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CHAPTER I

RULES

Institutions are the rules of the game in a society or, more formally, the humanly devised constraints that shape human interactions. . . . They are a guide to human interaction, so that when we wish to greet friends on the street, drive an automobile, buy oranges, borrow money, form a business, bury our dead, or whatever, we know (or can learn easily) how to perform these tasks.

—North (1990: 3–4)

The most famous and cited definition of social institution appears right at the outset of Douglass North's monograph on *Institutions, Institutional Change and Economic Performance*. North is primarily an economic historian, known for his work on trade and growth in early modern Europe. His writings however have influenced many scholars outside his field of specialization, and for this reason in 1993 he was awarded the Nobel Prize in economics. The conception of institutions as rules is not North's invention, to be sure. Similar definitions can be found in the writings of prominent social scientists of the twentieth century, like Max Weber, Talcott Parsons, and Friedrich Hayek. In philosophy, rule-based theories are equally popular—an original version proposed by John Searle will be discussed later in the book.

The conception of institutions as rules is intuitive, and fits with our pretheoretical understanding of many paradigmatic institutions. Consider marriage for example: the state of being married is associated with several rights and obligations. In most Western countries both husband and wife are responsible for procuring the material resources that are necessary to support the family. They are responsible for their kids' well-being and education. Moreover, they share a mutual obligation to be faithful and to help each other in case of need.

At the level of token institutions these general principles are translated into more specific behavioral rules that govern the division of labor of the spouses in their everyday tasks. Some rules regulate chores ("I cook, you wash dishes"), others regulate child care ("I change nappies, you feed the baby"). Some rules concern finance, others concern sexual behavior, and so on and so forth.

The reason why such rules exist is fairly obvious: they help husband and wife achieve goals that would be difficult to attain if they acted independently. If they both devote a lot of time to cooking, but nobody feeds the children, the kids are going to starve. If they both look after the children but no one goes to work, there will be nothing to cook tomorrow. As an analogy, consider a team of basketball players: if they follow their coach's assignments (he runs, you pass the ball; she defends, you attack) a group of players can hope to win matches and trophies. Without rules, in contrast, they will probably lose every single game. Another example that recurs in discussions of institutions is with the rules of traffic: institutions regulate individual actions in such a way that everyone can benefit from orderly behavior, just like complying with traffic rules is generally beneficial to drivers. Unpleasant events—accidents, jams, disputes—are avoided, or at least their frequency is significantly reduced if we all follow the rules.

Two points must be clarified before we move on. First, the idea that institutions are beneficial is dubious and perhaps even

meaningless unless we specify clearly the contrast case: they are beneficial compared to what? Second, that institutions are generally beneficial does not mean that they benefit all individuals in the same manner. It is easy to find examples of unequal or unfair institutions: in traditional marriage arrangements, for instance, women are often burdened with more obligations and fewer rights than men. Similarly, servants are definitely worse off than their masters under the institution of slavery.

The latter example is particularly controversial: how can slavery be “beneficial,” given that the institution itself is the main cause of servants’ misfortune? The answer is that we are not comparing the welfare of slaves under this terrible institution with the welfare they could enjoy in a more humane institutional arrangement. The right comparison is with the welfare they would enjoy in a noninstitutional arrangement. Historically, slavery has tended to arise whenever the asymmetry of power between two social groups has been so large that one of them could easily exterminate the other. The enslavement of Native Americans in the sixteenth century, for example, was the consequence of the superior military technology, organization, and resistance to diseases of the European conquerors. Slavery thus was “beneficial” to the slaves only in the grim sense that the noninstitutional alternative for Native Americans would have been genocide. So the point is merely that institutions improve people’s lives compared to a situation without institutions, in which they behave independently without the guidance of rules. Institutions, in a nutshell, are better than chaos.

This is entirely compatible with the fact that many people might be better off under an alternative institutional arrangement. There is rarely a unique way of regulating our lives. In a basketball team, I might be the shooting guard and you might be the center, or the other way around. In a family, the husband may stay at home and the wife may go to work, or vice versa. Each particular institution—who does what, or who fills which

role—allocates burdens in different ways, and consequently some people may prefer one type of institution to another. Occasionally, it may happen that we would all be better off under an alternative arrangement. People sometimes get stuck with bad institutions because they cannot decide to change the rules, or because they are not sure that new rules will be followed, or simply because they cannot see that a better institution is available.

One final remark on “beneficial” is in order before I proceed. The term refers only to the group of people whose behavior is regulated by the institution. Since institutions are often group-specific and exclude many people, it is possible that the benefits they confer to the members of one group are offset by the negative effects they have on the members of another group (the outsiders). A typical case is the Mafia, an institution governed by rules of secrecy, cooperation, obedience that benefit the mobsters but harm their victims. But even legal institutions like the army may have positive consequences for some individuals (the soldiers, the people they protect) as well as extremely negative consequences for others (the enemies and civilians who are killed during a war, for example).

Having said that, it is hard to deny that *in general* the capacity to regulate collective behavior is a tremendous asset for our species. The spectacular demographic growth of *Homo sapiens* and its rise to supremacy on Earth are due in large part to its social skills and flexibility of organization. Institutional economists like North have studied in particular the role played by institutions in facilitating economic growth. The idea—confirmed by a wealth of empirical studies—is that rules can help overcome obstacles that limit production, trade, and more generally hinder the welfare of a society. (Economists use the technical term “transaction cost” to refer to these impediments.) New rules may be created by an influential group, for example an enlightened ruler or government. However they may also emerge and evolve autonomously, without anyone in particu-

lar planning or foreseeing their effects. If they are successful, institutions are often spontaneously copied and disseminated across different social groups. But again, this is by no means guaranteed: clever ideas sometimes do remain unrecognized.

For historical and cultural reasons, a lot of research carried out in the past century has tended to emphasize the spontaneous emergence and diffusion of institutions. This was partly a reaction against an older approach to social policy that emphasized government intervention and central planning. Scholars interested in the spontaneous evolution of institutions draw a distinction between *formal* and *informal* institutional rules. “Formal” here means stated explicitly, codified in a set of laws, principles, rights that are publicly available and known or at least knowable by the relevant members of society. Such rules may be transmitted orally, but in complex societies they are usually preserved in written form. Informal rules, in contrast, are not explicitly codified and become manifest mostly through the behavior of individuals.

Friendship, for example, is governed entirely by informal rules: although there is no formal rule stating that you should not date your friend’s boyfriend, it is generally agreed that it is not to be done and transgressions may cost you dearly. A complex institution like marriage in contrast is constituted both by formal and by informal rules. There is an important asymmetry between informal and formal institutions: while “purely” informal institutions are quite common, it is difficult to find examples of institutions that consist exclusively of formal rules. Even written legal codes rely heavily on informal practices for their interpretation and implementation. The fact that a certain rule is formally included in the body of principles that constitute the laws of a country actually has little significance in itself. Many laws are never followed and their transgressions are never punished, in spite of the fact that no one has bothered to abrogate them formally.

In May 2010 ten French ministers proposed to repeal a law

forbidding women to wear trousers. The law had been in place since 1799, although hardly anyone had noticed for a long time. When it was finally recognized as invalid, in 2012, the official act of the French Parliament had mere symbolic significance. Rules like the French ban on trousers are *ineffective*. The distinction between effective and ineffective rules is very significant from a theoretical point of view, because it is strictly related to a deep problem of the rule-based conception that will keep us occupied for the rest of this chapter.

Effective rules are important for policy making because institutions are causal factors that can be manipulated to achieve certain goals, by changing people's behavior. For example, the introduction of an institution that provides insurance to farmers may change their business practices and improve the efficiency of their firms. The introduction of a rule of hygiene may reduce the incidence of stillbirths and improve the fertility of young women, and so on. The rule-based approach, by itself, however does not explain why people comply with the rules. Why are *some* rules followed and not others? This is not just a philosophical question. It is an extremely important practical issue, because if we do not know the answer we risk designing institutions (rules) that fail because people do not comply with them.

Another way to put it is this: rules are linguistic statements, but to state a rule—to say “do this,” or “do that”—is not enough to create an institution. The case of the French law is an obvious example. In that case, the law was simply forgotten, but the problem is deeper: some rules are not implemented even though they are widely known. In several North American states for example the speed limit on the motorway is officially sixty-five miles per hour. However most cars drive between sixty-five and seventy-five. So clearly the formal rule is not effective—the *real*, informal rule sets the speed limit somewhere around seventy-five. But to say that sixty-five is not the “real” rule leaves many important questions unanswered: What distinguishes “real” from

“nominal” rules? What is the difference between the sixty-five- and seventy-five-miles-per-hour rules? Why do people comply with the latter but not with the former?

A plausible explanation may go like this: although the formal rule sets the limit at sixty-five, there are advantages in being slack in its enforcement. A driver speeding at sixty-five for example may find herself in a situation where she should swiftly accelerate to avoid an accident. If she believes that small breaches of the rule are going to be fined, the driver might hesitate, with catastrophic consequences. Given that traffic rules are meant to reduce the number of accidents and improve safety, it is wise to leave a little room for maneuver around the official speed limit.

Second, there is a problem of measurement: measurement instruments are imprecise. This is true of both the instruments that are available to the drivers and those used by the police. Fining cars that speed at sixty-six miles per hour would generate a lot of litigation, appeals, discontent, accusations of unfairness. So it may be wise for the police to sanction only major violations of the traffic rules. In practice the police may decide to implement a strategy like this: fine every car speeding at seventy-five miles per hour or more; fine some cars speeding at seventy to seventy-five; fine no car speeding at sixty-five to seventy. This strategy would work reasonably well and ensure that most people drive right around seventy. But those who are caught speeding at seventy-five or more cannot complain if they get a ticket: they were clearly exceeding the official speed limit.

The above explanation depicts an effective rule as a stable state. Drivers have an incentive not to exceed seventy-five miles per hour; the police have an incentive to tolerate those who do not exceed that limit (because they do not want to waste too much time litigating). If a naïve observer were to look at the traffic flowing down the highway, she would conclude that the effective speed limit is roughly seventy-five: everybody’s behavior

confirms the expectation that one should not exceed that limit. The system is in equilibrium.

Three points are worth keeping in mind: First, simply to say that institutions are rules does not explain why people follow some rules but not others. Second, by trying to explain why the sixty-five-miles-per-hour rule is merely nominal, while seventy-five rule is effective, we are induced to analyze the factors (especially the incentives) that promote compliance. And finally, such factors take a special configuration—a kind of equilibrium state.

The preceding line of argument suggests that institutions must be *special* kinds of rules. They are better conceived of as rules that people have an incentive to follow. The concept of incentive and the concept of equilibrium are strictly related. Intuitively, a system is in equilibrium if the forces that determine its current state contribute to perpetuate it indefinitely. Take a book and put it on your desk, for example. The force of gravity pulls it toward the center of the Earth, but its fall is impeded by the force of cohesion of the molecules that constitute the surface of the desk. Unless some other force intervenes, this state of affairs will continue to hold indefinitely—the system is in equilibrium.

In the case of institutions, of course, the forces at play are different. Human behavior is affected by a large number of causal factors, and it would be foolish to try to give a full list. When social scientists are dealing with very general issues such as the nature of institutions, they use modeling tools that do not make a precommitment to any specific mechanism. They simply assume, for example, that the behavior of individuals is governed by “incentives.” An incentive is a property of a state of affairs that motivates people to action. Incentives need not be material goods like food, sex, or shelter, and people need not be motivated by purely economic interests. It is perfectly legitimate to assume that people have different ultimate goals in life. If one’s goal is to glorify the Almighty God, for example, it may be in

one's interest to spend a lot of money to build a magnificent cathedral. If one's goal is to raise healthy and happy children, one may have an incentive to invest in education. Incentives in this sense do not necessarily depend on self-interest narrowly conceived.

A social system is in equilibrium when the incentives of the relevant actors contribute to keep it in its current state. A stable social state is not necessarily motionless like a book lying on a desk. It may involve frantic activity, and the actions of one individual may be quite different from those of another. But a social system in equilibrium is likely to be characterized by *regular patterns of behavior*: people will tend to do (roughly) the same things in the same circumstances. Thus, for example, a Martian who has just landed on Earth may notice that North American drivers tend not to exceed the seventy-five-miles-per-hour limit, with remarkable regularity.

Andy Schotter—a prominent game theorist and experimental economist—defines institutions as “regularities in behaviour which are agreed to by all members of a society” (1981: 9). Such regularities “can be best described as noncooperative equilibria” of strategic games (1981: 24), because out-of-equilibrium actions are unstable and are unlikely to be repeated in the course of many interactions. This definition summarizes the main elements of the equilibria approach to the study of institutions. Like its main rival (the rules account) the equilibria approach is more like a tradition or research program than a single theory. And like its main rival, it cuts across the divide between science and philosophy.

Historically, the equilibria tradition stems from the study of *coordination* problems. Coordination problems are ubiquitous in social life, and are an important breeding ground for institutions. The rules of traffic are attempts to solve problems of this kind: we could set the speed limit at sixty, sixty-five, seventy, or any other figure that offers a reasonable compromise between speed and safety. Exactly which one we choose is not

very important, it is a matter of convention. Similarly, we could all drive on the left- or on the right-hand side of the road. Either solution is fine, provided we all do the same thing. In other cases it is important that we do *not* all do the same thing: in politics and war, it is often important that someone leads and the others follow for example. If we all follow or we all lead we are going to be in trouble. In a marriage, it is important to divide labor—I cook and you wash the dishes, or you cook and I wash. What these situations have in common is that we all have an interest to coordinate, and that there is more than one way to do it.

How are coordination problems solved, in practice? One obvious way is by stating a rule. When they arrive in Dover, for example, several signs remind Continental Europeans that the rule is “drive on the left.” It is important to stress, however, that people do not drive on the left in Britain just because of that rule. To realize that this is so, it is sufficient to engage in a little thought experiment. Suppose you woke up one morning and discovered that everyone is driving on the right in Great Britain. What would you do? Even if the rule officially has not changed, clearly you would also drive on the right. You would do it because it would be in your interest. People do not follow the rules of traffic because a piece of legislation says so, but because they do not want to crash.

If you know what the other individuals are going to do, then coordination is not a big problem. And in many cases, you can simply see what they do and then decide accordingly. Imagine there are two free tables at a restaurant; you see that another customer is looking for a place to sit. If you are indifferent between the tables, you can just wait and see which one the customer is going to choose, before you make your move.

But what if you cannot observe others, for example because you have to make your decisions independently and simultaneously? Having a rule then may help coordination. Suppose there are only two chairs left in a crowded conference room,

but one of them offers a better view of the stage. Two members of the audience approach them simultaneously. Perhaps they will simply move as fast as they can and scramble for a seat. But this may cause embarrassment and bad feelings. Now suppose the two individuals are a gentleman and a lady, or a young and an old person, or one of them is physically impaired. Then a simple informal rule of etiquette (“ladies first”) may solve the problem of coordination.

For this to work everyone must be aware of the rule, and must believe that the others will follow it. Only if this is the case will it be in our interest to comply. But how do we know that the others will follow the rule? Clearly the others are facing exactly the same problem: it is in their interest to comply, provided that *we* comply. But since we have not decided what to do yet, how can they expect us to comply? They cannot solve their problem until we have solved our problem, and we cannot solve ours until they have solved theirs!

The problem of coordination looks puzzling when it is seen through the eyes of a logician. But real people are rarely bothered by logical paradoxes. Unlike Buridan’s ass, who starved because it could not make a decision between two identical stacks of hay, real people at some point just go one way or the other. When pure logic fails, some extralogical mechanism breaks the tie.

One of the striking aspects of real-life coordination problems is that we rarely pause to think about them. In most cases the solution looks obvious, indeed so obvious that it does not look like a problem at all. If the sign says “Keep Left,” then it is obvious that the thing to do is to keep left, and that the others will do their part. This is the most natural solution, the one that first comes to mind and that “stands out” from the crowd of all the possible solutions. So perhaps the main function of the sign (and the rule) is to make one solution appear obvious. Lacking a better reason, people will just opt for the solution that first comes to mind.

A solution that “stands out” from the crowd is a *focal point*, in technical jargon. This expression was coined by Thomas Schelling in a pioneering book, *The Strategy of Conflict* (1960), that laid the foundations for much contemporary work on institutions. Schelling noticed that individual decisions are facilitated by the existence of focal points. A focal point is often *salient* for reasons that have nothing to do with the structure of incentives of the game, but depend on features of the environment that are irrelevant from a purely logical point of view. Schelling pointed out that people sometimes make better decisions if they do not engage in complex logical reasoning—just as we do when we instinctively follow the sign.

There are many possible sources of salience. In many cases the focal point is determined by our cognitive processes. Consider Figure 1.1, for example. Suppose that two players have the opportunity to choose a star among those that appear in the picture, and if they choose the same star they will earn some money (ten euros, say). Which one would you choose? The answer is obvious because one star is immediately salient. From a purely logical point of view, the fact that it is roughly in the middle of the picture should be entirely irrelevant. Still, that star looks somewhat different—it “stands out” from the crowd. Many people choose the star in the middle and by so doing they raise the probability of coordinating, because it is the most frequently chosen star.

Not all focal points exploit perceptual salience though. Another important source of salience is *culture*. Let us consider a slightly different coordination problem, with four stars perfectly aligned in a row (Figure 1.2). Faced with this problem, the majority of people choose the first star on the left. This seems to be the obvious solution for reasons that have little to do with perception. Or, to be more precise, most of us first look at the star on the left. But we do not do it because it is visually striking, or “different.” We do it because we have been taught to read from left to right. So we choose the star on the left because



FIGURE 1.1. A case of perceptual salience.

it is the first one, and it is the first one because in our culture we read and count from left to right. The solution is salient for cultural reasons.

This shifts the problem one step further though. What is “culture,” in fact, if not a massive system of rules that govern our social interactions? And the rules surely are conventional, much of the time. Leonardo da Vinci wrote in Italian from right to left, as many contemporary people do when they write in Arabic, Hebrew, and Urdu. Whichever convention we use, we do it to facilitate coordination with others. So the reason why I occupy the right lane when I drive in my country is simply that most Italian drivers have been driving on the right up until now. Since we are all facing this problem every single day (which side of the road should I choose?) I cannot rule out that, for some reason, the other drivers will decide to change their behavior at some point. And it is not science fiction: Swedish drivers changed their convention overnight—from left to right—on September 3, 1967, between four fifty and five o’clock in the morning. (For ten minutes everything stood still, apparently.) But the Swedish government affixed a hundred thirty thousand signs to make sure that everybody knew, and that everyone was confident that everybody knew, that a major change of convention was going to take place.



FIGURE 1.2. A case of cultural salience.

It takes a massive effort to convince people that they should abandon an engrained custom, in fact. In normal circumstances the hypothesis that we could all switch from right to left or vice versa is totally bizarre. Thus among the “irrelevant” details that can make a strategy salient *history* plays an important role. As Schelling pointed out “precedence seems to exercise an influence that greatly exceeds its logical importance or legal force,” and “there is . . . a strong attraction to the status quo ante” (1960: 67–68).

This simple insight proved to be tremendously fertile. Schelling’s lectures at Harvard were attended in the 1960s by a young philosopher called David Lewis, who was looking for ideas to use in his doctoral dissertation. Lewis was particularly interested in the conventional aspects of language, and realized that Schelling’s focal points provided a neat explanation of how linguistic conventions could emerge and persist in the course of repeated interactions. In his dissertation—which later became his classic book on *Convention* (1969)—Lewis pointed out that an outcome can become salient simply in virtue of the fact that it has occurred very frequently in the past. The focal point is determined by history.

So we drive on the right because everybody has driven on the right up until now; we interpret +2 as “add two” because everybody has done so until now. Ditto for wearing black at funerals, or using the word “shark” (rather than “whale,” “stark,” “skkrk,” or whatever) to denote a dangerous fish that lives off the coast of Australia. When a behavioral regularity perpetuates itself in this manner, we will say that a convention has emerged in a given population.

Lewis says that there is no logical reason to choose the sa-

lient equilibrium, and no logical reason why precedence should be a source of salience. It is just a fact, based on our brute disposition to notice patterns, to extrapolate from the past, and to attribute the same extrapolating tendency to other human beings. We are built like that, and we should better take this fact into consideration when we do science or philosophy: “we tend to follow precedent, given no particular reason to do anything else” (Lewis 1969: 39).

But a disposition to follow precedence is not merely an *internal* propensity of each individual (biologically inherited or acquired by training). There is also a normative component in rule following: we tend to blame people who do not follow precedent or do not choose the obvious solution to a coordination problem. We feel that deviants do not just do something that is statistically anomalous, or rare. We also have the impression that they do something *wrong*.

Lewis sketches a simple story about the normativity that we attribute to conventions. A convention is normative in two senses: breaching it would damage the deviant, but also other members of the community. So there are at least two good reasons to conform.

For we do presume, other things being equal, that one ought to do what answers to his own preferences. And we do presume, other things being equal, that one ought to do what answers to others’ preferences, especially when they may reasonably expect one to do so. For any action conforming to a convention, then, we would recognize these two (probable and presumptive) reasons why it ought to be done. We would not, as far as we can tell, recognize any similarly general reasons why it ought not to be done. This is what I mean by calling conventions a species of norms. (Lewis 1969: 98)

The first “ought” is a norm of instrumental rationality (do what is best for you, in the given conditions). The second one is a

social norm that prescribes not to harm others unless there is a good reason to do so. These two norms jointly suffice to consider certain actions as “right” and others as “wrong”: the “right” ones are those that are expected by the community.

I will return again to the issue of normativity, because it plays an important role in the analysis of institutions. But for now, let me conclude this discussion of rule-based accounts of institutions. We have seen that the application of rules is determined in part—but essentially and inevitably—by the incentives of the community members. I started from the problem of distinguishing effective from ineffective rules, or how to explain why certain rules are actually followed while others are not. Looking at the case of speed limits, I argued that an effective institution is an equilibrium state where all the relevant individuals have an incentive not to deviate from a certain pattern. So any rule-based account of institutions is bound to be incomplete. Minimally, it should be complemented by an account of how and why some rules are followed and others are not. The examples discussed so far point in a certain direction, suggesting that institutions should be represented as equilibrium states. To articulate this idea in more detail it will be necessary to use some concepts borrowed from the theory of strategic games.

REFERENCES AND FURTHER READINGS

The idea of institutions as “rules of the game” (*Spielregeln*) is already in Weber (1910: 459). Accounts of institutions as rules can be found in the writings of Parsons (1935), Knight (1992), Mantzavinos (2001), Hodgson (2006), Miller (2010), and many other social theorists. The example of speed limits is borrowed from Greif and Kingston (2011). There is a striking analogy between the problem of ineffective rules and the famous problem of “meaning finitism” discussed by Wittgenstein (1953). Following Wittgenstein, Kripke (1982) has argued that the meaning

of a term must ultimately be determined by a system of social incentives, a solution that is similar to Lewis's equilibrium account of conventions. See also Bloor (1997) and especially Sil-lari (2012), who defends this parallelism in detail. The books by Schelling (1960) and Lewis (1969) are extremely clear and accessible, so it is worth reading the original texts. Although they both continued to give important contributions to social science and philosophy, they did not write any other major book on these topics. They did however start an extremely influential research program that has produced a large literature. A favorite of mine in this tradition is Robert Sugden's *The Economics of Rights, Co-operation and Welfare* (1986), a monograph that I will cite again in subsequent chapters. Sugden (1998b) includes an excellent discussion of the relation between inductive propensities and the emergence of conventions. In Guala and Mit-tone (2010) and Guala (2013a) I present some experimental data on the normative power of conventions, a topic that has been discussed also by Gilbert (1989) and Tummolini et al. (2013). Although rules do not play a central role in their theory, Smit, Buekens, and du Plessis (2014) articulate an account of institutions as systems of incentivized actions that is in many ways similar to the one that I defend in this book.

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