1. Decisions

The word *decision*, says the *Oxford English Dictionary* (2017), has French–Latin origins. From the 15th to the 18th century, it was used to denote something that had been separated from a larger thing or amount: a fragment or small piece, or the action of cutting something off:

> From rocks and stones along the sea continually, washed and dashed with the waves, therebe decisions passe of some parcels and small fragments. (1603)

> Human generation … is performed by derivation or decision of part of the substance of the Parent. (1659)

At least from the 15th century, the word 'decision' could also define something more abstract – bringing a contest or a controversy to an end:

> After gret prossesse finished, and þe ful decision of many gret causes and quarales þat wer moved. (1413)

> For the decision of questions daily arising. (1833)

More specifically, 'decision' means the process of arriving at a conclusion regarding a matter under consideration or the result of this process:

> Fyrst they treated of Religion, and after muche decision, a decree was made … (1560)

> The decisions of Judges … are made the standing Rules. (1710)

Finally, decision denotes determination, resolve, and decidedness of character:

> 'Oh, Vere is not going for weeks – weeks,' declared Mrs. Jock with great decision. (1891)

The dictionary provides examples of compounds prefixed by the word 'decision': decision-making, decision-taking, decision method, decision procedure, decision rule, decision theory, and so on. Readers are probably convinced that decision is an important and frequently used concept, but how important? When and where are decisions made? Who makes decisions and why? And – not least – how do they go about it?

On the following pages, we answer these questions by making them more complicated than their mere definition permits. We hope that this endeavour will clarify some of the intriguing issues facing decision makers.

DECISIONS AND DECISION MAKERS

Many scholars see decision as equivalent to choice, a perception that concurs with the common understanding of the word. People who say that they have made a decision usually make it clear that not only have they chosen something, but that they thought about it beforehand and understood that they could have done it in another way or done something else entirely. They chose one of two or several possible ways. First thought, then decision. They use this meaning of 'decision', irrespective of whether they refer to a particular decision or to the general notion of decisions, and irrespective of whether the decision was made on behalf of them or on behalf of an organization.

In modern society, people are expected to be autonomous individuals with the right and the duty to decide on significant aspects of their lives. They are probably considerably more likely than people in earlier generations to regard themselves as decision makers. And in many situations, at least in the wealthier parts of the world, people have ample opportunity to choose among several options. They must determine what they do and do not want to do: They must make decisions.

When *individuals* make decisions about their own actions, they are essentially making a deal with themselves – although they may, of course, consult family members, friends or knowledgeable

experts. After concluding their mental deliberations, they turn their attention to acting according to their decision – or to something else entirely.

Decisions in *organizations* are central, often critical, activities (Luhmann 2000; March and Simon [1958]1993). States, business firms, voluntary associations, and parts of these organizations – government agencies, subsidiaries, or departments – have managers or other people whose principal task is to make decisions about what other organization members shall do. Some parts of organizations specialize in decision-making and do little else: parliaments, municipal assemblies and the annual general meetings of corporations and voluntary associations, for example.

Decisions are also vital in *markets*, where individuals and organizations are expected to choose with whom they will do business and the goods or services these transactions will cover. When there is competition among sellers, buyers must choose among similar goods or services from equivalent suppliers, who may try to make their products difficult to compare by communicating a particular image or profile.

Decisions and Other Activities

Decisions are generally perceived as explanations of human behaviour. It is not surprising, therefore, that scholars in several social science disciplines are preoccupied with decisions. Social psychologists study individual decision-making; political scientists show how political decisions are made and demonstrate the effects of those decisions; students of organizations study how and why decisions are made in organizations, and the role these decisions play in the operations of organizations; and economists study decision-making in market contexts.

Decisions have become such a dominant idea that some people are led to believe that decisions precede all types of activities (or inactivity). But that assumption is not particularly useful for an analysis of decision-making. If decision and action are treated as synonymous, decisions become uninteresting. The question of how and why individuals and organizations make decisions, then, means the same as the question of why they act as they do. Answering that question here would be an overwhelming task, equal to describing the concerns of virtually all the social sciences.

We regard decisions as a particular activity, which, although certainly common, is not something that people are constantly engaged in. Many actions are undertaken without any decisions being made. And decisions do not necessarily lead to action. Yet, many decisions are made in many human contexts – which is why decisions are interesting! Consequently, it is important to try to understand when and how decisions are made, whether or not they lead to action and what other consequences they may have. These are the questions we address in this book.

We present a selection of thought-provoking (we think) ideas and results from studies of decisions and decision-making. We believe that people who want to understand their own decisions and those of others should be familiar with these ideas.

DECISIONS, ROUTINES AND INSTITUTIONS

People often act reflexively – without making a decision – as when jerking a hand away from a hot stove or squinting in strong sunlight. But there are other, more complex situations in which decisions do not precede action.

Ilya Ilyich Oblomov, the main character of Ivan Goncharov's novel *Oblomov* (Goncharov [1859]2014), has a hard time getting out of bed. Even though he has businesses to attend to, he usually lies there like a slug. Only rarely does he manage to make the decision to get up.

Obviously, this is unusual behaviour for a thirty-two-year-old man. Most people that age have established routines, and need give no thought to their morning activities. Getting up, eating breakfast, and brushing teeth involve no decision-making. They just do it. Likewise, organization members follow numerous routines in familiar situations. Organizations even decide on routines to be followed in the future, thereby reducing the need for future decisions. They introduce routine procedures for a range of situations – from handling customer complaints to salary negotiations.

People also tend to behave like others in their society in myriad contexts, without making decisions. Parents and teachers show or tell children and adolescents what is considered normal behaviour in various situations: adapting to others in everyday life, greeting others, buying food in a supermarket, or taking university classes.

As adults, they do not have to think about how they should behave or make decisions in every such situation. It is obvious to them that they should extend their right hand to greet another person, quietly join the queue at the supermarket checkout, or take a public seat in the lecture hall. Social scientists talk about how people act in concert with *social institutions*: patterns of behaviour that are taken for granted (Jepperson 1991).

Organizations can rely on social institutions in many situations. A university does not have to make and communicate the decision that students must sit in the public seats in the lecture halls. Students already know that. Business firms can presume that the people they employ are aware that they have managers who are entitled to make decisions about the tasks to be assigned to other employees.

Institutions promote predictability. People can trust that others greet them in a particular way, join the queue at the supermarket and sit where they should in a lecture hall. That business firms have managers is common knowledge. Without institutions, the social order would be endangered. People would be constantly making decisions about what they should do that precise moment, different people would make different decisions, and it would be difficult for others to predict the decisions that others were going to make. Were there no institutions, people would have to spend an inordinate amount of time interpreting and trying to understand how other people think. And every instance of cooperation and coordination would have to be preceded by deliberations and decisions. Institutions are highly practical. They make life easier because people do not have to devote every waking hour to making decisions.

FOUR LOGICS

When people *do* make decisions, how do they go about it? We distinguish four logics that they apply:

- *the logic of consequences*, which implies that decision makers try to assess the outcomes of various courses of action;
- *the logic of appropriateness*, which implies that decision makers consider the rules relevant to the current situation;
- *the logic of imitation*, which implies that decision makers try to imitate what they or others have done in the past; and

- *the logic of experimentation*, which implies that decision makers try to do something with little previous deliberation; rather, they focus on evaluating the results in retrospect, in order to determine whether they should continue along the same lines or take a novel approach.

We discuss each of the four logics in the following sections.

The Logic of Consequences

Decision makers who apply the logic of consequences look ahead. They try to predict the action that will best satisfy them once the decision has been implemented. They consider their options for action and try to guess the outcomes of different options. They try to compare these predicted consequences with their general preferences – their values, goals, interests or tastes – then choose the action for which the consequences align most closely with their preferences.

Its future orientation makes the logic of consequences difficult to apply (March and Olsen 1989). The future is unknown, by definition, and the available options lie in the future, as do the consequences and preferences with which the options must be compared. This situation applies even to the immediate future, although the immediate future is often perceived as relatively certain. As Saint Paul said, long ago, 'For we know in part, and we prophecy in part/ … /For now we see through a glass, darkly …' (1 Corinthians 13: 9–12).

The Logic of Appropriateness

Decision makers who use the logic of appropriateness base their decisions on rules or norms and try to make decisions consistent with them. A court is an archetypal example of an organization that primarily applies this logic. The court's remit is to determine which legal rules should be applied in a particular case and how the rules should be interpreted in the situation at hand. Prosecutors and defence attorneys draw different conclusions about guilt and innocence and what sanctions should be meted out, but it is the court in

the form of the judge or jury that decides. The logic of appropriateness implies that decision makers try to answer three elementary questions (March and Olsen 1989).

What kind of a person am I? Different rules apply to different people and to the same person, depending upon the role that person is assuming for the moment. The rules for parents are not the same as for their children. The rules for access to land are not the same for the owners of the land as they are for others. Various rules apply to different members of an organization. 'I' may also refer to an organization, and in that case other rules apply than those that apply to individuals – different state laws, for example. In addition, there are different rules for different types of organizations: Banks must comply with certain rules that do not apply to department stores, and different rules apply to corporations and sole proprietorships.

What kind of situation is this? Different rules apply in different situations. Trying to take a ball away from someone else is allowed in a football match, but not in a sporting goods store. People are allowed to use a certain type of violence in self-defence that is not permitted in other contexts. A company on the brink of insolvency must prepare a balance sheet for liquidation purposes.

What shall a person such as I do in a situation such as this? Decision makers who understand their role in a particular situation must take a stance on which rules they should follow. Even when they are aware of the rules, there are often several possible interpretations. In everyday life, it is usually easy to understand the rules that apply, but in situations that are infrequently encountered, people must deliberate more in order to arrive at a decision. Then they may need the help of lawyers or other compliance experts – experts in such diverse areas as accounting, etiquette or child rearing.

Although the rules that individuals and organizations follow may be contradictory and tricky to interpret, they must exist beforehand for a decision based on the logic of appropriateness to work. Decision makers applying the logic of appropriateness look backward rather than forward – to existing rules rather than possibilities that the future may bring. Looking backward often feels safer than trying to predict the unknown future, as required by the logic of consequences.

The Logic of Imitation

Like those who use the logic of appropriateness, decision makers using imitation base their decisions on something that already happened. They consider what others have done and ride on the coattails of previously successful investors when deciding what stocks to buy; they imitate close friends for all sorts of shopping and child-rearing decisions. Imitation is one of several methods for learning a profession or trade; future doctors, teachers and carpenters learn by observation how experienced practitioners work, and future auditors are introduced to the profession through comprehensive internships.

Organizations also imitate each other; they may develop products similar to a competitor's, market themselves the same way others do, or organize and manage operations the same way they believe others do.

But neither individuals nor organizations want to imitate just anyone. They follow the lead of their peers – those they believe to belong to the same category as they do (Strang and Meyer 1993). When deciding on clothes, men and women tend to imitate members of their own sex; professionals imitate the style of people within their profession. Universities imitate other universities – or they consider themselves as primarily belonging to a more general category such as organizations and imitate other organizations – business firms, for instance (Brunsson and Sahlin-Andersson 2000). And individuals and organizations may imitate themselves; they reflect on what they did in a similar situation in the past and try to do likewise (Sevón 1996).

The Logic of Experimentation

The logics we have discussed so far presume that decision makers think first and act later. People who apply the logic of experimentation do almost the opposite: They deliberate more after they act than they did before. Without giving much thought to which action is best, they do something and then evaluate the results. If they are happy with the outcome, they are able to wash their hands of further decision-making. If they are unhappy, they make a new decision. The new decision may (but need not) be designed as an experiment, which means that the procedure is repeated.

Instead of trying to guess what will happen after a decision has been made, which those who use the logic of consequences try to do, decision makers who experiment take an empirical stance: Instead of guessing their preferences, they discover which preferences they arrive at if they act in a particular way. Rather than guessing the consequences, they create consequences. Like imitation or rule following, experimentation is based on historical information. The difference is that the decision makers produce this information themselves. Action is not only the result of decisions; decisions are also the result of action.

People may be thinking according to the logic of experimentation when they choose an educational path. It is difficult to know in advance what is included in a programme of study. One way to find out is to begin a course and see if it is of interest. Those who find it interesting enrol in the advanced course as well; those who do not, enrol in a different course.

Organizations apply the logic of experimentation when they decide to launch a new product in selected markets, in order to discover the existing demand or to launch different versions of the same product in different areas. The success of Japanese companies in the 1980s was ascribed to their use of experimentation. Instead of predicting the consequences of various levels of inventory, in order to determine the optimal level, they reduced costly intermediate inventories, observed what happened, tried to correct the problems that arose, and then further reduced inventories. Inventories and inventory costs turned out to be smaller for Japanese than for US companies, which had calculated the 'optimal' size in advance (Masaaki 1986).

The Logics Intertwine

The four logics are simplifications, useful for analysing and understanding a complex reality. In practice, they often exist in combinations. Rules can be (but are not necessarily) designed according to the logic of consequences: What would the effects of other rules be? People can follow the same logic when they choose among different rules: Which rule seems to produce the best outcome? Those who want to imitate may try to formulate a rule that describes how others have behaved and follow that rule. The experimental decision maker may begin by trying to act in a

manner that resembles how another successful person or organization has acted.

Last but not least, there are rules for the way decisions should be made according to the logic of consequences – rules for the way rational decisions are made. Somewhat paradoxically, decision makers who follow these rules apply the logic of appropriateness in order to improve their use of the logic of consequences.

RATIONAL DECISIONS

Depending on the situation and the decision maker, all four logics discussed here are more or less reasonable. For organizations (and perhaps, to an increasing extent, for individuals), the logic of consequences is the decision logic most widely accepted, however. An extreme form of this logic is the idea of rationality. As demonstrated in this section, rationality includes much-discussed, though unfeasible, expectations of decision makers.

When people discuss decisions, they tend to come back to the term 'rationality', which may be used in connection with all four logics. What is perceived as rational then becomes generally understood as reasonable, even intelligent. In this book, we use a narrower and therefore more useful definition of rationality related but not identical to sociologist Max Weber's ([1924]1964) means–end rationality (*Zweckrationalität*). In our interpretation, rationality means three things: Decisions should precede action; decisions should be made according to the logic of consequences; deliberations should be made in a particular, highly systematic way. Being rational does not imply merely guessing about the future in general; any guess should proceed in a particular way and be consistent with the rules of the 'model of rational decision-making' (Simon [1957]1965). We refer to this model when we discuss 'rational' and 'rationality'.

- Decision makers should not only clarify their preferences; they should also rank the preferences according to their preference function – which means that they should realize how important each preference is in relation to all others.
- Decision makers should examine *all* conceivable options; otherwise, they risk missing the best option.

- Decision makers should examine *all* consequences relevant to their preferences; otherwise, they run the risk of misjudging their options and choosing the wrong one.
- Decision makers should be able to use their preference function to compare *all* conceivable consequences with their various preferences. Options and consequences must not influence their preferences. Should decision makers spontaneously feel inclined to choose a particular option, they are not allowed to adjust their preferences to fit that option.
- Decision makers should think not only about the immediate future, but also about the entire future in which they expect their decision to have consequences.

With this use of the term 'rational', it is clear that the other logics are neither rational nor irrational – but rather 'a-rational'. Although the concept of rationality does not apply to them, other logics are as *reasonable* as the logic of consequences and the idea of rationality; they merely represent other forms of intelligence.

The model of rational decision-making has at least one argument in its favour: It should guarantee that the decision maker chooses the option that is likely to result in the most positive consequences. But the challenges for people who try to make rational decisions pile up. If they do not successfully overcome all those challenges, there are no guarantees that the decision will be the right one.

Problematic Preferences

It is easier to be rational if one has stable preferences. But it is common knowledge that preferences may change over time as people discover what others like or how they behave or when they see the consequences of their decisions.

> How can I know who I am until I see what they do?
>
> How can I know what we did until I see what we produced? (Weick 1995, pp. 23, 30)

It is difficult to predict preferences (March 1987). But it is, after all, their future preferences that will determine if decision makers are satisfied with a particular action. A common breach of the model of

rational decision-making is that decision makers proceed from their current preferences, without giving the matter much thought – even in situations in which it is likely that these preferences have changed by the time the consequences of the action become apparent. By the time this happens, decision makers may want something other than what they wanted when they made their decisions.

Methods for predicting preferences are in short supply. One way out of this dilemma is to try to imitate the preferences of more experienced individuals. Young people may imitate the preferences of their parents, for instance, rather than basing their decision on their current preferences. Other than that, and somewhat ironically, there is only one clear decision rule: People who have good reason to assume that their preferences will change, but do not know how they will change, should not proceed from current preferences. They should not do what they feel like doing at the moment. But this rule is not precise; it offers no guidance on how to choose among all the options that one does not like.

Decisions already made or actions already taken may influence preferences. The decision to take a particular action, like the action itself, may mean that one begins to like what one is doing. 'Positive endogenous preferences', means that the preferences accommodate to whatever is happening (March 1978), making it easier to follow the logic of consequences – because any decision or action becomes satisfactory. Take the example of higher education: Professionals may come to believe that what they have learnt as students is important, making almost everyone happy with their choice of education. Those who trust that this will be the case need not think very hard about which programme they should apply to; they can expect to be satisfied, no matter which educational path they choose. Similarly, few people regret that they decided to become parents once the baby has arrived. Thus it is much more likely that one is satisfied with the decision to have children than the opposite decision – thus strongly facilitating the decision.

Unfortunately, the opposite may also apply: Decision makers' preferences may adapt to their decisions in such a way that they come to dislike what they have decided. With 'negatively endogenous preferences', they become dissatisfied, regardless of the options they choose. In and of itself, this situation also facilitates decision-making, but it has few advantages beyond that one. If the

grass is always greener on the other side of the fence, it does not matter what decision is made; the decision maker will be unhappy either way.

Ranking and weighing preferences is another pitfall of the model of rational decision-making. How important is one preference over the others? People who believe it is crucial that motorists can move quickly from Point A to Point B must weigh time savings against the risk that high speed may cause more injuries or fatalities in road traffic accidents – which no one thinks is good. One needs a measure for comparing these fundamentally different preferences. Yet the person who does not have that type of preference function but thinks that these values are immensurable may get into serious trouble when trying to apply the model of rational decision-making. The problem is multiplied when several people must make a joint decision: There is no obviously correct method for balancing the preferences of different people.

Problematic Projections

Assessments of options and consequences must also be based on projections that are almost always uncertain, especially if the decisions refer to actions in the distant future or if long-term consequences can be foreseen. It is difficult to know the consequences of different options. One can certainly calculate the aggregate expected value of a decision by multiplying the probability of various outcomes by the benefit that various outcomes are expected to produce. But if there are no statistically calculated probabilities for various outcomes, decision makers are forced to rely on estimates – subjective probabilities. This is the case when business firms and government agencies make risk assessments by estimating the threats to the organization and the probability that these threats occur. These probabilities are similar uncertain future assessments, however, and the problem of the uncertain future remains.

It is difficult to be aware of all options – of every possibility. The risk here is a lack of imagination. Perhaps the successful entrepreneur is the person who happened to spot a highly favourable option that had escaped the notice of everyone else.

Information gathering is rarely free; it can be both arduous and time-consuming and can impinge upon the decision maker's opportunities to address other key issues. When many problematic, time-consuming and costly forecasts and deliberations are required of decision makers, they may find it rational to make a decision about the decision. In principle, it should be possible to start by making a rational decision about how much time is worthwhile to spend on making a rational decision. But how much time should then be spent on the preparatory decision? A rational decision can also be made about that – at the peril of the decision maker becoming stuck in a never-ending spiral of rational decisions.

The pitfalls of following the model of rational decision-making are one reason why both individuals and organizations simplify. They may still aspire to be rational, but they realize that they do not have the unlimited capacity to gather and analyse information. Instead, people consider the information available and base their decision on their present preferences. They evaluate a limited number of options and find an option that may not be the best one, but one that they believe is good enough: Instead of optimizing, as the model of rational decision-making presumes, they reduce the number of options evaluated by *satisficing* (Simon 1955).

Some people give up in the face of these difficulties and use another logic that seems easier. Once a decision has been made, however, the situation changes. Individuals and organizations that engage in post-hoc rationalization revert to the logic-of-consequence thinking and that of rationality.

POST-HOC RATIONALIZATION

Thus far, we have addressed various modes of reasoning – different logics – in connection with decision-making. But after a decision has been made, decision makers who justify their decisions must not necessarily refer to the logic they applied when making the decision. Under many circumstances, they are expected to justify their decisions in line with the logic of consequences, preferably in a version that is as rational as possible. Many people undergo post-hoc rationalizing after making a decision.

Following rules within the logic of appropriateness rarely elicits admiration, at least not if the rules of appropriateness were drafted by

others. So justifying decisions by saying that 'I simply followed the rules' is rarely acceptable. Even people who decide on new rules are often forced to rationalize them: They must demonstrate that the rules are motivated by their positive consequences, and they are not installed merely to satisfy the decision makers' whim or emotionally laden prejudice.

Imitation is a similarly low-status approach. Justifying decisions by saying that 'I did what everyone else does' is as bad as or worse than merely following rules. Experimentation, on the other hand, may seem bold and innovative, at least to those who like the decision. But few, if any, decision makers talk about experimentation when their decisions proved to have disastrous consequences; to do so would make them appear careless.

In modern society, it is even more difficult to justify decisions by referring to tradition, the will of God, or some superstitious belief (Weber [1924]1964). And it is rarely a valid explanation to claim that the decision was made on impulse or by following gut feelings. Instead, ever-wider areas of life are rationalized, including leisure time and family life. Even holidays serve a purpose: People claim that they decided to spend their vacation in a certain way by arguing that they must learn to play golf, recharge their batteries, or get a tan. And if further interrogated, they are expected to come up with a relatively rational explanation why they chose a particular way of reaching their purpose.

Even the decision to marry a particular person may today require sophisticated post-hoc rationalization. Back in 1975, when the King of Sweden explained to journalists why he had proposed to Silvia Sommerlath, he could refer to his emotions rather than to any form of rationality: 'It just said click!' (YouTube 2013a). Thirty-three years later, when his daughter, Crown Princess Victoria, became engaged to Daniel Westling, she gave the long, pensive explanation that their 'love grew gradually' over seven years of acquaintance, when she found out that they had 'a perfect personal chemistry' (YouTube 2013b). The Crown Princess gave the impression of having examined her preferences and possible options. But perhaps she simply adapted to the recent but strong expectation for post-hoc rationalization – even of love affairs.

Whereas individuals sometimes get away with references to their emotions or their prejudices, the demands for post-hoc rationalization remain high in organizations. Post-hoc rationalization has

become a key task for executives, heads of government agencies, board chairmen and the burgeoning cadre of information officers. In fact, organizations are impregnated with arguments based on the logic of consequences and rationality – even when these forms of intelligence do not govern their decision-making.

Through post-hoc rationalization, decision processes that have proceeded in various ways are described as complying with the model of rational decision-making. Thus outsiders – and perhaps the decision makers themselves – are led to believe that rationality is a more common form of decision-making than is actually the case, thereby reinforcing the general tendency to perceive rationality as a worthy and feasible pursuit.