TWO

COSMOS AND TAXIS

> The man of system . . . seems to imagine that he can arrange the different members of a great society with as much ease as the hand arranges the different pieces upon a chessboard. He does not consider that the pieces upon the chessboard have no other principle of motion besides that which the hand impresses upon them; but that, in the great chessboard of human society, every single piece has a principle of motion of its own, altogether different from that which the legislature might choose to impress upon it. If those two principles coincide and act in the same direction, the game of human society will go on easily and harmoniously, and is very likely to be happy and successful. If they are opposite or different, the game will go on miserably and the society must be at all times in the highest degree of disorder.
>
> —Adam Smith[1]

The concept of order

The central concept around which the discussion of this book will turn is that of order, and particularly the distinction between two kinds of order which we will provisionally call 'made' and 'grown' orders. Order is an indispensable concept for the discussion of all complex phenomena, in which it must largely play the role the concept of law plays in the analysis of simpler phenomena.[2]

[1] Adam Smith, *The Theory of Moral Sentiments* (London: Miller; Edinburgh: Kincaid and Bell, 1759); cf. part 6, section II, chapter II, paragraph 17. It deserves to be noted that this passage contains some of the basic concepts and terms we shall have to use throughout this book: the conception of a spontaneous order of the Great Society as contrasted with a deliberate arrangement of the elements; the distinction between coincidence and opposition between the rules (principles of motion) inherent in the elements and those imposed upon them by legislation; and the interpretation of the social process as a game which will go on smoothly if the two kinds of rules are in concord but will produce disorder if they are in conflict.

[2] See my essay on 'The theory of complex phenomena' [1964], in F. A. Hayek, *Studies in Philosophy, Politics and Economics* (London: Routledge; Chicago: University of Chicago Press, 1967), pp. 22–42. [Now included in F. A. Hayek, *The Market and Other Orders*, ed. Bruce Caldwell, vol-

There is no adequate term other than 'order' by which we can describe it, although 'system', 'structure' or 'pattern' may occasionally serve instead. The term 'order' has, of course, a long history in the social sciences,[3] but in recent times it has generally been avoided, largely because of the ambiguity of its meaning and its frequent association with authoritarian views. We cannot do without it, however, and shall have to guard against misinterpretation by sharply defining the general sense in which we shall employ it and then clearly distinguishing between the two different ways in which such order can originate.

By 'order' we shall throughout describe *a state of affairs in which a multiplicity of elements of various kinds are so related to each other that we may learn from our acquaintance with some spatial or temporal part of the whole to form correct expectations concerning the rest, or at least expectations which have a good chance of proving correct.*[4] It is clear that every society must in this sense possess an order and that such an order will often exist without having been deliberately created. As has been said by a distinguished social anthropologist, 'That there is some kind of order, consistency and constancy, in social life is obvious. If there were not, none of us would be able to go about our affairs or satisfy our most elementary needs'.[5]

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ume 15 (2014) of *The Collected Works of F. A. Hayek*. – Ed.] It was in fact at first entirely the result of methodological considerations that led me to resume the use of the unpopular concept of 'order': see also F. A. Hayek, *The Counter-Revolution of Science* (Glencoe, IL: Free Press, 1952), p. 39: 'If social phenomena showed no order except in so far as they were consciously designed, there would indeed be no room for a theoretical science of society and there would be, as is often maintained, only problems of psychology'. [Now included in F. A. Hayek, *Studies on the Abuse & Decline of Reason*, ed. B. Caldwell, volume 13 (2010) of *The Collected Works of F. A. Hayek* (London: Routledge; Chicago: University of Chicago Press); see p. 103. – Ed.] In recent discussion the term 'system' is often used in much the same sense in which I use here 'order', which still seems to me preferable.

[3] It would seem that the currency of the concept of order in political theory goes back to St Augustine. See in particular his dialogue *Ordo* in *Patrologiae cursor completes sec. lat.* 32/47, ed. J. P. Migne (Paris, 1861–2) [see *Patrologiae Cursus Completus . . . Series (Latina) prima*, XXXII, volume I (Paris: Migne, 1845), columns 977–1070. – Ed.], and in a German version *Die Ordnung. Erste deutsche Übertragung* von Carl Johann Perl, fourth edition (Paderborn: Schöningh, 1966). [A recent English translation is St Augustine, *On Order*, tr. Silvano Borruso (South Bend, IN: St Augustine's Press, 2007). The translation also contains the Latin text. – Ed.]

[4] See L. S. Stebbing, *A Modern Introduction to Logic* (London: Methuen, 1930), p. 228: 'When we know how a set of elements is ordered, we have a basis for inference'. See also Immanuel Kant, *Gesammelte Schriften* (Akademie Ausgabe), *Abteilung 3: Handschriftlicher Nachlass,* volume 15, *Anthropologie* (Berlin: Georg Reimer, 1913), p. 669, line 23: 'Ordnung, d. i. Zusammenfügung nach Regeln'. ['Order, that is, assembly by rules'.] [See the on-line edition, https://korpora.zim.uni-duisburg-essen.de/kant/aa15/669.html – Ed.]

[5] See E. E. Evans-Pritchard, *Social Anthropology* (London: Cohen & West, 1951), p. 49; see also *ibid.*, pp. 19–20:

> It is evident that there must be uniformities and regularities in social life, that a society must have some sort of order, or its members could not live together. It is only

Living as members of society and dependent for the satisfaction of most of our needs on various forms of co-operation with others, we depend for the effective pursuit of our aims clearly on the correspondence of the expectations concerning the actions of others on which our plans are based with what they will really do. This matching of the intentions and expectations that determine the actions of different individuals is the form in which order manifests itself in social life; and it will be the question of how such an order does come about that will be our immediate concern. The first answer to which our anthropomorphic habits of thought almost inevitably lead us is that it must be due to the design of some thinking mind.[6] And because order has been generally interpreted as such a deliberate *arrangement* by somebody, the concept has become unpopular among most friends of liberty and has been favoured mainly by authoritarians. According to this interpretation order in society must rest on a relation of command and obedience, or a hierarchical structure of the whole of society in which the will of superiors, and ultimately of some single supreme authority, determines what each individual must do.

This authoritarian connotation of the concept of order derives, however, entirely from the belief that order can be created only by forces outside the system (or 'exogenously'). It does not apply to an equilibrium set up from within[7] (or 'endogenously') such as that which the general theory of the market endeavours to explain. A spontaneous order of this kind has in many respects properties different from those of a made order.

The two sources of order

The study of spontaneous orders has long been the peculiar task of economic theory, although, of course, biology has from its beginning been concerned

because people know the kind of behaviour expected of them, and what kind of behaviour to expect from others, in the various situations of social life, and coordinate their activities in submission to rules and under the guidance of values that each and all are able to go about their affairs. They can make predictions, anticipate events, and lead their lives in harmony with their fellows because every society has a form or pattern which allows us to speak of it as a system, or structure, within which, and in accordance with which, its members live their lives.

[6] See L. S. Stebbing, *op. cit.*, p. 229: 'Order is most *apparent* where man has been at work'.

[7] José Ortega y Gasset, *Obras Completas*, *Tomo III*, 1917–1928 (Madrid: Revista de Occidente, 1947), 'Mirabeau o el politico' (1927), part 1, p. 603: 'Orden no es una presión que desde fuera se ejerce sobre la sociedad, sino un equilibrio que se suscita en su interior'. [Cf. José Ortega y Gasset, *Mirabeau: An Essay on the Nature of Statesmanship*, tr. Alfonso Felix Jr (Manila: Historical Conservation Society, 1975), p. 16: '. . . order is not a pressure that is exerted on society from without but an equilibrium that is created from within'. – Ed.]

with that special kind of spontaneous order which we call an organism. Only recently has there arisen within the physical sciences under the name of cybernetics a special discipline which is also concerned with what are called self-organizing or self-generating systems.[8]

The distinction of this kind of order from one which has been made by somebody putting the elements of a set in their places or directing their movements is indispensable for any understanding of the processes of society as well as for all social policy. There are several terms available for describing each kind of order. The made order which we have already referred to as an exogenous order or an arrangement may again be described as a construction, an artificial order, or, especially where we have to deal with a directed social order, as an *organization*. The grown order, on the other hand, which we have referred to as a self-generating or endogenous order, is in English most conveniently described as a *spontaneous order*. Classical Greek was more fortunate in possessing distinct single words for the two kinds of order, namely *taxis* for a made order, such as, for example, an order of battle,[9] and *kosmos* for a grown order, meaning originally 'a right order in a state or a community'.[10]

[8] University of Illinois, *Transactions of the University of Illinois Symposium on Self-Organization, Robert Allerton Park, 8 and 9 June, 1961: International Tracts in Computer Science and Technology and Their Application, Principles of Self-Organization*, ed. Heinz von Foerster and George W. Zopf Jr (Oxford etc: Pergamon Press, 1962) and, on the anticipation of the main conceptions of cybernetics by Adam Smith, cf. Garrett James Hardin, *Nature and Man's Fate* (New York & Toronto: Rinehart, 1959), p. 52; and Dorothy Emmet, *Function, Purpose and Powers* (London: Macmillan; New York: St Martin's Press, 1958), p. 90.

[9] See H. Kuhn, 'Ordnung im Werden und Zerfall', in *Das Problem der Ordnung* (Sechster Deutscher Kongress für Philosophie, Munich, 1960), ed. H. Kuhn and F. Wiedmann (Meisenheim am Glan: Verlag Anton Hain, 1962), especially p. 17.

[10] See Werner Wilhelm Jaeger, *Paideia: The Ideals of Greek Culture*, volume 1, second edition (New York: Oxford University Press, 1945), p. 110. 'Anaximander of Miletus. . . . Transferring the concept of diké from the social life of the city-state to the realm of nature. . . . This is the origin of the philosophical idea of the cosmos: for the word originally signifies the right order in a state or other community'; and *ibid.*, p. 171: 'So the physicists' cosmos became, by a curious retrogression in thought, the pattern of eunomia in human society'. See also Werner Jaeger, 'Praise of Law: The Origin of Legal Philosophy and the Greeks', in Paul Sayre, ed., *Interpretations of Modern Legal Philosophies: Essays in Honor of Roscoe Pound* (New York: Oxford University Press, 1947), pp. 352–75; see p. 358: 'A world thus "justified" could be called rightly by another term taken over from the sphere of social order, a *cosmos*. That word occurs for the first time in the language of the Ionian philosophers; by taking this step and extending the title of *diké* to reality as a whole they clearly revealed the nature of Greek legal thought and showed that it was based on the relationship of justice to being'. And *ibid.*, p. 361: 'The law on which it [the *polis*] was founded was not a mere decree but the *nomos*, which originally meant the sum total of that which was respected by all as living custom with regard to what is right or wrong'; and *ibid.*, p. 365 on the fact that even during the period of the dissolution of the old Greek faith in law: 'the strict relationship of the *nomos* to the nature of the *cosmos* was not universally questioned . . .'.

For Aristotle, who connects *nomos* with *taxis* rather than *kosmos* (see *Politics*, 1287a, 18, and especially 1326a, 30: *ho te gar nomos taxis tis esti* ['law is a form of order'; cf. Aristotle, *Politics*, tr.

We shall occasionally avail ourselves of these Greek words as technical terms to describe the two kinds of order.

It would be no exaggeration to say that social theory begins with – and has an object only because of – the discovery that there exist orderly structures which are the product of the action of many men but are not the result of human design. In some fields this is now universally accepted. Although there was a time when men believed that even language and morals had been 'invented' by some genius of the past, everybody recognizes now that they are the outcome of a process of evolution whose results nobody foresaw or designed. But in other fields many people still treat with suspicion the claim that the patterns of interaction of many men can show an order that is of nobody's deliberate making; in the economic sphere, in particular, critics still pour uncomprehending ridicule on Adam Smith's expression of the 'invisible hand' by which, in the language of his time, he described how man is led 'to promote an end which was no part of his intention'.[11] If indignant reformers still complain of the chaos of economic affairs, insinuating a complete absence of order, this is partly because they cannot conceive of an order which is not deliberately made, and partly because to them an order means something aiming at concrete purposes which is, as we shall see, what a spontaneous order cannot do.

We shall examine later (see volume 2, chapter 10) how that coincidence of expectations and plans is produced which characterizes the market order and the nature of the benefits we derive from it. For the moment we are concerned only with the fact that an order not made by man does exist and with the reasons why this is not more readily recognized. The main reason is that such orders as that of the market do not obtrude themselves on our senses but have to be traced by our intellect. We cannot see, or otherwise intuitively perceive, this order of meaningful actions, but are only able mentally to reconstruct it by tracing the relations that exist between the elements. We shall describe this feature by saying that it is an abstract and not a concrete order.

H. Rackham (Cambridge, MA & London: Harvard University Press, 1932), pp. 554–5 – Ed.], it is characteristically inconceivable that the order resulting from the *nomos* should exceed what the orderer can survey, 'for who will command its over-swollen multitude in war? or who will serve as its herald, unless he had the lungs of Stentor?' [Aristotle, *Politics* 1326b; Rackham, p. 557 – Ed.]. The creation of order in such a multitude is for him a task only the gods can achieve. Elsewhere (*Ethics*, IX, x, §3) he even argues that a state, i.e. an ordered society, of a hundred thousand people is impossible. [Cf. Aristotle, *The Nicomachean Ethics*, tr. H. Rackham, Loeb edition (London: Heinemann; New York: G. P. Putnam's Sons, 1926), IX, x, 3 (p. 567): 'Ten people would not make a city, and with a hundred thousand it is a city no longer'. – Ed.]

[11] Adam Smith, *Wealth of Nations*, ed. E. Cannan (London: Methuen, 1904; Chicago: University of Chicago Press, 1976), volume 1, IV.2.9, p. 477 [Glasgow edition, ed. R. H. Campbell and A. S. Skinner (Oxford: Clarendon Press, 1976), volume 1, p. 456 – Ed.].

The distinguishing properties of spontaneous orders

One effect of our habitually identifying order with a made order or *taxis* is indeed that we tend to ascribe to all order certain properties which deliberate arrangements regularly, and with respect to some of these properties necessarily, possess. Such orders are relatively *simple* or at least necessarily confined to such moderate degrees of complexity as the maker can still survey; they are usually *concrete* in the sense just mentioned that their existence can be intuitively perceived by inspection; and, finally, having been made deliberately, they invariably do (or at one time did) *serve a purpose* of the maker. None of these characteristics necessarily belongs to a spontaneous order or *kosmos*. Its degree of complexity is not limited to what a human mind can master. Its existence need not manifest itself to our senses but may be based on purely *abstract* relations which we can only mentally reconstruct. And not having been made it *cannot* legitimately be said to *have a particular purpose*, although our awareness of its existence may be extremely important for our successful pursuit of a great variety of different purposes.

Spontaneous orders are not necessarily complex, but unlike deliberate human arrangements, they may achieve any degree of complexity. One of our main contentions will be that very complex orders, comprising more particular facts than any brain could ascertain or manipulate, can be brought about only through forces inducing the formation of spontaneous orders.

Spontaneous orders need not be what we have called abstract, but they will often consist of a system of abstract relations between elements which are also defined only by abstract properties, and for this reason will not be intuitively perceivable and not recognizable except on the basis of a theory accounting for their character. The significance of the abstract character of such orders rests on the fact that they may persist while all the particular elements they comprise, and even the number of such elements, change. All that is necessary to preserve such an abstract order is that a certain structure of relationships be maintained, or that elements of a certain kind (but variable in number) continue to be related in a certain manner.

Most important, however, is the relation of a spontaneous order to the conception of purpose. Since such an order has not been created by an outside agency, the order as such also can have no purpose, although its existence may be very serviceable to the individuals which move within such order. But in a different sense it may well be said that the order rests on purposive action of its elements, when 'purpose' would, of course, mean nothing more than that their actions tend to secure the preservation or restoration of that order. The use of 'purposive' in this sense as a sort of 'teleological shorthand', as it has been called by biologists, is unobjectionable so long as we do not imply an awareness of purpose on the part of the elements, but mean merely that

the elements have acquired regularities of conduct conducive to the maintenance of the order – presumably because those who did act in certain ways had within the resulting order a better chance of survival than those who did not. In general, however, it is preferable to avoid in this connection the term 'purpose' and to speak instead of 'function'.

Spontaneous orders in nature

It will be instructive to consider briefly the character of some spontaneous orders which we find in nature, since here some of their characteristic properties stand out most clearly. There are in the physical world many instances of complex orders which we could bring about only by availing ourselves of the known forces which tend to lead to their formation, and never by deliberately placing each element in the appropriate position. We can never produce a crystal or a complex organic compound by placing the individual atoms in such a position that they will form the lattice of a crystal or the system based on benzol rings which make up an organic compound. But we can create the conditions in which they will arrange themselves in such a manner.

What does in these instances determine not only the general character of the crystal or compound that will be formed but also the particular position of any one element in them? The important point is that the regularity of the conduct of the elements will determine the general character of the resulting order but not all the detail of its particular manifestation. The particular manner in which the resulting abstract order will manifest itself will depend, in addition to the rules which govern the actions of the elements, on their initial position and on all the particular circumstances of the immediate environment to which each of them will react in the course of the formation of that order. The order, in other words, will always be an adaptation to a large number of particular facts which will not be known in their totality to anyone.

We should note that a regular pattern will thus form itself not only if the elements all obey the same rules and their different actions are determined only by the different positions of the several individuals relatively to each other, but also, as is true in the case of the chemical compound, if there are different kinds of elements which act in part according to different rules. Whichever is the case, we shall be able to predict only the general character of the order that will form itself, and not the particular position which any particular element will occupy relatively to any other element.

Another example from physics is in some respects even more instructive. In the familiar school experiment in which iron filings on a sheet of paper are made to arrange themselves along some of the lines of force of a magnet placed below, we can predict the general shape of the chains that will

be formed by the filings hooking themselves together; but we cannot predict along which ones of the family of an infinite number of such curves that define the magnetic field these chains will place themselves. This will depend on the position, direction, weight, roughness or smoothness of each of the iron filings and on all the irregularities of the surface of the paper. The forces emanating from the magnet and from each of the iron filings will thus interact with the environment to produce a unique instance of a general pattern, the general character of which will be determined by known laws, but the concrete appearance of which will depend on particular circumstances we cannot fully ascertain.

In society, reliance on spontaneous order both extends and limits our powers of control

Since a spontaneous order results from the individual elements adapting themselves to circumstances which directly affect only some of them, and which in their totality need not be known to anyone, it may extend to circumstances so complex that no mind can comprehend them all. Consequently, the concept becomes particularly important when we turn from mechanical to such 'more highly organized' or essentially complex phenomena as we encounter in the realms of life, mind and society. Here we have to deal with 'grown' structures with a degree of complexity which they have assumed and could assume only because they were produced by spontaneous ordering forces. In consequence they[12] present us with peculiar difficulties in our effort to explain them as well as in any attempt to influence their character. Since we can know at most the rules observed by the elements of various kinds of which the structures are made up, but not all the individual elements and never all the particular circumstances in which each of them is placed, our knowledge will be restricted to the general character of the order which will form itself. And even where, as is true of a society of human beings, we may be in a position to alter at least some of the rules of conduct which the elements obey, we shall thereby be able to influence only the general character and not the detail of the resulting order.

This means that, though the use of spontaneous ordering forces enables us to induce the formation of an order of such a degree of complexity (namely comprising elements of such numbers, diversity and variety of conditions) as we could never master intellectually, or deliberately arrange, we will have less power over the details of such an order than we would of one which we produce by arrangement. In the case of spontaneous orders we may, by determining some of the factors which shape them, determine their abstract

[12] [Hayek here changed 'They in consequence' to 'In consequence they'. – Ed.]

features, but we will have to leave the particulars to circumstances which we do not know. Thus, by relying on the spontaneously ordering forces, we can extend the scope or range of the order which we may induce to form, precisely because its particular manifestation will depend on many more circumstances than can be known to us – and in the case of a social order, because such an order will utilize the separate knowledge of all its several members, without this knowledge ever being concentrated in a single mind, or being subject to those processes of deliberate coordination and adaptation which a mind performs.

In consequence, the degree of power of control over the extended and more complex order will be much smaller than that which we could exercise over a made order or *taxis*. There will be many aspects of it over which we will possess no control at all, or which at least we shall not be able to alter without interfering with – and to that extent impeding – the forces producing the spontaneous order. Any desire we may have concerning the particular position of individual elements, or the relation between particular individuals or groups, could not be satisfied without upsetting the overall order. The kind of power which in this respect we would possess over a concrete arrangement or *taxis* we would not have over a spontaneous order where we would know, and be able to influence, only the abstract aspects.

It is important to note here that there are two different respects in which order may be a matter of degree. How well ordered a set of objects or events is depends on how many of the attributes of (or the relations between) the elements we can learn to predict. Different orders may in this respect differ from each other in either or both of two ways: the orderliness may concern only very few relations between the elements, or a great many; and, second, the regularity thus defined may be great in the sense that it will be confirmed by all or nearly all instances, or it may be found to prevail only in a majority of the instances and thus allow us to predict its occurrence only with a certain degree of probability. In the first instance we may predict only a few of the features of the resulting structure, but do so with great confidence; such an order would be limited but may still be perfect. In the second instance we shall be able to predict much more, but with only a fair degree of certainty. The knowledge of the existence of an order will however still be useful even if this order is restricted in either or both these respects; and the reliance on spontaneously ordering forces may be preferable or even indispensable, although the order towards which a system tends will in fact be only more or less imperfectly approached. The market order in particular will regularly secure only a certain probability that the expected relations will prevail, but it is, nevertheless, the only way in which so many activities depending on dispersed knowledge can be effectively integrated into a single order.

Spontaneous orders result from their elements obeying certain rules of conduct

We have already indicated that the formation of spontaneous orders is the result of their elements following certain rules in their responses to their immediate environment. The nature of these rules still needs fuller examination, partly because the word 'rule' is apt to suggest some erroneous ideas, and partly because the rules which determine a spontaneous order differ in important respects from another kind of rules which are needed in regulating an organization or *taxis*.

On the first point, the instances of spontaneous orders which we have given from physics are instructive because they clearly show that the rules which govern the actions of the elements of such spontaneous orders need not be rules which are 'known' to these elements; it is sufficient that the elements actually behave in a manner which can be described by such rules. The concept of rules as we use it in this context therefore does not imply that such rules exist in articulated ('verbalized') forms, but only that it is possible to discover rules which the actions of the individuals in fact follow. To emphasize this we have occasionally spoken of 'regularity' rather than of rules, but regularity, of course, means simply that the elements behave according to rules.

That rules in this sense exist and operate without being explicitly known to those who obey them applies also to many of the rules which govern the actions of men and thereby determine a spontaneous social order. Man certainly does not know all the rules which guide his actions in the sense that he is able to state them in words. At least in primitive human society, scarcely less than in animal societies, the structure of social life is determined by rules of conduct which manifest themselves only by being in fact observed. Only when individual intellects begin to differ to a significant degree will it become necessary to express these rules in a form in which they can be communicated and explicitly taught, deviant behaviour corrected, and differences of opinion about appropriate behaviour decided. Although man never existed without laws that he obeyed, he did, of course, exist for hundreds of thousands of years without laws he 'knew' in the sense that he was able to articulate them.

What is of still greater importance in this connection, however, is that not every regularity in the behaviour of the elements does secure an overall order. Some rules governing individual behaviour might clearly make altogether impossible the formation of an overall order. Our problem is what kind of rules of conduct will produce an order of society and what kind of order particular rules will produce.

The classical instance of rules of the behaviour of the elements which will not produce order comes from the physical sciences: it is the second law of

thermodynamics or the law of entropy, according to which the tendency of the molecules of a gas to move at constant speeds in straight lines produces a state for which the term 'perfect disorder' has been coined. Similarly, it is evident that in society some perfectly regular behaviour of the individuals could produce only disorder: if the rule were that any individual should try to kill any other he encountered, or flee as soon as he saw another, the result would clearly be the complete impossibility of an order in which the activities of the individuals were based on collaboration with others.

Society can thus exist only if by a process of selection rules have evolved which lead individuals to behave in a manner which makes social life possible. It should be remembered that for this purpose selection will operate as between societies of different types, that is, be guided by the properties of their respective orders, but that the properties supporting this order will be properties of the individuals, namely their propensity to obey certain rules of conduct on which the order of action of the group as a whole rests.

To put this differently: in a social order the particular circumstances to which each individual will react will be those known to him. But the individual responses to particular circumstances will result in an overall order only if the individuals obey such rules as will produce an order. Even a very limited similarity in their behaviour may be sufficient if the rules which they all obey are such as to produce an order. Such an order will always constitute an adaptation to the multitude of circumstances which are known to all the members of that society taken together but which are not known as a whole to any one person. This need not mean that the different persons will in similar circumstances do precisely the same thing; but merely that for the formation of such an overall order it is necessary that in some respects all individuals follow definite rules, or that their actions are limited to a certain range. In other words, the responses of the individuals to the events in their environment need be similar only in certain abstract respects[13] to ensure that a determinate overall order will result.

The question which is of central importance as much for social theory as for social policy is thus what properties the rules must possess so that the separate actions of the individuals will produce an overall order. Some such rules all individuals of a society will obey because of the similar manner in which their environment represents itself to their minds. Others they will follow spontaneously because they will be part of their common cultural tradition. But there will be still others which they may have to be made to obey, since, although it would be in the interest of each to disregard them, the overall order on which the success of their actions depends will arise only if these rules are generally followed.

[13] [Hayek changed 'abstract aspects' to 'abstract respects'. – Ed.]

In a modern society based on exchange, one of the chief regularities in individual behaviour will result from the similarity of situations in which most individuals find themselves in working to earn an income; which means that they will normally prefer a larger return from their efforts to a smaller one, and often that they will increase their efforts in a particular direction if the prospects of return improve. This is a rule that will be followed at least with sufficient frequency to impress upon such a society an order of a certain kind. But the fact that most people will follow this rule will still leave the character of the resulting order very indeterminate, and by itself certainly would not be sufficient to give it a beneficial character. For the resulting order to be beneficial people must also observe some conventional rules, that is, rules which do not simply follow from their desires and their insight into relations of cause and effect, but which are normative and tell them what they ought to or ought not to do.

We shall later have to consider more fully the precise relation between the various kinds of rules which the people in fact obey and the resulting order of actions. Our main interest will then be those rules which, because we can deliberately alter them, become the chief instrument whereby we can affect the resulting order, namely the rules of law. At the moment our concern must be to make clear that while the rules on which a spontaneous order rests, may also be of spontaneous origin, this need not always be the case. Although undoubtedly an order originally formed itself spontaneously because the individuals followed rules which had not been deliberately made but had arisen spontaneously, people gradually learned to improve those rules; and it is at least conceivable that the formation of a spontaneous order relies entirely on rules that were deliberately made. The spontaneous character of the resulting order must therefore be distinguished from the spontaneous origin of the rules on which it rests, and it is possible that an order which would still have to be described as spontaneous rests on rules which are entirely the result of deliberate design. In the kind of society with which we are familiar, of course, only some of the rules which people in fact observe, namely some of the rules of law (but never all, even of these) will be the product of deliberate design, while most of the rules of morals and custom will be spontaneous growths.

That even an order which rests on made rules may be spontaneous in character is shown by the fact that its particular manifestation will always depend on many circumstances which the designer of these rules did not and could not know. The particular content of the order will depend on the concrete circumstances known only to the individuals who obey the rules and apply them to facts known only to them. It will be through the knowledge of these individuals both of the rules and of the particular facts that both will determine the resulting order.

The spontaneous order of society is made up of individuals and organizations

In any group of men of more than the smallest size, collaboration will always rest both on spontaneous order as well as on deliberate organization. There is no doubt that for many limited tasks organization is the most powerful method of effective co-ordination because it enables us to adapt the resulting order much more fully to our wishes, while where, because of the complexity of the circumstances to be taken into account, we must rely on the forces making for a spontaneous order, our power over the particular contents of this order is necessarily restricted.

That the two kinds of order will regularly coexist in every society of any degree of complexity does not mean, however, that we can combine them in any manner we like. What in fact we find in all free societies is that, although groups of men will join in organizations for the achievement of some particular ends, the co-ordination of the activities of all these separate organizations, as well as of the separate individuals, is brought about by the forces making for a spontaneous order. The family, the farm, the plant, the firm, the corporation and the various associations, and all the public institutions including government, are organizations which in turn are integrated into a more comprehensive spontaneous order. It is advisable to reserve the term 'society' for this spontaneous overall order so that we may distinguish it from all the organized smaller groups which will exist within it, as well as from such smaller and more or less isolated groups as the horde, the tribe or the clan, whose members will at least in some respects act under a central direction for common purposes. In some instances it will be the same group which at times, as when engaged in most of its daily routine, will operate as a spontaneous order maintained by the observation of conventional rules without the necessity of commands, while at other times, as when hunting, migrating or fighting, it will be acting as an organization under the directing will of a chief.

The spontaneous order which we call a society also need not have such sharp boundaries as an organization will usually possess. There will often be a nucleus, or several nuclei, of more closely related individuals occupying a central position in a more loosely connected but more extensive order. Such particular societies within the Great Society may arise as the result of spatial proximity, or of some other special circumstances which produce closer relations among their members. And different partial societies of this sort will often overlap and every individual may, in addition to being a member of the Great Society, be a member of numerous other spontaneous sub-orders or partial societies of this sort as well as of various organizations existing within the comprehensive Great Society.

Of the organizations existing within the Great Society one which regularly occupies a very special position will be that which we call government. Although it is conceivable that the spontaneous order which we call society

may exist without government, if the minimum of rules required for the formation of such an order is observed without an organized apparatus for their enforcement, in most circumstances the organization which we call government becomes indispensable in order to assure that those rules are obeyed.

This particular function of government is somewhat like that of a maintenance squad of a factory, its object being not to produce any particular services or products to be consumed by the citizens, but rather to see that the mechanism which regulates the production of those goods and services is kept in working order. The purposes for which this machinery is currently being used will be determined by those who operate its parts and in the last resort by those who buy its products.

The same organization that is charged with keeping in order an operating structure which the individuals will use for their own purposes, will, however, in addition to the task of enforcing the rules on which that order rests, usually be expected also to render other services which the spontaneous order cannot produce adequately. These two distinct functions of government are usually not clearly separated; yet, as we shall see, the distinction between the coercive functions in which government enforces rules of conduct, and its service functions in which it need merely administer resources placed at its disposal, is of fundamental importance. In the second it is one organization among many and like the others part of a spontaneous overall order, while in the first it provides an essential condition for the preservation of that overall order.

In English it is possible, and has long been usual, to discuss these two types of order in terms of the distinction between 'society' and 'government'. There is no need in the discussion of these problems, so long as only one country is concerned, to bring in the metaphysically charged term 'state'. It is largely under the influence of Continental and particularly Hegelian thought that in the course of the last hundred years the practice of speaking of the 'state' (preferably with a capital 'S'), where 'government' is more appropriate and precise, has come to be widely adopted. That which acts, or pursues a policy, is however always the organization of government; and it does not make for clarity to drag in the term 'state' where 'government' is quite sufficient. It becomes particularly misleading when 'the state' rather than 'government' is contrasted with 'society' to indicate that the first is an organization and the second a spontaneous order.

The rules of spontaneous order[14] *and the rules of organization*

One of our chief contentions will be that, though spontaneous order and organization will always coexist, it is still not possible to mix these two prin-

[14] [Hayek here changed 'orders' to 'order'. – Ed.]

ciples of order in any manner we like. If this is not more generally understood it is due to the fact that for the determination of both kinds of order we have to rely on rules, and that the important differences between the kinds of rules which the two different kinds of order require are generally not recognized.

To some extent every organization must rely also on rules and not only on specific commands. The reason here is the same as that which makes it necessary for a spontaneous order to rely solely on rules: namely that by guiding the actions of individuals by rules rather than specific commands it is possible to make use of knowledge which nobody possesses as a whole. Every organization in which the members are not mere tools of the organizer will determine by commands only the function to be performed by each member, the purposes to be achieved, and certain general aspects of the methods to be employed, and will leave the detail to be decided by the individuals on the basis of their respective knowledge and skills.

Organization encounters here the problem which any attempt to bring order into complex human activities meets: the organizer must wish the individuals who are to co-operate to make use of knowledge that he himself does not possess. In none but the most simple kind of organization is it conceivable that all the details of all activities are governed by a single mind. Certainly nobody has yet succeeded in deliberately arranging all the activities that go on in a complex society. If anyone did ever succeed in fully organizing such a society, it would no longer make use of many minds but would be altogether dependent on one mind; it would certainly not be very complex but extremely primitive – and so would soon be the mind whose knowledge and will determined everything. The facts which could enter into the design of such an order could be only those which were known and digested by this mind; and as only he could decide on action and thus gain experience, there would be none of that interplay of many minds in which a lone mind can grow.

What distinguishes the rules which will govern action within an organization is that they must be rules for the performance of assigned tasks. They presuppose that the place of each individual in a fixed structure is determined by command and that the rules each individual must obey depend on the place which he has been assigned and on the particular ends which have been indicated for him by the commanding authority. The rules will thus regulate merely the detail of the action of appointed functionaries or agencies of government.

Rules of organization are thus necessarily subsidiary to commands, filling in the gaps left by the commands. Such rules will be different for the different members of the organization according to the different roles which have been assigned to them, and they will have to be interpreted in the light of the purposes determined by the commands. Without the assignment of a function and the determination of the ends to be pursued by particular commands,

the bare abstract rule would not be sufficient to tell each individual what he must do.

By contrast, the rules governing a spontaneous order must be independent of purpose and be the same, if not necessarily for all members, at least for whole classes of members not individually designated by name. They must, as we shall see, be rules applicable to an unknown and indeterminable number of persons and instances. They will have to be applied by the individuals in the light of their respective knowledge and purposes; and their application will be independent of any common purpose, which the individual need not even know.

In the terms we have adopted this means that the general rules of law that a spontaneous order rests on aim at an abstract order, the particular or concrete content of which is not known or foreseen by anyone; while the commands as well as the rules which govern an organization serve particular results aimed at by those who are in command of the organization. The more complex the order aimed at, the greater will be that part of the separate actions which will have to be determined by circumstances not known to those who direct the whole, and the more dependent control will be on rules rather than on specific commands. In the most complex types of organizations, indeed, little more than the assignment of particular functions and the general aim will be determined by command of the supreme authority, while the performance of these functions will be regulated only by rules – yet by rules which at least to some degree are specific to the functions assigned to particular persons. Only when we pass from the biggest kind of organization, government, which as organization must still be dedicated to a circumscribed and determined set of specific purposes, to the overall order of the whole of society, do we find an order which relies solely on rules and is entirely spontaneous in character.

It is because it was not dependent on organization but grew up as a spontaneous order that the structure of modern society has attained that degree of complexity which it possesses and which far exceeds any that could have been achieved by deliberate organization. In fact, of course, the rules which made the growth of this complex order possible were initially not designed in expectation of that result; but those people who happened to adopt suitable rules developed a complex civilization which then often spread to others. To maintain that we must deliberately plan modern society because it has become so complex is therefore paradoxical, and the result of a complete misunderstanding of these circumstances. The fact is, rather, that we can preserve an order of such complexity not by the method of directing the members, but only indirectly by enforcing and improving the rules conducive to the formation of a spontaneous order.

We shall see that it is impossible, not only to replace the spontaneous order by organization and at the same time to utilize as much of the dispersed

knowledge of all its members as possible, but also to improve or correct this order by interfering in it by direct commands. Such a combination of spontaneous order and organization it can never be rational to adopt. While it is sensible to supplement the commands determining an organization by subsidiary rules, and to use organizations as elements of a spontaneous order, it can never be advantageous to supplement the rules governing a spontaneous order by isolated and subsidiary commands concerning those activities where the actions are guided by the general rules of conduct. This is the gist of the argument against 'interference' or 'intervention' in the market order. The reason why such isolated commands requiring specific actions by members of the spontaneous order can never improve but must disrupt that order is that they will refer to a part of a system of interdependent actions determined by information and guided by purposes known only to the several acting persons but not to the directing authority. The spontaneous order arises from each element balancing all the various factors operating on it and by adjusting all its various actions to each other, a balance which will be destroyed if some of the actions are determined by another agency on the basis of different knowledge and in the service of different ends.

What the general argument against 'interference' thus amounts to is that, although we can endeavour to improve a spontaneous order by revising the general rules on which it rests, and can supplement its results by the efforts of various organizations, we cannot improve the results by specific commands that deprive its members of the possibility of using their knowledge for their purposes.

We will have to consider throughout this book how these two kinds of rules have provided the model for two altogether different conceptions of law and how this has brought it about that authors using the same word 'law' have in fact been speaking about different things. This comes out most clearly in the contrast we find throughout history between those to whom law and liberty were inseparable[15] and those to whom the two were irreconcilable. We find one great tradition extending from the ancient Greeks and Cicero[16] through the

[15] See G. Sartori, *Democratic Theory* (Detroit: Wayne State University Press, 1962; New York, Washington & London: Praeger, 1965), p. 306:

> Western man for two and a half millenniums has sought liberty in the law. . . . {Yet} the widespread scepticism about the value of the juridical protection of liberty is not unjustified. The reason for this is that our conception of law has changed, and that, as a consequence, law can no longer give us the guarantees that it did in the past.

[16] See Philo of Alexandria, *Quod omnis probus liber sit*. [Cf. *Philo*, with an English translation by F. H. Colson, Loeb Classical Library (Cambridge, MA: Harvard University Press; London: Heinemann, 1941), volume IX, *Quod omnis probus liber sit / Every good man is free*, 452, 45, p. 36: 'hosoi de meta nomou zosin, eleuteroi', p. 36; 'all whose life is regulated by law are free', p. 37. Compare Philo, 'Every Good Man Is Free', in *The Works of Philo*, tr. C. D. Yonge, new updated edition (Peabody, MA: Hendrickson, 1993), pp. 682–97; see section 45, p. 686: 'those who live

Middle Ages[17] to the classical liberals like John Locke, David Hume, Immanuel Kant,[18] and the Scottish moral philosophers, down to various American statesmen[19] of the nineteenth and twentieth centuries, for whom law and lib-

in accordance with the law are free'. – Ed.] On freedom in ancient Greece see in particular Max Pohlenz, *The Idea of Freedom in Greek Life and Thought* (Dordrecht, Holland: Reidel; New York: Humanities Press, 1966). On Cicero and the Roman concept of liberty generally, see Ulrich von Lübtow, *Blüte und Verfall der römischen Freiheit: Betrachtungen zur Kultur- und Verfassungsgeschichte des Abendlandes* (Berlin: E. Blaschker, 1953); Theo Mayer-Maly, 'Rechtsgeschichte der Freiheitsidee in Antike und Mittelalter', *Österreichische Zeitschrift für öffentliches Recht*, N.F. VI, 1956 [Heft 3, 1954], pp. 399–42; and Giuliano Crifó, 'Su alcuni aspetti della libertà in Roma', *Archivio Giuridico 'Filippo Serafini'*, sesta serie, XXVIII, 1958 [= volume CLIV, fasc 1–2], pp. 3–72.

[17] See R. W. Southern, *The Making of the Middle Ages* (London: Hutchinson, 1953), pp. 107–9:

> The hatred of that which was governed, not by rule, but by will, went very deep in the Middle Ages. . . . The higher one rose towards liberty, the more the area of action was governed by law, the less it was subject to will. . . . Law was not the enemy of freedom; on the contrary, the outline of liberty was traced by the bewildering variety of law which was slowly evolved during our period. . . . High and low alike sought liberty by insisting on enlarging the number of rules under which they lived. . . . It was only when the quality of freedom was articulated by being attached to the status of knight, burgess or baron that it could be observed, analysed and measured. . . . Liberty is a creation of law, and law is reason in action; it is reason which makes men, as we should say, ends in themselves. Tyranny, whether of King John or of the Devil, is a manifestation of the absence of law.

[18] Most emphatically, perhaps, Adam Ferguson, *Principles of Moral and Political Science* (London: A. Strahan and T. Cadell; Edinburgh: W. Creech, 1792), volume 2, p. 458 *et seq.*:

> . . . liberty or freedom is not, as the origin of the name may seem to imply, an exemption from all restraint, but rather the most effectual application of every just restraint to all the members of a free state, whether they be magistrates or subjects.
>
> It is under just restraint only that every person is safe, and cannot be invaded, either in the freedom of his person, his property, or innocent action . . . the establishment of a just and effectual government . . . is of all circumstances in civil society, the most essential to freedom: That every one is justly said to be free in proportion as the government under which he resides is sufficiently powerful to protect him, at the same time that it is sufficiently restrained and limited to prevent the abuse of this power.

[19] Daniel Webster is credited with the statement that 'Liberty is the creature of law, essentially different from that authorized licentiousness that trespasses on right' [*The Works of Daniel Webster*, volume 2 (Boston: Charles C. Little and James Brown, 1851), 'Southern Tour', 'Dinner of the Charleston Bar', pp. 389–94; see p. 393 – Ed.]; and Charles Evans Hughes with that 'Liberty and Law are one and inseparable' [see Charles Evans Hughes, 'Liberty and Law', *American Bar Association Journal* 11, 1925, pp. 563–9; see p. 569 'Liberty and law – one and inseparable!' – Ed.]. There are many similar statements by Continental legal scholars of the last century, e.g. Charles Beudant, *Le droit individuel et l'État; introduction à l'étude du droit* (Paris: Arthur Rousseau, 1891), p. 5: 'Le Droit, au sens le plus général du mot, est la science de la liberté' ['Law, in the most general sense of the term, is the science of liberty'], and Karl Binding who argued somewhere that 'Das Recht ist eine Ordnung menschlicher Freiheit' ['Law is an ordering of human liberty'] [Karl Bindung, 'Zur Literatur der allgemeinen Rechtslehre'; review of August Thon, *Rechtsnorm und subjectives Recht*, *Kritische Vierteljahresschrift für Gesetzgebung und Rechtswissenschaft* (KritV), Neue Folge, 2 (21), no. 4, 1879, pp. 542–82; see p. 554 – Ed.].

erty could not exist apart from each other; while to Thomas Hobbes, Jeremy Bentham,[20] and many French thinkers,[21] and the modern legal positivists law of necessity means an encroachment on freedom. This apparent conflict between long lines of great thinkers does not mean that they arrived at opposite conclusions, but merely that they were using the word 'law' in different senses.

The terms 'organism' and 'organization'

A few comments should be added on the terms in which the distinction examined in this chapter has most commonly been discussed in the past. Since the beginning of the nineteenth century the terms 'organism' and 'organization' have been frequently used to contrast the two types of order. As we have found it advisable to avoid the former term and to adopt the latter in a specific sense, some comments on their history may be appropriate.

It was natural that the organismal analogy should have been used since ancient times to describe the spontaneous order of society, since organisms were the only kinds of spontaneous order with which everybody was familiar. Organisms are indeed a kind of spontaneous order and as such show many of the characteristics of other spontaneous orders. It was therefore tempting to

[20] See J. Bentham, 'Principles of the civil code', in *Theory of Legislation*, ed. C. K. Ogden (London: Kegan Paul etc, 1931), p. 98: '. . . laws cannot be made except at the expense of liberty'. Also in *Deontology*, ed. John Bowring (London: Longman; Edinburgh: William Tait, 1834), volume 2, pp. 60–1:

> There are few words which, with its derivations, have been more mischievous than this word liberty. When it means any thing beyond mere caprice and dogmatism, it means good government; and if good government had had the good fortune to occupy the same place in the public mind which has been occupied by the vague entity called liberty, the crimes and follies which have disgraced and retarded the progress of political improvement would hardly have been committed. The usual definition of liberty – that it is the right to do every thing which the laws do not forbid – shows with what carelessness words are used in ordinary discourse or composition; for if the laws are *bad*, what becomes of liberty? And if the laws are good, where is its value? Good laws have a defined, intelligible meaning; they pursue an obviously useful end by obviously appropriate means.

[21] See for example, Jean Salvaire, *Autorité et liberté* (Montpellier: Imprimerie de la Charité, 1932), pp. 65 *et seq*., who argues that 'the complete realization of liberty is, in fact, nothing else but the complete abolition of law. . . . Law and liberty are mutually exclusive'. [What Hayek quotes here is quoted by Dorothy Fosdick, *What Is Liberty?: A Study in Political Theory* (New York & London: Harper, 1939), p. 133. However, while she also refers to and quotes Salvaire, the material quoted by Hayek is, in fact, attributed by her to William Benett, *Freedom and Liberty* (London etc: Oxford University Press, 1920). Fosdick puts together three quotations from different parts of Benett's book, of which the second and the last contain what Hayek attributes to Salvaire, using the pagination from Fosdick's note to Salvaire. Hayek would thus seem in fact to be citing Benett, pp. 352 and 354. – Ed.]

borrow such terms as 'growth', 'adaptation' and 'function' from them. They are, however, spontaneous orders of a very special kind, possessing also properties which by no means necessarily belong to all spontaneous orders; the analogy in consequence soon becomes more misleading than helpful.[22]

The chief peculiarity of organisms which distinguishes them from the spontaneous orders of society is that in an organism most of the individual elements occupy fixed places which, at least once the organism is mature, they retain once and for all. They also, as a rule, are more or less constant systems consisting of a fixed number of elements which, although some may be replaced by equivalent new ones, retain an order in space readily perceivable with the senses. They are, in consequence, in the terms we have used, orders of a more concrete kind than the spontaneous orders of society, which may be preserved although the total number of elements changes and the individual elements change their places. This relatively concrete character of the order of organisms shows itself in the fact that their existence as distinct wholes can be perceived intuitively by the senses, while the abstract spontaneous order of social structures usually can only be reconstructed by the mind.

The interpretation of society as an organism has almost invariably been used in support of hierarchic and authoritarian views to which the more general conception of the spontaneous order gives no support. Indeed, since Menenius Agrippa,[23] on the occasion of the first secession of the Roman plebs, used the organismal metaphor to justify the privileges of a particular group, it must have been used innumerable times for similar purposes. The suggestion of fixed places assigned to particular elements according to their distinct 'functions', and the much more concrete determination of the biological structures as compared with the abstract character of the spontaneous structures of society, have indeed made the organismal conception of very questionable value for social theory. It has been abused even more than the term 'order' itself when interpreted as a made order or *taxis*, and has frequently been used to defend a hierarchical order, the necessity of 'degree', the relation of command and obedience, or the preservation of established positions of particular individuals, and for this reason has rightly become suspect.

The term 'organization', on the other hand, which in the nineteenth cen-

[22] Edmund Burke, *The Works of the Right Honourable Edmund Burke* (London: Rivington and Hatchard, 1806), volume 7, 'Letter to William Elliot Esq.', p. 366:

> These analogies between bodies natural and politick, though they may some times illustrate arguments, furnish no argument of themselves. They are but too often used under the colour of a specious philosophy, to find apologies for the despair of laziness and pusillanimity, and to excuse the want of all manly efforts, when the exigencies of our country call for them the more loudly.

[See now Edmund Burke, *Further Reflections on the Revolution in France*, ed. Daniel E. Ritchie (Indianapolis: Liberty Fund, 1992), p. 272. – Ed.]

[23] [See Titus Livius (Livy), *History of Rome*, tr. George Baker (New York: Peter A. Mesier, 1823), volume 1, section 32, p. 150. – Ed.]

tury was frequently used in contrast to 'organism' to express the distinction we have discussed,[24] and which we shall retain to describe a made order or *taxis*, is of comparatively recent origin. It seems to have come into general use at the time of the French Revolution, with reference to which Kant once observed that 'in a recently undertaken reconstruction of a great people into a great state the word *organization* has been frequently and appropriately used for the institution of the magistracies and even the whole state'.[25] The word became characteristic of the spirit of the Napoleonic period[26] and became the central conception in the plans for the 'reconstruction of society' of the chief founders of modern socialism, the Saint Simonians, and of Auguste Comte.[27] Until the term 'socialism' came into general use 'the organization of society as a whole' was in fact the accepted way of referring to what we now describe as socialism.[28] Its central role, particularly for French thinking during the early

[24] For a characteristic use of the contrast between 'organism' and 'organization' see Adolf Wagner, *Grundlegung der politischen Ökonomie, I. Grundlagen der Volkswirtschaft* (Leipzig, 1876), §§149 and 299. [Hayek would seem, here, to be referring to Adolf Wagner et al, *Lehr- und Handbuch der politischen Oekonomie, Erste Hauptabtheilung: Grundlegung der politischen Oekonomie, Erster Theil, Grundlagen der Volkswirtschaft, Erster Halbband* (Leipzig: C. F. Winter'sche, 1892); in this, Hayek's references would seem to be to §137 (pp. 329ff) and §299 (p. 770). The trail is a complex one, in that the publication details that Hayek cites seem to relate to C. D. H. Rau, *Lehrbuch der politischen Oekonomie* . . . Vollständig neu bearbeitet von Dr. A. Wagner und Dr. E. Nasse (Leipzig & Heidelberg: C. F. Winter, 1876), which was in effect re-written by Wagner, although what Hayek is referring to seems clearly to relate to the later book. – Ed.]

[25] See Immanuel Kant, *Kritik der Urteilskraft* (Berlin, 1790), part 2, section 1, §65 'Dinge als Naturzwecke sind organisierte Wesen', p. 281, note, lines 30ff: 'So hat man sich bei einer neuerlich unternommenen gänzlichen Umbildung eines grossen Volks zu einem Staat des Worts *Organisation* häufig für Einrichtung der Magistraturen usw. und selbst des ganzen Staatskörpers sehr schicklich bedient'. [Compare I. Kant, *Critique of Judgement*, tr. James Creed Meredith, revised by Nicholas Walker (Oxford: Oxford University Press, 2007), p. 203, footnote; 'in the case of a complete transformation, recently undertaken, of a great people into a state, the word organization has frequently, and with much propriety, been used for the constitution of the legal authorities and even of the entire body politic'. – Ed.]

[26] See Honoré de Balzac, 'Autre étude de femme', pp. 673–729 e.g. in *La Comédie humaine*, volume II (Paris: Gallimard, 1976); see p. 692, 'Organiser, par exemple, est un mot de l'empire, et qui contient Napoléon tout entier'. [Cf. H. de Balzac, *The Lily of the Valley and Other Stories*, tr. James Waring (Philadelphia: Gebbie, 1899), p. 326: '*Organise*, for instance, is the word of the empire, and sums up Napoleon completely'. – Ed.]

[27] See, for example, the journal edited by H. de Saint Simon and Auguste Comte called *Organisateur*, reprinted in *Oeuvres de Saint-Simon, Publiées par les membres du conseil institué par Enfantin*, volume 4 (Paris: E. Dentu, 1869), especially p. 220, n. 1, where the aim of the work is described as 'd'imprimer au XIX siècle le caractère organisateur' [to 'impress upon the 19th century its organizational quality'].

[28] See in particular Louis Blanc, *Organisation du travail* (Paris: Prevot, 1840), and H. Ahrens, *Die Rechtsphilosophie oder das Naturrecht, auf philosophisch-anthropologischer Grundlage*, fourth edition (Vienna: Carl Gerold & Sohn, 1852) on 'organization' as the magic word of the communists and socialists; see also Francis Lieber, 'Anglican and Gallican Liberty' (1849), pp. 371–88 of Fran-

part of the nineteenth century, was clearly seen by the young Ernest Renan, who in 1849 could speak of the ideal of a 'scientific organization of mankind as the last word of modern science and its daring but legitimate ambition'.[29]

In English, the word appears to have come into general use around 1790 as a technical term for a 'systematic arrangement for a definite purpose'.[30] But it was the Germans who adopted it with particular enthusiasm and to whom it soon appeared to express a peculiar capacity in which they believed themselves to excel other people. This even led to a curious rivalry between French and German scholars, who during the First World War conducted a slightly comic literary dispute across the fighting lines as to which of the two nations had the stronger claim to possessing the secret of organization.[31]

In confining the term here to a made order or *taxis* we follow what seems to have become the general use in sociology and especially in what is known as 'organization theory'.[32] The idea of organization in this sense is a natural consequence of the discovery of the powers of the human intellect and especially of the general attitude of constructivist rationalism. It appeared for a long time as the only procedure by which an order serviceable to human

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cis Lieber, *Miscellaneous Writings volume II: Contributions to Political Science* (Philadelphia and London: Lippincott, 1881), p. 385:

> The fact that Gallican liberty expects everything from organization while Anglican liberty inclines to development, explains why we see in France so little improvement and expansion of institutions; but when improvement is attempted, a total abolition of the preceding state of things – a beginning *ab ovo* – a re-discussion of the first elementary principles.

[29] See Ernest Renan, *L'avenir de la Science* (1890), in *Oeuvres complètes de Ernest Renan, Édition définitive établie per Henriette Psichari*, volume 3 (Paris: Calmann-Lévy, 1949), p. 757: 'ORGANISER SCIENTIFIQUEMENT L'HUMANITÉ, tel est donc le dernier mot de la science moderne, telle est son audacieuse mais légitime prétention'. ['TO SCIENTIFICALLY ORGANISE HUMANITY. Such is the last word of modern science, such is its bold but legitimate claim'.] [Cf. *The Future of Science* (Boston: Roberts Brothers, 1891), p. 30: 'Hence, the scientific organization of humanity is the final word of modern science, that is, its bold but legitimate pretention'. – Ed.]

[30] See *Shorter Oxford Dictionary*, s.v. 'organization', which shows, however, that the term was already used by John Locke. [The full *Oxford English Dictionary* attributes the word in the sense of 'social organization' to Edmund Burke's *Reflections on the Revolution in France* (1790); see Edmund Burke, *Select Works of Edmund Burke. A New Imprint of the Payne Edition*. Foreword and Biographical Note by Francis Canavan (Indianapolis: Liberty Fund, 1999), volume 2, p. 109. Locke's use of the term is in an older biological sense which the *OED* dates from 1425; see John Locke, *An Essay Concerning Human Understanding*, ed. P. H. Nidditch (Oxford: Clarendon Press, 1975), book II, chapter XXVII, §4, p. 331. – Ed.]

[31] Jean Labadie, ed., *L'Allemagne a-t-elle le secret de l'organisation?: enquête* (Paris: Bibliothèque de l'Opinion, 1916).

[32] See Dwight Waldo, 'Organization Theory: An Elephantine Problem', *Public Administration Review* 21, no. 4, 1961, pp. 210–25. Also in *General Systems: Yearbook of the Society for General Systems Research* VII, 1962, pp. 247–60, the preceding volume of which contains a useful collection of articles on the theory of organization.

purposes could be deliberately achieved, and it is indeed the intelligent and powerful method of achieving certain known and foreseeable results. But as its development is one of the great achievements of constructivism, so is the disregard of its limits one of its most serious defects. What it overlooks is that the growth of that mind which can direct an organization, and of the more comprehensive order within which organizations function, rests on adaptations to the unforeseeable, and that the only possibility of transcending the capacity of individual minds is to rely on those super-personal 'self-organizing' forces which create spontaneous orders.