

Chapter 2

Rationalization and Rationality

This is our starting point: Rationality. If you want to understand decision making, the first step is to define what a rational choice is. This has always been the first task for students of decision making.ⁱ However, it doesn't have to be like that.

Some can argue that decision making is not the same as rational decision making, and that many of our everyday decisions are not rational at all.ⁱⁱ Think of when you get into the grocery store to buy water and bread only. How could it be that every time you get out from the supermarket you find yourself with a seemingly infinite list of products? And, by the time you are home you realize that you didn't need anything besides bread and water. Still, the next time you get into the store you will make the same mistake.ⁱⁱⁱ We cannot say that buying unneeded products is a rational decision, but the process that is involved in making the decision has to deal with rationality. This is the link that is explored in this chapter.

Kinds of Decisions

Every day, every one of us makes a number of decisions. These decisions are not always the same; they vary depending on circumstances, importance, events, involvements, and many other factors. The first step is that of making a distinction between different types of decisions. It is important to discern that not all decisions are equal, and that some of them differ from the others in terms of efforts of the decision maker and effects deriving from their implementation. In order to have a clear understanding of what I mean, we may find decisions that

- are mechanical, automatic, or immediate;
- imply a choice or are non-mechanical;
- are “creative.”

Mechanical Decisions

The first kind of decisions is those that happen “without thinking.”^{iv} These are widely diffused in our everyday behavior and often we take them for granted. We

never think about these decisions in a proper and specific way because they come out as usual. For example, I am pretty sure that you never make the decision to put some clothes on before going to school, work, university, or wherever you want to go. You assume that you have to dress and you do that. However, you don't actually make the conscious, deliberate decision to get dressed, you just do it. This is a mechanical decision, where you don't go through a decision-making process that is well-defined and distinct. In the example, the decision to get dressed has roots that go to a period of your life that is undefined and that you don't remember. The thing is you continue to practise the way you learned: You get dressed.

Other examples of mechanical decisions could be related to everything you do without any deliberate decision-making process, such as eating, the way you tip, how you write (or don't write) the first line of your e-mails, what you say to people when you meet them, things you do everyday when you have breakfast. From a personal point of view, these are all examples of habits.^v This doesn't mean that there is no process here, it means only that the decision-making process is embedded in the way you behave or think.

We have many examples of mechanical decisions in organizations too. A typical case could be that of sending invoices, or that of sending monthly emails with earning statements to employees. Everything that could be defined as an organizational *routine* falls into a mechanical decision-making process.^{vi} The way to identify it is the same that we used at the individual level, but it has more complicated implications. A routine is something that deals with implicit knowledge and that is done on the basis of what has been done in the past and written rules. It is a convenient and an efficient way to make quick decisions. Sometimes it is in the interest of the company to break the routine, especially when it emerges in areas where it is not needed. For example, routines are very welcome in call centers. Here, people don't need to think too much,^{vii} they need to provide information/solutions to customers according to corporate guidelines. Nothing outside the guidelines is admitted. In other terms, the routine (and standard operating procedures) is what makes the call center work. Other departments of the company suffer when too many routines are set up and when people don't step out of the so-called ordinary business. Research and development teams as well as marketing departments are usually well aware that too many routines are not good ways achieve excellent performances. This is to say that companies usually tend to avoid mechanical decision making^{viii} in key areas.

Now, these are examples of mechanical decisions at both organizational and individual levels. In summary, a mechanical decision is a particular behavior or thinking attitude that people practice because they are used to it.

Decisions that Imply a Choice

Decisions that imply a conscious, deliberate choice are of a completely different type. This means that we evaluate possible alternatives and then select one.

Evaluations that we bring in might range from trivial, or fairly simple to very complicated or complex. We may face decisions that imply simple alternatives. To stay with the example above, while the decision to get dressed is mechanical, that of *how* to get dressed, i.e., what clothes to put on, is not. The latter decision implies a choice. For most of us this is a very simple choice; it may become more complicated if we get into the domain of color matching (e.g., socks with belt, pants with hat)—where my fiancée Claudia excels and I make miserable mistakes.

The difference between the two types of decisions is not related to alternatives, though. It is not that when we are involved in mechanical decisions we don't have alternatives, or while in decisions that imply a choice we do. The point is that we don't see alternatives in the first case while in the second the decision is based on alternatives. The choice implies that we *select* among different options; hence, the existence of these options is not a necessary condition for the choice to be made while it is a sufficient condition. In other words, it is the individual that defines the kind of decision, not vice versa. It is not that certain types of circumstances lead you to make a mechanical rather than a choice-based decision. It is your actual involvement in the process that defines what decision you are making. If you are involved in selecting, weighing, and choosing among alternatives, then you are in the second type (i.e., the decision implies a choice); if you don't see alternatives and you just do what you are about to do without further thinking, that is a first type decision (i.e., mechanical).

There is continuity between the two types of decisions. We can switch from the first to the second or vice versa as needed. And the point is that we need to do that, on some occasions. Let us consider a few examples.

What is a decision that implies a choice for businesses? Goal-setting activities and hiring/firing decisions are examples of non-mechanical decisions. Or, are they? We all like to think of them as something that implies a choice, but the passage between mechanical and non-mechanical decision making is very weak.^{ix} Goals may be set up in ways that replicate the past or imitate competitors^x, and firing may be an automatic expulsion of those with poor performance (see GE when Welch was CEO).^{xi} Other examples may include scheduling and budgeting activities where previous ones may be simply "carried over" into the next period (thus treated as mechanical decisions) rather than examined carefully (thus treated as decisions that imply choices). Of course, you have never heard of any academic that is willing to support these activities as mechanical; and this is especially true when we are dealing with human resource management. However, this is what happens sometimes in organizations. Now, if we want to deal with it, I believe that the continuity rather than the opposition of concepts better serves the scope of defining how decisions are taken and can change. Therefore, we can assume that it is the power of individuals, groups, and organizations that take into consideration alternatives when making decisions. Again, if they are considering those alternatives, we have a decision that implies a choice; where these alternatives fall outside of the person's will, then we are facing a mechanical decision.

Creative Decisions

A particular kind of decision is that related to the creation of something. Creativity may be defined in many ways^{xii}, and I don't think the present discourse could benefit from entering this vast domain of knowledge. For the purpose of this text, creativity is an activity (a decision) that brings something new, something that was not experienced before.

This third type of decision is close to the one mentioned in the previous section (e.g., choice-based); however, it is somehow different from that. What is a creative decision? It may be (a) the ability to find a new pattern to make a decision, or (b) the substantial newness of the decision. The latter relates to the outcome of the decision, while the former is about the process. Although a creative process may lead to a creative decision, this is not automatic and we cannot take it for granted. Unusual or highly creative decision processes can also lead to a decision that is ordinary (I have written more on this distinction in the following pages).

There are several examples of what creativity can be. This ranges from a simple rereading of data you already know to find new insights, to a decision based on a newly generated and unexplored set of options. Creativity in decision making is the ability to generate alternatives that serve as a basis for your choice. The more you generate, the wider the basis for your choice. The better you generate, the greater your chances of success. It is not a matter of quantity, nor is it a matter of quality only. It is a general attitude that brings together quality and quantity. Creative minds are not limited to a single outcome of their creativity; quite the contrary. If you look at highly creative minds you find that these persons are also very prolific. How many books does a creative writer publish? Take Simenon, Christie, or Hemingway as examples.

Not everyone is like Simenon, but we can see that the wave of creativity is not limited to one single shot. It might be, but if we experience that wave once, we tend to reproduce it for personal and group satisfaction and fulfillment. It enhances the chances of success.

Epistemological Corner

I would like to make a very quick point on the processes that relate to each one of the three types of decisions. What is the logic behind mechanical, non-mechanical, and creative decisions? What are the processes that the mind carries on when we are involved in one of the three processes? Are these processes the same, or do they differ depending on the type of decision?

Each one of the types described above relates to a different process. What follows here are speculations about what it could be, not on what it surely is.

The first type, mechanical, leans on previous decisions. It is a replication of something that has been generated in the past and that continues to be. I should say that what happens is very close to *induction*, i.e., the ability to generalize starting from single events. In our case, the generalization is the fact that we tend to repeat the

same decision (e.g., we get dressed) because we always did in the past. Or, we deduce that this is the right thing to do or think. Put differently, the “universal rule” emerges from repetitions of single actions.^{xiii} Individuals extrapolate the norm from repeated actions so that the point of reference becomes the norm, not the action. When the norm is followed, the decision is mechanical. In the example, to get dressed after waking from sleep and before going to work is a norm for the individual decision making that has become such because of social habits and repeated behavior over time.

In the second type, the non-mechanical, we have a set of alternatives among which a choice is made. We analyze these alternatives and try to deduce what is the best choice to make. Therefore, and contrary to the first type of decisions, the major process involved in decision making is *deduction*. It is the way to infer something from assumptions using a logical analysis. This logic is close to what most studies on decision making follow. As already stated in the previous chapter, decision making has a significant computational and formal root that makes significant use of deductive logic to frame decisions.

Creativity needs something different from both induction and deduction. The process of getting something innovative has induction, since it gathers conclusions from experience (i.e., generalizes through the collection of single events), and it has deduction, since there is a logic that arrives at conclusions from given assumptions. However, we should say that this description of creativity is poor and that we need something more sophisticated. We need a process that is able to describe how some general principle could emerge from assumptions that could not be directly and immediately related to it. This is what is called *abduction*, and it is a process often used by philosophers of science^{xiv} to describe creativity. Since deduction and induction are part of the general scientific vocabulary while abduction is not, I think it needs further explanations.

The term abduction was coined by Charles S. Peirce “to describe inference that involves generating and evaluating explanatory hypotheses.”^{xv} For example, take the manager that explains the low response rate to the survey on the quality of the working environment due to its online delivery. This is not a deduction, rather an intuition, for many other variables could have affected the low response rate (e.g., insufficient efforts toward explaining its value, workers’ beliefs that the survey’s findings will have no impact, workers are dealing with a period of increased productivity and extended working hours, and more). The cause (hypothesis) that the manager finds appropriate (evaluates) is generated through a creative effort.

As shown in later chapters, the importance of abduction is not limited to creative decisions only, but it has the potential to provide significant insights on the other types of decisions. For now, this introduction is sufficient.

The Legacy of Herbert Simon

If we look at the past century in search for somebody who well represents the decision-making field, that person is Herbert A. Simon. I have always been fascinated by the studies and the legacy of this man, that I consider a sort of modern

Leonardo da Vinci. It is very difficult to define his studies as confined to psychology, decision making, rationality, artificial intelligence, cognition, social psychology, sociology, organizational behavior, or economics. He made profound and insightful contributions to all of these fields. I stop here with the acknowledgment of his work because the very best way to get an idea of what I mean is to read one of his writings.

Simon's starting point has been that of criticizing the neoclassical model of rationality^{xvi} and of decision making. This model is used in economic models to describe and predict human behavior on the assumptions that, when making decisions, individuals have full access to information and their cognition works as a perfect computational device. Arguments on whether the neoclassical model is useful or not and to what extent we should switch to a bounded rationality model started more than half century ago and, believe it or not, the debate is still alive. However, we don't need to summarize it here; for the economy of our discourse, we will recall concepts and ideas as needed.

One of Simon's major contributions has been on the understanding and analysis of rationality. We start from a classic point, that of "rationalization."^{xvii}

Rationalization

Suppose you are asked the following question: *How* do you go to work? The answer may vary between car, bike, foot, tram, bus, metro, train, airplane, helicopter (maybe the last two apply only if you are a Stanford or Harvard student). Whatever means of transportation you use, most of the time you don't make an active choice, but you just use the means that you always use. If you have a monthly ticket for the metro system in your city, you don't make the decision to take the train since this is a typical mechanical decision-making process.

Now, what if I ask you *why* do you take the metro-train? Here you can recall to your memory the reason why you do so. Here too, the hypothetical answers may vary between, for example, (a) it is the fastest way to get there, (b) I haven't a car, and this is the only way for me to get to the university or to work, (c) it is the cheapest means of transportation, (d) it is where I always meet my sweetheart, (e) and the like. What are you doing when providing such answers? You are explaining the reason(s) why you take the metro-train, or you are offering sound reasons that support your choice.

This attitude is widely diffused, and we use it every time it is needed, no matter if somebody else asks about our behavior or if it is ourselves asking for reasons. We use motives to put a rational emphasis on our behavior.^{xviii} We explain our behavior (and choices, and way of thinking) through what is called *rationalization*.

Rationalizing one's behavior doesn't mean that you put efforts to always find reasons that make sense. It means that your ability to think about your thoughts becomes real and useful. Rationalization is a mental process that is driven by self-awareness,^{xix} something that lets you think about what you are doing. For example,

suppose that you provide a different answer to the question above on why you use a specific means of transportation. You go to the university by car but prefer walking, and it isn't that you are that far from the university, it is that you are lazy. Moreover, you don't like being lazy at all! Now, what is the rationale for taking the car? Apparently, according to this answer, there is no rationality in taking the car, but still the process of analyzing, explaining, and providing reasons for your behavior falls under the rationalization phenomenon. Once again, rationalization is the action of making sense of what you do or think, and it happens through your own interpretation categories.

The last part of the sentence is particularly important. The fact that you or other people ask you to rationalize is important but not relevant in the argument I want to make. It is you that need to make sense of what you do. Of course, you can do this through social constructs or through your personal beliefs (when does the first end and the second start is a question that we address below) but the most important point is that you do take time to make sense of your behavior.

When individuals fail to rationalize or find out that their rationalization is inaccurate, then a feeling of discomfort and/or distress emerges.^{xx} There are several experiments and studies that point out how this mechanism works. Imagine that you have to rank 10 different music tracks.^{xxi} Soon after that, you are asked to explain why you ranked tracks #5 and #6 in their respective order. To explain why #5 is better than #6, you may over rate it. Otherwise stated, you are trying to make sense of your choices through a rationalization process. What happens if the two alternatives are equally likable to you? This is the case when you listened to that music for the first time. It may happen that you do not have a preference and do not significantly prefer #5 over #6. Your difficulty (distress and physiological arousal) in finding a sound reason for your choice is called *cognitive dissonance*.^{xxii} Put another way, "regardless of the significance of the decisions, people faced with equally attractive alternatives tend to experience cognitive dissonance and justify their decisions."^{xxiii} This is exactly the case of the example for most people: You have to make up an explanation to convince (yourself) and the person asking the question that your choice makes sense. Although very interesting and important for both our psychology and cognition, there is no point in continuing to analyze dissonance here. The only purpose of introducing cognitive dissonance is to highlight the fact that rationalization is a matter of utmost importance. In our everyday reasoning, when we (a) fail to rationalize, (b) realize that our rationalization is not consistent with the choices we made or that we will make, or (c) rationalization is poor for us or for other people important to us, then we experience distress and discomfort (i.e., cognitive dissonance). The tendency to see oneself as a rational individual that makes rational choices is an important part of the way people think of themselves.^{xxiv} Another way to think of rationalization may be that of defining it as the tendency to avoid dissonance by activating sense-making processes.

It is now apparent that rationalization is one of the major activities that comes together with decision making. We cannot analyze our decision-making attitudes or our choices if we cannot understand the underlying process that allows us to do so.

Rationality

Now that we have dealt with rationalization, we can try to understand what rationality is. Rationality is brought into the decision-making discourse by the process of rationalization, and it has always been a study of how good the decision (or the underlying process) has been or should be. While rationalization defines thinking activity in general, rationality defines its contents (both goals and procedures).

To use Simon's words, rationality "is concerned with the selection of preferred behavior alternatives in terms of some system of values whereby the consequences of behavior can be evaluated."^{xxv} This is a very classical definition of rationality, and many scholars don't use it anymore. However, it is a good starting point from where we can build, modify, and add.

For a better understanding of this concept of rationality, we can divide the definition into four parts. Rationality means

1. the selection of alternatives
2. through a system of values (i.e., weights or choice drivers)
3. that allows individual to make decisions
4. and to make evaluations on potential and actual consequences of behavior (or actions).

According to Simon, rationality is what allows individuals to make decisions out of a pool of alternatives that are consistent with one's values. We can also define a rational decision when the process of rationalization reveals a system that is structured according to the definition. For example, the answer of the lazy person—i.e., the one who prefers to use the car even when recognizing that this is not the best choice for him/her—is not rational. The choice in that case is not consistent with the evaluation of alternatives. There, the "walking" alternative has more expressed value than the "driving" alternative; however the former has not been chosen. Again, the selection of alternatives does not follow the system of values and suffices to define the decision as irrational.

Or, we can find a different explanation for the example and make it rational. We can, for example, imagine that what that person is telling us is only a partial truth. In reality, there is a trade-off between the feeling of not being lazy and the comfort of getting to the university by car. In this case, the weighting function (i.e., the values) is different and, since the comfort is superior to the laziness feeling, the choice is consistent with the system of values. It becomes apparent from this simple example that the most important part of the definition is point four, the "evaluations on potential and actual consequences of behavior." Put differently, the analysis of consequences that derive from a specific action. This last idea brings into the decision-making computation the future or expected impact of our behavior.

There are many limitations in this definition of rationality. It is what we should call a definition of the process through which we actually make decisions. However, what kind of decisions? Are all three types of decisions—mechanical, choice-based,

and creative—well-represented by this idea of rationality? When we select alternatives through a system of values that allows us to try to forecast future consequences, we are making a choice. Apparently this definition of rationality supports the second type of decisions; those decisions are rational if they follow the process as described in the definition. Mechanical decisions never follow explicitly a process similar to that of the definition. They can be analyzed (rationalized) *ex post*, and a rational explanation of behavior can be added to them. Creative decisions are the most difficult to define in relation to this basic concept of rationality. The whole point here is that our decisions are rational if we follow this well-defined pattern, and that there are certain types of decisions that are more likely to be so. Those that imply a conscious mental activity directed toward a decision-making effort have more chances to fall under the rationality cap. But we are struggling between two different ideas of rationality: One looks at the process, the other at the goal. Is a decision rational when we find its rationality after it has been made? The next chapter addresses this and other points.

Summary

In this chapter, we have learned of three types of decisions: (1) mechanical, (2) choice-based, and (3) creative. Alternatives play a crucial role in these three as they are overlooked in the first-type decisions, examined in the second, and newly generated in the third. We have also associated mental processes to each of these decisions (respectively, inductive, deductive, and abductive reasoning). After that we started with the analysis of how people make sense of their decisions (i.e., behaviors and thoughts) and explained that this is what is called rationalization. A decision could be rational or not, but individuals can always rationalize it. The chapter ends defining rationality as the selection of alternatives, filtered by each one's values, that allows the individual to make the decision on the basis of the evaluation of potential outcomes associated with that decision.

Notes

- i. The work of H.A. Simon (1947, 1955) affected decision sciences greatly, and this may be considered an outcome of his work. However, I suspect that this link between rationality and decision making is more than old. Philosophers track down to Plato the first connection between decision making and rationality, and to Descartes for what concerns a modern approach to rationality.
- ii. This is the point that many behavioral economists make crystal clear; for example, see Ariely (2008).
- iii. This behavior is studied by marketing scholars and it is not something where I cannot be said to have any sort of expertise. However, an interesting reading can be Dickson and Sawyer (1990), in relation to the (secondary) role of price for grocery store shoppers.
- iv. The literature on decision making prefers the word “intuition” to define these decisions. A distinction between intuitive and controlled mode is offered by Daniel Kahneman (2003).

- v. This is what Verplanken et al. (2005) study in their paper on the measurement of habits. According to these authors, “given the prevalence of repeated over new behavior, there is good reason to pay more systematic attention to constructs like past behavior, repetitive choices, experience, routines, and habit” (p. 231). I agree with them and believe that mechanical decision making is a significant part of human behavior and that more attention should be directed to it by scientists of all disciplines. Unfortunately, it has been largely overlooked and has had only occasional scientific investigation. It is not in the economy of this book to explore habits or mechanical decision making in particular although I will refer often to this type of decisions.
- vi. Whether it is called “tacit knowledge” (Polanyi, 1966) or routines (Nelson and Winter, 1973). Although the notion of a tacit knowledge has potential to lead to creativity when made explicit, here we consider its connection to routines, as analyzed by Nelson and Winter (1973) (see also Foss, 2003a).
- vii. At least, this is what managers think is an effective way to conduct that business. As I show later in the book, excessive limitations on human discretionary decision making is often not counterproductive for organizations.
- viii. There are several types of routines. In particular, some of them are “policies or actions that prevent the organization from experiencing pain or threat and simultaneously prevent learning how to correct the causes of the threat in the first place” (Argyris, 1986, p. 541). These are called *defensive routines*; organizations are not immune from creating these sorts of pain-killers but tend to avoid them when they become apparent obstacles to managerial goals.
- ix. Betsch and Haberstroh (2005), analyze routines in decision making.
- x. This is exactly what studies on bandwagons in innovation diffusion show (Abrahamson and Rosenkopf, 1993).
- xi. David Olive (2001) explains how Welch represents the bright and the “dark side of an era.” With his job-cutting strategy, he forced workers to better perform through the fear of losing their job more than commitment to the same cause, goals, values, or any other thing that motivational theories should suggest. It seems that Welch himself recognizes now—when it is too late—that “it was ‘a dumb idea’ for executives to focus so heavily on quarterly profits and share price gains” (Guerrera, 2009).
- xii. See Sternberg (Ed.), 1999.
- xiii. I am borrowing the definition of induction from Popper’s *Logic of Scientific Discovery* (1935/2002).
- xiv. Introduced by Peirce (1955), *abduction* has been put at the center of philosophic and scientific inquiries (see Magnani, 2001).
- xv. Magnani (2007, p. 224).
- xvi. This is what can be found in Von Neumann and Morgenstern (1944), Friedman (1953) and summarized by Wallister (2008, pp. 52–54).
- xvii. Rationalization is the process that leads people to “explain their own actions in terms of their alternatives and the consequences of those alternatives for their preferences. Similarly, they explain the actions of others by imagining a set of expectations and preferences that would make the action rational” (March, 1994, p. 3).
- xviii. This is what can be found in Festinger (1957); see also Kunda (1999, p. 216f).
- xix. Self-affirmation is also a by-product of this mental process; Kunda (1999, p. 220f).
- xx. Zanna and Cooper (1974).
- xxi. This is a variation of Heine and Lehman’s experiment (1997).
- xxii. Festinger (1957) has been the first to point out the importance and implications of cognitive dissonance. After his seminal work, a significant amount of studies has been conducted (see Kunda, 1999, Chapters 6 and 11).
- xxiii. Hoshino-Browne et al. (2005, p. 294).
- xxiv. As Heine and Lehman (1997) show there is a cultural difference in the way people experience cultural dissonance and use rationalization processes as a reduction mechanism.
- xxv. Simon (1997, p. 84).



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