

POSITIVISM AND DIALECTICS: A COMPARISON

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To appear as chapter 8 in Methodology and Ideology,
Copenhagen: Christian Ejlers, 1976

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1. Introduction

The title of this chapter is pretentious and the reader will soon discover that there is neither philosophical depth nor any real effort to immerse oneself into the richness of the contemporary Positivismusstreit. This is entirely deliberate for the purpose is different: to explore some aspects of positivism and dialectics from the point of view of methodological tools. Tools not only serve to define what one can do with some objects, but also to define these objects. And that leads straight to the two domains of the present inquiry: methodology and ideology, what are the ground-rules of the scientific enterprise, and what is the nature of the reality to which these ground-rules apply? Put somewhat differently: what are the basic tools, defined through the rules of using them, and what are the basic properties of the objects to which these tools can be applied?

Formulated this way there is a certain asymmetry between positivism and dialectics: positivism seems to be more explicit on the use of the tools, dialectics more on the nature of the objects, the reality to which tools are to be applied. The mutual stereotypes point in that direction, portraying positivism as the basic frame of mind of the shallow tool-maker and tool-user, the technician who may even become a technocrat, and portraying the other side as verbose, possibly subtle, but incapable of even defining clearly (for others) what dialectics is all about. In short, on the one hand operations without much understanding, on the other understanding that has not been made very operational.

Taking this as the very simplest approximation to the problem to be explored in this chapter, it becomes clear that there might be some basis for a synthesis, at least for a mariage de convenience, between something strong on methodology and weak (both in the sense of being implicit and in the sense of being misleading) on ideology and something strong on ideology (both explicit and well-directed) but weak on methodology. But this formulation overlooks the important and obvious relation there is between methodology and ideology in the sense these terms are used here. In the case of positivism there is an underlying ideology, a

world-view, that can be partly inferred from the tools used by positivists to come to grips with reality; and in dialectics there would be constraints on the choice of tools since they would have to be compatible with the ideology. Hence the problem to be explored is certainly not whether positivist methodology can be combined with dialectics as basic cosmology, but how either of them can be understood, possibly in some cases redefined or developed to make for a better fit.⁽¹⁾

In this type of debate one problem is the tendency to reason antithetically, in terms of clear dichotomies. Instead of trying to infer the positivist view of reality from its tools, it is defined as the negation of more explicit dialectical views, and instead of trying to build tools of dialectical analysis on basic tenets of dialectics they are as the negation of positivist methodology. In this there are at least three problems: the more "organic" process of building inside positivism/dialectics is truncated; the "negation" may turn out only to be a declaration of distance, not a positive affirmation; and the negation approach may not lead to the same result as the inference approach. In the latter there is a source of fruitful tension that will be utilized to some extent in the following.

To summarize, what we want to do is to explore the cells and relations in Table 8.1.

Table 1. An exploration of positivism and dialectics, through inference (→) and negation (---→).

	Positivism		Dialectics
Methodology	(1) Explicit	---→	Implicit (2)
Ideology	(4) Implicit	←---	Explicit (3)

This will be done by means of the images of positivism and dialectics given in the next section, taken to be images important at the level of philosophical analysis at which social scientists, and perhaps also other non-specialist intellectuals, are located where philosophical depth is concerned. And the goal of the exercise is clear: not only to compare the two approaches to

social reality, but to explore the problem of whether and how positivist methodology can be adapted to fit better a dialectical view of reality.

2. Positivism and dialectics: two images

We start with the upper left hand corner of table 1, positivist methodology, and build on two of the corner stones of this book: proposition-production and theory-formation. Propositions in the general sense of "sentences" as defined in 2.5 is probably an unavoidable part in any effort to come to verbal grips with reality, and as soon as the set of propositions has emerged, some kind of theory has already been formed, however minimal where degree of inference is concerned. The question is to what extent positivism can be said to take particular stands on proposition-production and theory-formation, and one formulation would be as follows:

As to proposition-production: the goal is to produce invariances, verbal formulas that reflect aspects of empirical reality that are invariant of time, space, subject and object.

As to theory-formation: the goal is to arrive at theory systems whereby the broadest possible basis of propositions can be arrived at from the narrowest possible apex.

If the goal of science in the positivist image is to discover/uncover truth, then the former points to truth in the sense of correspondence (with empirical reality), the latter to truth in the sense of consistency, valid deduction within the theory. But these are also very general terms. What is typical of positivism as here portrayed would be the idea of invariance operating at two levels: at the level of reality, and at the level of images of reality created by proposition production and theory formation. Thus, the assumption is that empirical reality is in and by itself constituted in such a way that there are invariances, and there is the additional assumption that it is possible to discover/uncover these invariances, at least asymptotically, so as to arrive at propositions and theories that ultimately would themselves be invariant, simply because they

reflect perfectly invariant aspects of empirical reality. As pointed out in chapter 2: this means that empirical reality has been captured in a grid featuring those aspects that do not change over time, do not change with position in space, are intersubjectively communicable and reproducible (do not depend on the scientific subject), and do not depend on the individuality of the object of inquiry (through abstraction), or its consciousness.

As far as one can understand there is no doctrine in positivism to the effect that reality does not have other aspects; the doctrine would be (1) that there are aspects that by and large satisfy the criteria just laid down, and (2) that these are the aspects that are the objects of scientific inquiry.

Let us now move one step deeper and try to point to an even more fundamental tenet of positivism: the idea that the "idea of invariance" is itself invariant, of variations in time, space, subject and object. More particularly, there is the famous low level of self-understanding in positivism which we take to mean precisely an understanding of how methodology (in the broadest possible sense of this term) would be conditioned of variations in time, space, subject and object - such as historical changes, geographical positions, and variations in who are the subjects pronouncing themselves on which objects. The questions a social scientist would be most interested in in this connection would be socially relevant variations in time and space, the social position of the researcher, and the circumstance that the object itself is other human beings in a social setting. In other words, one would put down as a characteristic of positivism the belief that it is possible to arrive at the same understanding of social affairs (meaning the same propositions and the same theories) regardless of social context and the researcher's position in this context.

Given these three basic assumptions, positivism can move ahead, producing an astounding variety of canons of research, meaning rules for proposition-production and theory-formation. It is highly explicit, communicable and reproducible. It also yields seemingly valid results, meaning propositions and theories that satisfy the criteria of invariance provided the variation in time, space, subject and object is sufficiently limited. The condition is

that social science is focussed on very limited time-spans, even so limited that they have no historicity; that research centers on a handful of similar countries and those aspects in other countries that are believed to be sufficiently similar to the reference countries; that the subjects of research are all trained in the same way so that intersubjectivity in reality takes place within one relatively homogeneous, collective mind, and finally that the objects, the social matters studied, are transformed in advance in such a way as to look "comparable". A thought form of that kind, applied to social affairs, has obvious imperialistic aspects, as pointed out in chapter 2, and is also highly compatible with the social history and geography of the major Center country, the United States with her relatively high level of ahistoricity, social uniformity and intellectual homogeneity.⁽²⁾ Given this it should follow that current changes in the world power structure would be accompanied by changes in fundamental thought forms as to how to conceive of social reality.⁽³⁾

It may be misleading to refer to alternative thought forms as "dialectics" - so this term should rather be taken as standing for a family of approaches different from positivism as here portrayed, not necessarily as a doctrine that can be identified with any specific author. The question then becomes: what would be the basic tenets of belief on which dialectics could be said to be based, as opposed to the three ideas presented above for positivism (that the epistemology is invariant of time, space, subject and object; that it is meaningful to search for invariances in empirical reality, and that it is meaningful to search for unified, general theory). The answer might be: as a first approximation simply the negations of the three assumptions made. Thus, dialectics would claim that methodology (or epistemology to use a broader term) would be a function of the social context in which it emerges; that it is meaningless (or at least not very meaningful) to identify proposition-production with invariance-seeking, and that it is equally meaningless (or not very meaningful) to identify theory-formation with the construction of large, unified thought systems. But these views are precisely negations in the sense indicated in section 1 above, they do not have sufficient organic connection with more explicit dialectical assumptions.

And those assumptions should now be spelt out. We identify them with what is often referred to as "the three laws of dialectics", and add one extra principle, a "fourth law": the ideas of interdependence and holism, and the possibility that the holism can be identified precisely with the interdependencies (relations) between the parts (elements).

The following formulations of the three basic dialectical principles will be used in the following:

Everything has built-in and dynamic contradictions (thesis and anti-thesis) that are transcended (synthesis).

Processes take place through a transition from accumulation of quantity to a discontinuous jump into a new quality.

Negation of the negation - a synthesis is in itself contradictory and will be negated, a quality starts a new quantitative accumulation leading to a new quality, and so forth.

(The key terms usually quoted are emphasized.)

Together they give an image of reality as something contradictory and highly fluid, of processes that are discontinuous, and as something never coming to any final rest. The important third principle says the contrary, every negation is itself to be negated; transcendence and processes in general will continue for ever. One might also combine the first and the second principles into a deeper understanding of how transcendence takes place: on the one hand there is contradiction, on the other hand there is accumulation (of the contradictions) leading to a point where the systems burst, and something new (a new "quality") emerges.⁽⁴⁾ All of this should then be seen in the light of the holistic principle that everything is interdependent, there are linkages in empirical reality in all directions meaning that the dramatic phenomena referred to as transcendence, discontinuous jumps and negation of the negation would have reverberations in all directions.

At this point it might be useful to proceed directly to the fourth cell of Table 8.1, trying to say something about the implicit positivist world view, partly as inferred from the methodological assumptions, partly as arrived at by negating the dialectical principles mentioned. What kind of basic image of the world does one arrive at?

If we proceed in the two ways indicated in Table 1, both inferring from methodological assumptions and negating the dialectical assumptions one would arrive at a world view totally different from what was just described. First of all, the elements, the particles so to speak of that world might differ, and they might be heterogeneous, but they would be basic elements with a non-contradictory nature, so to speak at rest with themselves. This does not imply a static world view, the world is not immutable, but its mutability takes place according to immutable laws. This means that there is a knowable empirical reality, knowable in the sense that it can be cast in invariant forms. The negation of empirical reality is only unreality, there is no potential reality in-between that can be brought into being by transcending empirical reality. The strictest version of this would be that future empirical reality is identical with past (including present) empirical reality; the weaker version would be that future empirical reality will also include that which can be extrapolated from past and present empirical reality by means of immutable laws (invariances). What is excluded from this position would be the idea that the invariances can themselves be transcended. One example here would be the marxist position: it is anti-positivist insofar as it says that the laws of (say) capitalist society will be transcended together with the transcendence of capitalist society itself, but it is positivist in stating that this transcendence is inevitable. Marxism does not include the possibility of the transcendence of the transcendence, and in that sense still imposes some rigidities on a world which otherwise is seen as very fluid.⁽⁵⁾

Second, the typical process as conceived of within the positivist framework would not be discontinuous, "jumpy": it would proceed in a more continuous, regulated fashion. And third: there will be no idea of an infinite series of negations of negations - rather, somewhere in the total world view the notion of a final resting place, a final state both for empirical reality and for our image of empirical reality will have a position.

What about holism? The positivist world view would not deny interdependence, but would probably seem to feel that the degree of dependency is highly unevenly distributed. More particularly, the assumption would be that it is possible to isolate

some units and some variables, often two at the time, because of a steep decrease in interdependency relative to the outside. A dialectical view would probably distribute the degree of interdependence somewhat more evenly in social (and also physical?) space, leading to rejections of bivariate analyses.

The positivist world view is considerably less dramatic and correctly referred to as more "mechanistic". The world consists of parts that are relatively unchangeable and that mostly change according to unchangeable laws; relatively uninterrelated, processes are continuous, and the total system is at or relatively near its final (sometimes even seen as "perfect") state. The dialectical view is dramatic, fluid; changing partly in known, partly in unknown directions; discontinuous, unruly, interdependent, reverberating, ever restless. Which view is the correct one?

A question like this, sometimes rejected, is probably highly meaningful precisely because it brings out the importance of the position of he or she who tries to answer. One tentative answer might be as follows: even a brief glimpse of social history and social geography should inform one that the positivist image as here portrayed cannot possibly be a correct or even fruitful way of viewing the world. There are simply too many deep discontinuities in time and space, too much interdependence, too much transcendence for that to be the case - and it is very difficult to believe that the system is heading towards a final resting place (different from its own annihilation). On the other hand, an equally brief glimpse at time and space should convince one that the dialectical view represents an overdramatization: if all this took place within short time-spans, it would, for instance, be hard to believe that human beings could continue to exist. There seems also to be a minimum of stability, unchangeability and predictability, continuity, systems at rest at least during some periods, and possibility of isolating some parts from the whole in which they are embedded.⁽⁶⁾ In short, our conclusion would be that both views are correct, that they both say something terribly important about world reality, and for that reason the question should be answered in terms of a both-and rather than an either-or. Both in time and in space positivist and dialectical world views could coexist, each of them focussing on aspects

of reality that seem to complement rather than to exclude each other.

This, of course, is an ideology like any clear position in favor of positivist or dialectical world views would be ideological. From this, then, methodological implications should follow: they would have to take the form of being either a compromise, an eclectic mixture, a synthesis, or some more advanced form of transcendence between positivist and dialectical methodologies. And that will be the subject of the next section; we shall only summarize the present section by contrasting what has been posited as basic aspects of positivist and dialectical methodology and ideology, in Table 8.3.

Table 3. Positivist and dialectical methodology and ideology: some basic aspects

	Positivism	Dialectics
Methodology	<p>(1) <i>Basic assumption:</i> Epistemology invariant of time, space, subject, object</p> <p>(2) <i>Proposition production:</i> the search for invariances in empirical reality</p> <p>(3) <i>Theory-formation:</i> the search for unified, general theory</p>	<p>(1) <i>Basic assumption:</i> Epistemology a function of social context</p> <p>(2) <i>Transcendence,</i> not invariance-seeking</p> <p>(3) <i>Reality-construction</i> through praxis, not theory-formation</p>
Ideology	<p>(4) <i>Non-transcendence:</i> reality immutable or mutable according to immutable laws</p> <p>(5) <i>Continuous processes:</i> quantitative changes</p> <p>(6) There is a final state</p> <p>(7) Isolation, weak interdependencies</p>	<p>(4) <i>Transcendence:</i> thesis-antithesis, contradictions into syntheses</p> <p>(5) <i>Discontinuous processes:</i> transition from quantity to quality</p> <p>(6) <i>No final state,</i> each negation will in turn be negated</p> <p>(7) <i>Interdependence and holism</i></p>

3. Positivism and dialectics: the problem of methodological bridge-building

A quick look at the points in Table 2 will tell the reader of this book (who has not already understood the not-so-hidden plan) what is coming in this chapter: the points correspond to the chapters in the book. In other words, the seven first chapters are nothing but a preparation for what is now coming: an effort to make use of what has been done to try to explore some of the many issues along the positivism-dialectics axes. By and large the position taken will be the following: many, most, perhaps all of the stands presented in the preceding chapters have grown out of a positivist tradition, not only in the autobiographical sense relating to the author, but in the much more important sense that it looks as if some kind of continuum can be found between the extreme positivist and the extreme dialectical positions. In fact, both extreme positions are probably uninteresting because they so obviously do not reflect social reality.

To start with the first point: chapter 1 is an effort to present some kind of self-understanding. The methodologies of proposition-production and theory-construction are both related to social structure, at the macro and micro levels. It is pointed out that all three, macro structure, micro structure and the structure of the scientific product belong to the same family, that in the pure cases they are all expressions of the same underlying structure, be that Model I, II, III, or IV. At the same time there is the possibility of asynchrony, of some structure being out of tune with the others, possibly creating changes in the others. However, the general perspective would be to relate all three to some common phenomenon that for lack of any better term one might be tempted to refer to as Zeitgeist, the common denominator running through them all - highly unsatisfactory as an explanatory basis from a positivist or dialectical materialist standpoint; more satisfactory from the point of view of dialectical idealism a la Hegel.⁽⁷⁾

Leaving that issue aside let us open for another issue: what is the self-understanding underlying the typology in chapter 1? Where is the person, in this case the present author, located who operates with that kind of analysis? There seem to be two

extreme answers to that type of question: the person has found an objective platform from which social formations can be viewed; the person is operating inside the society that has produced him, Model II, liberal society. Both answers are obviously incorrect. There is no criterion available for ascertaining the degree of "objectivity" in viewing social formations; all it seems to be possible to talk about is the degree of fruitfulness. To what extent does a typology serve to highlight important features in the structure of scientific production and development? And as to the second answer: Model II society may not be the worst basis for catching glimpses of Model I and Model III societies, and for speculating on Model IV society. It is in the nature of Model II society to be eclectic and precisely because of that diversity one may be better equipped to understand aspects of the other social formations than one would be had one of the others served as a platform. The ethos of collectivism demands a loyalty to one's own formation incompatible with an effort to see one's own social order as one among many, even as one to be superceded - and the ethos of uniformity makes it more difficult to get hold of model-alien elements. If this type of view is most easily attainable in a liberal society, then it is also to a large extent a product of liberal society.

But so what? That social order is important today because of its world-wide diffusion (in democratic and authoritarian forms), and because many of the Model II societies of today are among the world's most powerful. To view the world tainted by Model II perspectives is not necessarily to view the world wrongly. Karl Marx was overwhelmed by the impressions he got from capitalist society when he wrote his works, that does not mean that he could not make use of those impressions and other sources to catch important glimpses of slave societies, feudal societies and socialist societies. He did not know that, but recent history seems to indicate that it is more easy to be a marxist in capitalist society than to be a marxist in socialist society; underlining what was just said about the importance of liberal society as a platform for viewing social formations.⁽⁸⁾

No doubt the perspectives of chapter 1 go further towards the dialectical than the positivist position; they rule out the idea of a space- and timeless methodology and epistemology. But that opens for a new problem: imagine that the hypothesis of a close relation between social structure on the one hand and methodology/

epistemology on the other is well confirmed, in space and in time. Would that not mean that a new invariance has been brought into the world? Yes, and that leads us immediately to the problems discussed in chapters 2 and 3. The general position taken in chapter 2 is a critique of the whole idea of "invariance", opening for the idea of transcendence, transitions whereby a potential reality is made empirical. A broader view of science is called for, bringing value-sentences in on par with data-sentences and theory-sentences, defining the goal of scientific activity as that of obtaining correspondence/agreement between the three. In order to do this, verbal activity reflecting reality is insufficient - research becomes "action research".

Chapter 3 goes further in indicating one way in which this can be done: breaking up invariances by changing the values of "third variables". Both of these views are clearly more towards the dialectical end of the spectrum: transcendence is one of the stronger points in the dialectical tradition, and in the indications given for transcendence in chapter 3 the reader will recognize the thesis/antithesis/synthesis scheme. In chapter 3 "thesis" is taken literally exactly as a thesis, a proposition stipulating an invariant relationship. The "antithesis" is another thesis stipulating a relationship where the preferred but unobserved and unforeseen corner has become observed (and foreseen), and the "synthesis" is a more complex thesis having thesis and antithesis as special cases, depending on the values of third variables. But this is not seen merely as verbal activity: thesis, antithesis and synthesis correspond to patterns of action, with thesis being the empirical, institutionalized, structured pattern; antithesis being the desired one, and synthesis being a concrete program of action, indicating which third variables to change how.

But in what sense, then, can we say that this is bridge-building when the positions taken are so much closer to the dialectical end of the spectrum? Simply because the tools and the material made use of are largely taken from the positivist side. We have tried to show how the form of a proposition can be retained as long as the principle for dividing world spaces are expanded, including the dichotomy preferred/rejected. We have also tried to show that the general idea of arriving at consonance (or correspondence or agreement as it is referred to above)

can be retained also when values are brought explicitly into the process. And we have tried to indicate that increasing the complexity of propositions by increasing the number of variables is not merely a tool that can be used to obtain a higher level of specificity and a better correspondence with empirical reality; it is an excellent tool for social praxis. Both transcendence and invariance-breaking - two terms referring to the same matter - are alien to the positivist tradition, but the ways of conceiving of them in chapters 2 and 3 are not.

And then one could also look for continuities in positions taken. Obviously, there are degrees of transcendence. In 3.3 three methods of invariance-breaking have been presented: the "third" variable is already part of the invariance, the invariance is empirically imperfect so that "deviant cases" can give a hint about potential realities; the invariance is empirically perfect so that the only guide is theory, inspired by imagination and intuition, and finally the possibility of new paradigms. Among these four the first one is already within the acceptable positivist orbit since this is the way "synthetic" compounds are brought into empirical reality through the guides for action given by organic chemistry. To argue against a positivism that would deny this possibility is to beat a dead horse. And the same actually applies to the second case: all it says is essentially that the proposition-production has been relatively sloppy, failing to take into account "deviant cases", thereby bringing the proposition into a more complex form. Only the third and fourth possibilities represent types of scientific activity that can be said to break new paths, and even they look modest once they have been implemented and new realities have been brought into being and accounted for. As a conclusion: the only point made here would be in favor of pushing much more scientific activity in the direction of the third and fourth possibility, certainly not of neglecting the first and the second approaches.

Let us then return for a moment to the problem of self-understanding: can a possible invariance between social structure, scientific structure and science product itself be transcended, be broken? Of course it can, and one obvious third variable would be the degree of integration into the surrounding social context. It was probably through this kind of isolation that Model I science structure managed to survive inside liberal

Model II society, being the focus of student revolt attack. In general, the higher the level of integration, the more valid the proposition. But this also means that Model III science can survive for some time in Model III society, provided the level of isolation is sufficient. And this throws some perspective over the cultural revolution in China. Just as the student revolt in Western Europe at the end of the sixties could be seen as an effort to synchronize the academic structure with Model II society, the cultural revolution in China at the same time was an effort to do the same, with an academic structure that probably was a mixture (like in Western Europe) of Model I and Model II elements - but this time to align it with a Model III society. In Western Europe there were also efforts in that direction, but they failed since there was no surrounding Model III society to align it with.⁽¹¹⁾

But imagine for a moment that nothing of this had taken place, nothing had succeeded at all, that the academic communities all over the world had remained in isolation relative to their societies, not unlike monastic orders, and at the same time in good contact with each other. In that case the idea of a universal methodology/epistemology would be much more tenable. And that is the kind of thing we want to draw the attention to: methodology/epistemology as a function of social structure and variations in variables used in socio-political analyses. Much courage would be needed to deny the significance of such factors.⁽¹²⁾

Let us then proceed to chapter 4 in the book, obviously dealing with the transition from quantity to quality. A glance at the chapter will tell the reader that the tools are taken from positivist methodology, but the conclusions are not necessarily positivist. One basic conclusion is in favor of diachronic research (few units, one or two variables, as many time-points over as long a period of time as possible); another conclusion would be in favor of casting social analysis in such forms that jumps in variables are seen as normal, easily accounted for. Much of this will be explored in the final chapter, suffice it here only to say that the basic tool is a comparison between the rates of change of two (or more) variables. In economic analyses this is very often done (elasticities), but it has not penetrated to general social science, nor is it given the implications attributed to this type of analysis in economics. The basic distinc-

tion is between the simplest case, a constant ratio between the two rates of change, and the most dramatic extreme where one variable remains constant for a long period of time and then undergoes a discontinuous jump. The latter corresponds to the transition from quantity to quality (there is an accumulation in the value of X, some kind of saturation of the system, until an explosive burst takes place in the value of Y), but the former would only correspond to an extremely narrow positivist stand where only rectilinear processes are considered "real". If a line should be drawn between positivism and dialectics along this axis, the idea would not be to deny that positivism takes care of curvilinear relationships over time, only that it is weak on discontinuities (it is also somewhat weak when it comes to bringing time, at least longer timespans, into social analysis). What is done in the chapter is merely to point out that if one accepts processes where the trajectory remains parallel to one of the axes for a long time and then suddenly makes a steep turn and proceeds parallel to the other axis, then one should also accept a jump instead of a continuous, steep curve. Actually, actions can be seen as such discontinuities between inactivity and activity, possibly triggered off by the accumulation along a continuous variable (hunger, frustration, curiosity, ideas accumulating and leading to bursts of verbal action). However, social analysis is often formulated in terms of variables that are continuous although they may change very quickly. But data seem to indicate that even for such variables the rectilinear trajectory would constitute a highly exceptional case.⁽¹³⁾

Then, chapter 5 on functionalism: what would this have to do with the "negation of the negation"? This is indicated in 5.6 and 5.7, in two forms of analysis, but first it should be pointed out that the chapter is not directed against conservative functionalism - that is an old issue as has repeatedly been pointed out - but against liberal functionalism.⁽¹⁴⁾ What is said in 5.6 is that the functional scheme of analysis makes it possible to distinguish between zero order, first order and second order contradictions. In the first case there is no contradiction and one gets the (rare) case that conservative functionalism tried to make into a universal principle. In the second case, first order contradiction, one may talk about an increasing scale of contradiction, from the isolated or manageable patterns handled well

by the methods discussed in liberal functionalism (absorption and evolution), to the "crisis pattern" that can only be resolved through revolutionary change. Conceptually this pattern can be formulated using the same material as the others, being conceptually continuous with them. In social practice, however, revolution is certainly different from evolution and absorption; what the analysis purports to indicate would be some of the conditions for revolutionary change to take place.

And then there is the second order contradiction based on the theory of imbalanced cycles. Because they are "second order" they are less immediate, and their consequences may be more in terms of piecemeal engineering.

So far we have indicated that radical functionalism is a scheme within which contradictions or incompatibilities can be formulated, not only one but many, and their pattern and mutual reinforcement be studied; leading to conclusions not only in terms of negations of given structures and/or functions, but negations of the entire social order.⁽¹⁵⁾ But what about the negation of the negation? If man is a contradiction-transcending animal, will he then not eventually arrive at a stage where contradictions have been eliminated? Broadly speaking, according to Western social thinking yes; according to dialectical thinking no - that is what the principle that the negation will itself be negated is about. And in 5.7 one way in which negations can be negated is indicated: through perception. It is pointed out that even in a very well functioning social formation where everything is compatible with everything and contributes positively to everything there may be a pattern of diminishing subjective returns, simply because perceptions may change over time. The shoe that fits perfectly is not noticed, it is the shoe that pinches, however little, that is perceived and reacted to. In this overattention to the negative rather than to the positive there may be a cultural element, or - indeed - an element conditioned by social position. In a social democratic welfare state everybody may be above the social minimum where all basic material needs are concerned, the distribution of the means for satisfying such needs may be not only socially just but even egalitarian, yet there may be one difference in immaterial needs satisfaction: some people, in fact most, have boring, routine jobs. For those for whom this is the case all the plus's would tend to be neglected and that

one minus will take on overwhelming proportions. In short, we are arguing that there is to each structural-functional matrix an accompanying subjective matrix that gives much more information about what is going to happen in society because it is seen through temperaments that would equip the elements in the matrix with heavy weights, highlighting some, neglecting others.

Let us then turn to chapter 6, obviously the chapter where holism is brought into the picture. The problem is how to make holism meaningful, and the suggestion is very simple: the density of the web of relations between the elements. Structural analysis does this, it equips us at least with some ways of seeing the whole rather than the parts. But there are two clear dangers involved in pushing this point too far.

Thus, if only relations between the actors are emphasized, a highly structure-oriented view will emerge, but the actors will disappear into the background. More particularly, their individuality will get lost because of the focus on the web of interrelations in which they are embedded. Positivist analysis, not because it is positivist but because it has been tied to a liberal social perspective, has been more actor-oriented, sometimes emphasizing the individuality of their actors, sometimes getting the worst of both worlds by grouping them together in categories exploring their differences, blind to their relations expressed in a more structure-oriented perspective, and blind to their individuality.

Then, there is the obvious circumstance that not everything that happens in a society should be understood in holistic terms. Some elements are less tied to the whole than others, the density of the web of interrelations is not uniform. There can be changes in the periphery of a system highly consequential for that periphery, yet neither much conditioned by the system as a whole, nor very consequential to that system. To reject a social view whereby all parts are detachable and replaceable by "equivalents" from a storehouse of equivalents (and functionalism goes very far in this direction whether of the conservative, liberal or radical varieties) does not mean that one has to embrace a social view according to which nothing is detachable without causing profound effects all through the system, nor even understandable except in relation to the totality. Having said this, a continuum between extreme positivist and dialectical positions has

already been indicated, and the density factor mentioned above as well as its distribution is an expression of that continuum.

Finally, there is the chapter on theory formation. (In Table 2 it comes as no. 3, in the book as chapter 7 for reasons of presentation.) What the chapter says is merely this: the better a theory is constructed according to the classical rules, the more will it serve as a thought prison, not as a guide for action. It will serve as a tool of consolidation rather than liberation. The formulas given in chapter 7 was as follows: a more relaxed view of theory formation, more but smaller pyramids, not necessarily pyramids but other topological shapes, theory as growing out of action based on intuition rather than as action guide; and theories in an ever-negating, ever-transcending process.

One interesting point in this connection would be that this open attitude to theory formation is more typical of liberals working in the positivist tradition than of marxists working in a dialectical tradition. It looks as if it is the latter rather than the former who are engaged in a constant search to obtain closed theory systems, and who are most optimistic when it comes to the possibility of obtaining something like that. We have, in 8.2, pointed to another similarity between marxism and positivism (the tendency to regard the transcendence of capitalist society and its transition to a socialist society as an iron law, an invariance incapable of being transcended), and this may be a second instance of "crossing-over" between the two traditions. A possible reason why might be that marxist scholarship is particularly strong in Germany and hence particularly likely to be colored by what elsewhere has been referred to as "teutonic intellectual style". Thus, our argument would be that the culture-bound tendency towards grand theory has taken precedence over a more cool analysis of the relation between theory-formation and the possibility of engaging in liberating social praxis. (16)

That concludes our exploration of the relationship between the positivism/dialectics dilemma and the preceding chapters. What we have tried to indicate can be summarized in one sentence: the distinction is not that sharp, the dichotomy not that absolute; constructing from some of the tools used in positivist methodology a methodology compatible with dialectical insights should not be unattainable - with the efforts in this book as one proposal.

.4. Conclusion

In conclusion, then, let us try to tie the ends together with some reflections on the total image of society implicit in the methodology one would arrive at giving much weight to the approaches highlighted above. Here are some suggestions:

First, a higher level of consciousness about the relation between social structure and scientific activity; the idea being that a higher level of consciousness would make the researcher more aware of the political forces he serves when he engages in a particular form of proposition-production or theory-formation.

Second, much more emphasis on images of preferred social orders, not only the empirical social orders; and on strategies of action, not only on reflections of empirical reality. This requires a much higher level of social imagination and political experience than usually found in the formulas for training social scientists, breaking down division of labor with politicians.

Third, much more emphasis on how to break up an invariance, not only on how to find one on the basis of data. This would require the same type of skills as indicated in the preceding point.

Fourth, much more diachronic research, and particularly with the inclusion of variables that would undergo discontinuous transitions - for instance event-variables, action-variables.

Fifth, consistent efforts to explore relations between structural and functional elements with a view to locating contradictions of the first and second orders, so as to be better able to understand breaking-points of social orders, relative to a given system of values and "facts".

Sixth, more focus on structures, on how elements are related to each other, not only how they differ from each other.

Seventh, less focus on theory-building, more on how imaginative explorations, verbal and non-verbal, may serve invariance-breaking in general and transcendence to social orders with a higher level of value-implementation in particular.

Clearly, the seven preceding chapters point in these directions. That, however, does not constitute a general methodology - an indication of which, based on everything said up till now in this book, will be given in the final chapter.

NOTES

1. Adherents of either tradition, and others, may decide that in order to obtain this, a caricature was made of either. The line of defense would be to say that the present analysis is at the level of the practicing social scientist rather than at the level of the commentator, from either (or any other) philosophical tradition.
2. For an exploration of this theme, see "The United States in Indo-China: The Paradigm for a Generation", Essays, V.8.
3. And one such change has already taken place: the emergence of China as a center in its own right (not necessarily in the conventional sense of "big power", but as the negation of being in the periphery) has led to a richer spectrum of political ideologies, enriching the total spectrum in general and marxism in particular with Mao Tse-tung thought (this term being preferred to the Western expression "maoism").
4. This should actually be seen as a general social law with a high level of intuitive plausibility. Society, or any social system with a minimum level of integration, has a high absorption capacity; an input that goes on and on can be absorbed seemingly without any impact. But then, all of a sudden, the impact comes and then as a burst, as an event. Example: opinion pressure or other types of political pressure on the power establishment of a society. Years, even power generations may pass without any effect - and then it comes. From the point of view of the power-holders this is expressed in terms of "not being ready before, now the time is ripe". As a metaphor this may stand partly for the slow working of cognitive processes (the paradigms could not accommodate the new ideas and restructuring of the paradigms took time) and of the political processes (the organization of pressure groups closer to the top took time, some people had to leave and others to join). And correspondingly for political initiatives from the top: many politicians may start manipulating one social variable under the wrong assumption that social change is usually of the mechanical variety, meaning that they will quickly reap the benefits on some dependent variable. Those benefits may come, but after an agonizingly long period where the system shows its resilience or absorption capacity - and long after the politicians who started it all are long since dead, politically or biologically.
5. Why should not marxism have positivist elements? After all, they both emerged at about the same time, full of faith in Naturgesetzlichkeit, which in marxism took the form of some

kind of economic determinism. Also, this determinism served clear political goals: to indicate to the capitalists that they were doomed as a class and to the proletariat that salvation was bound to come - at least in the longer run, and regardless of "third variables". A social science declaring man to be free with oppression and exploitation of the industrial proletariat being what it was in the middle of the nineteenth century, would tip the balance of history in favor of the dominant groups; what Marx did was to enlist History on the side of the oppressed.

6. It could, of course, be argued that dialectics encompasses this: there is no assumption of continuous discontinuities, which would be meaningless anyhow, There is quiet before the storm, with contradictions maturing, slowly at first, then more rapidly. It may be said, however, that the dialectical perspective specializes in the storms, and positivism in the quiet periods in-between; either of them having relatively little to say about the speciality of the other. One strong argument in favor of the positivist perspective, then, would be that the quiet periods probably are more typical, in the sense covering a larger fraction of the life budgets of human beings, dead and alive. To neglect them is to show disrespect for ordinary human life; to focus only on them is to show disrespect for history. The vulcanologist will tend to develop overdramatic views of nature; to neglect volcanoes (for that reason) would be a major mistake. A good theory would have to encompass both.

7. This does not mean the the "Zeitgeist" has to be interpreted as a geist, or as an idea for that matter. In chapter 4 four models of the social order are given, and the idea is that they are found not only at the macro level, but also at the micro level, and even in the ways theories are constructed. What these three phenomena have in common is their common structure, the isomorphism - and that common structure is the "Zeitgeist". Where it comes from, how it affects things and how it changes is another matter - a key theme in the "Trends in Western Civilization Program".

8. This has one peculiar consequence: that socialist societies in Eastern Europe and in the Soviet Union become remarkable poor in self-understanding. As socialist societies liberal analysis should not apply, and marxist analysis is mostly a (critical) analysis of capitalist societies.

9. We have not used the term "action research", however, in this book not wanting to tie the type of epistemology developed here to that particular term which is also used for highly non-transcending social practice.

10. See the end of 2.5 for reflections on redefinitions of the concept of "objectivity".

11. And the academic structures were too inconsequential to serve as causal nuclei in the total social order. A Model III institute - as the International Peace Research Institute in Oslo was striving towards in the early 1970's, for instance - can very easily be isolated from the rest of society. A Model III way of organizing family life, school, or/and work places would have much more effect without having any firm stand on which of the three would be most consequential.

12. And yet it is very hard to discover any understanding of this in typical texts dealing with philosophy of science, centered as they are on the actors themselves, and in elitist isolation, and on the content of the ideas.

13. A glance at about one thousand BDA diagrams from countries in processes of development over periods of two or three generations indicates that at most a few percent of the trajectories can be said to be rectilinear (World Indicators Program, forthcoming).

14. See Pierre L. van den Berghe, "Dialectic and Functionalism: Toward a Synthesis", in Demerath and Peterson, op.cit., pp.293-306. We agree with his point, that there is room for a synthesis, but feel that neither dialectics, nor functionalism are stated with much clarity in his presentation.

15. There is an important semantical ambiguity here. Liberal functionalism also uses the term "structure" but in the sense of "structural element" since liberal functionalism does not think in terms of the total structure changing. Thus, it may look as if the analysis takes the total structure into account. Radical functionalism would use the term in both senses, focussing on the total structure and the conditions for basic change.

16. The dogmatism of Soviet marxism vs. the relative openness of Chinese ideology is probably related to different cognitive culture - the Russian being more bogomil, the Chinese being more flexible.