



SENSING FIRE UNDER THE FLOOR

Małgorzata Godlewska from the SWPS University of Social Sciences and Humanities defines intuition, explains how it works and what stimuli help us tap into its potential.

ACADEMIA: How would you define intuition?

MAŁGORZATA GODLEWSKA: As the ability to use knowledge of a kind we usually don't realize we have. Many people will not listen to their intuition, considering that to do so is irrational. They don't believe intuition provides a reasonable basis for decision making, among other things. However, studies show that the knowledge needed to make the right choices

is often present in the human cognitive system, despite not being consciously available at a given moment.

Albert Einstein would say that we use our intuition to actually make decisions, and our brain only to rationalize those decisions. This is illustrated by an anecdote told by Robert Zajonc, a famous American psychologist of Polish descent. When a friend of his was offered a job at a different university, she drew up

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a simple table divided into two columns: “A” for pros and “B” for cons. She spent some time meticulously writing down all the arguments. One day, however, she concluded, “This doesn’t look good, option B is winning!” That showed very clearly that she had already chosen to change jobs much earlier. Filling in the table was only intended to sanction that decision.

Why didn’t she realize it?

Neurobiological research shows that the human mind consciously analyzes only a small fraction of the information it has at its disposal. According to Andrzej Wróbel, of the around 100 billion bits of information that our sensory receptors take in every second, we are consciously aware of only around 100 bits! That means we can consciously access only a tiny fraction of the data we receive. But the remaining information is not lost, as is demonstrated by studies into intuition, for instance.

Expert knowledge offers the best proof that intuition is not an inborn trait and depends on experience. Cognitive psychologist Gary Klein described this based on the behavior of firefighters.

fine at first glance, but you still feel that something is wrong. You don’t believe what someone is saying despite their reassurances of having good intentions. Why not? For example, because their face has revealed a micro expression of disgust. You can’t register it consciously, because it was there only for a fraction of a second. But your brain caught it. That can be treated as a sign of intuition.

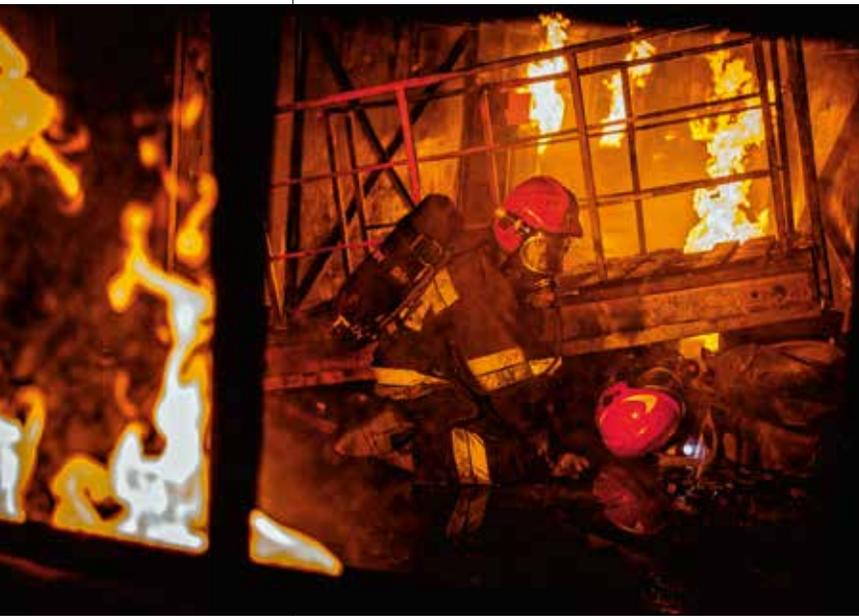
So intuition is not an inborn trait.

Correct. Expert knowledge offers the best example. Cognitive psychologist Gary Klein cites the example of a longtime firefighting commander who suddenly ordered his crew out of a fire scene. His less-experienced subordinates were very surprised. A moment later, however, they saw the floor collapse. The brain of their commander had simply put together various subtle clues indicating that the source of the fire was under the floor they were standing on, so he reacted immediately.

Does intuition ever give us false cues, too?

Yes. These include stereotypes. Humans look for simple correlations between various phenomena to make the world that surrounds them more predictable. When we press the key “A” on the keyboard, we will see the letter “A” on the screen. But we don’t know what to expect from someone who has a different skin color, usually because we don’t have enough experience with such contacts. For that reason, we attribute particular traits of character to such individuals in an unjustified way. In other words, we take shortcuts by conforming to stereotypes. Research conducted by such scientists as Pawel Lewicki and Thomas Hill from the University of Tulsa as well as Maria Czyżewska from the Southwest Texas State University in the early 1990s revealed the mechanism governing the emergence of stereotypes. In one of the experiments, the participants were initially shown a series of photographs of various people together with the descriptions of their characters. People with brown eyes were always described as extroverts, those with blue eyes as introverts. The subjects were not consciously aware of that correlation. In phase two of the experiment, however, it turned out they had still absorbed it very well. When asked about the character traits of the people on photographs, they were statistically more likely to describe those with brown eyes as open and those with blue eyes as private. We are taught stereotypes also by our parents, for example when they react negatively to someone with their facial expressions. That’s how we make untrue and hurtful judgments of others based on such nonconscious connections.

PRESS MATERIALS FROM THE POLISH TV SERIES “FIREFIGHTERS” (STRAŻACY)



In addition, certain psychological tools – such as Alina Kolańczyk’s Intuition-Rationality Questionnaire – demonstrate that there are considerable interpersonal differences in this regard.

How does this unconscious knowledge work?

The more past experience you have, the more likely you are to take your cue from it. In everyday life, you interact with many people, so you get a lot of impressions, both the good and the bad. All of them are encoded in our mind. When you’re interacting with strangers, you typically need to respond very quickly to what they’re telling you. But you aren’t always able to analyze all possibilities and give the best response in a very short time. In some situations, everything seems

We say that a given person might have a good or bad sense of intuition. Can we measure it using tests?

INTUITIVE INFORMATION PROCESSING

Of course. Intuition tests are usually conducted according to the restrictive methods used in psychological experiments in labs. In the book *Poznawcze i afektywne mechanizmy intuicji* [Cognitive and Affective Mechanisms of Intuition] that Robert Balas, Joanna Sweklej, Grzegorz Pochwatko, and I prepared, we described so-called tribond tests. The name comes from a game in which you have three words that share some common link – this fourth word is the solution to the tribond. For example, the solution to the tribond “engine, hay, Troy” is the word “horse,” as in horsepower, horses eat hay, and the Trojan Horse. Such associations are very distant and they don’t always spring to mind immediately, so finding the right answer is not that easy. The tribonds we used in the study were especially difficult, because we wanted most of the subjects not to know the answers. The experimental procedure was as follows: we gave the participants two tribonds and asked them to solve one. Only one of the tribonds actually had a solution. If a participant did not know the answer, we asked him or her to indicate which of the two sets of words had a common bond. The participants were significantly more likely to indicate the sets that could be solved (70-80% of correct answers, compared to 50% for random choices).

Do you believe that was intuition?

It was definitively intuition that told the participants which tribond set had a solution. That is exactly what using the resources we have means – we know the words are linked through a network of semantic associations.

What else do studies reveal?

For example, positive emotional states are conducive to the intuitive processing of information. One of them is relaxation, or the moment when you stop actively looking for a solution.

What other areas do you examine in your studies?

Nonconscious information processing. I have examined how emotions that appear in our surroundings, but which we are unaware of, could affect the certainty of the choices we make. In one study, the participants were shown two neutral photographs that displayed faces of people of the same sex and asked which one they liked better. When they answered, they were asked if they were certain of their choices. And that was when the key element of the procedure was introduced: before that question was asked, the participants were subliminally exposed to positive or negative information: a smiling face or a face that expressed fear. In all groups aside from the control group, which was not exposed to such subliminal images, the initial level of certainty changed.

In what way?

Negative facial expressions lowered the level of certainty of the choices. It’s just like in real life. Sometimes people in your surroundings don’t want to tell you that you are making a bad choice, but they can’t exactly hide their emotions. If their faces reveal micro expressions of a negative emotion, such as fear, that may influence your final decision. Research into non-conscious information processing usually uses basic emotions such as fear, disgust, anger, and sadness that are fundamentally important from the perspective of social life.

These are all negative emotions...

...and there is joy, which is a positive emotion.

Only one?

That is substantiated by evolution. In the past, we had more negative stimuli and we had to react to them in different ways. In the period before language, humans only used facial expressions to communicate

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emotions: fear of a dangerous animal, sadness after someone’s death, disgust after eating something that tasted bad. Joy is generally a positive emotion. There is even a concept called positive-negative asymmetry in psychology. It refers to the fact that we are generally a lot more sensitive to negative signals than to positive ones.

So when should we try to listen to our intuition?

Always and in every aspect of life, even in business. That’s what Myers wrote about in his book *Intuition: Its Powers and Perils*. Managers are increasingly aware that not everything can be calculated, because there is a great deal of data that is unquantifiable. What can be done about that? If we have our own experience to draw upon, we can try and trust it. More often than not, this really brings good results.

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