Chapter 2 Institutions and Transactions

Scholars in economics, political science, and sociology use various definitions of the term *institution*. Sections 2.1 and 2.2 define the term in a precise manner in order to delineate the scope of the analysis. Particular rules, beliefs, norms, and organizations are central to this definition, which helps illuminate why institutions have such a profound impact on behavior and how they should be studied analytically (Part II), why they persist in a changing environment and why they exert an independent impact on institutional dynamics (Part III), and how to study them empirically (Part IV).

The definition presented here encompasses other seemingly alternative definitions. It fosters the development of a unifying concept of the object of study and the integration of insights and analytical frameworks developed in conjunction with various definitions of institutions (section 2.3). The definition also highlights the sense in which transactions are the basic unit of institutional analysis although this requires defining transactions in a more comprehensive manner than traditionally done in economics. Intertransactional linkages are central to institutions because, among other reasons, the institutionalized beliefs and norms that motivate behavior in a particular transaction reflect what other transactions were linked to it and in what way while organizations are reflection of and means for linking transactions (sections 2.4 and 2.5).

While reading this chapter is it useful to keep in mind what it is *not* about. It does not examine the origins of institutions or why and how they change. Later chapters are devoted to these issues. This chapter is only concerned with specifying the object of study: institutions.

2.1 What Is an Institution?

An institution is a system of social factors that conjointly generate a regularity of behavior.[1] Each component of this system is social in being man-made, nonphysical factor that is exogenous to *each* individual whose behavior it influences. Together these components

[1] I use the term *system* to highlight the interrelations among an institution's various elements, but an institution need not have all of the elements of the system (rules, beliefs, norms, and organizations).

motivate, enable, and guide individuals to follow one behavior among the many that are technologically feasible in social situations.[2] I often refer to such social factors as *institutional elements.* The institutional elements that this work focuses on are rules, beliefs, and norms as well as their manifestation as organizations. *An institution is a system of rules, beliefs, norms, and organizations that together generate a regularity of (social) behavior*. Each of these elements satisfies the conditions stated above.

The object of study is restricted by requiring that the institution be composed of man-made, nonphysical factors that are exogenous to each individual whose behavior they influence and generate a regularity of behavior in a social situation. (As we will see below, a social situation is one involving a transaction.) Not all rules, beliefs, and norms fulfill these requirements. A legal rule, a constitutional provision, a moral code, or beliefs that do not influence behavior are not components of an institution. The belief that one can buy and sell at the market price is a component of an institution that influences behavior in the market. The "institution of legal enforcement" is not the court but a system of rules, beliefs, norms, and the associated organizations of which the court is just one.

To illustrate what an institution is according to this definition, consider a system of rules, beliefs, and organizations that secures property rights - that is, that generates the behavior of respecting particular rights. In this system, politically determined rules define the relevant properties, assign property rights, identify property owners, define offenses, and specify corresponding (legal) penalties. If the political process is such that each individual cannot unilaterally alter the rules, the rules are exogenous to *each* of them. These rules can be endogenous to all of them, as is arguably the case in a democracy, or exogenous to most of them, as is the case under a dictatorship.

Rules that prescribe behavior, however, do not influence behavior unless people are motivated to follow them. For rules to be part of an institution, individuals must be motivated to follow them. This condition can be satisfied if, for example, it is common knowledge that infringement will be penalized harshly enough to deter abuses. As these beliefs in legal sanctions

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[2] The term *guide* means to provide the knowledge required to take and coordinate a particular action. The term *motivate* means to induce behavior based on external or intrinsic rewards and punishments.

are common knowledge, they are exogenous to each of the interacting individuals. Although an individual can decide for himself whether sanctions will be forthcoming, each has to take as given that everyone else believes that this is the case.

In this system, behavior is guided by rules and motivated by beliefs in legal sanctions. For these beliefs to be possible, however, organizations constituting the legal system—in the contemporary world, the court and the police—are required. Without them, beliefs in legal sanctions cannot prevail. Clearly, a court and a police force do not necessarily lead to the belief that infringement will be punished because many legal systems are corrupt or ineffective. To study the impact of the legal system, we must therefore also examine the rules, beliefs, and norms that generate behavior among members of its constituting organizations and between them and others. In this sense, organizations also constitute institutions. They have a dual nature: they are components of institutions and they constitute institutions. Organizations are institutional elements with respect to the behavior we seek to understand, but they are institutions with respect to their members' behavior. Organizations also differ from other institutions in that the associated rules, beliefs and norms lead to differential behavior toward members and nonmembers.

In the institution described here, beliefs about the behavioral responses of others (in the form of legal sanctions) provided motivation.[3] But such beliefs are not the only set of beliefs that can generate a regularity of behavior. Internalized beliefs that reflect cognitive models about the structure of the world around us also influence behavior. For example, the Promethean myth about the gods' disapproval of technological advances reflects (and constitutes a means of perpetuating) such beliefs. Prometheus was punished for delivering—and humanity for accepting—new technology, igniting fire. Once internalized, it became a man-made nonphysical factor exogenous to each individual that contributed to inhibiting technological advances.

As these examples illustrate, the definition restricts the object of study in several ways and draws attention to the importance of several corresponding factors in studying institutions.

[3] Beliefs in other responses similarly influence behavior. Nee and Ingram (1998) note that social norms and political rules differ mainly in the mechanism for their enforcement.

2.1.1 Regularity of Behavior

The object of study is restricted to regularity of behavior, meaning behavior that is followed and is expected to be followed in a given social situation by (most) individuals who occupy particular social positions.[4] Regularity of behavior can be general, such as entering into legal contracts, or specific, such as entering into particular contractual forms. It can transpire often (as paying with credit card in the USA, for example) or it can transpire rarely (as impeaching a president in the USA, for example). In either case, institutional analysis is about regularities that are robust, in the sense that they are carried out in a broadly defined situation. The focus on regularity of behavior implies that institutional analysis is concerned with recurrent situations between the same individuals over time (e.g., a relationship between a lender and a borrower) or among different individuals (the relationship between drivers on a highway, between a judge and various defendants, or among legislators in the Congress).

Social position specifies one's social identity, which may be defined by a very general factor (such as one's gender) or a more specific one (such as one's occupation or one's history of having defaulted on a debt). Examples of social positions are buyers and sellers, parents and children, lenders and borrowers, and employers and employees. Studying the behavior of individuals occupying social positions entails examining how their behavior is influenced by societal forces rather than individual characteristics.[5]

Diversity of behavior can nevertheless prevail as individuals with distinct social positions (defined over such characteristics as age, gender, or ethnicity) follow different behavior in the same situation. Similarly, for idiosyncratic reasons some individuals may hold private beliefs or have particular attributes that lead them to act differently from others in their social position. The

[4] The association of institutional analysis with the study of social positions is common in sociology. Berger and Luckmann (1967, p. 74) argue that "all institutionalized conduct involves [social] roles," which are commonly known "types of actors." E. Hughes (1937, p. 404) has argued that for the particular case of formal organizations "the conscious fulfilling of formally defined offices distinguishes social institutions from more elementary collective phenomena."

[5] Giddens (1997), Abercrombie et al. (1994), and Zucker (1991) argue that the degree of institutionalization is that to which behavior reflects social positions rather than personal characteristics.

focus here is on situations in which such idiosyncracies can be treated as deviations around the mean behavior induced by the shared beliefs and norms. I will later return, however, to discuss the role of private beliefs in considering sources for institutional change.

2.1.2 Man-Made Nonphysical Factors That Influence Behavior

Institutional analysis is about situations in which more than one behavior is physically and technologically possible. In considering how regularities of behavior are generated in such situations, the definition focuses on *man-made nonphysical factors*.

Man-made factors that influence behavior reflect intentional or unintentional human actions. Some man-made factors, such as doors, locks, and barriers, are physical. The focus here is not on these factors but on nonphysical factors, such as religious beliefs, internalized norms, and the expectation that a penalty will follow the violation of a traffic rule. This focus reflects that the physical manifestations of nonphysical factors - prisons, temples, and symbols, for example - have a secondary role in generating institutionalized behavior. Prisons themselves do not make up an effective legal system; rather, corresponding rules, beliefs, and organizations are needed to generate law-abiding behavior.

Alongside physical factors, technology and genetics also influence the set of feasible man-made nonphysical factors. Technology for monitoring workers, such as video cameras, enables the belief that shirking will be penalized. Genetic factors directly contribute to regularities of behavior in various ways, although they are not man-made nonphysical factors. Evolution, however, endowed us with genetic propensities, such as the ability to internalize norms and to seek social status. Within the boundaries determined by this genetic endowment, various man-made nonphysical factors can prevail. Indeed, there is tremendous variety across societies in the ways in which normative behavior and social relationships are structured.

2.1.3 Factors Exogenous to Each Individual Whose Behavior They Influence

The object of study is further restricted by focusing on factors that are exogenous to *each* individual whose behavior they influence. This restriction is a corollary of the assertion that institutional analysis is about factors that enable, guide, and motivate behavior. Factors that come under an individual’s direct control (his ‘choice variables’) do not enable, guide, or motivate his behavior.

As discussed in Chapter 5, institutionalized rules and beliefs are man-made yet exogenous to each individual whose behavior they influence. They are exogenous to each individual in the sense that they are commonly known rules and beliefs in situations in which behavior is not technologically determined.[6] In particular, it is known that every member of the society knows these rules and holds these beliefs. That others know these rules and hold these beliefs is exogenous to each individual, even if the response of each individual to these rules and beliefs is part of the mechanism rendering them common knowledge.

It is easier to comprehend why norms are exogenous to an individual whose behavior they influence. After being internalized, norms—the normative rules of behavior that an individual has internalized through socialization—are beyond an individual’s control. Indeed, as norms specify the morally appropriate, individuals who have internalized them do not want to change them. Similarly, organizations such as communities, courts, and the police are composed of rules, beliefs, and norms and, as such, are exogenous to those whose behavior they influence.

To provide an example, it is common knowledge that in Britain people drive and are expected to drive on the left side of the road. The rules disseminating this knowledge and the associated expectations are exogenous to each driver, who cannot alter what others think about behavior on the road. In horizontal communities without a leadership structure, the rules, beliefs, and norms influencing membership and behavior toward members and nonmembers are taken as given by each individual. At most an individual can leave the community; he cannot unilaterally alter the related institutional elements.

Institutional elements are social factors as they are man-made, nonphysical factors exogenous to each individual whose behavior they influence. This does not imply that institutions are always exogenous to every individual. One individual’s choice variable can be part of an institution that influences the behavior of another. Indeed, there is an *institutional hierarchy*, and those higher up in this hierarchy can be said to have *power* over others.

[6] When only one behavior is technologically feasible, beliefs about it are likely to be common knowledge but this common knowledge is inconsequential. One course of action does not depend on these beliefs.

Institutional hierarchy, explored in later chapters, provides opportunities for intentional institutional change.

In the economic arena, various institutional elements, such as legal rules and labor unions, influence decisions made by firms about their contractual obligations toward employees. The contract that firms offer their employees is the behavior implied by the institution these firms face. For the employees, however, these contracts specify the rules that are part of the institution that influences their behavior.

Similarly, legal rules are not institutional elements for a dictator, because he is above the law, although his behavior nevertheless generally reflects various institutions, such as those required to elicit control over coercive power. In any case, for his subjects, legal rules are exogenous, man-made, nonphysical factors that, if part of an institution, affect their behavior. Similar to a dictator, a prime minister may also be in a position to change legal rules. Unlike a dictator, however, once they are institutionalized, legal rules influence his behavior because he is subject to the law. Common to both the dictator and the prime minister is their ability to initiate, in this example, changes in legal rules. In this sense, these rules are not exogenous to them. Each reflects a particular institutionalized way, a set of rules, beliefs, norms, and organizations, generating behavior in the interactions through which new institutions are established.

2.2 Institutions as Systems of Rules, Beliefs, Norms, and Organizations

Considering an institution as a system departs from the common practice of considering it a monolithic entity such as a rule.[7] To understand regularities of behavior, in the most general case, we need to study a system of interrelated elements. While I return to discuss the different roles of different institutional elements at length in Chapter 5, to justify this assertion at this point, it suffices to note that various institutional elements—rules, beliefs, norms, and organizations—serve different roles in generating behavior. The various approaches to the study of institutions that have defined them as either rules, beliefs, norms, or organizations highlight the roles that each of these factors plays.

[7] Scott (1995, p. 33) advances a different, nonunitary notion of institutions, according to which institutions "consist of cognitive, normative, and regulative structures and activities that provide stability and meaning to social behavior." Chapter 5 clarifies the relationships between the two definitions.

Socially articulated and disseminated rules create shared cognition, provide information, coordinate behavior, and indicate morally appropriate and socially acceptable behavior. They thereby enable and guide behavior by creating a cognitive and normative understanding of the situation and coordinating behavior within it. Although such rules can reflect individualistic learning, they are usually socially articulated and disseminated and can take many forms (formal or informal, implicit or explicit, tacit or well articulated).

Rules correspond to behavior only if people are motivated to follow them. Beliefs and norms motivate individuals to follow institutionalized rules. For example, believing that a reward or penalty will be forthcoming motivates an individual to take or refrain from taking a particular action. The *rule* about driving on the right does not cause us to do so; we are motivated by the *belief* that everyone else will drive on the right and it is therefore best of us to do so as well.

It is useful to differentiate between two kinds of beliefs that motivate behavior: internalized beliefs and behavioral beliefs (expectations). Internalized beliefs are those regarding the structure and details of the world we experience (and potentially other worlds) and the implied relationship between actions and outcomes. They reflect knowledge in the form of cognitive (mental) models that individuals develop to explain and understand their environment. Such beliefs can directly motivate behavior at the individual level. In early medieval Europe, for example, the belief that various deities lived in the forest forestalled land clearing, because people feared divine retaliation if they did so (Duby 1974).

Internalized beliefs also influence behavior indirectly, as individuals who have power—who can influence institutionalization processes—act on their convictions. In the age of mercantilism, for example, policy makers believed that international trade was a zero-sum game. They believed that a nation's economic success, particularly in exporting goods, came at the expense of the success of other nations. Through regulations, policy makers attempted to institute rules and beliefs that fostered their nation's competitiveness in world trade.[8]

Behavioral beliefs are beliefs about the behavior of others in various contingencies, whether or not the behavior actually occurs. An individual's beliefs about others' behavior directly influence his behavioral choices. The belief that everyone else will drive on the right

[8] This line of causation is central to the argument in North (2005).

motivates an individual to do likewise. These beliefs are about behavior—driving on the right—that actually occurs given these beliefs. Behavioral beliefs regarding behavior that does not actually transpire given these beliefs can also influence behavior. Believing that a policeman will arrest a person who commits a crime and that the legal system will penalize the offender reduces the motivation to commit a crime. If these beliefs are sufficient to deter crimes, criminal activity will not occur. Beliefs about the policeman's response in a situation that does not actually transpire influences behavior. Finally, internalized norms are socially constructed behavioral standards that have been incorporated into one's superego (conscience), thereby influencing behavior by becoming part of one's preferences.

Different institutional elements have distinct roles, each of which contributes differently to generating regularities of behavior. Rules specify a normative behavior system and provide a shared cognitive system, coordination, and information whereas beliefs and norms provide the motivation to follow them. Organizations, either formal, such as parliaments and firms, or informal, such as communities and business networks, have three interrelated roles. Organizations produce and disseminate rules, perpetuate beliefs and norms, and influence the set of feasible behavioral beliefs. In situations in which institutions generate behavior, rules correspond to the beliefs and norms that motivate it, while organizations contribute to this outcome the manner mentioned above.

How, for example, do the rules of the road produce regularities of behavior among drivers? They create a shared cognitive understanding of the symbols drivers encounter (red lights, yield signs) and the definition of various concepts and situations (passing, yielding, having the right-of-way). The rules also include prescriptive instructions on expected behavior in various situations by law enforcement officials, pedestrians, and other drivers. Believing that others will follow these rules of behavior motivates most drivers most of the time to follow them. Departments of motor vehicles and law enforcement agencies are organizations that generate and disseminate these rules and facilitate the creation of the corresponding beliefs. To understand the behavior of drivers requires studying these three institutional elements, which constitute the interrelated components of an integrated system in which rules correspond to beliefs about behavior and behavior itself.

Table 2.1 provides examples of the interrelated roles of various institutional elements: describing the foundations of regularities of behavior requires describing multiple institutional elements. Chapter 5 examines these institutional elements in depth.

Table 2.1. Institutions as Systems

Rule	*Organizations*	*Beliefs and Internalized norms*	*Implied Regularity of Behavior*
Rules of the road	Departments of motor vehicles and law enforcement officials	Beliefs that other drivers and law enforcement officials will behave in a particular way	Driving according to the rules
Rules regulating the payment of bribes such as the amount paid, how, and to what effect	State administration, police, courts of law	Belief that the response of the state, police and courts to bribe taking renders it profitable to take. Beliefs that paying the bribe is the least cost way to advance one's interest	Corruption
Rules regulating use of credit cards and prosecution of defaulters	Credit card companies and legal authorities	Belief in the credit card company's ability to screen cardholders, impose legal punishment, and damage one's credit history	Impersonal exchange without cash among sellers and holders of credit cards
Rules governing membership and behavior toward members and nonmembers	Community of Jewish traders in New York	Belief in community members' ability and motivation to punish cheaters, thereby making cheating unprofitable	Exchange without reliance on legal contracts
Behavioral rule of not clearing	None	Internalized beliefs about retaliation by forest deities	Avoidance of forest clearing

forests			
Rules legalizing and governing slavery in the United States	White communities, state and federal legislators, legal authorities in the South	Internalized norms justifying slavery; beliefs in particular behavior by other whites, African Americans, and legal authorities	Slavery

2.3 An Integrative Approach to Institutions

Considering institutions as systems of interrelated rules, beliefs, norms, and organizations, each of which is a man-made, nonphysical social factor, encompasses the definition most widely used in economics, which states that institutions are formal and informal rules together with their enforcement mechanisms (North 1990). The definition presented here, however, places motivation to follow rules—and consequently beliefs and norms—at the center of the analysis.[9] It highlights the need to study rules and motivation to follow them in an integrated manner. Taking the reasons that people follow rules as exogenous to the analysis, as North's institutions-as-rules approach does, is clearly useful for various purposes, but it is limiting to consider motivation as exogenous. It implies that there is no one-to-one relationship between rules and behavior, namely, between the explanatory variable and the outcomes we wish to understand. Rather than assuming that people follow rules, we need to explain why some rules are followed and others are not.[10]

More generally, the definition advanced here encompasses many of the multiple definitions of the term *institutions* used in economics, political science, and sociology. These

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[9] Another difference is that, for North, organizations are not a part of an institution but players in the political game through which institutions—politically determined rules—are established. I return to elaborate on a more subtle view of organizations as integral parts of institutions.

[10] Indeed, motivation is central to institutional analysis in sociology. Parsons's (1951) analysis centers on the normative foundations of behavior. The recent cognitive turn in sociology asserts that individuals follow rules because they are motivated by concern about their self-image, which is socially constructed, and about others' feelings toward them (see, e.g., Scott 1995 and March and Olsen 1989). For reviews, see Ellickson (1991); Scott (1995); and P.Hall and Taylor (1996). In the terminology developed here, these considerations reflect institutionalized beliefs and norms.

include defining institutions as the rules of the game in a society (North 1990; Ostrom 1990; Knight 1992; Weingast 1996); as formal or informal organizations (social structures), such as parliaments, universities, tribes, families, or communities (Granovetter 1985; R. Nelson 1994); as beliefs about others' behavior or about the world around us and the relationship between actions and outcomes in it (Weber 1958 [1904–5]; Denzau and North 1994; Greif 1994a; Calvert 1995; Lal 1998; Aoki 2001); as internalized norms of behavior (Parsons 1990; Ullmann-Margalit 1977; Elster 1989b; Platteau 1994); and as regularities of behavior, or social practices that are regularly and continuously repeated, including contractual regularities expressing themselves in organizations such as firms (Abercrombie, Hill, and Turner 1994, 216; Berger 1977; Schotter 1981; O. Williamson 1985; Young 1998).

Recent important works on economic institutions either refrain from defining them or adopt one definition at the expense of others.[11] Considering different definitions of institutions as mutually exclusive is counterproductive, however, and it curtails advancing institutional analysis. As the discussion of the various roles of institutional elements highlights, seemingly distinct definitions are complements rather than substitutes, and they have more in common than meets the eye. My reading of the literature is that, whatever the theoretical approach or disciplinary affiliation, students of institutions ultimately study regularities of behavior generated by man-made nonphysical factors that are exogenous to each individual whose behavior they influence. Various lines of institutional analysis concentrate on one such factor at the exclusion of others. The definition adopted here takes advantage of their commonality to build on the insights and analytical frameworks developed in many lines of analysis. It is thus an encompassing concept.

The main approaches to institutional analysis, however, differ in more than just their definitions. They also differ in their basic assertions and premises about the nature, dynamics, and origins of institutions. These assertions and premises are used to restrict the scope of analysis and gain analytical leverage. Identifying institutions with politically determined rules,

[11]See, for example, North (1990); Eggertsson (1990); Ostrom (1990); Furubotn and Richter (1997); Weingast (1996); Young (1998); and Aoki (2001). Many students of institutions have noted the need for, and the potential benefit of, integrating various lines of institutional analysis. See, for example, Coleman (1990) and Ostrom (1990).

for example, restricts them to outcomes of the political process. Relying on different premises to restrict the scope of the analysis, however, comes at the cost of limited ability to integrate the insights and analytical frameworks developed in conjunction with various definitions. The definition advanced here fosters such integration by limiting the object of study by focusing on institutional elements and regularities of behavior.

A major fault line in institutional analysis separates those who adopt an *agency perspective* of institutions from those who adopt a *structural perspective*. According to the former, individuals shape institutions to achieve their goals; according to the latter, institutions transcend individual actors.

The agency perspective places the individual decision maker at the center of the analysis. It studies institutions as reflecting the objectives of the individuals who established them. Institutions therefore reflect the interest of their creators and are postulated not to endure beyond the conditions that led to their emergence. Politicians, for example, aspire to create rules that best serve their political and economic objectives. If either the objectives or the political process of rule formation changes, so will the resulting rules. The point of departure for such institutional analysis is, therefore, at the (micro) level of the individuals whose interactions in a particular environment give rise to an institution.

The structural perspective emphasizes that institutions shape rather than reflect the needs and possibilities of those whose behavior they influence. Institutions structure human interactions, mold individuals, and constitute the social and cultural worlds in which they interact. Institutions therefore transcend the situations that led to their emergence; beliefs, internalized norms, and organizations are part of the structure in which individuals interact, and this whole is larger than the sum of its parts. The point of departure for such institutional analysis is therefore at the (macro) level of the structure in which individuals interact.

Economists have traditionally adopted the agency perspective, emphasizing that institutions are intentionally designed to constrain behavior. Economics is the "study of how individual economic agents pursuing their own selfish ends evolve institutions as a means to satisfy them" (Schotter 1981, p. 5). Institutions are "the humanly devised constraints that structure political, economic, and social interactions" (North 1991, p. 97). But even among economists, there are many who examine institutions from a structural perspective (e.g., Hodgson 1998).

In contrast, sociologists tend to employ a structural perspective, postulating that institutions transcend individual actors and shape their interests and behavior. Institutions, according to them, are exogenous to all individuals. They are the properties of societies that "impose themselves upon" individuals (Durkheim 1950 [1895], p. 2) and consist of "structures and activities that provide stability and meaning to social behavior" (Scott 1995, p. 33).[12] But even among sociologists, those who follow Weber's (1949) tradition often examine institutions from an agency perspective.

These two seemingly contradictory views on institutions—the structural and the agency perspectives—must be bridged because each captures an important feature of reality. An institution is sometimes a structure beyond the control of the individuals whose behavior it influences while at other times, it is an outcome reflecting their actions. For some analytical purposes it is useful to consider an institution as a given structure, while for other purposes it is useful to study it as a product of those whose behavior it influences or other individuals. It is therefore imperative to have a concept of an institution that does not exclude either case. More generally, as has long been recognized in sociology, there is a need to study institutions while combining the structural and agency perspectives because institutions influence behavior while being man-made (e.g., Coleman 1990).

The definition advanced here combines both the structural and agency perspectives by recognizing the dual nature of institutions as both man-made and exogenous to each individual whose behavior they influence. The benefits of capturing this dual nature are many. It enables us to advance a unified framework for studying institutional persistence, endogenous change, and the impact of institutions on institutional development (Part III).

Various approaches have also adopted different premises about the related issue of institutional origin and functions. For Hayek (1973) institutions emerge spontaneously and unintentionally. They reflect human actions but not intentions, because individuals have limited

[12] For an illuminating discussion of these differences in political science, see P.Hall and Taylor (1996).

knowledge and rationality.[13] For many others (O.Williamson 1985; North and Thomas 1973; North 1990), intentional attempts by individuals to improve their lot underpin the processes through which institutions emerge. In political science the rational choice approach examines them as instrumental outcomes, while historical institutionalism emphasizes that institutions reflect a historical process (see Thelen 1999).

Other approaches to institutional analysis assert that institutions fulfill a particular function. For North and many others, "the major role of institutions in a society is to reduce uncertainty" (North 1990, p. 6). For Williamson and many others, they foster efficiency. They are the "means by which order is accomplished in a relationship in which potential conflict threatens to undo or upset opportunities to realize mutual gains" (O.Williamson 1998, p. 37). For Knight (1992) the main function of institutions is to affect the distribution of gains.

Different approaches to the study of institutions rest on contradictory assertions about human nature (see P.Hall and Taylor 1996). Parsons (1951), for example, assumes that individuals are capable of internalizing rules and that institutions are behavioral standards that have been internalized; for O.Williamson (1985), however, individuals are assumed to act opportunistically unless constrained by external forces. For Young (1998) and Aoki (2001), institutions reflect humans' limited cognition; others, such as O.Williamson (1985) and Calvert (1995), assume that individuals have a comprehensive knowledge of the environment within which they interact.

The definition advanced here does not commit to any of these premises. It does not dispute that institutions can be established, emerge, or impose themselves on members of a society nor does it claim that they serve a particular function, such as providing incentives, reducing uncertainty, enhancing efficiency, or determining distribution. By focusing on regularities of behavior, the definition recognizes the need to study the relationships between institutions and various outcomes such as the war of all against all that Hobbes envisioned in the absence of a state and the institutions that secure property rights in some states and not others.

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[13] See also Sugden (1989); Knight (1992); G. Hodgson (1998); and Young (1998). See Scott (1996) regarding the main fault lines in sociological institutionalism.

Similarly, the definition also does not assert that institutions reflect either intentional decision making by forward-looking agents or unintentional evolutionary and learning processes reflecting limited cognition. The definition of institutions neither depends on a particular assertion about whether motivation is provided by economic, moral, social, or coercive means nor subjects the analysis to a particular analytical framework.[14]

A definition that does not depend on such assertions and premises is useful for advancing institutional analysis, because institutions fulfill a variety of functions, emerge through various processes, influence behavior in situations that are and are not cognitively well understood, and rely on different motivational factors. Defining institutions, for example, based on their function as the incentive structure in a society (North 1990) is analogous to saying that a car transports people rather than calling it a "vehicle moving on wheels," as the dictionary does. Transporting people is one of the many things a car can do, but it is not what a car is. Similarly, defining institutions while assuming that individuals are motivated solely by either internalized norms or external incentives is partial at best. Whether individuals act "morally" or opportunistically depends on a society's institutions—whether or not, for example, they lead to the internalization of particular norms. Assuming that individuals do or do not act morally ignores the need to examine the institutional foundations of such types of behavior.

The definition used here distinguishes between what institutions are, what they do, and what they imply. Institutions are systems of factors that are social in being man-made, nonphysical factors exogenous to each individual whose behavior they influence; what they do is generate regularities of behavior. What they reflect—how they came into existence—and what they imply should not be assumed a priori or used deductively to restrict the set of permissible institutions but should be analytically and empirically examined.

Why is it so common to define an institution as fulfilling a particular function, having a particular origin, or reflecting a particular motivation? Such definitions are used to pin down either the scope of the analysis or the forces directing institutional change. If one asserts that

[14] See, for example, the definition provided by Sugden (1989), which subjects the analysis to a particular institutional framework. An institution (*convention* in his terminology) is an evolutionary stable strategy in a game with multiple evolutionary stable strategies.

institutions are politically determined rules serving the interest of the polity, the scope of the analysis is thereby limited to politically determined rules, the origin of institutions is limited to the political arena, and the forces leading to institutional change are limited to changes in the political process or the objectives of the political actors. These restrictions come, however, at the cost of taking as exogenous such potentially important issues as beliefs and internalized norms, which directly influence behavior and hence should be part of the analysis. In contrast, the definition presented here limits the scope of the analysis by concentrating on recurrent situations, regularities of behavior among individuals with particular social positions, and the requirement that institutional elements be man-made nonphysical factors exogenous to each individual whose behavior they influence.

This perspective highlights both the need and the ability to integrate various analytical frameworks. When studying the relationships among organizations and rules, for example, it allows us to take advantage of the analytics and insights developed in the study of the political economy of rule formation. In studying the relationships between organizations and internalized norms, the analysis can benefit from the analytics and insights developed in sociology and political science. As for the relationships among rules, organizations, and behavior, the analysis can benefit from the analytics and insights offered by transaction cost economics in exploring how decision makers try to lower these costs. At the same time, the definition advanced here, and hence the implied analysis, is not bound by the premises underpinning various analytical frameworks. It allows for considering institutions as, for example, means to reduce transaction costs but does not impose that every institution achieves this outcome.

2.4 External Effects and Transactions

Motivation provided by beliefs and norms exogenous to each individual whose behavior they influence is the linchpin of institutions, as it mediates between the environment and behavior. For such beliefs and norms to exist, someone must be able to take actions that directly affect the actual or perceived well-being of individuals whose behavior is generated by the associated institution from taking various actions.[15] If this is not the case, their behavior cannot be motivated

[15] Such actions include those leading to the internalization of beliefs and norms.

by social factors—institutional elements—which, by definition, have to be exogenous to each of them. In other words, if nothing that others have done, are doing, or are expected to do has any impact on one's well-being from taking various actions, then one's behavior cannot be influenced by man-made factors exogenous to that individual. Robinson Crusoe lived in a noninstitutionalized world (except for the norms and beliefs he internalized before arriving on the island). His behavior may have exhibited regularities, but those regularities reflected factors such as his preferences, knowledge, habits, or laws of nature, not institutions. There was no society external to him.

The past, present, or expected future actions of others that are of interest here are those which have *external effects*: one person's action directly and unavoidably influences another's. The one whose behavior is generated by the institution cannot choose whether to be exposed to the impact of other people's behavior.[16] One does not choose the norms his parents instilled in him or the police's expected behavior. Such external effects can occur through pecuniary rewards, physical punishments, social sanctions, praise, or socialization to particular internalized norms; they can even reflect role models provided by others that influence one's aspirations and identity and hence well-being from taking various actions.

Saying that in any institution someone's action must have an external effect implies that transactions are central to institutions.[17] A *transaction* is defined here as an action taken when an entity, such as a commodity, social attitude, emotion, opinion, or information, is transferred from one social unit to another.[18] These social units can be individuals, organizations, or other entities

[16] Sometimes people can choose whether to become involved in a situation in which they are exposed to external effects. See, for example, Ensminger (1997), who explains religious conversion as an attempt to alter relevant external effects.

[17] Transaction cost economics, advanced particularly by Williamson (1985, 2000), studies contractual and organizational responses to the attributes of transactions. I complement that approach by emphasizing the role of intertransactional linkages. The attributes of the central transaction, however, influence the implications of various linkages.

[18] Although many scholars have emphasized the importance of transactions in institutions (see, e.g., Coase 1937, O.Williamson 1985, and the review in Furubotn and Richter 1997), no single definition of the term dominates the literature. The most commonly used definition is that a transaction "occurs when a good or service is transferred across a technologically separable interface" (O.Williamson 1985, p. 1).

(such as God or the spirits of ancestors) that are considered actors by those whose behavior we study. Transactions can thus be economic (such as the provision of a pecuniary reward), political (such as a vote in the Congress), or social (such as the provision of social approval); transactions can involve inflicting pain or sharing emotions (such as the expression of sympathy). Nothing in this definition assumes a particular reason for or form of transacting. It can be voluntary, as economics often assumes it is, but it can also be involuntary or forced; it can be legal or illegal, unidirectional (where only one side transfers something to the other), bidirectional, or multidirectional.

Transacting renders a situation social and the focus here is on transactions that entail external effects by directly affecting the well-being, knowledge, internalized beliefs, or norms of the individuals whose behavior we study. For example, transactions associated with legal sanctions, social sanctions, the transfer of property, and praise directly affect well-being. Transactions that provide information about an individual's credit history influence knowledge; transactions that provide opinions, such as sermons or lectures, influence internalized beliefs; and transactions associated with the socialization process influence norms.

One's behavior is influenced by another's past, present, or future action only if such transactions are involved. A necessary condition for one's behavior to be influenced by man-made nonphysical factors exogenous to him is that something (such as money, praise, or a penalty) reflecting someone else's behavior was, is, or is expected to be transferred to him. Institutionalized internalized beliefs and norms reflect transactions. They reflect the socialization process through which one's world view, identity, and norms were developed and belief (in, e.g., holy scriptures and creation myths) were formed. Similarly, institutionalized behavioral beliefs are about transactions, because they are concerned with one's response to another's behavior. The threat of punishment by the court for reneging on a contractual obligation, for example, generates the regularity of behavior of adhering to contracts. The potential external effects of legal sanctions induce behavior in the economic transaction; the belief that individuals will adhere to contractual obligations in the economic transaction is achieved by conditioning actions in the legal transaction on what has occurred in the economic one.

Note that, in this example, the legal transaction between the court and an individual is *auxiliary*, in the sense that it facilitates the generation of beliefs about behavior in yet another transaction, namely, the one between contracting individuals. The transactions leading individuals to internalize particular beliefs or norms are auxiliary transactions with the same impact. An auxiliary transaction can also be part of an institution generating regularities of behavior in actions other than transactions. When the fear of legal punishment prevents an individual from taking illegal drugs, for example, the auxiliary transaction influences behavior not in another transaction but in a situation in which one can either act or refrain from doing so.

When an institution generates behavior in a transaction, we can refer to the transaction as *central*. For ease of exposition, I concentrate on institutions that generate behavior in central transactions, but the analysis applies equally to cases in which the regularity of behavior relates to actions other than transactions (e.g., smoking or diets). Similarly, for simplicity of exposition, I do not differentiate between actual and potential transactions. *Potential transactions* are actions that can be taken to transfer an entity between individuals, thereby directly affecting the well-being or information of at least one of them. If the threat of punishment by a court, for example, is sufficient to deter cheating, no transaction will take place between the court and the individual, who is induced to respect the law by his belief in the court's response. The potential transaction that induces this behavior is an auxiliary transaction.

2.5 Intertransactional Linkages, Institutions, and Organizations

Once we recognize the distinction between auxiliary and central transactions, we can develop a more nuanced view of institutional elements. Some institutionalized beliefs and norms constitute, or create, intertransactional linkages in that they link an auxiliary transaction with a central transaction. Belief in a court's response (rather than a response by the extended family or the mafia, for example) to a contractual breach, links the (central) economic transaction between economic agents with the (auxiliary) legal transaction between each agent and the law. The belief that God will punish a cheater links the economic transaction with the transaction that is perceived to exist between human beings and the divine. Norms create transactional linkages between the superego, and the ego or id.[19]

The behavioral beliefs which are possible in a central transaction depend on the beliefs and norms that create intertransactional linkages. When it is believed that courts will sanction cheaters, it becomes possible to believe that people will not cheat because they fear these sanctions. If it is common knowledge that enough people have internalized the fear of God or the norm of honesty, then it becomes possible to believe that they will be honest in a central, economic transaction. Institutionalized beliefs and norms, which directly generate behavior in central transactions, reflect the particular transactions that have been linked in a society.

At the same time, as was mentioned in the previous section, interactions in auxiliary transactions are an important source of institutional elements. Actions in auxiliary transactions – transactions other than the central one under consideration – generate institutional elements. Institutionalized rules reflect the information that was transmitted through transactions; institutionalized internalized beliefs and norms reflect the knowledge and actions that were taken in the transactions through which education, socialization, and indoctrination transpire and role models are provided; and institutionalized behavioral beliefs often have similar origins.

Noting the importance of auxiliary transactions also provides a more nuanced view of organizations. Organizations are the arenas in which actions in auxiliary transactions take place. As such, organizations fulfill multiple roles. They produce and disseminate rules, information, and knowledge, perpetuate beliefs and norms, and influence the set of feasible beliefs in the central transaction. This last role of organizations, which reflects their impact on the set of feasible intertransactional linkages, merits further elaboration here.

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[19] According to Sigmund Freud, a child is born with an id. The id is based on the pleasure principle, meaning that it desires whatever feels good at the time, without consideration for others. By the age of three, a child develops the ego, which is based on the reality principle. The ego understands that other people have needs and desires and that sometimes being impulsive or selfish can cause harm in the long run. It’s the ego's job to meet the needs of the id, while taking into consideration the reality of the situation. By the age of five the child develops the superego that constitutes our moral principles. The superego (conscience) dictates our beliefs in right and wrong and the ego functions as an intermediary between it and the id.

Courts must exist before a belief in legal punishment can motivate a particular behavior (e.g., honesty) in an economic transaction. In other words, courts are a necessary condition for believing that the behavior in the (auxiliary) legal transaction is linked to behavior in the (central) economic transaction. Similarly, the existence of a community is a necessary condition for believing that communal sanctions will motivate economic behavior. Organizations are manifestation of and a means for intertransactional linkages and thereby they alter the set of possible behavioral beliefs in the central transaction.[20]

To see the point and the generality of the argument, consider, for example, the case of institutions that facilitate exchange. Because all exchange is sequential, the party that moves second has to be able to commit ex ante not to renege on its obligations ex post.[21] Generically, commitment is achieved by linking this central (exchange) transaction with other transactions so that it will be possible to believe that individuals will not renege. A linkage can be achieved without a supporting organization. Conditioning entry to future exchange relationships on past conduct links present and future transactions. If the value of this future exchange is sufficiently high relative to the gains from currently reneging, belief in good conduct can be sustained.

Organizations that link the central transaction to other transactions extend the set of possible behavioral beliefs in the central transaction beyond those possible though such bilateral and intertemporal linkages. These organizations can have different origins and take many forms; they can be formal or informal, intentional or unintentional. Examples include communities, social networks, courts, firms, credit bureaus, escrow companies, and credit-rating companies, all of which are institutional elements that change the set of possible beliefs in the central transaction by linking it to others**.**

Credit bureaus, credit card companies, Moody’s, VeriSign Inc., and TRUSTe are organizations that extend the set of possible beliefs between partners in various economic exchanges. Within communities social exchange is linked with various other economic and social

[20] Chapter 5 defines the term *possible* as it is used here. The relevant game is contingent on the transactions that were linked. Organizations change the set of self-enforcing (equilibrium) beliefs in the central transaction.

[21] The basic game is the one-sided prisoner's dilemma (also known as the game of trust). See discussions in Appendixes A and C.

transactions. The court system links transactions between economic agents with the legal transactions between each of them and the law. In religious communities transactions between members are linked with the perceived transaction between each member and a deity. Political parties link transactions between political activists and voters.

In any of these cases, organizations that are institutional elements are mechanisms for, or a reflection of, the ways in which a central transaction is linked with others.[22] Information provided by such organizations as credit bureaus and communities make possible the beliefs that future partners to exchange will condition their behavior on past conduct. Organizations that, for example, coordinate actions, provide common interpretations of events, and monitor behavior have a similar effect. Organization can be infinite horizon players with better ability for inter-temporal linkages among transactions and they can similarly better link transactions over space (as hotel chains do, for example).[23] Organization thereby alter the set of possible behavioral beliefs (and more generally norms) in the central transaction.

It is now possible to clarify the remark made earlier that organizations are both components of institutions and institutions. Organizations are institutional elements vis-à-vis the central transaction under consideration, but they are also institutions—systems of rules, beliefs, and norms exogenous to each individual whose behavior they influence—that generate behavior among the organization's members. Whether we consider an organization an institution depends on the issue being studied. In Chapter 3, for example, understanding the behavior in the central transaction requires first understanding why members of a merchants' community were motivated to retain their membership and transact in information.

Whether we study the organization only as a component of an institution or also as an institution, we still may need to consider its behavior as endogenously determined. Understanding the nature and impact an organization has on beliefs in the central transaction requires considering the choice of its relevant actors (e.g., a judge or policeman). To understand the impact a court has on beliefs about behavior in an economic exchange, it may not be necessary to

[22] Greif (1989), Milgrom, North and Weingast (1990), Greif, Milgrom, and Weingast (1994), Greif (1993), Aoki (2001), Tadelis (1999, 2002), and Ingram (1996) discuss these roles of organizations.

consider it as an institution and study the rules, beliefs, and norms that generate behavior among the decision makers within it or provide it with the capacity to penalize. But studying the judge's motivation for executing justice rather than collecting bribes is necessary. In other words, it is necessary to understand how the court linked the central economic transaction with the legal transaction rather than the private transaction between the judge and the parties to the dispute in which a bribe exchanged hands.

This view of the relationship between institutions and organizations departs from that of the three perspectives that dominate the study of these relationships.[24] They view organizations as either arenas for political rule-making, players in the political rule making process, or private responses to the incentives that institutions entail.

The institutions-as-rules perspective that dominates economics and political science considers organizations as bodies for collective decision making, such as parliaments. Institutions are defined as rules specified by the members of these organizations. The second perspective defines an organization as a group of individuals bound by some common purpose to achieve objectives (Arrow 1974; Olson 1982; North 1990; Thelen 1999). Organizations such as interest groups, courts, and labor unions influence politically determined rules by participating in the political decision making process. Organizations often reflect existing rules that motivated their beneficiaries to organize in the first place in order to ensure that the rules would persist.

The third perspective, from organizational theory, holds that organizations are "collectivities oriented to the pursuit of relatively specific goals," such as production (Scott 1998, p. 26). But it maintains that they reflect the options and constraints implied by institutions, conceptualized as systems of meaning and regulatory processes (enforcement mechanisms). The sociological branch of organizational theory emphasizes that organizations reflect the meaning, objectives, and identities provided by institutions (see, e.g., Scott and Meyer 1994; Scott 1995).

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[23] If such an organization is not an institutional element, it cannot change beliefs and behavior in the central transaction. If an economic agent can dismiss the court at will or control its operation, the threat of legal sanctions will not be part of the institution that influences this agent's behavior.

[24] With few exceptions (such as Bowles and Gintis 1976), the economic literature has neglected the important role organizations play in perpetuating internalized rules and beliefs. I touch on this issue in Chapter 5.

The economics branch of organizational theory emphasizes that institutions affect the costs and benefits of various organizational forms. Organizations are optimal—transaction cost–minimizing—responses to these incentives (Coase 1937; O.Williamson 1985, 2000).[25]

None of these perspectives is concerned with motivation; for them organizations either determine institutions or are determined by them. Motivation enters the analysis only in considering the incentive to choose a particular institution (rule) or respond to it in a manner leading to a particular organization. In contrast, the perspective advanced here emphasizes that an organization can also be an institutional element, a component of an institution that motivates behavior in various transactions. Organizations are a means for and a manifestation of the way a central transaction is linked with other transactions. By creating this linkage, organizations change the set of institutionalized behavioral beliefs that can motivate behavior in the central transaction. In institutionalized situations, the behavioral beliefs that can motivate behavior are contingent on linkages among transactions, and organizations are instrumental in creating them.

The distinction between organizations and institutions highlights the role of symbols and signs (such as contracts, bills of exchange, the marriage ceremony, and shaking hands) in the functioning of institutions. They are means to communicate one's social position to the relevant organizations (and individuals). A legal loan contract signifies the debtor's social position in the court of law; a handshake between members of a business network signifies to other members of the network that the two have assumed particular obligations toward each other; the marriage ceremony signifies to the legal authorities and the community the social positions of two individuals. How one will live up to the behavioral rules—rights and obligations—associated with this social position, in turn, determine the behavioral response of others; the expectations that this will be the case, in turn, influence the behavior of that individual.[26]

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[25] I integrate the insights of these perspectives in the historical analyses. For example, the Maghribi traders' group (Chapter 3) was an unintentional response, and the merchant guilds (Chapter 4) an intentional response to the lack of legal institutions that ensured contract enforcement and security of property rights.

[26] In studying self-enforcing institutions, symbols and signs can be studied themselves as equilibrium outcomes, similar to the way in which we treat social positions. The symbol influences behavior because individuals condition their behavior on it and each individual's best response to the conditioning of others is to follow suit. See also Calvert (1995).

Because different transactions can be linked to the same central transaction, rules, beliefs, internalized norms, and organizations can take many forms, which reflect the related intertransactional linkages. A borrower may repay a loan, for example, because he is motivated by the belief that, if he does not, he will be fined by the court, beaten by a Mafia thug, or ostracized by the community. These various manifestations of the same institutional element can potentially replace or complement each other in influencing behavior in a given central transaction.

2.6 Concluding Comments: Self-Enforcing Institutions

The definition of institutions advanced here says nothing about the conditions under which a particular institution is effective in generating a particular behavior or how we identify which institution is relevant in a particular situation. It highlights what has to be studied and points out that in the most general case, we need to study an institution as endogenous in the sense that they are *self-enforcing*: responding to the institutional elements implied by others' behavior and expected behavior, each individual behaves in a manner that contributes to motivating, guiding, and enabling others to behave in a manner that led to the institutional elements to begin with. In explaining such institutions, the analysis does not invoke as exogenous other institutions (e.g., political institutions) to explain them. Nor does the analysis rest on the assumption that institutions are determined by their function, environmental forces. Instead, it recognized that structure—institutional elements—that each individual takes as given enables, motives, and guides the individual to take the actions that, at the aggregate level, contribute to creating the structure itself.

Various analytical frameworks can be employed for studying different aspects of institutions in general and those that are self-enforcing in particular. This book builds on game theory to accomplish this task.