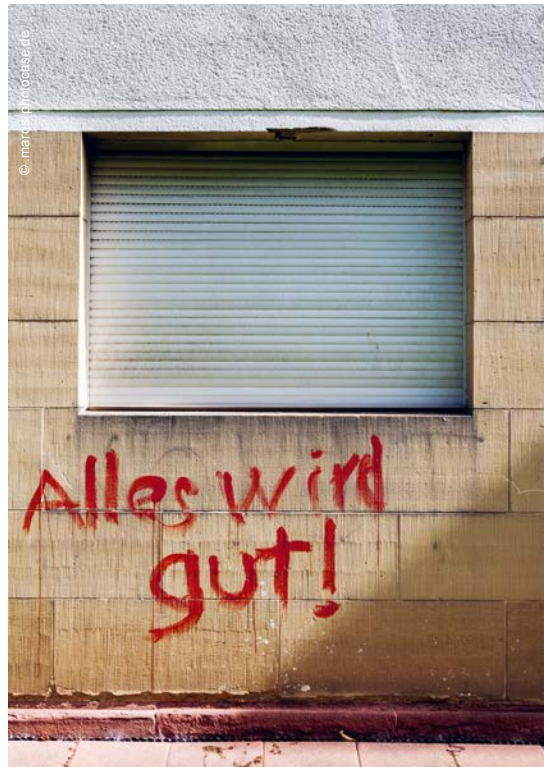


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Hope without optimism



Look ahead with positivity and yet still take precautions. Major crises can make our society resilient.



To determine the probability of expectation, the probability of an event (such as an avalanche risk in the Alps) is multiplied by the subjective evaluation (such as anticipation of skiing in the Alps). The value determined in this way incorporates – in the form of the evaluation – both personal sensitivities and sentiments as well as – with the probability – more or less correct and reasonable estimates.

Don't leave everything to the experts

Even for experts, it is often difficult to predict how likely an event is. As an example, Freitag cites the question of the extent to which certain measures contain the spread of the coronavirus. Freitag recommends “not leaving everything to the experts, especially not the assessment of the future”. Expert advice is important for rationally estimating event probabilities. However, how the event is evaluated cannot be decided in a top-down process in a democracy.

The Cologne presenter and actress Shary Reeves makes clear how much fear is connected with expectation and the future. And even if it is only the “red light” with which the television camera signals that you are “on the air”. “There is hardly anything you have more respect for when you have a job like this.” The feeling of suddenly facing an invisible audience of millions triggers stress: “Who are the people watching me? What do they feel, what do they think? What do they want from me and what don't they like about me at this moment in time?”

Tattooed into the genes

“Fear is tattooed into our genes,” says Reeves. “More in some, less in others.” For Shary Reeves, fears and experiences of loss in her turbulent childhood and youth were formative. As the daughter of a black nurse born in Africa, she grew up in a foster family and, eventually, attended a strict boarding school. At the same time, trust in her foster parents helped her to cope with distressing experiences and discrimination and to develop a strong personality. “For me, overcoming fears always means focusing on what comes after the fear,” says Shary Reeves. “That helps me to nip doubt in the bud.”

Facing fear and at the same time thinking beyond it and gaining confidence – this underlying idea is expressed in a piece of African wisdom quoted by Reeves. “Turn your face to the sun and the shadows will fall behind you.” Reeves concludes that the light of the sun is visible even from a deep tunnel. ■

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*This text summarises presentations from the BfR Knowledge Dialogue “Between fear and confidence”.
 The event took place online on 2 November 2020 at the Magnus-Haus in Berlin.*

The daily balance of risks

Whether risks are estimated to be high or low depends on these factors:

- Choice: do we take the risk voluntarily or are we forced to? Example: smoking or passive smoking
- Controllability: can we avoid a risk through our own actions?
Example: speed when driving a car
- Risk-benefit ratio: do the benefits (or enjoyment) outweigh the risk?
Example: skydiving
- Personal involvement: do individual risks concern me in any way?
Example: children's toys
- Terribleness of the damage: how tragic is the damage?
Example: car accident versus feeling unwell
- Trust: how credible is the responsible institution?
Example: doctors versus blog articles
- Responsibility: is the risk natural or of human origin?
Example: bacteria in food versus plant protection products
- Type of damage occurrence: can the damage be precisely localised in terms of time?
Example: acute (poisoning) versus chronic (obesity) health damage
- Awareness: how new or unknown is a dangerous substance or pathogen? Example: SARS-CoV-2