In Defense of Developmental Sociology:

A Critique of Popper's *Poverty of Historicism* with Special Reference to the Theory of Auguste Comte*

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1. This paper presents a defence of the view that a developmental approach to sociology of the kind advocated by Norbert Elias should form the core of theory-building and research in the subject (1). The rudiments of such an approach were inherent in the dominant paradigms of the nineteenth century but, by the middle of the twentieth, had been replaced by static paradigms of various kinds. It must be enough in this context to illustrate what this means by reference to only one or two examples.

Take the case of Robert Nisbet. He recently contended, without presenting supportive evidence or analysis, that:

> "(...) the very point of (...) structures and groups, from the sociological point of view, is their remarkable fixity in time. For all the internal tensions and conflicts, caste in India, especially rural India, is only negligibly different today from what it was five hundred, a thousand, even two thousand years ago (...)"(2).

Nisbet even introduces static assumptions into his definition of change; viz. "change is a succession of differences in time in a persisting identity" (3). Similar assumptions recur in the work of Talcott Parsons. He assumes, presumably because he believes the human mind to be inherently incapable of conceptualizing change *per se*, that the study of structure is "logically prior" to the study of change. Thus he writes that the construction of "a theory of the processes of change *of* social systems as systems is a "task which logically presupposes a theory of social structure and a theory of motivational processes within the system" (4). He continues: "The essential point is that for there to be a theory of change of pattern (...) there must be an initial and a terminal pattern to be used as points of reference" (5). In a later essay, he elaborates on the reasons for these assumptions, saying that: "The specificities of significant change could not even be identified if there were no *relative* background of nonchange to relate them to" (6).

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What this appears to mean is that, in order to study change, one needs a prior understanding of the units or elements which undergo such a process. Moreover, according to this conception, change is a disturbance which intervenes between prior and subsequent "steady states". Alternatively some form of constant, whether actual or conceptual, is held to be an essential prerquisite for the construction of a theory of social change.

That contemporary sociological thinking is shot through with such a tendency to dichotomize structure and change, to see structures as changeless and changes as structureless - the latter assumption may not be implicit in the above exemples but it stands at the core of Popper's arguments to be considered later - can be seen from the fact that most sociological textbooks discuss aspects of society statically, relegating the subject of change to a meagre last chapter. In short, such a dichotomy forms an implicit core assumption which is transmitted to most contemporary sociologists as part of their occupational socialization.

A striking exception to the currently predominant pattern is provided by the work of Elias. He lays stress on the observably processual character of social structures, on their long-term tendency, due to their inherent dynamics, to change. To my knowledge no one has yet attempted to demonstrate by research the persistence of social structures over time. It is, therefore, reasonable to suppose that the belief that they persist is either an artefact of methods based on a short-term perspective or a theoretical assumption which lacks any basis in systematic research and, hence, any correspondence with observable social structures, with societies as they "really are". Yet there are those who will argue that, whilst societies may have the processual character attributed to them by Elias, it is nevertheless impossible to study them scientifically. Karl Popper is a case in point.

The twentieth century shift towards static paradigms was, in part, a *de facto* process which occurred without explicit rationalization. An exception is provided by Popper in *The Poverty of Historicism* (7). The arguments he marshals there appear powerful and compelling. They are, moreover, accepted in certain circles as a definitive critique of the developmental approach (8). As such, they represent a blockage to a proper understanding of this approach, and, at the same time, to freeing sociology from its current theoretical and research impasse regarding problems of structure and change. It follows that it is necessary for proponents of a "developmental perspective" to subject Popper's arguments, in their turn, to critical scrutiny. That is what will be attempted in this paper. More precisely, since a full-scale critique of *The Poverty of Historicism* is beyond the scope of a single essay, it will lay the foundations for a stringent and systematic critique by exposing what, from a developmental standpoint, are some of the more glaring deficiencies in Popper's analysis.

I have chosen Comte's theory to back up my critique principally because it focusses centrally on the development of knowledge. Since Popper's critique, too, rests centrally on the part played by knowledge in social development, it follows that, if I can sustain my critique principally by reference to such a theory, I shall be able to dent his arguments more seriously than would be possible were I to establish my case by reference to Marx, Spencer, Hobhouse or Elias. That is because none of these theorists attributes to knowledge a role in social development as central as that attributed to it by Comte and Popper. I shall begin the presentation of my case by offering one or two criticisms of a general kind.

2. According to Popper, "historicist doctrines" are, at bottom, responsible for the low level of development of theoretical sociology (9). However, in my view, the reverse is closer to the truth: namely, that it is the rejection of the developmental approach which is principally responsible for this state of affairs. My reasons for believing this can be stated fairly briefly.

A.N. Whitehead once said that "a science which hesitates to forget its founders is lost" (10). That may be true of an established science such as physics but it is pernicious if applied to a subject such as sociology in which continuity in research and theory-building bas never been adequately institutionalized and which is "multi-paradigmatic", i.e. characterized by a multiplicity of approaches which are, in many ways, at odds with one another, more or less radically divergent. Relatively undeveloped disciplines of that type are more likely to go astray if they forget their founders than if they hesitate to do so. To say this is not to imply approval of the "ancestor worship" that one finds in some courses on the sociological "classics" but to stress that, for research and theory-building in a subject to be made continuous and cumulative, it is necessary to build upon established foundations. Acquaintance with earlier work is also necessary in order to avoid needless duplication and, above all, to avoid heralding as a "discovery" something established, say, fifty or a hundred years before. Even more importantly, knowledge of past work is necessary in order to assess whether progress is being made, to establish whether or not knowledge in a field is advancing.

Of course, if the work of the "founding fathers" in a given field had been refuted solely or mainly on *scientific* grounds, then Whitehead would be right. One should not, then, hesitate to forget them. However, that was manifestly *not* the case with the abandonment of the developmental theories of nineteenth century sociology. The scientific objections to them - e.g. of the postulate of development as unilinear and inevitable, and of their moral connotations - could and, in my view, due to the processual character of human societies, should have been incorporated within a modified developmental framework (11). It is, above all, the fact that this did not occur which suggests

that these theories were rejected largely on ideological grounds. These were partly political, e.g. left-wing objections to the "Social Darwinism" of Spencer or the "conservatism" of Comte; right-wing and liberal objections to Marxism. At a more fundamental level, however, nineteenth century developmental paradigms were rejected in connection with the deeply-rooted tendency towards static thinking, to make what Elias calls *Zustandsreduktionen* (12), which predominates in contemporary sociology. As I hope to show, Popper's rejection of what he calls "historicism" falls into both of these categories. However, before I look in greater detail at his critique, three more preliminary observations are necessary. In ascending order of importance, they are:

1) although it is the most forceful and compelling critique of nineteenth century developmental theories so far proposed, *The Poverty of Historicism* did not play a part in the initial rejection of these theories. It was first delivered, in outline form as a paper, in 1936, first published as an article in 1944, and first appeared in book form in 1957. It appeared, that is, at a time when, at least in Anglo-American sociology, developmental theories were already dead, or almost so, kept alive only in the work of isolated scholars such as Leslie White (13), V. gordon Childe (14) and Norbert Elias.

2) political motives, more specifically a strong commitment to an extreme form of *laissez faire* liberalism, exercised a deep influence on Popper's critique. His political motivation emerges from the dedication of his hook which reads:

> In memory of the countless men and women of all creeds or nations or races who fell victims to the fascist and communist belief in Inexorable Laws of Historical Destiny.

Of course, Popper began to develop his critique in Germany in the 1930's, expanded it during the second world war and finalized it during the "cold war" era. It is hardly surprising, therefore, that, as a liberal, his political passions should have been strongly roused. But, however understandable that may be, it is nevertheless relevant to note that, as a result, his objectivity and capacity to use the rigorous logic which is supposedly the hallmark of philosophical thinking may have been impaired.

3) Popper's critique is based on a model of science which upholds hysics as a model. Accordingly, the concept of "universal laws" stands at its centre. That is, it holds as a benchmark against which all sciences should be measured, a type of concept which Elias has suggested is developmentally specific, i.e. relative to an early stage in the development of science and which he regards as a representation which a relatively high degree of "object-adequacy" regarding simple, loosely integrated phenomena such as gases but shich is far less object-adequate regarding complex, highly integrated and rapidly changing phenomena such as human societies (15). I have now reached a point where Popper's critique can be tackled more systematically

3. Popper means by "historicism" an approach to the social sciences which assumes that historical prediction is their central aim. Such an approach assumes, as Popper puts it, that there are discoverable "laws", "patterns" or "rhythms" in history which, once discovered, will enable us to predict the future development of society. He distinguishes between two ideal types of historicism: "pro-naturalistic" historicism which assumes that the methods of natural science are appropriate for the study of societies; and "anti-naturalistic" historicism which regards the methods of the natural sciences as inappropriate in this respect and stresses, instead, the role of intuition in grasping the "movement" of society as a whole, its "Zeitgeist" or whatever one wants to call it. It is important to bear in mind that these are ideal types and that the writings of particular historicists can fall into both camps. Since I accept, by and large, Popper's strictures against anti-naturalistic historicism, I shall concentrate in what follows on his critique of historicism of the pro-naturalistic kind.

In the preface to the 1957, book version of *The Poverty of Historicism*, Popper added an important statement to the arguments set forth in the text. He wrote:

> "I tried to show, in *The Poverty of Historicism*, that historicism is a poor method - a method which does not bear any fruit. But I did not actually refute historicism.
>
> Since then, I have succeeded in giving a refutation of historicism: I have shown that, for strictly logical reasons, it is impossible for us to predict the future course of history"(16).

These "stricly logical reasons" are then presented in the form of five propositions:

1. the course of human history is strongly influenced by the growth of human knowledge;
2. we cannot predict, by rational or scientific means, the further growth of our scientific knowledge;
3. we cannot, therefore, predict the future course of human history;
4. this means that we must reject the possibility of a theoretical history; that is to say, of a historical social science that would correspond to theoretical physics. There can be no scientific theory of historical development serving as a basis for historical prediction;
5. the fundamental aim of historicist methods is, therefore, misconceived; and historicism collapses (17).

Popper next expands on these propositions as follows, getting to the kernel of his "logical" critique:

> "(...) if there is such a thing as growing human knowledge, then we cannot anticipate today what we shall know only tomorrow (...) no scientific predictor - whether a human scientist or a calculating machine - can possibly predict, by scientific methods, its own future results. Attempts to do so can attain their results only after the events, when it is too late for a prediction; they can attain their

result only after the prediction has turned into retrodiction"(18).

If one thinks about it for a moment, Popper's argument does not depend, as he contends, on its "strict logic" but on the *empirical validity* of the first proposition, namely, that the course of human history is strongly influenced by the growth of knowledge. It assumes, in other words, that knowledge is an autonomous and causally important agency in social development. I accept that such an assumption is reasonable or, more precisely, that knowledge is *relatively* autonomous and *relatively* causally important in this respect. However, it is important to recognize that it would be disputed by a crude Marxist for whom knowledge would be epiphenomenal, part of the social "superstructure", a "mere reflection" of the "material base". Such a position, whilst *empirically suspect* in its crude form, is perfectly *logical*. It cannot be tested purely and simply on *a priori* logical grounds. Observation and logic are both required in order to demonstrate whether it is valid or not.

A more important objection to Popper's argument is that he fails to distinguish between the *forms* and the *contents* of knowledge. Comte's theory, however, as I shall show, was concerned primarily with questions of form. It follows that, if he successfully produced a theory of the development of the forms of knowledge, Popper's critique falls partly to the ground, i.e. its potential validity is restricted to matters of content. The question then becomes that of establishing the relative importance of the forms and contents of knowledge as determinants of social development and of their relationships to one another in that process.

Popper's distinction between "laws" and "trends" is also relevant in this respect. It means that, if one establishes a trend towards the growth of knowledge, one can extrapolate such a trend into the future providing there are grounds for believing that the "trend-maintaining" conditions will themselves be maintained. In short, certain forms of historical prediction or forecast are possible. The case against "historicism" is not, therefore, so damning as Popper wants us to believe. I shall return to these issues in a moment. First of all, I shall look critically at some of the arguments levelled by Popper against "pro-naturalistic historicism" in the main text of his book.

4. These arguments are mainly concentrated in the chapter entitled, "Is There a Law of Evolution?". This chapter is crucial to Popper's case but it contains, as I hope to show, one or two fundamental errors. He begins by considering the problem of biological evolution. The "evolutionary hypothesis", he contends, explains a host of biological observations - for instance, certain similarities between species and genera - by the assumption of the common ancestry of related forms. But, he contends, this hypothesis is not a universal law, even though certain universal laws of nature, e.g. those of heredity and mutation, enter into it. "It has", according to Popper, "the

character of a particular historical statement" (19). In short, it is, in his opinion, a statement about a unique sequence of events and for that reason, he argues, there cannot be a *law* at work producing an invariant evolutionary order. It will help the establishment of my case if I quote the relevant section of his argument in full:

> "The search for the law of the 'unvarying order' in evolution cannot possibly fall within the scope of scientific method, whether in biology or in sociology. My reasons are very simple. The evolution of life on earth, or of human society, is a unique historical process. Such a process, we may assume, proceeds in accordance with all sorts of causal laws, for example, the laws mechanics, of chemistry, of heredity and segregation, of natural selection, etc. Its description, however, is not a law, but only a singular historical statement. Universal laws make assertions concerning some unvarying order (...) and although there is no reason why the observation of one single instance should not incite us to formulate a universal law, nor why, if we are lucky, we should not even hit upon the truth, it is clear that any law, formulated in this or in any other way, must be *tested* by new instances before it can be taken seriously by science. But we cannot hope to test a universal hypothesis nor to find a universal law acceptable to science if we are forever confined to the observation of one unique process. Nor can the observation of one unique process help us to see its future development" (20).

The core of Popper's argument, then, is that processes and events have to be *recurrent* to fall within the scope of scientific treatment. Only then, is it possible to subject hypotheses to test. Such tests cannot be carried out if a particular area of phenomena, or phenomena at a particular "level of reality", comprises or comprise events and processes which are unique.

In part, I would accept this. It is clear that events and processes do have to be recurrent to permit the formulation of testable hypotheses. However, I would contend that such recurrence does not have to be *universal* for testing to occur. Indeed, there is growing doubt in physics concerning the universality, the independence of space and time, of the processes Popper supposes to be subject to universal laws (21). I shall return to this issue and consider it more fully in a moment. Before I do, I should like to enter a minor but nonetheless relevant criticism of Popper's argument. He asserts with certainty that there is no law of biological or social evolution. But the logic of his admission that we might hit upon such a law *by chance* implies that biological or social reality *might* operate in terms of such a law. Logically, all that he can state with certainty is that, if such a process is unique, we cannot determine by scientific methods whether it operates in a law-like manner or not, i.e. we have no means of testing any hypothesis which asserts the existence of such a law. In a scientific sense, that is, we simply cannot know. That is the *logic* of Popper's argument. But he states decisively

that there is no such law.

Popper next proceeds to ask - and his apparent fairness is one of the reasons why his critique appears so forceful - how his objection to the "evolutionary hypothesis", whether in biology or sociology, could be countered. Again, it will be useful to cite his argument in full. What he writes is this:

> "There are, in the main, two positions which may be taken up by those who believe in a law of evolution. They may (i) deny our contention that the evolutionary process is unique; or (ii) assert that in an evolutionary process we may discern a trend or tendency or direction, and that we may formulate a hypothesis which states this trend, and test this hypothesis by future experience. The two positions (...) are not exclusive of each other" (22).

Popper admits the partial validity of the second objection but totally denies the validity of the first. I want to argue the reverse: namely, that the first objection is valid, i.e. I deny that the evolutionary process is unique, and that the second, though not wrong, contains one or two woolly notions. Before I elaborate on this, however, it is necessary to cite one further section of Popper's argument:

> "Now I do not intend to deny that history may sometimes repeat itself in certain respects, nor that the parallel between certain types of historical events, such as the rise os tyrannies in ancient Greece and in modern times, can be significant for the student of the sociology of political power. But it is clear that all these instances of repetition involve circumstances which are vastly dissimilar, and which may exert an important influence upon further developments. We have therefore no valid reason to expect of any apparent repetition of an historical development that it will continue to run parallel to its prototype"(23).

I have now reached a point where I can put forward my main objections to Popper's critique. Basically, they boil down to the following three:

1) in arguing against the notion that types of historical events can be repeated, Popper shows his failure to understand that sociology is concerned with *structures* not events. This is clearly connected with the nominalist view of science on which his arguments are based and with his corresponding espousal of "methodological individualism". This is not the place for a thoroughgoing critique of these aspects of his case. It must be enough to note that he does not achieve a satisfactory balance between the philosophical poles of nominalism and realism, and that, in his desire to avoid the excesses of the latter, he fails to see that, as Elias would put it, human societies are "figurations of interdependent human beings". The concept of "figurations" is not a mere abstraction but refers to a class of phenomena which are as "real" as the individual human beings that form them. It is difficult to see how the structure of, e.g., a "tribal", "feudal" of "nation-state figuration" is any less "real" than the structure of a carbon atom or molecule of

DNA. The ties which link its members may be learned and different from the physio-chemical bonds which link molecules and atoms but that does not make them any less "real", i.e. observable. The same holds true of the overall structures that they form. Social figurations may have structures which are more liable to change than those of atoms but that means they possess *changeable structures* not that they are structureless. It follows that the concept of social structure is not a mere term but refers to a central and observable property of human figurations;

2) the empirical example of possible historical parallels that Popper cites, namely that of Ancient Greek and modern tyrannies, loads the argument in his favour. That is because structural and processual differences are likely to be great if one attempts to draw parallels between societies which stand at different levels of development and which are vastly removed in time. But if one controls for level of development and historical period, one can reduce the degree of difference between structural and what are more properly called processual parallels, thereby increasing one's chances of developing significant hypotheses about them. One could, e.g., look for parallels among the city-states of Ancient Greece in their tyrannical phases, or among modern tyrannies such as Hitler's Germany, Mussolini's Italy, Franco's Spain, Salazar's Portugal, Stalin's Russia and "post-Allende" Chile. Moreover, since one has more than one example in each case, one could *test* such hypotheses. And some of them might be valid universally for their class, i.e. they might hold for all tyrannies, or for all Greek tyrannies or for all modern ones;

3) this brings me to the central criticism that I wish to make. It is of Popper's notion, implicit in *The Poverty of Historicism* - though I doubt whether it recurs in those parts of his work where his political passions are less seriously roused - that identity and difference, uniqueness and recurrence, are properties purely and simply of reality, of the phenomena that we study. That is clearly an inadequate view. Whether or not we perceive phenomena as similar or different, unique or recurrent is also, in part, a function of our concepts and, particularly, of the level of concept-formation reached in the sciences that we practice. Let me illustrate this by reference to the distinction between "general" and "specific cultural evolution" drawn by the anthropologists, Sahlins and Service (24). The concept of "general evolution", however, refers to the processes which take place as a society adapts to its environment. Specific evolution is historical or, as Sahlins and Service put it, "phylogenetic", i.e. one stage in the process develops sequentially out of and is, in a determinable sense, influenced or affected by, the one that preceded it. It may or may not involve a transformation from a lower to a higher or from a higher to a lower level of general evolution, i.e. in the course or adapting to its environment - both its geographical and its internal and external social environments - a given society may

remain at a given level of general evolution by, for example, changing from a matrilineal to a patrilineal kinship system. But - and this, for present purposes, is the important point - general and specific evolution are not different *forms* of evolution but different *perspectives* on the same overall process. In talking about general as opposed to specific evolution, one has moved, as the term implies, to a higher level of generality. One has also explicitly adopted a comparative and classificatory framework. Thus, although the United States, Great Britain, Holland and the USSR differ from each other in numerous respects, they share a number of structural features as "urban-industrial-nation-states" which distinguish them structurally form tribal and feudal societies and dynastic states. The societies within each of these categories similarly differ from one another in several ways but, at the same time, share common structural features. Moreover, such distinctions are not simply relevant in a classificatory sense. They also enable one to pose the question: are there, despite the differences in their histories - in their paths of "specific evolution" - any discernible regularities, any recurrent processes, observable in the formation of urban-industrial-nation-states, or for that matter, of tribal and feudal societies or dynastic states? In short, do they share developmental as well as structural features? Moreover, one can formulate hypotheses about such processes and, what is more important, test them since, at every conceivable level of "general evolution", there is more than one case.

But Popper was apparently unable to see this. His view of science recognizes the existence of recurrent regularities in the physical universe but denies their existence in the social world. There are, however, differences and irregularities in the physical universe as well: no two atoms, no two crystals, no two drops of water, no two planets, stars, galaxies or whatever, are identical. They differ, if only by virtue of their seperate existence and, therefore, different location in space. Indeed, from one modern cosmological standpoint, the entire development of the universe is a unique sequence of events, a "big bang", an explosive process starting from a "singularity" (25). Even from a "steady-state" standpoint, every process of galactic, stellar and planetary evolution has features which are unique. Nevertheless, astronomers have discovered that one can observe general, recurrent features, formulate hypotheses on the basis of these observations, and test these hypotheses on the basis of new observations. The same, I would contend, holds true as far as the development of societies is concerned. And it easy to see as long as one does not get confused, as Popper has evidently done, regarding the role of perspectives and concepts in the determination of identity and difference, repetition and uniqueness.

To say this, of course, is not to imply that social development proceeds according to "universal laws". Its regular and recurrent features are not "law-like" in character but, as Elias

has shown, law-like theories are not the only type of scientific theory it is possible to construct. Structure and process models can be constructed also (26). And in any case, as was noted earlier, the concept of laws which operate independently of time and space is increasingly being brought into question even in physics itself.

Just one more aspect of Popper's argument remains to be considered: his discussion of the concept of "trends". The search for trends, he admits, is a legitimate part of the sociological enterprise but, he maintains, trends are not laws. A statement asserting the occurrence of a trend is existential and conditional, not universal and unconditional. A trend which has persisted for hundreds, even thousands, of years may change within a decade or even more abruptly. It is important, therefore, to know, in the case of any trend, the conditions responsible for maintaining it, what the "trend-maintaining conditions" are for, if they change, so will the trend itself.

Popper's discussion of this issue is, on the whole, sensible and useful though static assumptions enter into it in that he fails to consider that trends may sometimes be maintained, not by conditions which are constant, but by another trend or trends. Moreover, as I shall show, his concept was, in its essentials, anticipated by Comte. Of course, Comte, too, adhered to a concept of "universal laws". It is subject to the same criticisms as Popper's concept and, accordingly, must also be abandoned. That is, the "law of the three stages" refers to a process which approximates more closely to Popper's concept of a trend than to that of a "universal law". Yet, recognition of this should not blind one to the fact that Comte's concept captures aspects of social development which are not adequately represented by Popper's vaguer and woollier concept. Thus, "laws", according to Comte, more precisely, "laws of succession", refer to sequences which are necessary, invariant and irreversible. Because they are based on learning, social developments are clearly not irreversible. But, as I hope to show, they are necessary and invariant, if not in the "strong" sense that subsequent stages are "immanent in" and grow inevitably and automatically out of those that precede them, at least in the "weaker" sense that later bear discernible traces of earlier stages and that the latter necessarily come first. Thus, although one cannot say predictively that a given stage will give rise, necessarily and inevitably, to a subsequent one, one can say retrodictively of a later stage that is was necessarily preceded by an earlier one.

This concept of development as containing necessary and invariant features in a weak sense may be complex and difficult to grasp. It is best illustrated by means of a more detailed discussion of Comte's theory. I shall start by referring to his methodological writings. What I want, basically, to show is this: 1) that Comte demonstrates the *necessity* in sociology of a developmental methodology; 2) that his theory of social

development is *testable*; and 3) that, since it is fundamentally a theory of the development of knowledge, more precisely of the *forms* of knowledge, it makes possible certain kinds of predictions and, therefore, constitutes at least a partial refutation of Popper's so-called "logical" critique of "historicism". Having established these three things, I shall, by way of conclusion, offer suggestions regarding the way in which the task of criticizing and testing Comte - and other so-called "historicists" - might more properly be approached.

It goes without saying that the discussion which follows is an *interpretation*. It is textually supportable but I do not claim that this interpretation is what Comte "really meant". Discussions of that kind - i.e. about what Comte or Marx or "X" *really* meant - are not irrelevant and unimportant from a scientific standpoint but, in my view, sociology, in its current phase, needs to redress the balance and to emphasize the testing of theories as opposed to simply discussing them. In short, it has to move from a philosophical into a scientific model.

5. According to Comte, the new science of sociology will have to be firmly based on "positive" methods. Since the term "positivism" has nowadays acquired a different connotation - menaing, among other things, "crude empiricism" and "crude behaviourism" - it is as well to start by looking at what it meant for Comte. His definition was as follows:

> "All the languages of Western Europe agree in understanding by this word and its derivatives the two qualities of *reality* and *usefulness*; (...) the term also implies *certainty* and *precision* (...) (and) a directly *organic* tendency (...) But the word will bear yet a further meaning. The organic character of the system leads us naturally to another of its attributes, namely, its invariable *relativity*. Modern thinkers will never rise above that critical position which they have hitherto taken up towards the past except by repudiating all absolute principles. This last meaning is more latent than the others, but it is really contained in the term. It will soon become generally accepted, and the word *Positive* will be understood to mean *relative* as much as it now means *organic, precise, certain, useful,* and *real*" (27).

There is no need, in this context, to consider the whole of this definition. It will be enough, for present purposes, to focus solely on the attributes of "reality" and "relativity". As I understand it, positivism was, for Comte, a method which has proved itself historically as the best available to men for increasing understanding of reality. By "reality", Comte meant the world of phenomena, that which is observable, directly or indirectly, through the senses. We cannot, however, have absolute knowledge of phenomena. Knowledge, that about which we can say with a high degree of certainty that "we know", is necessarily relative in at least two senses, viz:

1) to the stage in the development of science at which we stand and therefore liable, within certain limits - e.g. we can

never know about "origins" or "causes" - to be superseded in the future; and

2) about relationships.

The second of these two meanings of "relativism" was, I should like to contend, paramount for Comte, i.e., in his view, all we can know about are the relationships among phenomena, the things and processes that we are able to observe, those which present themselves to our senses. Observable relationships, he maintained, can take two forms: relationships of coexistence and relationships of succession. A sociological example of the first type would be that which he expressed as the "first law of social statics", which has been re-named by Radcliffe-Brown, the "postulate of functional unity", i.e. the idea that there is a "strain towards consistency" or "compatibility" among the parts of social systems (28). A sociological example of the second type would be that which Comte expressed as the "law of the three stages".

The positive method, then, as Comte conceived it, abandons the quest for absolute knowledge and seeks only to discover observable relationships. It is, in addition, based on a necessary and inextricable balance between theory and observation. Since it is generally agreed that Comte provided one of the best ever statements on the need for theory in science, it will be useful, once again, to quote his own words. What he wrote was this:

> "All good intellects have repeated, since Bacon's time, that there can be no real knowledge but that which is based on observed facts. This is incontestable (...) but (...) if it is true that every theory must be based upon observed facts, it is equally true that facts cannot be observed without the guidance of some theory. Without such guidance, our facts would be desultory and fruitless; we could not retain them; for the most part we could not even perceive them" (29).

Apart from direct observation - which must, of course, always be related to a theory - Comte recommended two methods as likely to be of sociological value: the method of indirect experimentation and the comparative method. Since he regarded it as the sociological method *par excellence*, I shall confine myself in what follows to his structures on the comparative method.

Three types of comparison are likely, says Comte, to be sociologically fruitful: the comparison of human with animal societies in order to establish those institutions which are inherent in human societies *by nature*; the comparison "of the different coexisting states of human society on the various parts of the earth's surface" (30), a method which enables the sociologist directly to observe different stages of social development; and the historical or "historico-comparative" method. It was the last of these, the historical method, which Comte regarded as most important. His reasons lay in what he regarded as certain deficiencies of the method of non-historical comparison. The non-historical comparative method, he felt, has two principal uses: it enables one to test hypotheses about

development established by historical research and to fill in gaps and lacunae in the historical record. It cannot, however, empirically establish the *necessary relationships* between stages of social development or allow one to distinguish between primary and secondary factors in that process. Comte regarded race and climate as examples of secondary factors. He expressed his view on the primacy of the historical method in the following words:

> "The historical comparison of the consecutive states of humanity is not only the chief scientific device of the new political philosophy. Its rational development constitutes the substratum of the science in whatever is essential to it. It is this which distinguishes it thoroughly from biological science (...) The positive principle of this (distinction) results from the necessary influence of human generations upon the generations that follow, accumulating continuously till it constitutes the preponderating influence in the direct study of social development"(31).

Another of Comte's rules of scientific method is the proposal that, in synthetic sciences such as biology and sociology - i.e. those which deal with "compound" or "systemic" phenomena - it is necessary to proceed from the "whole" to the "parts". That is, the parts cannot be understood in isolation from the system to which they belong. The same holds true, he said, in the study of "social dynamics", thus providing another reason for the primacy of historical method; i.e. one must proceed from the history of mankind as a whole to its various stages and aspects - these cannot be understood except in relation to the wider, long-term movement of which they form part. But this means, Comte argued, that a preliminary theory of the social development of mankind as a whole is a necessary prerequisite for the scientific study of that process. One can only see the relationship of the parts to the whole by having a prior - not *a priori* - conception of that whole. Such a preliminary theory is also necessary as a guide to research and to prevent it from degenerating into trivial description or, as Comte put it, into "a mere compilation of provisional materials" (32).

The construction of such a theory was the main task that Comte set himself. Its object was to exhibit "the events of human experience in coordinated series which manifest their own graduated connection" (33). When fully developed and tested, such a theory would enable one to make predictions. Again, it will be useful to follow the argument through in Comte's own words. He wrote:

> "A considerable accuracy of prevision may thus be obtained, for any determinate period, and with any particular view, as historical analysis will indicate the direction of modifications, even in the most disturbed times. And it is worth noticing that the prevision will be nearest the truth in proportion as the phenomena in question are more important and more general; because their continuous causes are predominant in the social movement; and disturbances have less power. From these first, general aspects, the same rational certainty may

> extend to secondary and special aspects, through their statical relations with the first; and thus we may obtain conclusions sufficinetly accurate for the application of principles" (34).

Two things are principally of interest in this passage: firstly, Comte's argument that predictive accuracy is likely to be greatest regarding more general and important, i.e. "primary" phenomena; and secondly, his suggestion that, if we are able to make accurate predictions regarding the development of primary phenomena, "statical relations", i.e. the interdependence of system parts, will, *ipso facto*, enable us to make accurate predections regarding the development of secondary phenomena, too. However, before accurate predictions of future social development will be possible, the theory must first be tested by making predictions - we would nowadays call them "post-dictions" or "retrodictions" - about the past. Again, in Comte's own words:

> "If we desire to familiarize ourselves with this historical method, we must employ it first upon the past, bu endeavouring to deduce every well-known historical situation from the whole series of its antecedents. In every science we must have learned to predict the past, so to speak, before we can predict the future" (35).

I should now like to draw attention to what Comte said on the subject of trends. Such a discussion will show that he was aware of the problems later articulated by Popper on this subject. It will also illustrate still further his reasons for believing that the historical method must be the sociological method *par excellence*. He wrote in this connection that:

> "The present is, by itself, purely misleading, because it is impossible to avoid confounding principal with secondary facts, exalting conspicuous transient manifestations over fundamental tendenceis, which are generally very quiet; and above all, supposing those powers, institutions, and doctrines to be in the ascendant, which are, in fact, in their decline. It is clear that the only adequate corrective of all this is a philosophical understanding of the past; that the comparison cannot be decisive unless it embraces the whole of the past; and that the sooner we stop, in travelling up the vista of time, the more serious will be the mistakes we fall into" (36).

The main task of sociology, then, was to be the search for fundamental tendencies in social development. Comte did not underestimate the difficulty of this task. "The chief danger", he wrote, "is of our supposing a continuous decrease to indicate a final extinction, or the reverse" (37). Thus, Comte was aware of the distinction between "trends" and "laws", i.e. between reversible and fundamental tendencies, those which, even though a short-term perspective may not reveal them, can be shown to have been at work in all societies throughout the history of mankind.

One can see from this discussion the way in which Comte envisaged the task of constructing a preliminary theory of social development, of developing an overarching general hypothesis

regarding the fundamental "laws" of social succession. Such a theory had, first of all, to construct a social series sufficiently comprehensive to embrace the history of mankind as a whole; secondly, to establish the necessary connections between the stages in that series; and thirdly to be about phenomena which are general and important. As we have seen, Comte regarded the law of the three stages of intellectual growth as an expression of the fundamental tendency in the social development of mankind. His reasons for focussing on forms of thinking can be summarized fairly briefly. They are:

1) he believed that he had shown in his theory of social statics that consensus of ideas is the most important precondition for social harmony. It followed that, if ideas were important from a statical point of view, they were also important for social dynamics. Or, as Comte expressed it in *The Positive Philosophy*: "Ideas govern the world or throw it into chaos: in other words, that all social mechanism rests upon Opinions" (38).

2) that ideas are general in society; i.e. there is no activity or institution in which ideas are not manifest. Thus, whatever one studies, ideas are an aspect of it; and

3) that it is man's capacity to think and communicate ideas linguistically that distinguishes him most centrally from other animals. Moreover, since human social organization has undergone development whilst, except in a rudementary fashion, animal social organization has not, the capacity to think and use language must be central to the social development of man. Language, furthermore, is the chief vehicle of intergenerational transmission. It ensures, according to Aron's interpretation of Comte, "the adoption by the living of the thought of the dead" (39). It was chiefly on these grounds that Comte rejected materialism. Materialism was wrong, he felt, because it failed to concentrate on that which is distinctly and uniquely human.

I shall now summarize, again fairly briefly, the substance of Comte's law of the three stages. As I understand it, this theory holds that human thinking passes necessarily through three main stages: the theological or fictive stage in which men seek absolute knowledge and explain phenomena anthropomorphically by reference to supernatural beings; the metaphysical or abstract stage in which men continue to seek absolute knowledge but explain phenomena by reference to personified abstractions, abstract entities and essences; and the positive or scientific stage in which men abandon the quest for absolute knowledge and seek, instead, through reason and observation to discover the relations of coexistence and succession between phenomena.

These three stages were not conceived by Comte as fixed and static but as themselves processual in character. Thus, theological thinking passes necessarily through the substages of fetishism, polytheism and monotheism, and each of the two remaining main stages involves a similar development from the

particular to the general, i.e. from low to higher levels of conceptual generalization. At the same time, according to Comte, the metaphysical stage involves a gradual depersonalization of thought, i.e. a transition from personification of abstractions to abstract essentialism *tout court*. The processual character of the three stages is best expressed in Comte's own words:

> "The Theological system arrived at the highest perfection of which it is capable when it substituted the providential action of a single Being for the varied operations of the numerous divinities which had been before imagined. In the same way, in the last stage of the Metaphysical system, men substitute one great entity (Nature) as the cause of all phenomena, instead of the multitude of entities at first supposed. In the same way, again, the ultimate perfection of the Positive system would be (if such perfection could be hoped for) to represent all phenomena as particular aspects of a single general fact - such as Gravitation, for instance" (40).

That these are stages in a process of development, said Comte, can be seen from the fact that each subsequent stage bears traces of its descent. Thus, monotheism bears traces of its polytheistic antecedents, firstly through the notion of a chief god below whom there are subsidiary gods, and then through the notion of a god served by angels. Metaphysical thought bears traces of its descent from anthropomorphic, theological thinking through the personification of abstractions, and positive thought shows traces of its descent from metaphysics, for example, in Newton's inability to conceive the possibility of the law of gravitation without a "subtle ether" in space through which gravitational attraction could be communicated.

Each of the main areas of knowledge is held to have passed successively through the three stages, entering the positive stage in an order dependent on the degree of complexity and specificity of the phenomena they deal with, and in inverse ratio to the degree of men's involvement in their subject matter. Thus, mathematics was the first positive science because it deals with the simplest, most general aspects of phenomena, those which touch men least directly. Sociology was the last because it deals with the most complex phenomena, because these display their own, highly specific regularities which are not reducible to the "laws" of "lower" sciences, and becuase it deals directly with men. The order in which the intervening sciences entered the positive stage was: astronomy, physics, chemistry and biology.

As I have presented it so far, Comte's theory appears to be a fairly simple and straightforward description. However, on closer inspection it reveals itself as descriptively more subtle and complex. It also contains an explanation which purports to show why the three stages form a necessary and invariant sequence. It holds, for example, that social development is not a simple, linear process but involves oscillations. More importantly, the theory is based on a concept of *overlapping stages* which means that, at any given point in time,

particular individuals, the practitioners of particular sciences and the members of particular groups, institutions or societies can think about some phenomena theologically, some metaphysically and some scientifically. More importantly still, this concept of overlapping stages means that there is interaction between the different stages of thinking. This is held to occur not only between prior and subsequent stages but in the reverse order as well, i.e. between subsequent and prior ones. Thus metaphysical thinking is held by Comte to have played a part, not only in the transition from theology to science, but in that from polytheism to monotheism.

Reduced to its simplest form, Comte's explanation of this process runs as follows. Anthropomorphic thinking, he argues, is necessarily the first, the spontaneous form of human thinking. That is because the primitive tendency, or "instinct", of men is to assimilate all agencies perceived in nature to the only one of which they are directly conscious, their own voluntary activity. John Stuart Mill expressed this well when he wrote:

> "Every object which seems to originate power, that is, to act without being first visibly acted upon, to communicate motion without having first received it (primitive men) invest, or are disposed to invest, with life, consciousness, will" (41).

According to Comte, without such anthropomorphic thinking or, more precisely, without the "theological philosophy" in its various forms, the earliest men would have been caught in a trap because men cannot observe facts without theories but, at the same time, need facts in order to form theories. As he expressed it:

> "Thus, between the necessity of observing facts in order to form a theory, and having a theory in order to observe facts, the human mind would have been entangled in a vicious circle, but for the natural opening afforded by Theological conceptions. This is the fundamental reason for the theological character of the primitive philosophy. This necessity is confirmed by the perfect suitability of the theological philosophy to the earliest researches of the human mind. It is remarkable that the most inaccessible questions - those of the nature of beings, and the origin and purpose of phenomena - should be the first to occur in a primitive state, while those which are really within our reach are regarded as almost unworthy of serious study. The reason is evident enough - that experience alone can teach us the measure of our powers; and if men had not begun by an exaggerated estimate of what they can do, they would never have done all that they are capable of. Our organization requires this. At such a period there could have been no reception of a positive philosophy, whose function is to discover the laws of phenomena, and whose leading characteristic it is to regard as interdicted to human reason those sublime mysteries which theology explains, even to their minutest details, with the most attractive facility. It is just so under a practical view of the nature of the researches with which men first occupied themselves. Such inquiries offered the powerful charm of unlimited empire over the

external world - a world destined wholly for our use, and involved in every way with our existence. The theological philosophy, presenting this view, administered exactly the stimulus necessary to incite the human mind to irksome labour without which it could make no progress" (42).

As one can see, according to Comte the dynamic of intellectual development is immanent, inherent in the process itself. The "law of the three stages" describes, as it were, a "self-propelling process". Reduced to simple terms, it holds that spontaneous, anthropomorphic or theological thinking makes possible factual observations which are incompatible with it and which lead, *via* a series of gradual transitions, to its eventual demise and replacement, firstly by transitional, metaphysical conceptions and, ultimately, by the positive approach which is the end-state, not as far as the accumulation of knowledge is concerned, but with respect to the development of the *forms* of thinking.

I shall rest my account of Comte's theory at this point. This means that I shall not refer to what he said about the secondary aspects of social dynamics (contrary to common belief, his theory is not mono-causal). Nor shall I mention his discussion of the social conditions which facilitate the development of thinking, or of the systemic consequences of that process, i.e. of its effects, transmitted through the interdependence of parts, on the wider social structure at different stages. Not surprisingly, given the complexity of his theory, in particular the concept of overlapping stages and its corollary, that of differential rates of succession through them, what Comte had to say on the last of these issues was often unsatisfactory. In any case, he regarded the establishment of the central law as his own main task; the establishment of its correlates could be left to others or till later.

6. I shall now return to Popper's critique. It is clear from the above discussion that, *pace* Popper, the law of the three stages is, in principle, a *testable* theory. That is, it refers, not to a single, unique sequence of events but to an ongoing transformation in the forms of thinking which has been repeated, and which continues to be repeated, in all branches of knowledge and in all societies. It refers, moreover, to a sequence which is necessary and invariant. Although they are undoubtedly open to revision, improvement and possibly even to partial refutation, Comte's arguments in this respect are persuasive. Thus, it is difficult to think of early men thinking in anything but a predominantly anthropomorphic form. That *was* necessarily the first stage of human thinking. Moreover, all the sciences can be shown to be descended from theological and metaphysical conceptions. That *is* a necessary and invariant order. Moreover, it is not, to my mind, adequately represented by Popper's concept of "trends". The law of the three stages may not be a "universal law" in the sense of referring to a process which is everywhere and eternally recurrent but it does demonstrably

refer to a fundamental tendency in the history of men. It is, therefore, in Comte's sense, a "law of succession".

Furthermore, Comte's theory allows one to make certain kinds of predictions: for example, predictions about the past, i.e. "retrodictive" hypotheses which can serve to unearth new historical material or to place existing material in a new explanatory light; it even allows one to meke predictions about the future where societies, institutions or subjects which are "pre-scientific" are concerned. However, such predictions are about changes in the *forms* of knowledge, not about its *contents*. Comte would probably have agreed with Popper that prediction of the future contents of knowledge cannot be accomplished by positive methods. However, the establishment in the early stages of a discipline of a theory which could lay claim, with some validity, to the ability to make predictions about the forms of thinking was no mean achievement.

I may, in the discussion so far, have given the impression that I am uncritical of Comte. However, that is not the case. What I have tried to establish is that his theory - and, by implication, other scientific theories of development as well - is *testable* in principle. A proper assessment of Comte's theory is dependent on systematic testing and, as yet, as in the case of Marx and with the obvious exceptions of Durkheim and Lévy-Bruhl, that has hardly begun. Nevertheless, it is possible to make one or two preliminary critical observations.

For example, I would not agree with Comte that social developments are irreversible. They are based on learning and that means that, at least in the short term, any such process can be reversed. Of course, if reversed, a process such as that of intellectual development would presumably begin again and follow in the long term a course pretty much the same as that outlined by Comte. It could only be finally destroyed by the destruction of mankind. However, on reflection, this quibble with Comte really amounts to nothing more than taking his concept of the oscillatory character of social development more seriously than he did himself.

Another objection to Comte, more serious than the charge of "historicism" laid at his door by Popper, would look critically at his failure to integrate adequately the materialist and idealist elements on which his theory is based. Thus, we are told, on the one hand, that capital accumulation forms a necessary condition for both the development of division of labour and intellectual development, and on the other, that the "social mechanism" rests, "in the last resort, on opinion" and that "ideas govern and revolutionize the world". In short, Comte suggests that social development has simultaneously a material and an ideal base but the relationships between them are not spelled out. They are not adequately "theorized", i.e. related to one another systematically at the theoretical level, but, on the contrary, simply juxtaposed in an *ad hoc* manner.

I shall conclude by offering just two further remarks. I have not tried in this paper to offer a comprehensive or exhaustive critique of *The Poverty of Historicism*, far less of the whole range of Popper's work. What I have attempted to do is to lay the foundations for such a critique by focussing on what, from a developmental standpoint, are one or two of its principal inadequacies. More specifically, I have tried to show that Comte's theory of social development - and *ipso facto*, all similar theories - is testable in principle, i.e. that it refers to a long-term process with general and recurrent aspects. That is, the "law of the three stages" does not refer to a single, once-and-for-all sequence but to an ongoing social process which has been repeated many times. It is important, however, to note that such a defence of developmental sociology is only relevant to a theorist like Popper who agrees that development takes place but who disputes that it can be studied scientifically. It is not relevant to a theorist like Lévi-Strauss who denies the reality of development *tout court*.

At least another paper would be required for a critical appraisal of that position. It must be enough in this context to conclude by saying that, if one looks at them from a sufficiently high level of abstraction, all human societies can look alike. But it is a form of naive egalitarianism to deny the developmental differences which, at a lower but sociologically more meaningful level, exist among them. In short, the possibility of a scientific approach to problems of social development is dependent on the achievement of a level of conceptual abstraction which is neither too low - as in the case of Popper - nor too high - as in the case of Lévi-Strauss. It is my contention that such a level has been approximated in the theories constructed by nineteenth centruy developmental theorists such as Comte and Marx and by more recent advocates of a developmental approach such as Norbert Elias.

NOTES

1. See, especially, his *Was Is' oziol gie?*, Munich, 1970; and *Über den Prozess der Zivilisation*, B ne and Munich, 1969 (2nd edn.).
2. Norbert Nisbet, (ed.), *Social Change*, Oxford, 1972, p. 5.
3. *ibid.*, p. 1.
4. Talcott Parsons, *The Social System*, Glencoe and London, 1964, p. 480.
5. *ibid.*, p. 483.
6. Talcott Parsons, "A Functional Theory of Change", in A. & E. Etzioni (eds.), *Social Change*, New York and London, 1964, p. 83.
7. K.R. Popper, *The Poverty of Historicism*, London 1957. Issued, with some corrections, as a paperback in 1961. All references in this essay are to the paperback edition.
8. See, John H. Goldthorpe "Theories of Industrial Society: Reflections on the Recrudes cence of Historicism and the Future of Futurology", *Archives Européennes de Sociologie*, Vol. XII, 1971, No. 1, pp. 263-288. For a more critical approach which seems, nevertheless, to accept many of Popper's structures, see, Percy S. Cohen, *Modern Social Theory*,

London, 1968, pp. 211-214.
9. Popper, *op. cit.*, p. 3.
10. Quoted by Alvin W. Gouldner in his Introduction to, Emile Durkheim, *Socialism*, New York, 1958, p. 8.
11. See, e.g. Eric Dunning, "The Concept of Development: Two Illustrative Case Studies", in P.I. Rose (ed.), *The Study of Society*, New York, 1967.
12. See, esp., the discussion in the Introduction to the 1969 edition of *Über den Prozess der Zivilisation*. See also *Was Ist Soziologie?*, p. 119 ff.
13. See, e.g., his *The Evolution of Culture*, New York, 1959.
14. See, e.g., his *Social Evolution*, New York and London, 1951.
15. See his, "The Sciences: Towards a Theory", in Richard Whitley, (ed.), *Social Processes in Science*, London, 1974, pp. 21-42.
16. Popper, *op. cit.*, p. v.
17. *ibid.*, pp. v and vi.
18. *ibid.*, pp. vi and vii.
19 *ibid.*, p. 107.
20. *ibid.*, pp. 108-109.
21. See, e.g., the discussion in John Gribbin, *White Holes: The Beginning and End of Space*, London, 1977.
22. Popper, *op. cit.*, p. 109.
23. *ibid.*, p. 110.
24. Marshall D. Sahlins, Elman R. Service *et al.*, *Evolution and Culture*, Ann Arbor, Michigan, 1960.
25. See, e.g., the discussion in Gribbin, *op. cit.*
26. See Elias, "The Sciences: Towards a Theory".
27. Auguste Comte, *System of Positive Polity*, London, 1875, Vol. I, pp. 44-45; reprinted in George Simpson, *Auguste Comte: Sire of Sociology*, New York, 1969, p. 49.
28. A.R. Radcliffe-Brown, *Structure and Function in Primitive Society*, Glencoe, 1952, pp. 5 and 6.
29. Auguste Comte, *Positive Philosophy*, (translated and condensed by Harriet Martineau), London, 1858; quoted in Simpson, *op. cit.*, pp. 44-45.
30. Simpson, *op. cit.*, p. 108.
31. *ibid.*, p. 110.
32. *loc. cit.*
33. *ibid.*, p. 111.
34. *ibid.*, p. 112.
35. *loc. cit.*
36. *loc. cit.*
37. *ibid.*, p. 113.
38. Quoted by E.E. Evans-Pritchard, in *The Sociology of Comte: An Appreciation*, Manchester, 1970, p. 14.
39. Raymond Aron, *Main Currents in Sociological Thought*, Vol. I, London, 1965, p. 91.
40. Simpson, *op. cit.*, p. 44.
41. J.S. Mill, *Auguste Comte and Positivism*, Ann Arbor, Michigan, 1961, p. 18.
42. Simpson, *op. cit.*, p. 45.