

Gerd Gigerenzer, Gut Feelings: Short Cuts to Better Decision Making

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Gut Feelings is an introductory book on the nature of intuitive thinking and decision-making in which Gerd Gigerenzer (GG) draws on his own research as well as that of others. It is written for a general audience and as such does a remarkable job. The book is enjoyable to read, does not require any particular background knowledge, and provides useful tips for further reading.

GG's first main goal is to explain the hidden mechanisms underlying intuition. According to him, the human mind contains a collection of domain-specific cognitive mechanisms: 'simple heuristics'. They consist in 'rules of thumb' such as, "Always do x when you find yourself in a situation of type y", which have evolved because they happened to help humans cope successfully with particular aspects of their environment. They give rise to intuitions—or 'gut feelings'—that are sufficiently strong to make us act on them. Throughout his book, GG deploys a non-exhaustive list of simple heuristics that guide ordinary human behaviour in all sorts of contexts. The second, most thought-provoking, goal of the book is to show that simple heuristics often produce more successful choices and actions than complex consideration. In other words, careful rational analysis often fails to outcompete primitive mechanisms. In what follows, I will provide a more detailed analysis of some key aspects of the book.

The way GG conceives of intuitions differs from the neo-classical model of decision-making. According to this model, intuitions are unconscious smart calculations that make us see the best thing to do. Such a view assumes that the human brain contains either one central system or a small number of general-purpose decision mechanisms capable of resolving all sorts of task; they can ascertain the statistical structure inherent in an environment and weigh the pros and cons before any decision is taken. Here, rationality is to be found in the intuitions themselves because they are supposed to proceed from complex analysis, during which the subject unconsciously takes into account all consequences, weighs them and chooses the solution with the highest value or utility. On the contrary, GG conceives of intuitions as prompted by the activation of different local and domain specific mechanisms, a view that assumes massive modularity of the brain. In order

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to sustain his claim, GG shows, with help of evocative examples, that ordinary people often make decisions by using simple unconscious mental processes instead of careful analysis *and* that these procedures are efficient. GG also presents experiments where the respective results of sophisticated calculation versus simple heuristics are compared. As it turns out, a decision procedure based on simple heuristics often yields better results than a decision procedure based on logical calculation. For example, he shows that making use of the “recognition heuristic”—which says “If you recognise one object but not the other, infer that the recognised object has higher value”—leads in average to better predictions regarding the outcome of tennis matches than professional experts are able to provide (chap.7). The same holds for the outcome of investments on the stock market! (pp.79–81)

GG proposes a reconsideration of the notion of rationality to show that people are, in fact, acting rationally while following simple rules of thumb. In order to achieve this, he shows situations in which, even when information is free, more information is detrimental: sometimes there is a beneficial degree of ignorance. The fact that our intuitions are prompted by simple relevant cues in the environment is precisely what allows us to ignore unnecessary—or relevant but non-crucial—information and focus on the most useful bits of information (p.39). According to GG, when snap decisions based on primitive feelings yield systematically better results than careful analysis, one can speak of the intelligence of the unconscious (p.132) and there is a sense in which one can speak of rational feelings. Here GG claims that he has discovered a “new land of rationality” (p.19). As he writes: “With this book, I invite you on a journey into a largely unknown land of rationality, populated by people just like us, who are partially ignorant, whose time is limited and whose future is uncertain” (p.4). I fear that GG’s attempt to democratise the concept of rationality does not help the debate. He goes one step too far in his crusade against neo-classical accounts of decision-making. Logical theories of decision-making are clear on the distinction between rational choice and optimal choice. A choice can only be rational with respect to a set of beliefs; under conditions of limited knowledge, a rational choice might not be optimal. Therefore, showing the optimality of a behavioural strategy does not help in deciding whether people who use this strategy are rational. To enter into “new lands of rationality”—which consists more or less in confusing social intelligence with rationality—confuses the debate and shortcuts discussions with the advocates of the neo-classical view.¹ This said, it seems to me that GG does not need such artifice because his contribution is important and innovative even in the context of the old land of rationality.

GG has laid down some fundamental building blocks for an innovative interpretation of human decision-making. There are however some ‘hot’ issues that would need some more development. One interesting topic is to investigate when intuitions are likely to succeed or fail. GG recognises that in stable and predictable environments, gut feelings cannot compete with complex rational calculation; intuitions are mostly efficient in uncertain and changing environments. This is valuable but somewhat vague information. GG’s account of decision-making would significantly gain in credibility if it were possible to elaborate more thoroughly on the general domains of efficacy of both mechanisms. A further issue is the fact that dreadful intuitions are fairly common; think of the many people who share the profound conviction that the death penalty is right. How are we supposed to assess such an intuition after having read that intuitions are usually beneficial for human beings? Of course, GG is aware of the difficulty but curiously, he does not emphasise how careful one

¹ Note that GG’s account of the chain paradox (pp.100–102) seems particularly unfair. Selten’s formal analysis can obviously not represent reality because it assumes perfect knowledge. In a world with imperfect knowledge, the logical prediction would be different.

has to be with the perils of intuitions. There is a risk here that GG's overly glowing account of intuitions might deter readers from simple heuristic approaches to human behaviour. What is now urgently needed is an extensive analysis of when and why it is wise to rely on our intuitions. A linked and particularly tricky issue concerns the practical consequences of a heuristic approach to decision-making. Indeed, knowing when and how people use particular heuristics means that one could provide decision-makers, such as politicians, economists or private industry managers, with valuable advice on how to influence others. GG develops some thoughts along this line here and there in his book. However, as soon as the theory is put into practice, important moral difficulties pop up. Indeed, using knowledge about ordinary people's rules of thumb leads directly to manipulation, which could be for good, as well as bad, ends. The moral consequences of such practices must be carefully weighed.