

Chapter 1: Prologue

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1. Introduction to Human activity

The Intentions, Content and Background of the Book

1.1 The Intentions of the Book

After having completed a substantial part of this book, I presented it to a relatively sympathetic colleague of mine, who then asked me two questions:

1. What was the actual subject matter of the treatise?
2. More specifically, what was its thesis?

Those were precisely the two questions that I had been most worried I would be asked.

Any reader legitimately can expect that a dissertation is equipped with a subject matter as well as a thesis. Therefore, I shall try to answer my colleague's questions, although somewhat hesitantly. I also will explain why the subject matter and thesis of the present dissertation make it difficult to answer these very questions.

1.1.1 The Subject Matter of the Treatise

In the title, the *target* of the treatise is defined as **Human Activity**, a concept that appears to be simple, but is not simple at all. Human activity will be discussed throughout the book. In the sub-title, the *scope* of the treatise is defined as the **Anthropological Sciences**¹. This scope suggests that perhaps the treatise is more like an encyclopaedia than a normal dissertation, and seems to define the project, from the start, as an expression of sheer megalomania. In fact, only the object fields of the natural sciences are excluded from its scope, and even these sciences themselves are covered in chapters 2 and 6.

However, it should be emphasised that the book is not intended to be an encyclopaedia. Such monumental works of knowledge already exist and they hardly can be significantly improved, at least not by a single author. The inten-

tion, instead, is to present the *interconnection* of the anthropological sciences, an interconnection that is established by their common ground. In this dissertation, the common ground is presumed to be **Human Activity**. From this perspective, the various disciplines of anthropology will be analysed and discussed.

However, this raises another important point in addition to the immense extent of this treatise: all the disciplines of anthropology are treated twice. Firstly, they are examined from a perspective of *object-theory*, that is, their subject matter is analysed as phenomena, objects and essentials of diverse areas of human life. Secondly, the disciplines are treated from a perspective of *metatheory*: the theories in question are analysed and discussed as specific artefacts produced by human beings, in a specific historical and societal context.

Thus, apart from the immodest intention of covering all of the anthropological sciences, the treatise has this second equally difficult objective. This second objective is difficult, however, not because of its extent, but rather because of the epistemological complexity of demonstrating the *necessary relation between the perspectives of object-theory and meta-theory in anthropology*. One might ask which perspective is the main one. In fact, the book can be read from both perspectives.

If it is read from the perspective of object-theory, the pretension is encyclopaedic breadth and the intended coherence. However, the meta-theoretical perspective will have a more auxiliary nature. If, instead, it is read from a meta-theoretical perspective, the pretension is to establish dialectical unity between object and theory field, and the object-theoretical perspective will be more auxiliary.

Although the treatise possibly can be judged as over-ambitious in its meta-theoretical scope, I should emphasise that it is rather modest in its encyclopaedic pretensions of covering scientific disciplines. Thus, it should be stressed that even though the subject matter of the book seems to be encyclopaedic, it is certainly not the aim of the book to be an encyclopaedia. Instead, the intention is to examine the scope of human activity as the central concept of anthropology. With this clarification, in fact, we have embarked upon answering the second question, that is, what is the thesis of the book.

1.1.2 The Thesis of the Treatise

If the first question about the subject matter is embarrassing, the second one concerning the thesis is certainly no less awkward. It is related, in part, to the first problem, as a thesis normally is confined to a rather specific object field. The present question is, however, somewhat easier to answer than the former. In spite of the enormous breadth and complexity of a combined object and meta-theoretical perspective, there is certainly a common viewpoint of this treatise, the perspective of **activity**. In the 1970s, I was an ardent but critical Marxist. However, when I saw the light based on Leontiev's concept of human activity (together with my colleague O. E. Rasmussen), I hastened to use this wonderful concept as a universal key for solving all the problems concerning human life.

Even after two decades, during which time Marxism has been declared dead and buried, and the leading figure of Activity Theory has fallen into a hopefully just temporary abyss of neglect, I am still influenced by this original inspiration.

Although my initial view of the concept of *human activity* as a picklock to the totality of anthropology was somewhat naïve, I still consider it a fruitful and unifying perspective for grasping the often odd and obscure conduct of human beings.

Furthermore, this perspective is also a common denominator of both the object-theoretical and the meta-theoretical analyses included in this book. Even the meta-theoretical perspective is based on the idea that any kind of human quest for knowledge is an aspect of human activity in its totality. This is the *principle of reality* for acknowledging something to be in existence (see chapter 6), and also the *principle of practice* as a criterion for truth, as discussed in the meta-scientific oriented chapters of the book (see chapters 4-6).

I have now explained, and cautiously justified, two of the concepts referred to in the title, *Human Activity* and *Anthropology*. However, *Activity Theory* is the third concept included in the title, and it is just as problematic as the first two.

I have somewhat ambiguous feelings about Activity Theory. The school of activity theory has had the harsh fate of being confined within a despotic and partly distorted ideological regime. After having worked for several years with the published and unpublished manuscripts of Leontiev², I am convinced that he was a fine, humanistic Marxist who believed that the Soviet Union could

move towards the original Marxist goal of human emancipation. Leontiev and the few colleagues he had in Soviet psychology, however, were confined to a narrow field of harmless theorising in general psychology (avoiding challenge to the dogmatic Marxist state ideology) and a few areas of applied psychology that did not interfere with the peculiar Soviet organisation of human activity. Moreover, he just survived the Stalinist period, with its constant fear of arbitrary persecution in general and Stalin's negative and suspicious attitude toward psychology in particular³.

These conditions, first fear and later confinement to a narrow area of work, meant that Leontiev had time to concentrate on creating not only a general psychology, but even a general psychology within a context of general anthropology. However, it also meant that he and his colleagues were restricted to an academic psychology that was deprived of having major impact on societal⁴ life.

Although I happily acknowledge my heritage from Marxist theory in general, and from Leontiev in particular, I do not want to carry the burden of orthodoxy from either in my work. During the years of the neo-Marxist movement in the late 1960s and the 1970s, I always considered myself a heretic, or rather using the terminology of Marxist jargon, a *revisionist*⁵.

My definition of Activity Theory is thus rather idiosyncratic. The reader should be warned that this is *not* an authoritative introduction to what can be conceived of as an orthodox Activity Theory, whatever that is. The only figure from the school of Activity Theory who is extensively quoted and discussed is Leontiev; his predecessor Vygotsky and his younger colleagues (e.g., Lomos 1984) are discussed only in passing in the book.

It should thus be noted that the subtitle is *not* "from **the** Perspective of Activity Theory", but "from **a** Perspective of Activity Theory". The theoretical perspective of activity is my own. *This perspective is the thesis of this treatise.*

1.1.3 The Discursive Method of the Treatise – Dialectics

Before proceeding to the content, a third aspect of the book's perspective should be mentioned. The theories of Hegel and Marx, some of which are described in detail in the last section of this chapter, have had a decisive influence on my way of thinking, as well as my style of writing. The insight I received from these two master thinkers has been of especial importance to my understanding of concepts and theoretical positions of dialectics.

In the analytical, positivistic tradition of Anglo-Saxon philosophy and science, *concepts* are social constructions. In the realistic school, these concepts can be developed to reflect nature, and in the conventionalist school, they are merely social convention. In the dialectical tradition, however, concepts referring to anthropological phenomena *participate* in their referents. A concept is not just a reflection of its designation; it is also attached to the object in such a way that the changes in the former are mutually dependent on the changes in the latter.

This means that the use of a concept, rather than being a problem of mere definition, is really a central problem for the investigation itself. For me, this cautious attitude towards the introduction and use of concepts has resulted in a specific strategy that I use with any of the central concept covered in my treatise, that is, for example, concepts such as *activity*, *consciousness*, *culture*, *meaning* and *knowledge*.

The strategy consists of the following steps:

A Strategy for Coping with Problematic Concepts

1. The concept is put into custody
2. The concept is released on parole
3. The concept is given a preliminary definition
4. The definition is redefined whenever its use makes redefinition necessary

In step 1, I simply test the necessity of applying the concept. In problematic cases, I can decide to discard, at least temporarily, the concept. For example, is the behaviourists' position regarding the concept of consciousness correct? Are we better off without this concept at all? I tried to maintain this attitude towards the concept of consciousness for a long period. However, I concluded that it was not only awkward, but it also often made it impossible to think and communicate about psychological phenomena. Thus, in this and similar cases, I have to proceed to step 2.

In step 2, I cautiously return to using the concept. For example, I decide to use the concept of consciousness, but only in a most cautious and, literally, conscious way. The concept is released, but just as a provisional arrangement, just as its previous custody was subject to possible change. During this time of parole, I study the behaviour of the concept. After all, I am its parole officer, and likewise I am obligated to report my observations. In what situations and what ways is the concept used? How clear is its use to me? Is the concept characterised by ambiguity, indicating that there really are several distinct concepts in circulation?

In step 3, because I have made substantial observations, I risk a preliminary, but nonetheless explicit definition of the concept, which I maintain as long as it proves satisfactory. However, if trouble returns, or if a better (e.g., more far-reaching) definition pops up, the definition is changed, this being step 4.

My attitude regarding central concepts consequently has meant that I have had to define a number of them myself. When I am insecure about concepts, I do not use standard definitions. Therefore, in every chapter (except this introductory one), in most sections and even in many subsections, there are concepts with definitions of my own creation. These concepts are marked with emphasised typography, a typography exclusively used for this purpose. Thus, the reader should note whenever a marked term appears and realise that it may be defined or used in a way that is not pleasant, and it certainly will be defined or used in a rather *idiosyncratic* way.

Additionally, in the discussion of theoretical positions, my exposition is affected heavily by the works of Hegel and Marx. In this dialectical tradition, theoretical positions in anthropological matters are not simply the subject of a discourse of learned discussions, in which the different protagonists are competing participants in a game, the result of which is determined by diverse qualities according to the epistemological attitude in question. In other words, it is not the strength of the arguments according to a *traditional philosophical attitude*, the veridicality of the position in relation to its subject matter according to a *realist attitude*, or the power of the protagonists according to the *social study of science*⁶. In the dialectical understanding of theoretical positions, important theoretical dispute is generally not simply a symptom of an incomplete understanding of the subject matter; the dispute is, in itself, a source for increased understanding of the subject matter.

The contradictions of the dispute are, in the language of dialectics, internal to the subject matter itself. Just as with concepts, the theoretical contradictions are not only a reflection of these *internal contradictions*; they are also *participating*⁷ in them. There is a mutual dialectical relation between the *conflicts* going on in the object field to which the disputes refer, and the theoretical discussion itself.

Therefore, I have attempted to be comprehensive in my presentation of positions for all the theoretical problems discussed in this book. Additionally, I have aspired to provide fair and empathic expositions, even for those positions that, from my point of view, are most alien, and in some cases, even what I personally consider obnoxious.

Of course, I have selected the positions that are presented. This selection, however, has not been made based on the viewpoints that I like the most. I have certainly included many of my most ardent antagonists. Moreover, in the presentation of the mutual discussion, I have attempted not to refute, in my own view, the false and sometimes ominous positions of alternative schools. On the contrary, I have searched for the kernel of rationality distinguishing any theory of quality, however wrong I judge certain traits of the position to be.

Thus, using this attempted method of dialectics, my intention is not single-handedly to reach the truth, but rather to participate in the collective human activity of pursuing the *sublation of the contradiction*.

1.2 The Content of the Book

1.2.0 The Plan of the Book

The book is divided into 6 chapters, arranged in a way to converge on the main goal, an investigation of the relevance of Activity Theory for the anthropological sciences, in this book defined as the fields of sociology and psychology.

Thus, the book is organised in an arc from a rather abstract beginning to a more concrete ending. The book starts with philosophical, not to say metaphysical, theses that are basic to the more specific positions discussed in the later chapters.

1.2.1 The Remainder of this Chapter

After a brief description of the content of the remaining chapters of the book, the present chapter contains a chronicle of the historical evolution of Activity Theory, the theory on which this book is based. The groundwork for this theory can be found in the roots of German idealist philosophy and ends with its central theorist, Leontiev.

1.2.2 Ch. 2, Being and Becoming – Ontology and the Conception of Evolution in Activity Theory

The title of chapter 2 is *Being and Becoming*. The purpose of this chapter is to outline the ontological concepts that are the bearing construction for the chapters that follow. The chapter starts with a philosophical section describing the different forms of existence and our criteria for recognising the existence of something. This is followed by a discussion of the ideas of evolution, history and development that constitute the genealogy of my own philosophical tradition, dialectical materialism. After this philosophical start, the chapter has two sections dedicated to the primary (pre-anthropological) object fields, which I define as the cosmological and the biological object fields. These two fields, in concordance with the philosophical principles just stated, are discussed not only in a static ontological sense, but also even in respect to the becoming and the evolution of the two fields.

In accord with the genealogical position just defined, the content of this chapter on pre-anthropology has a basic, but unspecific relevance for the anthropological subject matter of the book, although the content of the chapter is itself outside, or above, the **anthropological** object field. However, the part of the chapter analysing the **theory fields** dedicated to the study of these pre-anthropological object fields has a specific relevance for the subject matter of the book:

The pre-anthropological theory fields, in contrast to the object fields, are directly included in the anthropological object field, a fact that is further discussed in the chapter on the philosophy of science, chapter 6.

1.2.3 Ch. 3, Human Activity – the Anthropology of Activity Theory

Chapter 3 marks the beginning of the in-depth examination of the subject matter of this book (the coverage in chapter 2 is primarily general, with un-specific relevance in relation to the anthropological subject matter of the book). The first sections of chapter 3 are dedicated to the problems encountered when attempting to establish theories about the ascent and nature of human beings. The next section includes a general definition of human activity, the characteristics of which are discussed in the subsequent four sections, which cover respectively tools, meaning, organisation and appropriation. The last three sections concern problems in the relation between the anthropological object field and the neighbouring biological one, the relation between the two subfields of anthropology that constitute the anthropological object field itself, and finally the meta-scientific relations of the two scientific disciplines, psychology and sociology, dedicated to these subfields.

1.2.4 Ch. 4, Reflection, Transformation and Production of Objects – the Epistemology of Activity Theory

Before continuing with anthropology, I have to retreat to philosophy, more specifically, to the morass of epistemology. Unless an exposé of some object field is to be either dogmatic or speculative, we need to reflect on *what we are talking about*, *what we are saying*, and *what arguments we have* for saying what we are saying about what we are talking about.

This reflection is *epistemology* or *theory of knowledge*. However, in contrast to the traditional Cartesian, if not Platonic tradition of founding epistemology on the contemplative pastime of an isolated individual, this chapter is founded on the Marxian tradition. According to this tradition, *knowledge about reality is based on practice, produced by a collective activity and part of the historical evolution of mankind*.

Having classical, static *individualistic*, if not subjectivistic, epistemology as my target of criticism on the one side, the other target is within the Marxist tradition itself, namely *the Leninist theory of reflection*. This theory, as demonstrated in chapter 2, has played a decisive and, to my judgement, unfortunate role in the theoretical work of Leontiev.

My attempt is to reconstruct, rather than destruct, this theory of reflection, for which I have found both a rational kernel and a dogmatic and ill-founded generalisation. Instead of defining the reflection of objects as the universal form of human knowledge, I divide it into three forms; that is, besides reflection there are two other forms, namely the transformation and the production of objects.

1.2.5 Ch. 5, The Meaning of Activity – the Semiotics of Activity Theory

Chapter 5 is, in a way, a continuation of the preceding chapter, as meaning can be understood as objectified knowledge. The chapter compares Activity Theory's conception of sign system, primarily language, with other *theories of semiotics* (language). In particular, the chapter contains a discussion of the relation of part and whole, pragmatics and sections on my idiosyncratic theory of signs and of dialectics.

1.2.6 Ch. 6, Theory and Practice – Meta-Science from the Perspective of Activity Theory

Chapter 6 covers what in Anglo-Saxon tradition is generally called *philosophy of science*, but in my opinion should be called *meta-science*. It is based on the Marxian thesis of theory based on practice. However, it also reflects the object field in a way that transcends the immediate influence of society. From this perspective, a general system for a meta-scientific analysis of a major scientific discipline is proposed. After an analysis of natural science, technology is examined, and then the formal sciences are discussed from a perspective of model theory. This is followed by a discussion of the anthropological sciences. The latter sciences are claimed to be characterised by autology (self-reference) and reflexivity, implying the embarrassing characteristic that their theories are not only part of the object field studied, but furthermore are involved in a process that violates objectivity by changing its own objects. The twin anthropological sciences are briefly characterised according to their objects, practice and theory fields.

1.3 The Background of Activity Theory

Wer immer strebend sich ermüht, den wollen wir verlösen

With these majestic words, Goethe leaves his expiring hero Faust to a judgment that seems to be more graceful than strictly deserved by his egomaniacal and demoniacal conduct of life. With the same words, the poet describes a classic characteristic of the restless European spirit. The anthropology that is the topic of this treatise is a child of this classic period of European history: the époque of enlightenment and of evolutionary optimism.

The following includes an examination of the prehistory of Activity Theory in German Idealist Philosophy. Kant erects a barrier between *pure* and *practical* reason. The former concerns the unknowable, but objective materiality, and the latter concerns the moral decisions of our own lives. The German Idealists succeeding Kant intended a reunification of reality, a surmounting of ontological dualism.

1.3.1 Fichte and Schelling

1.3.1.1 Fichte

In his first book (*On the Concept of the Philosophy of Science or the So-called Philosophy*⁸), Fichte attempts to construct a philosophy that joins the active subject and the object of activity in a union, in other words, an *act*. As he conceives the consciousness of the subject as constitutive for the act, this union is at the same time an epistemological unity:

Every possible consciousness of an object for a subject presupposes an immediate consciousness, in which the subjective and the objective simply have to be one. Without this, consciousness is simply incomprehensive.⁹

Fichte, however, was not satisfied with the contemplative activity alone. He was intensely occupied by real action:

The intellectual conception that the philosophy of science is talking about is concerning not simply Being, but an Action, and has no designation whatsoever in Kant.¹⁰

Thus, there is not just an epistemological relation, but also even an action-oriented relation between a subject, *the I*, and an object, *the non-I*. What then are the origins of these two relatants? Fichte's answer to this makes him appear to be a first-rank metaphysicist of activity. He claims that both relatants originate from activity itself.

We shall start with the I:

If you reflect on the narrative of this action as the groundwork for a philosophy of science, it consequently should be expressed in the following way: the I originally posits its own being.¹¹

In this almost Münchhausen-like fashion, the I put itself on the scene. This scene, however, would be rather vacuous and boring with an isolated I. The I, therefore, has to place its own counterpart on the scene. This counterpart is what Fichte calls the *Non-I*:

Everything that is contrary to the I, as far as it is precisely that, exists simply on behalf of the I's action and for no other reason whatsoever. Its being, on the contrary, is exclusively placed by the I.¹²

Having now recognised that the I and its counterpart the non-I are on the scene, Fichte now trumps his point by emphasising their mutual interdependence:

The I establishes itself as a definite entity through the non-I.¹³

At this point, however, a paradox appears, as the I, the sovereign creator of the non-I, has abandoned its own suzerainty by accepting that it is determined by something else, the non-I. Fichte now attempts to solve this problem by introducing another category of being, besides activity. He calls this counter-

part of activity *suffering* (German = Leiden) or *influence* (German = Affektion):

The non-I has [...] only reality for the I as far as the I is affected, and without this condition of being affected, it has no reality whatsoever.¹⁴

Thus, Fichte creates a beautiful philosophical idea. He defines this *influence* of the non-I as the *activity* of the non-I. Thus, his thinking changes from dualistic into a dialectical direction. It changes the initial complementary picture of an active I and a passive non-I to a more contradictory one. The dialectical symmetry of I and non-I is supplemented by a corresponding symmetry between activity and suffering:

Every activity of the I determines a suffering of the non-I and vice versa.¹⁵

This dialectic implies that the activity of the I is characterised by limiting features, such as self-restriction, transference (of power) and externalisation. Fichte's dialectic is expanded to sublime heights and is described in the following quotation, which points in interesting directions, one towards Hegel and another towards Freud:

This transferring activity [the transference of influence to the non-I, author's commentary] happens, however, unconsciously, it is not apparent to the I. It can just be seen as its product, and therefore it perceives the non-I as something external, as something that is not dependent on its own activity. The activity of the non-I is therefore just possible through transference, and the suffering of the I is just possible through externalisation.¹⁶

The connection of the concept of externalisation from Hegel and Marx to Vygotsky is apparent. Another connection that is easily seen is to the concept of projection in Freudian psychoanalysis. Thus, the very fundamental concepts of *activity* and *externalisation* have been given their modern meaning by Fichte.

Another feature of great importance in Fichte's philosophy is his view on nature and culture. Just as his philosophy of action and activity stresses the striving for and surmounting of obstacles, he defines culture as humankind's modification of nature. Human activity is a cultivation of nature; that is, nature is only a passive, negative object for this activity of making the culture. Fichte thus can be seen as an heir to Vico (1968), who by making a dichotomy between a nature made by God and a culture made by humans was the founder of modern anthropology.

Another interesting feature of Fichte's theory is his division of the I that defines, thus being a precursor to Hegel:

Fichte's Division of the I

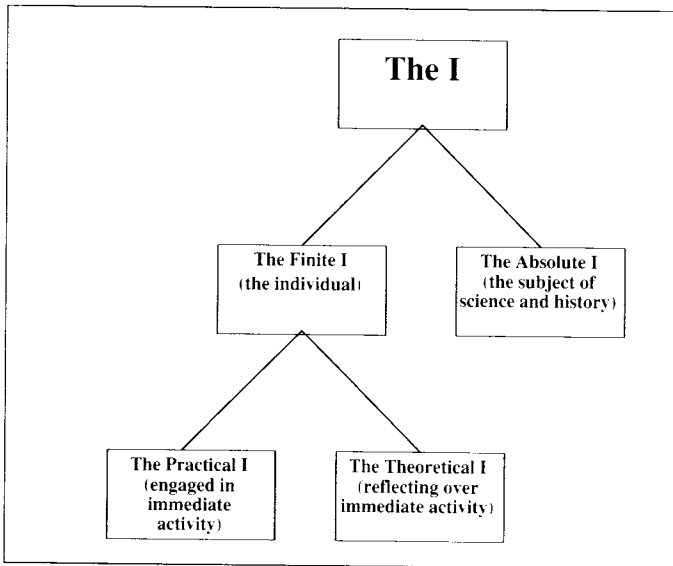


fig. 1.1

In this theory of culture and the absolute I, Fichte transcends the subjective idealism of the Berkeleyan type and makes himself an exponent of objective idealism.

In his attempt to define humankind as the grand creator of culture, Fichte, however, reduces nature to the mere material of this human activity.

1.3.1.2 Schelling

Schelling, a pupil of Fichte, is not considered a main figure in the evolution of Activity Theory. However, his conception of the relation between nature and humans is nevertheless an important one. Fichte's perspective on this relation is dualistic and can be seen as an antagonism, where humans are struggling to conquer nature, a fine expression of early capitalism. Schelling, however, an exponent of Romanticist philosophy, seeks a monistic, pantheistic, understanding of this relation. In contrast to Fichte, he diminishes the antagonistic features and emphasises the basic congruence between nature and Man:

Nature is visible spirit. The spirit is invisible nature. (Copleston 1963, 135).

This sentiment of unity is also expressed in Schelling's epistemology. He suggests that human knowledge is the part of nature that has developed to the stage of knowing itself. In this embedding of Man in Nature, Schelling functions as a bridge between Spinoza, his source of inspiration, and Hegel, his immediate successor. Consequently, nature is given a much more active part in the philosophy of Schelling than in that of Fichte. Nature is not a mere passive object available for human activity, but a dynamic entity. This is not just *natura naturata*, but *natura naturans*, in the terminology of Spinoza. Schelling thus expands the area of use for the *activity* concept to all nature:

We know nature only as active.¹⁷

The most influential part of Schelling's philosophy is, however, his theory of evolution. This theory was, of course, highly speculative, but rather appropriate for the scientific knowledge of the early part of the 19th century. Schelling suggests that there are four stages of development:

1. The Stage of Mechanics (with processes of attraction and repulsion)
2. The Stage of Electricity (with chemical processes)
3. The Stage of Organisms (with life processes)
4. The Stage of Man (with spiritual processes)

He thus combines the concept of evolution with the concept of emergence: two main concepts related to the development of Activity Theory. Emergence is a necessary concept for theories that refuse either a reductive materialism, in which humans are reduced to simple nature, or a dualism, in which humans are understood as a spiritual opposite to nature.

1.3.2 Hegel

Attitudes regarding Hegel's work have changed dramatically (i.e., more than most) in the evaluation of contemporary philosophy and science. Only two decades ago, he was the object of bitter dispute. The liberalists defined him as not only a philosophical monster of meaningless metaphysics, but also as a root of totalitarian evil (Popper 1945). On the other hand, in the self-understanding of the influential Marxism of that period, he was a decisive philosophical constituent as the originator of a dialectic philosophy.

In this section, I will sketch some points in his philosophy that have been of central importance in the path to Activity Theory.

Hegel's philosophy in its encyclopaedic and universal scope is presented in the work of his youth, *Phenomenology of the Spirit* from 1807 (1986), and given a more elaborated form in his *Encyclopaedia of the spiritual sciences* from 1830 (1969b).

The latter work is divided into three parts, according to the very organising principle of Hegel: Logic, Philosophy of Nature and the Philosophy of the Spirit. The terminology of the two last parts is similar to Schelling's philosophy of the spirit emerging from slumbering nature. However, characteristically, Hegel starts with his conception of logic, the most idiosyncratic part of his work.

This logic is described more thoroughly in his *Science of Logic* from 1813 (1971). To grasp the peculiar Hegelian logic, two points should be stressed. First, it is not a formal discipline in the way logic is understood today. It is not even a semi-formalised science as developed by Aristotle. Hegel's logic is a unitary teaching of ontology and concept theory. Secondly, he rejects the mainstream in the history of philosophy almost from its very start by renouncing the static understanding of ontology and of concepts that have been dominating since Plato and Aristotle, all the way back to Heraclite's teaching of the world as a flux of changes in.

Here, the two just mentioned points meet one another. In other words, Hegel's understanding of change, his famous dialectic, is determined by the absolute idealism of his logic, in which the normal relation between concepts and their referents are suspended. His use of logical terms like *negation* and *contradiction* are thus ontological relations, in fact they are expressions of the very essence of change.

Thus, contradictions are inherent tensions in the state of affairs and are the very dynamic of any history, no matter whether it is the *history of nature*, *political history* or the *history of ideas*.

He thus attempts a unification of objectivity and subjectivity just as his predecessors Fichte and Schelling did, but the unity is found in the conceptual essence of *being* and *becoming*. Hegel's favourite way to surmount philosophical problems is to accept a problem as an expression of a contradiction. This contradiction then becomes the impetus for an ontological jump to a higher level, a so-called *elevation* or *sublation*, in which the primary negation is followed by a *negation of the negation*. Hegel even uses this figure of thought in an iterated way. For instance, in the third part of his logic, the teaching of concepts, the *subjective concept* is negated into the *objective concept*, followed by a negation of this contradiction between subjectivity and objectivity into the elevated stage of the *idea*. A parallel process is found in the Philosophy of the spirit, where the *Subjective spirit*, covering what we today would probably call psychological phenomena, is negated into the *Objective spirit*, covering what we would now call societal phenomena, causing this contradiction to be elevated into the *Absolute spirit*. The most sublime products of the spirit are the arts, religion and the summit of it all, philosophy.

After this brief outline of a philosophy of enormous, not to say monstrous, scope, I will now describe the Hegelian ideas that have a specific importance for Activity Theory, as I understand it.

1.3.2.1 Hegel's Ontology

The groundwork of Hegel's theories includes the most basic concepts like being, nothing and becoming. In the following two relational concepts, Hegel is anticipating ideas of the last century found in Gestalt Psychology and System Theory.

The Relation of Whole and Parts:

The essential relation is [...] the relation of the whole and the parts, – the relation between the reflected and the immediate independence, so that both are only existing as mutual conditions and suppositions. (Hegel 1969a, 513)¹⁸

The truth of the relation consists therefore in the mediation, its essence is the negative unity in which both the reflected and the simply affirmative [seiende] immediacy are sublated. (ibid. 516f)¹⁹

Interaction

In reciprocity, originative causality displays itself as arising from its negation, from passivity, and as a passing away into the same, as a becoming. In the interaction, the original causality is set as an emergence from its negation, passivity, and as a return to the same, as a becoming. (ibid. 570)²⁰

1.3.2.2 Hegel's Genealogy (Teaching of Evolution)

To sublata [German *Aufhebung*, author's addition], and the sublated (that which exists ideally as a moment) constitutes one of the most important notions in philosophy. It is a fundamental determination which repeatedly occurs throughout the whole of philosophy, the meaning of which is to be clearly grasped and especially distinguished from nothing. What is sublated is not thereby reduced to nothing. Nothing is immediate: what is sublated, on the other hand, is the result of mediation: it is a non-being but as a result which had its origin in a being. It still has, therefore, in itself the determinate from which it originates.

'To sublata' has a twofold meaning in the language: on the one hand it means to preserve, to maintain, and equally it also means to cause to cease, to put an end to. Even 'to preserve' includes a negative element, namely, that something is removed from its influences, in order to preserve it. Thus what is sublated is at the same time preserved; it has only lost its immediacy but is not on that account annihilated. (ibid. 106f)²¹

In this way, we are led from the contradiction between *being* and *nothing* to their elevation in *being*, from the contradiction between *being* and *essence* (German: *Wesen*) to their elevation in *concept*, and from the contradiction between logic and nature to their elevation in *spirit*. A most peculiar feature in this is the transition from logic to nature. This seems to be influenced by Fichte's teaching of the self-externalisation of the I by setting the Not-I. In Hegel's *grand design*, a great story is formed, using the terminology of Lyotard (1984), about the self-alienation of thought in nature and the triumphant resurrection of

the former as spirit. Here, in my opinion, Hegel makes a doubtful identification of phenomena that are very separate. That is, on the one hand, there is the human's active relation to nature, and on the other hand, the origin of humankind in nature.²²

In Hegel's narration, the concept that is itself called *concept* sinks into an alienated nature to reappear after having achieved self-consciousness in the form of spirit. Even this advanced form of being is then pursuing an evolution through the stages of subjective (i.e., individual), objective (i.e., societal), and absolute, reflexive, spirit. The evolution of objective spirit is analysed in Hegel's works on philosophy of history and of justice. The evolution of absolute spirit is primarily scrutinised in Hegel's works on the history of philosophy, where philosophy, following art and religion, is the last and decisive way in which spirit comes to self-consciousness.

1.3.2.3 Hegel's Epistemology

The consistency of Hegel's objective idealism makes his epistemology just as peculiar as his logic. It is, however, a simultaneously attractive and repulsive feature of his thinking that he consistently does not attempt *elimination*, but instead an *elevation* of the normal boundary between the subject and the object of knowledge. Where traditional epistemology has been occupied by the apparent dichotomy, Hegel emphasised the unity of the two relatants.

A major thesis of the present work is that this identification of subject and object has been, on the one hand, most unfortunate in matters within the sphere of natural science. This is why Hegel, in contrast to other philosophical masters such as Kant, has never been an inspiration for any scientific achievement of importance. His concepts of knowledge and reflexivity, on the other hand, according to the same thesis of this book, have been very relevant indeed within the sphere of anthropology, where the clear separation between the object and subject of knowledge in rationalistic or positivistic epistemology is by far less justified.

Briefly, this thesis can be stated as follows:

Within the object field of natural science, the conception of concepts as dynamic entities with an evolution that is part of the evolution of the objects of these concepts is simply idealistic nonsense. It is, of course, correct that there is an evolution in nature as well as an evolution in our thinking about nature. There is, however, no bilateral interaction, that is, the evolution of nature and the evolution of our thinking about nature are, in principle, independent.

1.3.2.4 Hegel's Dialectics

Hegel's philosophy of nature is an idealistic misconception, his understanding of evolution within the object field of anthropology is also idealistic, and therefore incomplete: they are, nevertheless, treasures of inspiration. Hegel's great theory regarding the identity of the evolution of the concepts with their referents is of immense value and depth. The evolution of humankind and the evolution of human self-understanding are not only inseparable in principle, but even mutually interacting phenomena.

Thus, I agree with Sartre's (1960) refutation of the dialectics of nature, which is founded by Engels and made into an official ideology by Lenin. On the other hand, I agree with Marx's anthropological dialectics. The path to this personal conclusion can be elucidated by an outline of five major positions in relation to dialectics in the Hegelian and post-Hegelian meanings:

5 Positions in Relation to Dialectics

1. Antidialectics
2. Dialectics of Knowledge
3. Dialectics of Activity
4. Dialectics of Evolution
5. Dialectics of Nature

The positions are ordered according to increasing acceptance of the universality of the concept.

1.3.2.4.1 Antidialectics

Popper provides a very consistent refutation of Hegel in general and of the applicability of the concept of dialectics in particular. In *The Poverty of Historicism* (1957), he declares a philosophical war against the dark forces of tyranny that he finds in Platon, Hegel and Marx. In Popper's eloquent, but also rather one-sided edition of a liberal worldview, Hegel is just as harmful in his political philosophy as the antidemocratic Platon. In contrast to the latter, Hegel is even useless as a philosopher, creating a system with neither conceptual clarity, nor any kind of empirical justification. Popper's verdict is simply that dialectics should be discarded.

1.3.2.4.2 Dialectics of Knowledge

A phenomenon which quite a few positivistic scientists and historians of science are likely to see as a justification for the idea of a dialectical evolution is the growth of knowledge, especially as it is demonstrated within mathematics and natural science. The idea of an epistemological dialectics is elaborated in the following stage model, in which I have combined the terminology of Hegel and Kuhn²⁷:

1. The primordial thesis (the pre-crisis paradigm)

In the scientific evolution of a specific field, a difficult problem is attacked for an extended period using the reigning standard theory.

2. The negation (the scientific crisis)

The problem appears to be veiled in riddles and paradoxes, and seemingly diverse solutions are suggested, solutions that are mutually contradictory.

3. The negation of the negation (the solution through generalisation)

The riddles and the paradoxes are solved through a theoretical generalisation, of which the contradictory positions are specific cases. Examples of generalisation are found in my discussion of atomic theory in chapter 2 and mathematics in chapter 6.

1.3.2.4.3 Dialectics of Activity

I thus fully agree with the importance of position 2, but in the tradition of Marx and the cultural historical school (often translated as the social historical school), the more encompassing position that I call Dialectics of Activity is used repeatedly in this book. According to this position, dialectics is a basic

feature of human activity. Dialectics is a way of self-expansion in activity through a struggle with the conceptual expressions of the problems appearing in the course of activity. Hegel's terminology is as relevant here as it is in position 2, because the same path of conceptual evolution is found in the general expansion of activity as in the narrower field of science. Besides the cultural historical school, an important exponent of this position is the "elder Sartre", that is, the Sartre of *Critique of Dialectical Reason* (1960).

1.3.2.4.4 Dialectics of Evolution

In a more general version of dialectics, the concept refers to all living organisms, not merely to humankind. This results in a version of Dialectics of Nature in the tradition of Engels (1974), but nature here is confined to life. The theory of evolution is thus interpreted as a dialectical process, in which contradictions are to be understood as opposite "challenges" set up for a specific life form. Sublation, accordingly, is a change in the activity of the life form in question, as far as this change "solves" the former "dilemma", which is then superseded by new problems on a "higher" level. An example of this position is found in the first part of Holzkamp's *Grundlegung* (Holzkamp 1985, van Ijzendoorn & van der Veer 1984).

In my opinion, this hyperdialectical position²⁴ is a metaphorical expansion of the dialectics of human activity. It is an expansion that is misunderstood; because dialectics of evolution lack the crucial aspect of the dialectics of human activity. This aspect is the function of conceptual resolution of the problems attached to human activity .

1.3.2.4.5 Dialectics of Nature

The most general version of dialectics, according to Engels' terminology, is called the Dialectics of Nature (Engels 1974). Here, dialectics is seen even in inorganic nature, that is, in the basic forces and laws of nature. Thus, dialectics, according to Engels, is literally itself metaphysical laws of nature. In his *Critique*, Sartre brands the metaphysics that was instituted by Lenin and Stalin as the official ideology for the Soviet Union as Hyperdialectics.

I fully agree with Sartre's criticism. Whereas a metaphorical expansion from activity to evolutionary dialectics is possible, Engels' expansion of the principles of dialectics to phenomena of physics, such as positive and negative

electricity, is not only without empirical foundation, but also of no scientific value.

Having briefly outlined the view of dialectics that must necessarily be attached to concepts, but covers a much broader field within anthropology than the evolution of concepts itself, I shall partially highlight Hegel's position in respect to the dialectical anthropology.

1.3.2.5 Hegel's Anthropology

Hegel's anthropology is closely related to that of his teacher Fichte:

The *true being* of a man is rather his deed; in this the individual is actual.
(Hegel 1977, 193)²⁸

Hegel has a sharp eye for the societal mutuality in the specific kind of human act that is work:

The labour of the *individual for his own* needs is just as much a satisfaction for others as his own, and the satisfaction of his own needs he obtains only through the labour of others. (ibid. 213)²⁹

Decisive aspects of Hegel's philosophy of the spirit, which I propose are important to anthropology, are his concepts of *externalisation* and *alienation*. The basis for these is the concept *Enttäusserung*³⁰, which was introduced in the section on Fichte. Hegel, however, elaborated on this concept considerably:

It [the real world] obtains its existence through self-consciousness' own externalization and the separation of itself from essence which, in the ruin and devastation which prevails in the world of legal right, seems to inflict on self-consciousness from without the violence of the liberated elements. (ibid. 294)³¹

In this drastic way, Hegel accounts for the harsh destiny of the individual given into the charge of society. However, he adds the following:

On the one side, actual self-consciousness through its externalisation passes over into the actual world, and the latter back into actual self-consciousness. On the other side, this same actuality – both the person as the and objectivity – is superseded³²: they are purely general. Thus their alienation is pure *con-*

sciousness or essence. The present actual world has its antithesis directly in its beyond, which is both the thinking of it and its thought-form, just as the beyond has in the present world its actuality alienated from it.

Consequently the Spirit constructs for itself not merely a world, but a world that is double, divided and self-opposed. (ibid. 295)³¹

The individual, according to Hegel, thus obtains its value and reality through its own formation (*bildung*). This formation is determined, in this way, primarily by externalisation and alienation.

Thus, the first two acts of Hegel's great historical drama are outlined, the first act about being, and the second about negation and alienation. The next act must be, in accordance with his general dialectics, the act of elevation:

The process in which the individuality molds itself by culture is, therefore, at the same time the development of the universal objective essence, i.e. the development of the actual world. [...] For the power of the individual consists in its conforming itself to that substance, i.e. in externalizing its own self and thus establishing itself to that substance that has objective existence. Its formation and its reality is, therefore, the actualization of substance itself. [...] The Self is only actualised to itself as transcended. (ibid. 299)

In this strained, but profound analysis of the relation between the human individual and his/her material and societal context, Hegel is transcending, in a way, the opposition between the critical culture and the optimistic and pessimistic conception of culture in the 18th and 19th centuries. He acknowledges without hesitation the process of human alienation, the reduction of the individual to a means for the externalised societal reality. He thus has a sharp eye for the human being as a victim of his/her own creations.

He has at the same time, however, the conviction that the real actualisation of the human essence is only possible through effort exerted to reach concordance with this product of alienation, and finally to transcend it. Fichte's heroic fight involving Jacob, between the I and the non-I, here has found a radical new design, in which not only the autonomous, objective status of culture is stressed, but even the doubleness of the human being as both the creator and the custodian of culture simultaneously.

1.3.3 Marx

Marx's scientific career started where Hegel's career ended. Many have strongly disputed that the mature Marx was substantially influenced, and not just stylistically, by Hegelian philosophy. I shall here try to demonstrate that there is continuity, not just from Hegel to the youthful Marx, but also even from the *left Hegelians* to the author of *the Capital*. This continuity is found in his anthropology, his theory of society and his dialectical conception of history and of epistemology. Moreover, these permanent traits are found alongside the fierce fight against the idealism of the master philosopher.

1.3.3.1 Marxian Anthropology

To start, the philosophical Paris manuscript of 1844 is where Marx's anthropology already is clearly formed:

Nature as it comes into being in human history – in the act of creation of human society – is the true nature of man: hence nature as it comes into being through industry, though in an estranged form, is true anthropological nature.³¹

Marx here maintains the triadic scheme of a naïve, an alienated and a liberated stage of history, but he also stresses the *material*, rather than the *ideal* character of this scheme. He is therefore not hesitating to admit his debt to the great dialectician, as we shall see in the next paragraph.

1.3.3.2 Marxian Dialectics (Genealogy and Epistemology)

The importance of Hegel's Phenomenology and its final the dialectic of negativity as the moving and producing principle lies in the fact that Hegel conceives the self-creation of man as a process, objectification as loss of object [Entgegenständlichung], as alienation and as supersession of this alienation; that he therefore grasps the nature of labor and conceives objective man – true, because real man – as the result of his own labor.³²

In the next quotation, we meet a mature social scientist, who calmly, without unnecessary polemic, demonstrates the flaw in the Hegelian philosophy, the reversed conception of the relation between abstractions and the concrete. According to Marx, all that is needed as a methodological key to correct

Hegel's mistake is a secondary reversal. The quotation is from the famous *Introduction to the critique of political economy* from 1857:

The concrete concept is concrete because it is a synthesis of many definitions, thus representing the unity of diverse aspects. It appears, therefore, in reasoning as a summing-up, a result, and not as the starting-point – although it is the real point of origin, and thus also the point of origin of perception and imagination. The first procedure attenuates meaningful images to abstract definitions: the second leads from abstract definitions by way of reasoning to the reproduction of the concrete situation. Hegel accordingly conceived the illusory idea that the real world is the result of thinking, which causes its own synthesis, its own deepening, and its own movement: whereas the method of advancing from the abstract to the concrete is simply the way in which thinking assimilates the concrete and reproduces it as a concrete mental category. This is, however, by no means the process of evolution of the concrete world itself.³³

In this lucid, but also unique methodological key to his work, he presents a pedagogical example of the true relation between societal categories and the concepts denoting them. He also analyses the evolution of such concepts within the social sciences as a mirror of the evolution of the categories themselves:

But have not these simple categories also an independent historical or natural existence preceding that of the more concrete ones? This depends. Hegel, for example, correctly takes ownership – the simplest legal relation of the subject – as the point of departure of the philosophy of law. No ownership exists, however, before the family or the relations of master and servant are evolved, and these are much more concrete relations. It would, on the other hand, be correct to say that families and entire tribes exist which have as yet only *possessions* and not *property*. The simpler category appears, thus, as a relation of simple family or tribal communities to property. In societies which have reached a higher stage, the category appears as a comparatively simple relation existing in a more advanced community. The concrete substratum underlying the relation of ownership is, however, always presupposed. One can conceive an individual savage who has possessions; possession in this case, however, is not a legal relation. It is incorrect that in the course of historical development possession gave rise to the family. On the contrary, possession always presupposes this “more concrete category”.

One may, nevertheless, conclude that the simple categories represent relations or conditions which may reflect the immature concrete situation without as yet positing the more complex relation or condition which is conceptually expressed in the more concrete category; on the other hand, the same category may be retained as a subordinate relation in more developed concrete circumstances. Money may exist and has existed in historical time before capital, banks, wage-labor, etc., came into being. In this respect, it can be said that the simpler category expresses relations in a more advanced entity: relations which already existed historically before the entity had developed the aspects expressed in a more concrete category. The procedure of abstract reasoning which advances from the simplest to more complex concepts to that extent conforms to actual historical development.³⁴

Three characteristic features of Marx's theory are apparent in this quotation:

- 1. The evolution of the object field (category-formation of the material world)**
- 2. The evolution of the theory field (concept-formation in the meaning system)**
- 3. The dialectical relation between the evolution in the object and the theory field**

Superficially, point 3 appears to be a simple mirror-relation, where the evolution of concepts just reflects what has already happened in the material world. The very substance of the example in question, the evolutionary ladder (i.e., property, money, capital), shows however that Marx is really talking about a two-way relation, where the evolution of a higher concept is a logical condition for the existence of a higher material category.³⁵

A reconstructed concept analysis of Marxian dialectics must distinguish, in my opinion, between five categories:

1. **O1: An evolution of an object field with the formation of categories outside or beyond human intervention**
2. **O2: An evolution of an object field with the formation of categories within reach of human intervention**
3. **T1: An evolution of concepts reflecting objective categories belonging to the clause O1.**
4. **T2: An evolution of concepts reflecting objective categories belonging to the clause O2.**
5. **T2: An evolution of concepts actively intervening toward objective categories belonging to the clause O2.**

1.3.3.3 Marxian Sociology (Objectivity of Society and the Phenomenon of Alienation)

Marx maintains some important characteristics of Hegelian thinking concerning the condition of human beings. Thus, he stresses the objective, supra-personal status of society, and the paradoxical phenomenon of alienation, understood as, at the same time, a process of an increasing externalisation as the result of human activity and the subjugation of human intentionality under its external products.

And finally the division of labour offers us just the first example of the fact, that as long as human beings are located in inborn-developed societies, as long as the split between the special and common interest exists, as long as activity thus is not voluntary, but defined by its inborn development, is a human being's own action converted into an alien, opposed power, that suppresses him or her, instead of being mastered itself.

As long as the work starts by being distributed, everybody has a certain exclusive circle of activity, that is forced upon him or her, and from which it is not possible to escape.³⁶

Thus, alienation appears to be an inversion of the relation between the voluntariness of the human being and the non-voluntariness of the dead products. In this inversion, the human product appears as the active part, the *agens*, and its human creator as the passive part, the *patiens*, not to say the victim:

This fixation of the social activity, this consolidation of our own products into an objective power that is reigning over us, crossing our hopes, destroying our plans, is one of the main factors of the historical evolution until now, and it is precisely from this contradiction between special and common interest that the common interest assumes an independent form as the *state*, separated from the actual individual and common interest, and at the same time from illusionary fellow-feeling. [Author's translation]¹⁷

That the concept of *alienation* is not purely a feature of Marx's youth, but is maintained in his *opus major*, *the Capital*, is witnessed by the following quotation:

Hence the notion of a productive labourer implies not merely a relation between work and useful effect, between labourer and product of labour, but also a specific, social relation of production, a relation that has sprung up historically and stamps the labourer as the direct means of creating surplus-value. (Marx 1996.510)¹⁸

1.3.3.4 Marx's Concept of Activity (Work)

The dialectics between the process of human activity and its result is penetration, Marx's very concept of labour, as seen in this famous opening of *the Capital*:

Labour is, in the first place, a process in which both man and Nature participate, and in which man of his own accord starts, regulates, and controls the material reactions between himself and Nature. He opposes himself to Nature as one of her own forces, setting in motion arms and legs, head and hands, the natural forces of his body, in order to appropriate Nature's productions in a form adapted to his own wants. By thus acting on the external world and changing it, he at the same time changes his own nature. He develops his slumbering powers and compels them to act in obedience to his sway. We are not now dealing with those primitive instinctive forms of labour that remind us of the mere animal. An immeasurable interval of time separates the state of things in which a man brings his labour power to market for sale as a commodity, from that state in which human labour was still in its first instinctive stage. We presuppose labour in a form that stamps it as exclusively human. A spider conducts operations that resemble those of a weaver, and a bee puts to shame many an architect in the construction of her cells. But

what distinguishes the worst architect from the best of bees is this, that the architect raises his structure in imagination before he erects it in reality. At the end of every labour process, we get a result that already existed in the imagination of the labourer at its commencement.

He not only effects a change of form in the material on which he works, but he also realises a purpose of his own that gives the law to his *modus operandi*, and to which he must subordinate his will. And this subordination is no mere momentary act. Besides the exertion of the bodily organs, the process demands that during the whole operation, the workman's will be steadily in consonance with his purpose. This means close attention. The less he is attracted by the nature of the work, and the mode in which it is carried on, and the less, therefore, he enjoys it as something which gives play to his bodily and mental powers, the more close his attention is forced to be.³⁹

Marx proceeds in the following analysis of the labour process:

[...] The elementary factors of the labour process are 1, the personal activity of man, i.e., work itself, 2, the subject of that work, and 3, its instruments.

[...] An instrument of labour is a thing, or a complex of things, which the labourer interposes between himself and the subject of his labour, and which serves as the conductor of his activity. He makes use of the mechanical, physical, and chemical properties of some substances in order to make other substances subservient to his aims. Leaving out of consideration such ready-made means of subsistence as fruits in gathering which a man's own limbs serve as the instruments of his labour, the first thing of which the labourer possesses himself is not the subject of labour but its instrument. Thus Nature becomes one of the organs of his activity, one that he annexes to his own bodily organs, adding stature to himself in spite of the Bible.

[...] No sooner does labour undergo the least development, then it requires specially prepared instruments. Thus in the oldest caves we find stone implements and weapons.

[...] The use and fabrication of instruments of labour, although existing in the germ among certain species of animals, is specifically characteristic of the human labour process, and Franklin therefore defines man as a tool-making animal. Relics of bygone instruments of labour possess the same importance for the investigation of extinct economic forms of society, as do fossil bones for the determination of extinct species of animals. It is not the articles made, but how they are made, and by what instruments, that enables us to distinguish different economic epochs. Instruments of labour not only sup-

ply a standard of the degree of development to which human labour has attained, but they are also indicators of the social conditions under which that labour is carried on.⁴⁰

1.3.3.5 Dialectic Materialism

The essence of Marxian anthropology, sociology and epistemology is expressed in the following quotation from his theses on Feuerbach. Herein he not only liberates himself from the idealistic influence of his theoretical grandfather, Hegel, but also even from his theoretical father, Feuerbach.

In the first thesis, he stresses the very concept of activity as a precondition for a sound anthropology:

1. The chief defect of all hitherto existing materialism (that of Feuerbach included) is that the thing, reality, sensuousness, is conceived only in the form of the object or of contemplation, but not as sensuous human activity, practice, not subjectively. Hence, in contradistinction to materialism, the active side was developed abstractly by idealism – which, of course, does not know real, sensuous activity as such. Feuerbach wants sensuous objects, really distinct from the thought objects, but he does not conceive human activity itself as objective activity.

In the second thesis, Marx sketches an epistemology, a concept of truth, based on this concept of practical activity.

2. The question whether objective truth can be attributed to human thinking is not a question of theory but is a practical question. Man must prove the truth – i.e. the reality and power, the this-sidedness of his thinking in practice. The dispute over the reality or non-reality of thinking that is isolated from practice is a purely *scholastic* question.

In the third thesis, Marx precedes his determination of human activity as the potentially *dialectical sublation* of the contradiction between the societal condition of activity, the circumstances, and the very intention of activity. The coincidence of *external, societal change*, and *self changing* is precisely what Marx defines as *revolutionary practice*:

3. The materialist doctrine concerning the changing of circumstances and upbringing forgets that circumstances are changed. This doctrine must, therefore, divide society into two parts, one of which is superior to society. The coincidence of the changing of circumstances and of human activity or self-changing can be conceived and rationally understood only as revolutionary *practice*.

The sixth thesis is a specific basis for the great French Marxist, Lucien Sève, whose work was an inspiration for this book. This thesis deals with the relation between human individuals and human society. The thesis that is the very content of a chapter of this book, is here defined in a strongly anti-individualistic way:

6. Feuerbach resolves the religious essence into the human essence. But the human essence is no abstraction inherent in each single individual. *In its reality it is the ensemble of the social relations.*

Feuerbach, who does not enter upon a criticism of this real essence, is consequently compelled to abstract from the historical process and to fix the religious sentiment as something by itself and to presuppose an abstract – isolated – human individual.

In the eleventh thesis, Marx reinforces his dialectical epistemology by making the changing of the world not only a precondition and consequence of knowledge seeking, but, in fact, a moral obligation for the theoretician:

11. The philosophers have only interpreted the world, in various ways: the point is to change it.⁴¹

Marx's scientific path was characterised by a transition from the still metaphysically coloured anthropological papers from his left-Hegelian youth to the increasingly economics-oriented mature works, to the culmination in *the Capital*, which is almost totally engaged in political economy and economic history. In this transition, the Feuerbach-theses can be seen as a declaration of a programme.

This transition is also a departure from his interest in the individual found in his youthful writings and a shift to an almost anti-psychological focus on the supra-individual societal level of analysis. This movement becomes apparent because of Marx's conviction that the suppression and alienation of the individ-

ual has societal roots, and that a true liberation therefore must take place on the level of society, in the form of a revolution.

Marx even suggests that the focus on the individual is the expression of this alienation that blinds us from seeing the true problem and the true remedy, and instead is offering us an illusory understanding and a likewise illusory individualistic panacea. Still, I find it fair to point out that the Marxian heritage is heavily biased in the sociological direction, a bias towards the supra-individual level that was already clear in the works of Hegel.

This sociological tendency of Marxism has been marked throughout its history. However, shortly after the communist revolution in 1917 Vygotsky formed an internal opposition to Marxist psychology.

1.3.4 Vygotsky

In his extended essay *The Crisis of Psychology in its Historical Significance* (1927), Vygotsky precisely locates the basic problem of psychology:

Two psychologies exist – the materialistic of natural science and the spiritualistic one [...] a real fight takes place only between two different tendencies that are present and active between all mutual conflicting tendencies. (Vygotsky 1985, 192, Author's translation)

He proceeds, and uses the dichotomy of Dilthey's *Descriptive and Explanatory Psychology* to characterise these tendencies:

The contemporary psychology – the science of the soul without a soul – in its essence must be contradictory and fall into two pieces. The descriptive psychology is not pursuing explanation, but description and understanding. [...] The explanatory psychology of natural science, in contrast, constructs a deterministic penal code, leaves no place for freedom, does not tolerate the problem of culture. (ibid. 195, Author's translation)

Vygotsky stresses that the naturalistic school of psychology is only *materialistic* in the mechanistic sense of the word, it is materialism *from below*. He succinctly sums up the shortcoming of the two tendencies in the following quotation:

We, actually, are dealing with the fact that psychology aims at two poles, that is “psychoteology” and “psychobiology” inherent [...]. (ibid. 200, Author’s translation)

The split that he mentions in this quotation, between Mind without Matter and Matter without Mind, is precisely the disagreement between idealism and mechanical materialism described by Marx in the first Feuerbach-thesis. Marx characterised this dispute as a genuine Hegelian contradiction, in which the truth is distributed in such a peculiar way that both positions are wrong, and, at the same time, essentially correct.⁴² The very idea of a dialectical materialism was to achieve a sublation of the contradiction between a dialectical idealism and a mechanical materialism.

Vygotsky was born in Russia in 1896. He witnessed, as an enthusiastic student, the beginning of the communist revolution and the Marxist theory on which it was based. After studies in language, literature, arts, philosophy and psychology, he was employed at Moscow University’s psychological institute in 1924. It was there that he came up with a solution for the split in psychology: he worked according to the anthropology of Marx that is presented in his early writing and his section about work in the first part of *the Capital*.

In an article from 1925 (Vygotsky 1979), Vygotsky criticises the dissassociative state of psychology, split between a subjective school and a mechanical materialistic school, a case in point, the theory of reflexology.

The main premise of reflexology, namely, the purported possibility in principle of explaining all human behavior without any recourse to subjective phenomena and of constructing a psychology without mind, is the hand-me-down dualism of subjective psychology, its attempt to study pure, abstract mind. This is the other half of the old dualism: then there was mind without behavior, now we have behavior without mind; in both cases mind and behavior are not one, but two. (Vygotsky 1925,8)

Davydov and Radzikhovskii (1985) have proposed five points to characterise Vygotsky’s ideas about a dialectical materialistic psychology.

1. Antireductionism

Although the higher psychic functions are based upon the lower ones, they cannot be reduced to these. This is the phenomenon of emergence that was described in the discussion of Hegel and Marx.

2. The Historical Approach

Vygotsky's historical approach was a research programme that investigated the psyche by integrating phylogenetic, social historical (cultural historical) and developmental dimensions.

3. Internalisation

Vygotsky viewed internalisation as the counterpart to externalisation (entäußerung), and as materialised in cultural products, such as tools. The relation (dialectics) between internalisation and externalisation was a main theme in Vygotsky's work.

4. Signs as "Psychological Tools"

To better understand the function of signs in human culture, Vygotsky developed a semiotics, a theory of signs, in which he forged the metaphor *psychological tool* as a conceptual analogue to the category of material tools.

5. Mediation as a Psychological Phenomenon

In connection with his work on developing the category of *psychological tools*, Vygotsky attempted a transcendence of the classic two-component-schema of Stimulus-Response (S-R-psychology) to the mediated, three two-component-schema of S-T-R, in which T is either a material or psychological tool.

These individual points are discussed in detail below.

1.3.4.1 The Antireductionism of Vygotsky

In the quotation above, Vygotsky criticises the way reflexology reduces consciousness to reflexes. Vygotsky is thus an antireductionist who resembles Allport. In fact, Vygotsky's antireductionism is more extensive than Allport's holistic program, which presents concepts such as functional autonomy and personal style.⁴⁵ Vygotsky even suggests that an abstract extraction of the in-

dividual characteristics of a person is a specific kind of psychological reductionism. In contrast to such an individualistic antireductionism, Vygotsky insists on the social (or cultural) historical dimension of the psyche:

Social relations or relations among people genetically underlie all higher functions and their relationships. Hence one of the divisions of functions among people, the new division into two parts of what is now combined into one. It is the development of higher mental process in the drama that takes place among people. Therefore, the sociogenesis of higher forms of behavior is the basic goal toward which the child's cultural development leads us.

The word social when applied to our subject has great significance. Above all, in the widest sense of the word, it means that everything that is cultural is social. Culture is the product of *social life and human social activity* [emphasis of the Author]. (Vygotsky 1979,164)

This is one of the somewhat rare occasions that Vygotsky explicitly uses the term "activity". Another context in which this happens is in reference to the *compound dominating activity*²⁴, a concept of central importance for Vygotsky's successor Leontiev. Leontiev attempted to fulfil Vygotsky's antireductionist program by expanding Vygotsky's seminal, but still tender concept of activity into a definite theory of activity.

1.3.4.2 The Historical Approach of Vygotsky

In a methodological paper (Vygotsky 1978) based on a lecture from 1933, Vygotsky defines his view of the historical approach as the totality comprised by the phylogenic, the sociogenic and the ontogenic dimensions:

It is my belief, based upon a dialectical materialist approach to the analysis of human history, that human behavior differs qualitatively from animal behavior to the same extent that the adaptability and historical development of humans differs from the adaptability and development of animals. The psychological development of humans is part of the general historical development of our species and must be so understood. Acceptance of this proposition means that we must find a new methodology for psychological experimentation.

The keystone of our method, which I will try to describe analytically in the following sections, follows directly from the contrast Engels drew between naturalistic and dialectical approaches to the understanding of human history. Naturalism in historical analysis, according to Engels, manifests itself in the assumption that only nature affects human beings and only natural conditions determine historical development. The dialectical approach, while admitting the influence of nature on man, asserts that man, in turn, affects nature and creates through his changes in nature new natural conditions for his existence. This position is the keystone of our approach to the study and interpretation of Man's higher psychological functions and serves as the basis for the new methods of experimentation and analysis that we advocate (1978, 60f).

In addition, he elaborates his concept of a historically based psychology in the following way:

The concept of a historically based psychology is misunderstood by most researchers who study child development. For them, to study something historically means, by definition, to study some past event. Hence, they naively imagine an insurmountable barrier between historical study and study of present-day behavioral forms. *To study something historically means to study it in the process of change*: that is the dialectical method's basic demand. To encompass in research the process of a given thing's development in all its phases and changes – from birth to death – fundamentally means to discover its nature, its essence, for "it is only in movement that a body shows what it is". Thus, this historical study of behavior is not an auxiliary aspect of theoretical study, but rather its very base. As P.P Blonsky⁴⁴ has stated, "Behavior can be understood only as the history of behavior." (ibid. 64f)

However clear and far-reaching Vygotsky's methodological principles were, he was not able in his short life to implement this methodology into an empirical research programme. His pupils Leontiev and Luria write in their article *An introduction to Vygotsky's psychological thinking*:

The contradiction between his basic conception – that consciousness is a product of the interaction between the human being and its surroundings – and the theses he put forward as a result of his investigation of the development of consciousness in the child, this contradiction he attributed to the fact that a side of his theory was not, yet, sufficiently elaborated. (1974, 438)

However, it also might be a result of his still rather limited conception of the methodological range of psychology, in that he focuses on the experimental method. This limitation also appears in Vygotsky's tendency to narrow activity to behaviour in concrete psychological research. The closure of psychology within the confines of the laboratory, so characteristic of the still juvenile science of psychology, is not transcended very much by Vygotsky, or by his pupils.⁴⁶

Characteristically enough, Soviet psychology, for which Vygotsky was the founding father, reached farthest in the areas where the psychology implied is placed in a practical and consequently field-specific work situation, for instance as educational, industrial or neuro-psychology.

1.3.4.3 The Concept of Internalisation in Vygotsky's Work

A central theory of Vygotsky is the dialectics between Internalisation and Externalisation, a dialectics that was introduced in the sections on Hegel and Marx. In the following quotation, Vygotsky proposes that the concept of Internalisation is a fundamental part of the psychology of development and personality.

We could therefore say that it is through others that we develop into ourselves and that this is true not only with regard to the individual but with regard to the history of every function. The essence of the process of cultural development also consists of this. This cultural development is expressed in a purely logical form. The individual develops into what he/she is through what he/she produces for others. This is the process of the formation of the individual. For the first time in psychology, we are facing the extremely important problem of the relationship of external and internal mental functions. ... Any higher function necessarily goes through an external stage in its development because it is initially a social function. This is the center of the whole problem of internal and external behavior. [...] We could formulate the general genetic law of cultural development as follows: Any function in the child's cultural development appears twice, or on two planes. First it appears

on the social plane, and then on the psychological plane. Second it appears between people as an interpsychological category, and then within the child as an intrapsychological category. (1979,161f)

The acquisition of language was an area in which Vygotsky used the concept of internalisation with especial mastery, as witnessed by the following:

The greatest change in children's capacity to use language as a problem-solving tool takes place ... when socialized speech (which was previously used to address an adult) *is turned inward*. Instead of appealing to the adult, children appeal to themselves, language thus takes an *intrapersonal function* in addition to its interpersonal use. When children develop a method of behavior for guiding themselves that had previously been used in relation to another person, then they organize their own activities according to a social form of behavior, then succeed in applying a social attitude to themselves. The history of the process of the *internalization of social speech* is also the history of children's practical intellect. (1978,27)

Even though Vygotsky is best known for his study of the internalisation of language, he was, however, very much interested in the internalisation of social relations:

... all higher functions are not developed in biology and not in the history of pure phylogenesis. Rather the very mechanism underlying mental functions are internalized social relationships. (1979,164)

In fact, the continuation of the quotation contains a reference to the famous sixth Feuerbach-thesis that was discussed in the section on Marx:

To paraphrase a well-known position of Marx's, we could say that human's psychological nature represents the aggregate of internalized social relations that have become functions for the individuals and forms of his/her structure.

He also relates his own position to the previous, and alas even to a considerable extent, subsequently to psychology:

Formerly, psychologists tried to derive social behavior from individual behavior. They investigated individual responses observed in the laboratory and then studied them in the collective. (ibid.)

This criticised method presupposes a dualistic concept of socialisation, according to which the natural, but a-social predispositions of the child are developed into a-natural, but social, behavioural dispositions. Conversely, Vygotsky states:

In contrast to Piaget, we hypothesize that development does not proceed towards socialization, but towards the conversion of social relations into mental functions. (ibid. 165)

Piaget, who was not aware of this criticism before Vygotsky's death, in a sympathetic, but hardly correct way, attempted to diminish this disagreement.⁴⁷ Their difference in opinion is fundamental, however. It is the difference between Piaget's Kantian individualistic epistemology and Vygotsky's Hegelian collective theory of knowledge.

In Vygotsky's conception of culture as externalised humanity and the psyche as internalised culture, we meet once again a basic dialectics of human activity. We are now within the confinement of psychology; it is the dialectics between the externalisation of the Self and the transcendence of this externalisation in the form of internalisation of the much-externalised Self, as already envisaged in the dialectics of Hegel and Marx.

However, neither of these two great thinkers had a clear concept of internalisation; this is one of Vygotsky's most important achievements.

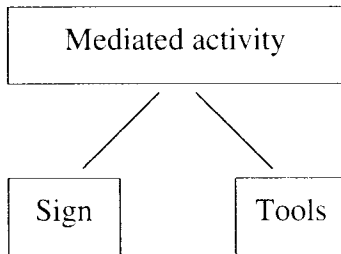
1.3.4.4 Signs as “Psychological Tools” and Vygotsky's Idea of Mediation

Another original and essential contribution to psychology is Vygotsky's semiotics.⁴⁸ The starting point for his semiotics is a definition of signs as objective, cultural entities, comparable to material tools. When Vygotsky characterises signs as “psychological tools”, it is not just a metaphor, but also a demonstration of the basic similarity between tools and signs as cultural externalisations of human activity:

...the sign, like the tool, is separate from the individual and is in essence a social organ or a social means. (ibid. 164)

In the following, he writes about this fundamental relationship between signs and tools:

...the basic analogy between sign and tool rests on the mediating function that characterizes each of them. They may, therefore, from the psychological perspective, be subsumed under the same category. We can express the logical relationship between the use of signs and of tools using [the following figure], which shows each concept subsumed under the more general concept of indirect (mediated) activity. (Vygotsky 1978,54)



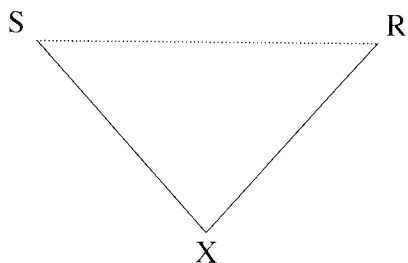
This definition of signs has a surprisingly modern sound. It was not at all common at the time of its writing in 1930, and has only won recognition in the era of information technology since 1980. One should note that Vygotsky had a specific background in the study of language and literature and that he had the valuable treasure of Russian formalism as an inspirational platform⁴⁹.

Just as the material work tool is an extension and an *externalisation* of human physiology, Vygotsky considers the sign to be a psychological tool that is an externalisation of psychological skills already present in the individual. Thus, the knot, the *quippu* of the Aztecs, is an externalisation of individual memory. Even the more complicated signs serve higher psychic functions through:

...self-generated stimulation, that is, the creation and use of artificial stimuli which become the immediate causes of behavior. (Vygotsky 1978,39)

What Vygotsky has in mind is an extension of the binary S-R relation into a three-member semiotic relation:

Consequently, the simple stimulus process is replaced by a complex, mediated act, which we picture as: (ibid., 40)



Engeström (1987) suggests that Vygotsky is introducing a theory originally developed by Pierce (Colapietro & Olshewsky 1996), a theory that was later to be popularised by Ogden and Richard (1936) as the Sign-Triangle.

The concept of mediation, no doubt, is of great importance, and I have made the concept of mediated activity a cornerstone of the anthropology presented in chapter 3.

Nevertheless, the problematic content of Vygotsky's mediation concept is that despite his criticism of the S-R scheme, he does preserve a good part of the basic definition of behaviour. A consistent activity-based psychology, however, is not merely an extension of the two-member S-R formula into a three-member S-M-R, with M (in the figure X) standing for the semiotic mediator. The leap from the Cartesian scheme of S-R to Activity Theory is so radical that the very concepts of stimulus and response are hardly useful anymore as a general platform for psychology.

1.3.4.5 The Zone of Proximate Development – Vygotsky's Theory of Appropriation

A concept that combines theoretical sublimity with considerable practical importance for pedagogics is *the Zone of proximate development*. Vygotsky defines this concept in the following way:

The Zone of proximate development [...] is the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers.

(Vygotsky 1978, 86)

Vygotsky integrates his ideas of mediation and internalisation in what is actually an embryonic theory of *appropriation*. The concept of the *Zone of proximate development*, or *ZoPeD* among Vygotskyans, is the fruit of a most dialectical thinking. The bipolar system of education consists of the two relatants, the pupil and the educator. In addition, it is integrated into a single concept without reducing the dual relatants or their relation. The dialectic is connected by the very impossibility of the task that produces the dynamics of appropriation. This impossibility can be seen as the bootstrap-problem of the learner doing something beyond his or her capacity. Characteristic for the founder of the socio- or cultural historical school, this *impasse* is overcome, not by the individual learner in isolation, but by the dyadic system, or more generally, the social system, engaged in the task of *appropriation*.

The intergenerational cycle, in which the generation growing up is taking over the culture from the adults, has been described from two opposite perspectives. On the one hand, sociologists suggest that it is socialisation by seeing the educators as the pole of *agens* and their children or pupils as the pole of *patiens*. On the other hand, developmental psychologists consider it to be spontaneous development by suggesting that children are the pole of *agens* and the cultural competence they pursue in their development is the pole of *object*. These perspectives can be integrated in the concept *appropriation*, and theoretically understood as the dynamics of *ZoPeD*.

1.3.4.6 The Psychological Heritage of Vygotsky

Leontiev points out in his last book (1977) that there are two interconnected ideas that Vygotsky proposed as the very foundation for a psychological science:

The tool structure of human activity and the fact that activity is built into a system of mutual relations with other persons. (1977,101)

This was what Leontiev defined as the heritage from his master.

Two of Vygotsky's most outstanding pupils, Luria and Leontiev (1958), also point out what was unfulfilled at his early death:

There is, however, not always a total congruence between the methodology declared by a scientist and the actual methods applied by the same person. In his methodology, he recommended real life observation and integration of theoretical and applied psychology. In his own empirical works, he was generally restricted to a rather traditional procedure of experimental psychology, although his experiments were of an extraordinary quality and originality. This contradiction is especially clear in Vygotsky's last works, a fact indicating the unfortunate immaturity of his death.

Thus Vygotsky himself remained not only critical, but even self-critical toward the tendency in psychology to separate the consciousness from the real life of a person, and the intellectual side from the rest of personality.

Vygotsky's following remark is then quoted:

Isolating the intellectual side of consciousness from the affective-voluntary side is one of the most essential and decisive errors in all the traditional psychology. Hereby thinking inevitably is transformed to an autonomous stream of self reproducing thoughts, isolated from the immediate life as a whole. The thought is not the last instance. It is not bred by another thought, but by a motivating sphere in our consciousness, encompassing our inclinations and needs, interests and impulses, affects and emotions. Behind the thought stands an affective and voluntary inclination. Only that can by analysis of the thought give an answer to the last "why". (Vygotsky 1956,438)

Luria and Leontiev conclude by noting that at his death, Vygotsky had planned to extend his studies of the psychological characteristic of meaning as the unity of consciousness by investigating the role of affect. It is crucial when evaluating Vygotsky's significance as a founder of a great theory to insist on the connection between the strength and the weakness of his work.

His strength was his intuitive understanding of how to develop a dialectical materialistic psychology, and his weakness was the practical impossibility of implementing more than a hint of this ambitious research programme during just a dozen busy years as a scientist. Therefore, he left a rich and burdensome heritage to his successors by his premature death in 1934 due to tuberculosis.

1.3.5 Leontiev

Leontiev had (together with Luria) the privilege of close cooperation with Vygotsky during most of Vygotsky's career. Furthermore, Leontiev is the member of the socio-historical school who most consistently has worked to develop a general psychology along the lines stipulated by Vygotsky. I think the difference between the two men is that although Vygotsky really could achieve no more than meta-psychological theory, a methodology for psychology, Leontiev has developed a real and consistent, although often rather imprecise, psychological theory. This theory is Activity Theory.

The evolutionary line in the history of ideas that has been drawn from Fichte to Vygotsky is richly affirmed in Leontiev's works. He explicitly refers to all the figures mentioned in this section, to Fichte, Hegel, Marx and, of course, to his teacher Vygotsky. Just as Vygotsky was, Leontiev was an honest, but unorthodox Marxist. His reading of Marx was no lip service to the Stalinist ideology of pseudo-Marxism, but a genuine effort to erect a dialectical materialistic psychology.

The following quotations show that the passages from the Feuerbach-theses, *the Critique of the Political Economy* and *the Capital* are the very foundation of Leontiev's concept about object-directed activity.

1.3.5.1 The Concept of Activity

Characteristically enough, it is very difficult to find an explicit definition of this basic concept. This missing definition is related to three different facts. The first is that the content of the concept of activity is very broad indeed. It covers what in Anglo-Saxon psychology is placed within the object field of comparative psychology, that is, the activity of diverse species of animals, including the specific activity of humans.

The second reason is that all of Leontiev's concepts are systemic, that is to say that they cannot be defined singularly, but get their meaning through their individual positions and mutual relations within the total system. Thus, the concept of *human activity* is immediately related to concepts such as object, motive, need, action, and meaning.

The third factor is that the concept of human activity with its background in Marxist theory is more than a *psychological* concept, encompassing societal aspects as well.

We shall return to the societal aspects later. First, we will delimit the life processes constituting activity from the biological processes that are a basic necessity for activity, but outside the range of activity itself:

The specific processes that realize some vital, i.e. active, relation of the subject to reality we shall term processes of activity, in distinction to other processes. (Leontiev 1981.37)⁶⁰

In this way, Leontiev elegantly has described the relationship between the part of the biological object field that is defined by physiology and the part that is confined within the area studied by comparative psychology. His idea is that at a certain point in the evolutionary course, a bifurcation of life processes occurs, thus delimiting the purely physiological processes from the activity processes:

At a definite stage in biological evolution, the interaction process serving the maintenance of life is bifurcated, so to speak. On the one side, we see the impact from the surroundings immediately determining the existence of the organism and to which it reacts with the basic life processes and functions. On the other side, neutral influences operate, to which the organism responds with processes that only realise the organic basic functions mediately, that is, as behavioural processes. [Author's translation]⁶¹

1.3.5.2 Psychogony (from Irritability to Sensibility)

By introducing this split, Leontiev has also identified *the psychic*. Leontiev thus has an explicit psychogony, operating with an initial stage of *irritability* that encompasses the pre-psychic life-forms. The phylogenically subsequent stage of *sensibility* is characterised by the replacement of the merely biochemical reactivity found in the former stage with a specific ability of the organism to orient to its surroundings. This orientation function is what Leontiev calls *psychic reflection*, a concept that shall be discussed in a moment. Before that, however, I will continue with the genetic point of view rather than defining, by introducing his theory of the ascent of this remarkable property:

[T]he origin of sensitivity is connected with organisms' transition from a homogenous medium, from a 'medium-element', to one formed as things, to an environment of discrete objects. The organisms' adaptation, which is always, it goes without saying, a kind of reflection of properties of the environment by them, now acquires the form as well of reflection of affective properties of the environment *in their objective connections and relations*. This is also a specific form of reflection for the psyche, object reflection. For the object, i.e. a material thing, always has several interconnected properties: in that sense it is always a knot of properties.

At a certain stage of biological evolution, the former single complex process of reciprocal action realizing organismic life thus bifurcated as it were. Some of the environment's influences affected the organism as determinants (positive or negative) of its very existence, others only as stimuli and directors of its activity.

There was also, correspondingly, a bifurcation of organisms' vital activity.

On the other hand, the processes that were directly linked with the support and maintenance of life became differentiated. They constitute the primary, initial form of the organisms' vital activity underlying which are phenomena of their primordial irritability.

On the other hand, processes became differentiated that did not directly have life-supporting functions and simply mediated an organism's links with those properties of the environment on which its existence depended. They constituted a special form of vital activity that also underlay organisms' sensitivity and their psychic reflection of the properties of the external environment. (Leontiev 1981, 45)

Just as with the subsequent part of his theory of psychogenesis (to be discussed below), Leontiev emphasises the orientation aspect of the psychic, which is similar to the Leninist theory of perception and knowledge, the so-called theory of reflection (which is discussed and criticised in chapter 4). The next quotation shows that Leontiev even defines the psychic as reflection.

1.3.5.3 The Psychic as Reflection (and as Activity)

Mind is a property of living, highly organized material bodies that consists in their ability to reflect through their states the reality around them, which exists independently of them. That is the most general, materialist definition of mind. Psychic phenomena, i.e. sensations, presentations, concepts, are more or less precise, profound reflections, images, pictures or reality. They are consequently secondary to the reality they reflect, which is, on the contrary, primary and determinant. (ibid. 18)

In my opinion, this is one of the basic theoretical inconsistencies in Leontiev's work.

In the former quotation, he defined the psychic by the ascent of activity, as a leap from the simple biochemical reactivity of the pre-psychic life forms of irritability. This evolution simultaneously creates a bifurcation in the biology of the organism into two kinds of processes, the simple physiological ones and the activity processes.

In the present quotation, on the other hand, he defines the psychic as reflection. This is, however, evidently a restriction of the first definition, as far as activity processes are both sensory and motoric.

Leontiev, thus, seems to have the following implicit system of concepts:

A Reconstruction of Leontiev's Thinking about the Psychic (Mind)

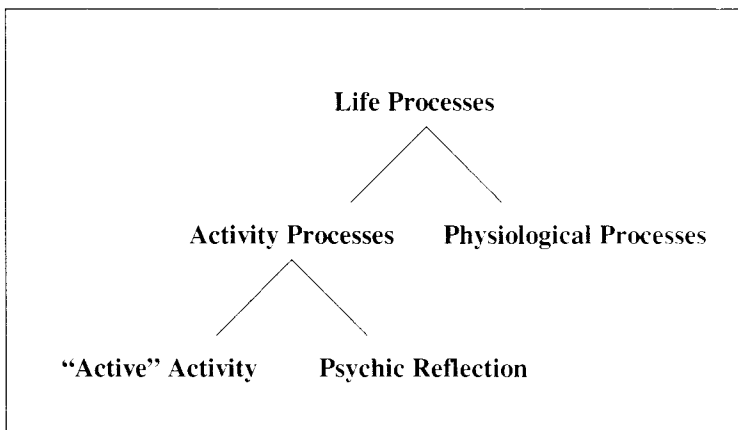


fig. 1.2

Even though I certainly agree with Leontiev's position that the reflection aspect of activity is a decisive precondition for the psychic (its genesis as well as its quality), it seems evident that the concept of activity contains more than that. The "active" activity in all psychic life forms, humankind of course included, is at least just as important an aspect of activity.

I shall return to this problem, which in my opinion is an expression of the ideological straight jacket that was a limitation, but not an absolute hindrance, for Leontiev's theoretical work.⁵²

1.3.5.4 Activity and its Object

Leontiev, as already mentioned, uses the Feuerbach-theses as the basis for specifying that *human* activity is object-oriented. In his broad, comparative concept of psychological activity, he generalises this characteristic, suggesting that it encompasses even other life forms (above the stage of mere irritability). Thus, even the concept *object* (German *Gegenstand*) is generalised and is used in the analyses of pre-anthropological activity, as shown in the following quotation:

We shall also, accordingly, limit the concept of object. It is normally used in a dual sense: in the broadest one as a thing standing in some kind of relation to other things, i.e. as 'a thing having existence'; and in a narrower sense – as something withstanding (German *Gegenstand*), resistant (Latin *objectum*), that to which an act is directed, i.e. as something to which precisely a living creature relates itself as the object of its activity – indifferently as outward or inward activity (e.g. object of nutrition, object of labour, object of meditation, etc.). From now on we shall employ the term object precisely in this narrower, special sense. (ibid. 36)

The concepts *Activity* and *Object* thus constitute an interdependent pair; the content of each of them is determined by their counterpart. It should be noted that in his use of the concept object in relation to human activity (and even in the closely related intellectual stage of the apes), Leontiev follows the philosophical tradition. That is, "object" designates not only a tangible entity, toward which the activity is directed, but also intangible matters that are the focus point of the activity in question. In the next chapters, I will discuss this doubleness that no doubt is an inevitable ambiguity attached to human intentionality. But, I will outline my embarrassment with the "intangible" meaning of the concept here.

I would suggest that what makes the “intangible” meaning problematic is the fact that the “intangible” object is only given in and by the activity. If we say that the *object* of a chimpanzee’s “run of imposing” is its status in the ape group, the use of the concept is more circular than explanatory. Rather than saying that the activity is defined by its object, we must admit that, at least in the empirical sense, it is just the other way round, as the intangible object “status-in-the-group” is actually defined by the activity of the chimpanzee and its companions.

This conceptual weakness resembles the dispositional qualities that Skinner (1974) criticises. Thus, Skinner argues that the concept of need is vacuous, as we never have any empirical access to such a state except by observing a certain kind of behaviour that we interpret as the effect of such a need being operated.

However, Leontiev happens to agree with Skinner in the refutation of those theories of motivation that simply declare a need to be the explanation of a specific activity. Nonetheless, methodologically the same problem arises with the appointment of some intangible abstraction to be the object of activity.

It is at least clear that it cannot be a simple empirical proposition, as some intangible state of affairs, not yet materialised in the field of the organism, is what is the true object of activity. Rather, we are confronted here with a theoretically based category of Activity Theory, denoting what is objectively, but not necessarily materially present, with the disposition being the object of activity (including its reflection part). This is demonstrated in the following quotation:

A basic or, as is sometimes said, a constituting characteristic of activity is subordinate to its objectivity. Properly, the concept of its object (*Gegenstand*) is already implicitly contained in the very concept of activity. The expression “objectless activity” is devoid of any meaning. Activity may seem objectless, but scientific investigation of activity necessarily requires discovering its object. Thus, the object of activity is twofold: first, in its independent existence as subordinating to itself and transforming the activity of the subject; second, as an image of the object, as a product of its property of psychological reflection that is realized as an activity of the subject and cannot exist otherwise. (Leontiev 1978,52)

1.3.5.5 Activity and Need

As was mentioned, both Leontiev and Skinner discard the simplistic motivational theory that there is a need causing behaviour. There is a concept of need in Leontiev's theory of activity, the need, however, is not a mechanical force causing behaviour:

[A]ny activity realising animals' directly biological, instinctive relations with the nature around them, is characterised by its always being directed to objects of biological need and stimulated by those objects. There is no activity in animals that does not respond to some sort of direct biological need, that is not evoked by an effect with biological meaning for them, i.e. the sense of an object is that it satisfies a given need of theirs[...] The object of animals activity, as we have already said, and its biological motive always merge in them, and always coincide with one another. (Leontiev 1959a, 209f)

In the case of human beings, this still rather simple scheme connecting need, object and activity, becomes far more complicated. However, for the general concept of need to cover the comparative psychological object field, it is necessary to distinguish between the biological and the (comparative) psychological aspect of the need:

In the psychology of needs it is necessary from the very beginning to proceed from the following fundamental distinction: the distinction of need as an internal condition, as one of the necessary precursors of activity, and need as that which directs and regulates concrete activity of the subject in an environment. [...] Need is an object of psychological cognition especially in its directing function. In the first place, need appears only as a condition of the need of the organism and is in itself not capable of evoking any kind of positively directed activity: its function is limited to the activation of appropriate biological function and general excitation of the motor sphere apparent in non-directed seeking movements. Only as a result of its "meeting" with an object that answers it does it first become capable of directing and regulating activity. (Leontiev 1978, 53f)

The concept of *need*, according to Leontiev, however, unlike *drive*, is not a blind force, but something predisposed to meet its object:

The meeting of need with object is an extraordinary act. [...] This extraordinary act is an act objectifying need, “filling” it with content derived from the surrounding world. This is what brings need to a truly psychological level. (Leontiev 1978,54f)

In Leontiev’s model of the concept of need, it appears as if need goes through three stages:

1. the **need state** as an internal biological condition of organismic disequilibrium
2. the **aroused need** (triggered by 1.) stimulating a yet diffuse search⁵⁵
3. the **object-oriented** need governing activity

1.3.5.6 The Second Stage of Psychogenesis: the Perceptive Psyche – Operation

Leontiev’s theory of psychogony has been introduced as the ascent of the psychic at the transition from irritability to sensibility. The next progression in psychogenesis is the passing from the sensoric to the so-called perceptive psyche:

The next stage after that of the elementary sensory psyche, the second stage of evolution, can be called that of the perceptive psyche. It has the capacity to reflect external, objective reality already in the form of a reflection of *things* rather than in the form of separate elementary sensations evoked by separate properties or a combination of properties. (Leontiev 1983, 175)

As was the case for the transition to the sensory stage, it is not merely on the side of reflection that changes take place. A new type of learned, non-stereotypic, situated activity becomes attached to the more holistic perception of the object as more than a signal-like trigger of instinctive motoric behaviour. This activity is directed toward a certain entity, necessitating a change in performance as well as in the perception side of activity:

[T]he influence to which mammals' activity is directed no longer merges with influences from the barrier in them, but both operate separately from one another for them. The direction and end result of the activity depends on the former, while the way it is done, i.e. the mode in which it is performed (e.g. by going around the obstacle), depends on the latter. This special make-up or aspect of activity, which corresponds to the conditions in which the object exciting it is presented, we shall call *operation*. (ibid. 175f)

1.3.5.7 The Third Stage of Psychogenesis: the Intellectual Psyche

Leontiev assumes that this transition is connected to the evolutionary leap from ocean dwelling animals (fishes) to vertebrates living on the land, that is, the evolutionary line of amphibians, reptiles and higher vertebrates (birds and mammals). Before reaching the final stage, the psychology of human beings, his real area of interest, he inserts an intermediate stage, the last stage before the human one. This is the intellectual stage, but he has rather little to say about it, because his knowledge base was restricted to the seminal experiments of Köhler (1973) during World War I.

From a theoretical point of view, there is not much substance in this stage either, as no new concepts are introduced.

1.3.5.8 The Fourth Stage of Psychogenesis: the Dawn of Human Consciousness

The groundwork for Leontiev's anthropogony is a faithful, but hardly original interpretation of Marx's short, but far-reaching reflections on the concept of work in *the Capital* (discussed above in the section on Marx). It is also based on Engel's more verbose, but looser speculation about the significance of work in the transition from animal to humankind. (Marx & Engels 1974 Vol. 20, p.449)

Leontiev emphasises that there are two constitutive characteristics associated with work as a specific *human* form of activity. The first characteristic is the use of tools as a mediator of activity. The second is the collective, societal character of work, for which society itself is formed as the prime mediator:

Only through a relation with other people does man relate to nature itself, which means that labour appears from the very beginning as a process mediated by tools (in the broad sense) and at the same time mediated socially. (Leontiev 1981. 208)

However, Leontiev transcends his ideological orthodoxy and liberates his theoretical creativity by introducing some very original and fertile concepts and conceptual relations attached to this collective character of human activity.

1.3.5.9 Action as the Concrete, but Incomplete Sub-total of Activity – Goal and Motive

In the perceptive stage, human activity is directly implemented in operations and directed toward the specific conditions (such as hindrances) that must be accounted for so that the activity can reach its object. Leontiev evidently regards activity as a process that is primarily connected to the individual animal, as is the case for the operation.

When, however, activity becomes societal, a division of labour is introduced. The individual human being, on the one hand, is a participant in a collective activity and, on the other hand, is engaged in a specific, from the co-participant's perspective, different activity. This implies the dialectic between the collective and the individual perspective, which is the very kernel of Leontiev's theory.

The ingenious way Leontiev attempts to sublimate this conceptual contradiction of activity being simultaneously a collective and an individual process is by introducing not only the concept of activity, but also the concept of action. The former is the shared perspective of the collective engaged in the activity, the latter is exclusively attached to a single individual participating in the activity.

For animals (here excluding human beings), activity is immediately motivated by a certain need. An object is searched for, an object possessing significance for the animal as a means to satisfy the need in question. The meaning of the object, its adequacy to satisfy the need, is simply the motive for the activity. In Leontiev's terminology, the motive and object of activity are identical. More precisely, we could define the motive as the conative directedness of the animal toward the object as a potential source of satisfaction. This simple state of affairs is, however, not always true for human beings:

When a member of a group performs his labour activity, he also does it to satisfy one of his needs. A beater, for example, taking part in a primaeval collective hunt, was stimulated by a need for food or, perhaps, a need for clothing, which the skin of the dead animal would meet for him. At what, how-

ever, was his activity directly aimed? It may have been directed, for example, at frightening a herd of animals and sending them toward other hunters, hiding in ambush. That, properly speaking, is what should be the result of the activity of this man. And the activity of this individual member of the hunt ends with that. The rest is completed by the other members. This result, i.e. the frightening of game, etc. understandably does not in itself, and may not, lead to satisfaction of the beater's need for food, or the skin of the animal. What the processes of his activity were directed to did not, consequently, coincide with what stimulated them, i.e. did not coincide with the motive of his activity: the two were divided from one another in this instance. Processes, the object and motive of which do not coincide with one another, we shall call 'actions'. We can say, for example, that the beater's activity is the hunt, and the frightening of game his action. (ibid. 210)

Thus, the *activity* is the ultimate need satisfying process of catching the prey, whereas the *action* in question is the driving of the prey away from the beater.⁵⁴ And Leontiev continues:

Genetically (i.e. in its origin) the separation of the object and motive of individual activity is a result of the exarticulating of the separate operations from a previously complex, polyphase, but single activity. These same separate operations, by now completing the content of the individual's given activity, are also transformed into independent actions for him, although they continue, as regards the collective labour process as a whole, of course, to be only some of its partial links. (ibid. 210f)

In Leontiev's last book (1977), the definitions of activity and action are clarified:

Separate concrete types of activity may differ among themselves according to various characteristics: according to their form, according to the methods of carrying them out, according to their emotional intensity, according to their time and space requirements, according to their physiological mechanisms, etc. The main thing that distinguishes one activity from another, however, is the difference of their objects. It is exactly the object of an activity that gives it a determined direction. *According to the terminology I have proposed, the object of an activity is its true motive. [Emphasis of the author]* It is understood that the motive may be either material or ideal, either present

in perception or existing only in the imagination or in thought. The main thing is that behind activity there should always be a need, that it should always answer one need or another.

Thus the concept of activity is necessarily connected with the concept of motive. Activity does not exist without a motive: "nonmotivated" activity is not activity without a motive but activity with a subjectively and objectively hidden motive.

Basic and "formulating" appear to be the actions that realize separate human activities. We call a process an action if it is subordinated to the representation of the result that must be attained, that is, if it is subordinated to a conscious purpose. Similarly, just as the concept of motive is related to the concept of activity, the concept of purpose is related to the concept of action.

The appearance of goal-directed processes or actions in activity came about historically as the result of the transition of man to life in society. The activity of participators in common work is evoked by its product, which initially directly answers the need of each of them. The development, however, of even the simplest technical division of work necessarily leads to isolation of, as it were, intermediate partial results, which are achieved by separate participators of collective work activity, but which in themselves cannot satisfy the workers' needs. Their needs are satisfied not by these "intermediate" results, but by a share of the product of their collective activity, obtained by each of them through forms of relationships binding them one to another, which develop in the process of work, that is, social relationships. (Leontiev 1978, 62f)

Probably the most lucid exposition of this decisive relation between activity and action is made in the following:

In connection with isolating the concept of action as major and "formulating" human activity (its moment), it is necessary to take into consideration that scarcely initiated activity presupposes the achievement of concrete purposes, among which some are interconnected by a strict sequence. In other words, activity usually is accomplished by a certain complex of actions subordinated to particular goals that may be isolated from the general goal; under these circumstances, what happens that is characteristic for a higher degree of development is that the role of the general purpose fulfilled by a perceived motive, which is transformed owing to its being perceived as a motive-goal. (ibid. 64)

1.3.5.10 The Operation as the Implementation Form of Action

We have now discussed the upper part of Leontiev's conceptual architecture, consisting of need, object, motive, activity and action. We still lack, however, the base of implementation for activity. This mundane constituent is the operation.

The concept *operation* was already introduced in the perceptive stage. Just as with activity itself, this constituent gets new content in human activity, as an operation for human beings is enriched by a specific meaning. That is, its significance is as a realisation condition for the action of which it is a condition of realisation:

Every purpose, even one like the "reaching of point N", is objectively accomplished in a certain objective situation. Of course, for the consciousness of the subject, the goal may appear in the abstraction of this situation, but his action cannot be abstracted from it. For this reason, in spite of its intentional aspect (what must be achieved), the action also has its operational aspect (how, by what means this can be achieved), which is determined not by the goal in itself but by the objective-object conditions of its achievement. In other words, the action being carried out is adequate to the task; the task then is a goal assigned in specific circumstances. For this reason the action has a specific quality that "formulates" it specifically, and particular methods by which it is accomplished. I call the methods for accomplishing actions, operations. (ibid. 65)

Leontiev emphasises that the human operation is not just determined by the conditions for the activity set by nature, but even by the cultural conditions set by society. Important conditions are thus the tools and the collective organisation of the work process.

1.3.5.11 Degradation of Action to Operation – Automation

In Leontiev's theory, the conceptual triangle of *activity, action and operation* is made by constituents that are fundamentally relational and thus very fertile in the description of dynamic processes in the total structure of activity.

As an example of such dynamics, we shall now focus on the psychological process of automation:

Actions and operations have various origins, various dynamics, and various fates. Their genesis lies in the relationships of exchange of activities; every operation, however, is the result of a transformation of action that takes place as a result of its inclusion in another action and its subsequent "technization". A simpler illustration of this process may be the formation of an operation, the performance of which, for example, requires driving a car. Initially every operation, such as shifting gears, is formed as an action subordinated specifically to this goal and has its own conscious "orientational basis". Subsequently, this action is included in another action, which has a complex operational composition in the action, for example, changing the speed of the car. Now shifting gears becomes one of the methods of attaining the goal, the operation that effects the change in speed, and shifting gears now ceases to be accomplished as a specific goal-oriented [process: Its goal is not isolated. For the consciousness of the driver, shifting] gears in normal circumstances is as if it did not exist. He does something else: He moves the car from a place, climbs steep grades, drives the car fast, stops at a given place, etc. Actually this operation may, as is known, be removed entirely from the activity of the driver and be carried out automatically. Generally, the fate of the operation sooner or later becomes the function of the machine. (ibid, 66)

Leontiev describes the status of operations in consciousness in the following way:

An action and its objective of composing part of another action are no longer 'presented' directly in consciousness. That does not mean, however, that they cease to be conscious. They simply occupy a different place in consciousness; they are only consciously controlled, as it were, i.e., can be conscious in certain conditions. Thus the operation of aligning the foresight like its position itself in relation to the back-sight, may not be presented in the consciousness of an experienced shot, but it is sufficient for there to be some departure from its normal performance for the operation itself, like its material conditions, to come distinctly then into his consciousness. (Leontiev 1981, 235f)

I have not found an explicit reference in Leontiev's work to a corresponding gradation downwards from activity to action, but it is evident that this was also in Leontiev's mind when he developed his theory of psychological automation. For instance, driving a car is an independent (and possibly even dominating) activity for the learner, an activity consisting of actions like starting the motor, shifting the gear, changing the direction of the car, parking and so on. Alongside the down-gradation (automation) of these actions to operations, the total process of driving is downgraded from activity to action.

1.3.5.12 The Psychological Function

An operation is the smallest constituent of activity mentioned until now. There is, however, an even smaller psychological unit in Leontiev's theory of the structure of activity. In the same way, the activity itself is partitioned into intermediate results, actions, which again are implemented by being parcelled out into operations, adjusted to the specific conditions for the execution of the specific action. Thus, the operation is realised by means of a number of *psychological functions*:

In man, the formation of functional systems that are specific to him, the activity processes, take place as a result of his mastering of tools (means) and operations. These systems represent nothing other than exterior motor and mental, for example, logical – operations deposited, materialized in the brain. This is not a simple "calque" of them but rather their physiological allegory. In order to read this allegory, it is necessary to use another language, other units. These units are the brain functions, their ensembles – functional systems.

Including the investigation activity at the level of the brain functions (psychophysiological) makes it possible to encompass very important realities from which the study of experimental psychology actually began its development. It is true that the first works dedicated, as was then said, to "psychological functions" – sensory, mnemonic, discriminative and tonic – were theoretically hopeless regardless of the significance of the concrete contribution they made. This was the case because these functions were investigated in isolation from the subject's objective activity that they realized, that is, as phenomena of certain faculties – faculties of the spirit or the brain. The essence of the matter lies in that in both cases they were considered not as elicited by activity but as eliciting it. (Leontiev 1978, 70f)

Leontiev clarifies the way the psychological functions work as a mediator between psychology and physiology in the following:

A simple example is the formation and consolidation of operations. The initiation of one operation or another is of course determined by the presence of conditions, means, and methods of action that are made up or assimilated from outside; the joining, however, of one elementary link to another, forming the composition of the operation, their "compression" and their transfer to lower neurological levels, takes place in subordination to physiological laws with which psychology cannot but reckon. (ibid. 71)

The functions deviate from the overlying part of the activity hierarchy by having a normally automatic, non-conscious mode of operating. Leontiev concludes in the following way about the difference and relation between operations and functions:

In other words, only physiological systems of function realize perceptive, mnemonic, motor, and other operations. But let me repeat, operations cannot be reduced to these physiological systems. Operations always are subject to objective – subjective, that is, extra-cerebral, relations. (ibid. 73)

Using his concept *psychological function*, Leontiev attacks the classical problem that was initially called the psycho-physical problem, but today is defined as the neuro-psychological problem. It is characteristic in terms of the general consistency of his work that even this *micro-analytical problem* in psychology is treated through his determination of the *macro-analytical problem*. This *macro-analytical problem* is the relation between the explicit psychological processes, those attached to the individual part of activity, and the actual extra-psychological processes, those attached to the societal level, on which human activity as a whole has to be understood.

The unity of Leontiev's Activity Theory may be most clearly expressed in his proposition for solving the two main problems in the foundation of psychology. Using Sève's terminology, these are called *the psycho-biological problem* and *the psycho-social problem*. He solves these problems not with two separate theories, but with a single one, so to speak, in one stroke.

Methodologically, Leontiev's determination of the psychic functions has significant implications, as he at the same time makes a boundary and a bridge between the two object areas into which psychology has traditionally been divided, referred to in the Anglo-Saxon world as *scientific psychology* and *folk psychology*⁵⁵. He demonstrates that the isolation of these two areas from one another implies a loss of scientific generality, not to say an utter scientific empowerment of psychology. The approach of natural science can at most determine the physiological basis of the psychic functions. The matter of real psychological interest, the neuro- and cognitive psychological problems, however, can be conceived only within a macro- rather than a micro-perspective.

1.3.5.13 Up-gradation of the Constituents in the Structure of Activity

Just as Leontiev attempts to explain the dynamic transition between the constituents of activity in a downward direction (i.e., down-gradation), he also refers to the opposite transitions, that is, the ones in the upward direction, the up-gradations. Thus, an action can be upgraded, elevated to activity, when the motive of the action is raised from the directedness toward an intermediate goal, a preliminary result, to an independent goal, a goal-in-itself:

There is [an] essential change in activity that leads to awareness of the sphere of men's other relations coming about, as well as awareness of the sphere of direct production.

The emergence of a relatively stable technical division of labour made this change necessary; the division was expressed in individual people's acquiring of fixed production functions, i.e. in their being constantly engaged in performing a certain round of actions. The natural consequence of that (once again already described in the old psychology) was that a kind of shift of motive took place in the objective of these actions. The action was also now transformed, but no longer into an operation, as we saw above, but into activity that now has an independent motive. Because of that, motives also come into the realm of the conscious. Such shifts of motives are constantly observed at the highest stages of development as well. These are the ordinary cases when a person undertakes to perform some actions under the influence of a certain motive, and then performs them for their own sake because the motive seems to have been displaced to their objective. And that means that the actions are transformed into activity. Motives of activity that have such an origin are conscious motives. They do not become conscious, however, of

themselves automatically. It requires a certain, special activity, some special act. This is an act of reflecting the relation of the motive of a given, concrete activity to the motive of a wider activity, that realises a broader, more general life relation that includes the given, concrete activity. (Leontiev 1981, 238)

Such up-gradation happens whenever a means of a terminal goal is upgraded to being a terminal goal in itself. Thus, the opposite process of the downgrading of driving mentioned above happens when a driver, after obtaining mastery of driving, turns the action of driving as a means of transport into an independent activity with its own motive. This happens for instance if the driver is engaged in racing.

1.3.5.14 Consciousness, Meaning and Sense

Already in Leontiev's theory of psychogenesis, the consciousness concept is given such an overwhelming importance that it is used to name and seemingly even to define the stage of the human psyche that accordingly is called the stage of consciousness. In his last book (Leontiev 1977), this concept is placed in the title, surrounded by *activity* and *personality*. Thus, consciousness is evidently a basic concept for Leontiev, and in fact, he dedicates a separate chapter to each of the three concepts.

Consciousness is thus defined as the specified form of reflection of the human being, and it is especially on the basis of the decisive concepts about human reflection, meaning and personal sense that Leontiev attempts to determine the content of consciousness. In the following, Leontiev gives an explicit definition of consciousness:

Consciousness in its directness is a picture of the world, opening up before the subject, a picture in which he himself, his actions, and his conditions are presented. (Leontiev 1978, 129)²⁶

Leontiev's psychogenic explanation of the ascent of consciousness is:

Historically, the necessity of such a "prospect" (presentability) of a psychic image to the subject occurs only in a transition from adaptive activity of animals to productive work activity specific to man. The product toward which activity is directed does not yet exist. For this reason it can direct activity

only if it is presented to the subject in a form that allows it to be compared with the original material (the object of work) and its inter-mediate transformations. Moreover, the psychic image of the product as a goal must exist for the subject in order that he might work with this image, i.e., modify it in relation to present conditions. Such images are in essence conscious images, conscious representations in a word, the essence of the phenomena of consciousness. (ibid. 131)

In the last part of the quotation, Leontiev emphasises that consciousness is more than a way of relating to an object and to the activity directed towards this object. Consciousness is a way of relating to oneself as well. Just as human activity consists largely in the production (object-ivation) of the entities necessary to satisfy human needs and the tools used to purvey these, consciousness is also capable of objectifying, or to use the terminology of Hegel and Vygotsky, of externalising itself. For this externalisation, Leontiev uses the term *meaning*. Or rather, externalisation indicates meaning in its explicit form. He exemplifies this through his cherished story of the beater driving the prey in the direction of the hunters:

The meaning or significance is also that which is objectively revealed in an object or phenomenon, i.e. in a system of objective associations, relations, and interactions. The significance is reflected and fixed in language, and acquires stability through that. In this form, in the form of linguistic meaning, it constitutes the content of social consciousness: by entering into the content of social consciousness it also becomes the 'real consciousness' of individuals, objectifying in itself the subjective sense of the thing reflected for them. (Leontiev 1981,225f)

And he proceeds:

Meaning is the generalization of reality that is crystallized and fixed in its sensuous vehicle, i.e. normally in a word or a word combination. This is the ideal, mental form of the crystallization of mankind's social experience and social practice. The range of a given society's ideas, science, and language exists as a system of corresponding meanings. Meaning thus belongs primarily to the world of objective, historical phenomena. And that must be our starting point. (ibid. 226)

In this passage, the semiotic heritage from Vygotsky clearly appears. Leontiev even tends to expand the concept of meaning from its original psychological status as *psychological tool* to a societal status as a collective reflection of objective aspects of actuality. This, however, implies a fundamental problem concerning the ontological status of meaning, as either something existing external to and independent of consciousness, or as something that is still a part of consciousness. Here we seem to get ambiguous reports:

Thus meanings interpret the world in the consciousness of man. Although language appears to be the carrier of meaning, yet language is not its demiurge? Behind linguistic meanings hide socially developed methods of action (operations) in the process of which people change and perceive objective reality. In other words, meanings represent an ideal form of the existence of the objective world, its properties, connections, and relationships, disclosed by cooperative social practice, transformed and hidden in the material of language. For this reason, meanings in themselves, that is, in abstraction from their functioning in individual consciousness, are not so "psychological" as the socially recognized reality that lies behind them.

Meanings constitute the subject matter for study in linguistics, semiotics, and logic. (Leontiev 1978, 85)

This passage thus firmly establishes the objective status of meaning as just as "non-psychological" as the societal actuality of which it is a reflection. He proceeds however:

Also, as one of the "formers" of individual consciousness, meanings necessarily enter into the circle of problems of psychology. The main difficulty of the psychological problem of meaning is that in meaning arise all of those contradictions that confront the broader problem of the relationship of the logical and the psychological in thought, in logic, and in the psychology of comprehension. (ibid. 85)

While thus eloquently emphasising the objective, societal status of meaning, Leontiev still has to maintain that meaning is ontologically attached to the single individual:

Meaning has no existence except in concrete human heads: there is no independent realm of meanings, like Plato's world of ideas. (Leontiev 1981, 226)

This somewhat confusing attempt to define meaning is evidently linked to the reflection theory that unfortunately was the basis for Leontiev's work. Meaning understood as a reflection must be something, at the same time, objective and insubstantial. It has the form, but not the substantiality of an object (material). Thus, Leontiev's theory of meaning appears to be a reminiscence of, if not Plato's concept of idea that is so strongly attacked, Aristotle's concept of form.

The very extraction of meaning as the objective, object-true and consequently extra-psychological category, stresses a theoretical need for a complementary concept, a concept covering the subjective, the specifically psychological aspect of consciousness. This concept is *personal sense*:

As distinct from meaning, personal sense, like the sensory fabric of consciousness, does not have its own "supraindividual," "nonpsychological" existence. If in the consciousness of the subject external sensitivity connects meanings with the reality of the objective world, then the personal sense connects them with the reality of his own life in this world, with its motives. Personal sense also creates the partiality of human consciousness. (Leontiev 1978, 92f)

1.3.5.15 Personality and Appropriation

As already mentioned, personality is the third of Leontiev's basic concepts in his last work. It is however, in my opinion, the weakest. It is in the phylogenetic, societal and cognitive aspects of psychology that Leontiev has his eminence. In the chapter about personality, half of the text concerns a discussion of concepts that certainly are relevant for personality theory, namely *needs*, *motives* and *emotions*. The discussion of some constituents of personality, however, does not furnish a theory of the structure and unity of personality.

The concept need is treated in Leontiev's early comparative psychological writing. In his later book, he emphasises the change that takes place with the need concept at the transition to the human stage. However, it is totally missing the point to understand a need as *primus motor*, a simple cause of activity. At least with human beings (but even with higher vertebrates), needs are as much products as they are producers of activity. Human needs are historical outgrowths, just as are the objects toward which they are directed. In addition, motive is extensively discussed in Leontiev's earlier works. The concept emo-

tion however is only treated somewhat briefly before. Leontiev now defines this concept in the following way:

Emotions fulfill the functions of internal signals, internal in the sense that they do not appear directly as psychic reflections of objective activity itself. The special feature of emotions is that they reflect relationships between motives (needs) and success, or the possibility of success, of realizing the action of the subject that responds to these motives. (ibid. 120)

Moreover, he proceeds by giving a brief, but interesting outline of different emotions:

These are affects that take place suddenly and involuntarily (we say, "anger overcame me, but I was glad"): further, emotions are properly those states – predominantly ideational and situational and the objective feelings connected with them, that is, firm and "crystallized," according to the figurative expression of Stendahl, in the object of emotional experience; finally, they are attitudes – very important subject phenomena in their "personality" function. (ibid. 121)

Leontiev's discussion about personality is thus rather unsatisfactory, although he has something of merit to say about the ontogenesis of personality. It must be remembered that Leontiev not only has a general interest for genetic theories from his philosophical heritage, he is even an influential developmental psychologist, and has as such studied the cognitive and motivational development of the child. It is a fundamental idea, going back to Hegel in the Marxist anthropology, that the human individual creates itself by *appropriating* the societal products; this idea is also central for Leontiev's theory of the formation of personality. He naturally uses the general concept of activity as his ground-work:

Even the most elementary tools, implements, or objects of everyday use that a child first encounters, must be actively discovered by it in their specific quality. In other words, a child must perform practical or cognitive activity in relation to them such as would be adequate (though not, of course, identical) to the human activity embodied in them. It is another question how adequate a child's activity will be and consequently how fully the meaning of an object or phenomenon will be disclosed to it, but there must always be this activity. (Leontiev 1981, 294)

He then explains that the way the child is “culturalized” cannot be understood by the concept of *adaptation*:

The activity of animals realises acts of adaptation to the environment, but never acts of mastering the advances of phylogenetic evolution. These advances are given to the animal in its natural inherited traits, whereas they are imposed to man in the objective phenomena of the world about him. To realise these advances in his ontogenetic development man must master them; only as a result of an always active process can the individual express a truly human nature in himself, i.e. those characteristics and abilities that are the product of man’s socio-historical development. And that is possible precisely because these characteristics and abilities acquire an objectified form. (ibid. 294.)

Thus another concept is needed, that of appropriation:

The spiritual, mental development of individual men is thus the product of a quite special process, that of *appropriation*, which does not exist at all in animals, just as the opposite process does not exist in them either, viz., that of objectifying their faculties as objective products of their activity. The difference between this process and that of individual adaptation to the natural environment must be specially stressed because unqualified extension of the concept of adaptation, of compensation with the environment, to man’s ontogenetic development has become very nearly generally acceptable. However, application of the concept to man, without due analysis only clouds the real picture of his development. (ibid. 295)

Leontiev now explains how the very use of tools is possible if the user has appropriated the corresponding set of operations:

Matters are no different when the objects of man’s relation are material things created by man’s activity, e.g. an instrument of labour. For man, a tool is not only an object with a certain external shape and certain mechanical properties; he sees it as an object embodying socially developed ways of acting with it, i.e. labour operations. An adequate relation between man and tool is therefore primarily expressed in his appropriating (practically or theoretically -only in their significance) the operations fixed in it, by developing his own human abilities. (ibid. 296)

And he concludes by defining appropriation as a decisive species characteristic of humankind:

[T]he process of biological adaptation is one of change of the organism's species characteristics and capabilities and its species behavior, whereas the process of appropriation or mastering is one that results in the individual's reproduction of historically formed human capacities and functions. That, it can be said, is the process by which man achieves in ontogenetic development what is achieved in animals through heredity, viz., embodiment of the advances of the species' evolution in the characteristics of the individual. (ibid, 296.)

I have created a portrait of Leontiev's theory of activity. It is probably not a very adequate representation of his theory for either the beginner or the expert. However, its main function is to depict the way I personally have understood Leontiev and how he thus has influenced my own thinking, as it is described in the following chapters.

With this section on Leontiev, I shall end this guided tour through my theoretical ancestors. This does not imply that there are no other eminent theoreticians within the school of Activity Theory. I can here mention figures such as Elkonin (1980), Davydov (1990) and Zenchenko (Zincenko & Munipov 1989). These predecessors, no matter their theoretical merits, have not had any substantial impact on the rather idiosyncratic way I have myself attempted to elaborate Activity Theory into a general anthropology, covering all of the anthropological areas. This already admitted impossible and ill-advised endeavour is what the rest of this book is about.

Notes

- 1 According to my definition, the anthropological sciences include the knowledge fields of sociology and psychology. The specific delimitation of these disciplines is made in chapter 6.
- 2 For several years I was participating in a group working during the late eighties to publish selected papers of Leontiev. My colleagues in the group was the psychologists Svend Thyssen, Mette Bendixen and Vagn Rabøl Hansen, who most regrettable died last year. Our work was a spin off from the much more ambitious project of prof. Rückriem and Messmann, who at that time work at the Hochschule for Pädagogik in Berlin. All projects intending to publish the works of Leontiev was, however brought to a sudden cessation by the fall of the Berlin wall. The fame of Leontiev, who was one of the internal critics of the petrification tendencies of the Soviet Union has thus fallen as a blameless victim for the vengeance of the victors in the cold war.
- 3 Actually, the so-called *pedalogy diatribe*, which was an attack on psychological testing, nearly implied a general ban on psychology.
- 4 The term *societal* is not often used in this sense in English. However, what I am referring to is akin to the German term *Gesellschaftlich*. In other words, societal is referring to aspects of society as a totality, in contrast to the term social, which is only denoting phenomena attached to smaller groups of society.
- 5 It is hard to find a more striking sign of the intrinsic weakness of Marxism than its ban on revision of its theory. This alone defines a meaning system as ideological and not scientific.
- 6 See chapter 6.
- 7 Participation is used in the sense of the old scholastic meaning *participatio*.
- 8 (Fichte 1965, Vol. 1).
- 9 Alles mögliche Bewusstsein, als Objektives eines Subjekt, setzt ein unmittelbares Bewusstsein, in welchem Subjektives und Objektives schlechthin Eins seien, voraus: und ausserdem ist das Bewusstsein schlechthin unbegreiflich. (Fichte, 2, 141) [Author's translation].
- 10 Die intellektuelle Anschauung, von welcher die Wissenschaftslehre redet, geht gar nicht auf ein Sein, sonder auf ein Handeln, und sie ist bei Kant gar nicht bezeichnet. (Fichte, 4, 225) [Author's translation].
- 11 Denkt man sich die Erzählung von dieser Tathandlung an die Spitze einer Wissenschaftslehre, som müsste sie etwa folgendermassen ausgedrückt werden: Das Ich setzt ursprünglich schlechthin sein eignes Sein. (Fichte, 2, 261) [Author's translation].
- 12 Jedes Gegenteil, insofern es das ist, ist schlechthin, kraft einer Handlung des Ich, und aus keinen andern Grunde. Das Entgegengesetztsein überhaupt ist schlechthin durch das Ich gesetzt. (ibid., 266) [Author's translation].

- 13 Das Ich setzt sich als bestimmt durch das Nicht-Ich. (ibid., 287) [Author's translation].
- 14 Das Nicht-Ich hat für das Ich nur insofern Realität, insofern das Ich affiziert ist; und ausser der Bedingung einer Affektion des Ich hat es keine. (ibid., 294) [Author's translation].
- 15 Alles Tätigkeit im Ich bestimmt ein Leiden in Nicht-Ich und umgekehrt. (ibid., 305) [Author's translation].
- 16 Diese Tätigkeit des Übertragens geschieht aber unbewusst, sie ist dem Ich selbst nicht sichtbar; dieses kann nur ihr Produkt sehen, und deshalb nimmt es auch das Nicht-ich als etwas äusseres wahr, als etwas nicht von eigener Tätigkeit Abhängendes. Folglich ist die Tätigkeit im Nicht-Ich nur durch das übertragen möglich, und das Leiden des Ich nur durch ein "Einaüssern". (ibid., 318) [Author's translation].
- 17 Wir kennen die Natur nur als tätig. (Oiserman et al. 1978, 155) [Author's translation].
- 18 Das wesentliche Relation ist daher unmittelbar das Verhältnis des *Ganzen* und der *Teile*, die Beziehung der reflektierten und der unmittelbaren Selbständigkeit, so dass beide zugleich nur sind als sich gegenseitig bedingend und voraussetzend. (Hegel 1971, II, 138).
- 19 Die Wahrheit des Verhältnisses besteht also in der Vermittlung; sein Wesen ist die negative Einheit, in welcher ebensowohl die reflektierte als die seiende Unmittelbarkeit aufgehoben sind. (ibid., 142).
- 20 In der Wechselwirkung stellt die ursprüngliche Kausalität sich als ein *Entstehen* aus ihrer Negation, der Passivität, und als *Vergehen* in derselbe, als ein Werden dar. (ibid., 203).
- 21 Aufheben und das Aufgehobene (das Ideelle) ist einer der wichtigsten Begriffe der Philosophie, eine Grundbestimmung, die schlechthin allenhalben wiederkehrt, deren Sinn bestimmt aufzufassen und besonders vom Nichts zu unterscheiden ist. – Was sich Aufhebt, wird dadurch nicht zu Nichts, Nichts ist das Unmittelbare, ein Aufgehobenes dagegen ist ein Vermitteltes, es ist das Nichtseiende, aber als Resultat, das von einem Sein ausgegangen ist. Es hat daher die Bestimmtheit, aus der es herkommt, noch an sich. Aufheben hat in der Sprache den gedoppelten Sinn, dass es so viel als aufbewahren, erhalten bedeutet und zugleich so viel als aufhören lassen, ein Ende machen... – So ist das Aufgehobene ein zugleich Aufbewahrtes, das nur seine Unmittelbarkeit verloren hat, aber darum nicht vernichtet ist. (Hegel 1971, I, 93f).
- 22 However, it must be acknowledged that to Hegel's pre-Darwinian and still theologically biased thinking, the relation between humankind and nature was quite different from the late, or even mid-century naturalistic anthropology.

- 23 It should be noted that it is only the terminology and not the content that is Kuhnian. Kuhn is much more relativistic and certainly cannot be held responsible for the evolutionistic thinking in question.
- 24 See (Sartre 1960)
- 25 Das wahre *Sein* des Menschen ist vielmehr seine Tat, in ihr ist die Individualität, *wirklich*. (Hegel 1986, 242).
- 26 Die *Arbeit* des Individuums für seine Bedürfnisse ist ebensosehr eine Befriedigung des Bedürfnisse der anderen als seine eigenen, und die Befriedigung der seinigen erreicht es nur durch die Arbeit der anderen. (ibid., 265).
- 27 The word *Entäußerung* is often translated as alienation, and the two words have the same meaning when referring to an economical or legal transaction, in which a certain property is handed over from one person to another. The Latin or English word lacks, however, the topological foundation of making something *external* to oneself. We thus have to combine the meaning of alienation and externalisation to cover the total range of the concept *Entäußerung*.
- 28 Sie [die Welt] erhält ihr Dasein durch die eigene Entäußerung und Entwesen des Selbstbewusstseins, welche ihm in der Verwüstung, die in der Welt des Rechts herrscht, die äußerliche Gewalt der losgebundenen Elemente anzutun scheint. (ibid., 360).
- 29 Note that the other translation uses the concept *sublation* rather than *supersession*.
- 30 Einerseits geht das wirkliche Selbstbewusstsein durch seine Entäußerung in die wirkliche Welt über und diese in jenes Zurück, andererseits aber ist eben diese Wirklichkeit, sowohl die Person wie die Gegenständlichkeit, aufgehoben, sie sind rein allgemeine. Diese ihr Entfremdung ist das reine *Bewusstsein* oder das *Wesen*. Die Gegenwart hat unmittelbar den Gegensatz an ihren *Jenseits*, das ihr Denken und Gedachsein, sowie dies am Diesseits, das seine ihm entfremdete Wirklichkeit ist. Dieser Geist bildet daher nicht nur eine *Welt*, sondern eine *gedoppelte, getrennte und entgegengesetzte* aus. (ibid., 360f).
- 31 Die in der Menschlichen Geschichte – dem Erstehungsakt der menschlichen Gesellschaft – werdende Natur, wie sie durch die Industrie – wenn auch in entfremdeter Gestalt wird, die wahre anthropologische Natur ist. (MEW 1974, Ergänzungsband, 564). (The translation of this and the following quotations without specific English reference are taken from the Marx/Engels Internet Archive.).
- 32 Das Große an der Hegelschen *Phänomenologie* und ihrem Endresultate – der Dialektik, der Negativität als dem bewegenden und erzeugenden Prinzip – ist also, einmal dass Hegel die Selbsterzeugung des Menschen als einen Prozess fasst, die Vergegenständlichung als Entgegenständlichung, als Entäußerung, und als Aufhebung diese Entäußerung; dass er also das Wesen der Arbeit fasst und den gegenständlichen Menschen, wahren, weil wirklichen Menschen, als Resultat seiner *eigenen Arbeit begreift*. (ibid., 574).

- 33 Das Konkrete ist konkret, weil es die Zusammenfassung vieler Bestimmungen ist, als Einheit des Mannigfaltigen. Im Denken erscheint es daher als Prozess der Zusammenfassung, als Resultat, nicht als Ausgangspunkt, obgleich es der wirkliche Ausgangspunkt und daher auch der Ausgangspunkt der Anschauung und Vorstellung ist. Im ersten Weg wurde die volle Vorstellung zu abstrakter Bestimmung verflüchtigt; im zweiten führen die abstrakten Bestimmungen zur Reproduktion des Konkreten im Weg des Denkens. Hegel geriet daher auf die Illusion das Reale als Resultat des sich in sich zusammenfassenden, in sich vertiefenden, und aus sich selbst sich bewegenden Denkens zu fassen, während die Methode vom Abstrakten zum Konkreten aufzusiegen, nur die Art für das Denken ist, sich das Konkrete anzudeuten, es als ein geistig Konkretes zu reproduzieren. Keineswegs aber der Entstehungsprozess des Konkretes selbst. (MEW, Vol. 13, 632, Einleitung zur Kritik der Politischen Ökonomie).
- 34 Aber haben diese einfachen Kategorien nicht auch eine unabhängige historische oder natürliche Existenz vor den konkreteren? Ça dépend. Z. B. Hegel fängt die Rechtsphilosophie richtig mit dem Besitz an, als der einfachsten rechtlichen Beziehung des Subjekts. Es existiert aber kein Besitz vor der Familie oder Herrschafts- und Knechtsverhältnissen, die viel konkretere Verhältnisse sind. Dagegen wäre es richtig, zu sagen, dass Familien, Stammesganze existieren, die nur noch *besitzen*, nicht *Eigentum* haben. Die einfachere Kategorie erscheint also als Verhältnis einfacher Familien oder Stammgenossenschaften im Verhältnis zum Eigentum. In der höheren Gesellschaft erscheint sie als das einfachere Verhältnis einer entwickelteren Organisation. Das konkretere Substrat, dessen Beziehung der Besitz ist, ist aber immer vorausgesetzt. Man kann sich einen einzelnen Wilden besitzend vorstellen. Dann ist aber der Besitz kein Rechtsverhältnis. Es ist unrichtig, dass der Besitz sich historisch zur Familie entwickelt. Er unterstellt vielmehr immer diese "konkretere Rechtskategorie". Indes bliebe dann immer soviel, dass die einfachen Kategorien Ausdruck von Verhältnissen sind, in denen das unentwickelte Konkrete sich realisiert haben mag, ohne noch die vielseitigere Beziehung oder Verhältnis, das in der konkreteren Kategorie geistig ausgedrückt ist, gesetzt zu haben; während das entwickeltere Konkrete dieselbe Kategorie als ein untergeordnetes Verhältnis beibehält. Geld kann existieren und hat historisch existiert, ehe Kapital existierte, ehe Banken existierten, ehe Lohnarbeit existierte etc. Nach dieser Seite hin kann also gesagt werden, dass die einfache Kategorie herrschende Verhältnisse eines unentwickelten Ganzen oder untergeordnete Verhältnisse eines entwickelten Ganzen ausdrücken kann, die historisch schon Existenz hatten, ehe das Ganze sich nach der Seite entwickelte, die in einer konkreteren Kategorie ausgedrückt ist. Insofern entspräche der Gang des abstrakten Denkens, das vom Einfachsten zum Kombinierten aufsteigt, dem wirklichen historischen Prozess. (MEW, Vol. 13, 633, Einleitung zur Kritik der Politischen Ökonomie).

- 35 Compare with the quotation about work, where Marx stresses the anthropological characteristic of conceptual anticipation.
- 36 Und endlich bietet uns die Teilung der Arbeit gleich das erste Beispiel davon dar, dass, solange die Menschen sich in der naturwüchsigen Gesellschaft befinden, solange also die Spaltung zwischen dem besondern und gemeinsamen Interesse existiert, solange die Tätigkeit also nicht freiwillig, sondern naturwüchsig geteilt ist, die eigne Tat des Menschen ihm zu einer fremden, gegenüberstehenden Macht wird, die ihn unteriocht, statt dass er sie beherrscht. Sowie nämlich die Arbeit verteilt zu werden anfängt, hat Jeder einen bestimmten ausschliesslichen Kreis der Tätigkeit, der ihm aufgedrängt wird, aus dem er nicht heraus kann (MEW, Vol.3, 33, Deutsche Ideologie).
- 37 Dieses Sichfestsetzen der sozialen Tätigkeit, diese Konsolidation unsres eignen Produkts zu einer sachlichen Gewalt über uns, die unsrer Kontrolle entwächst, unsre Erwartungen durchkreuzt, unsre Berechnungen zunichte macht, ist eines der Hauptmomente in der bisherigen geschichtlichen Entwicklung, und eben aus diesem Widerspruch des besondern und gemeinschaftlichen Interesses nimmt das gemeinschaftliche Interesse als *Staat* eine selbständige Gestaltung, getrennt von den wirklichen Einzel- und Gesamtinteressen, an, und zugleich als illusorische Gemeinschaftlichkeit. (ibid.)
- 38 (Marx 1996, 510).
Der Begriff des produktiven Arbeiters schliesst daher heineswegs bloss ein verhältnis zwischen Tätigkeit und Nutzeffekt, zwischen Arbeiter und Arbeitsprodukt ein, sondern auch ein spezifisch gesellschaftliches, geschichtlich entstandenes Produktionsverhältnis, welches den Arbeiter zum unmittelbaren verwertungsmittel des Kapitals stempelt. (MEW, Vol.23, 532)
- 39 Die Arbeit ist zunächst ein Prozess zwischen Mensch und Natur, ein Prozess, worin der Mensch seinen Stoffwechsel mit der Natur durch seine eigene Tat vermittelt, regelt und kontrolliert. Er tritt dem Naturstoff selbst als eine Naturmacht gegenüber. Die seiner Leiblichkeit angehörigen Naturkräfte, Arme und Beine, Kopf und Hand, setzt er in Bewegung, um sich den Naturstoff in einer für sein eignes Leben brauchbaren Form anzuzeigen. Indem er durch diese Bewegung auf die Natur ausser ihm wirkt und sie verändert, verändert er zugleich seine eigene Natur. Er entwickelt die in ihr schlummernden Potenzen und unterwirft das Soeil ihrer Kräfte seiner eigenen Botmässigkeit.
- Wir haben es hier nicht mit den ersten tierartig instinktmässigen Formen der Arbeit zu tun. Den Zustand, worin der Arbeiter als Verkäufer seiner eigenen Arbeitskraft auf den Warenmarkt auftritt, ist in urzeitlichen Hintergrund der Zustand entrückt, worin die menschliche Arbeit ihre erste instinkartige form noch nicht abgestreift hatte. Wir unterstellen die Arbeit in einer Form, worin sie dem Menschen ausschliesslich angehört. Eine Spinne verrichtet Operationen, die denen

des Webers ähneln, und eine Biene beschämmt durch den Bau ihrer Wachzellen manchen menschlichen Baumeister. Was aber von vornherein den schlechten Baumeister von den besten Biene ausgezeichnet, ist, das er die Zelle in seinen Kopf gebaut hat, bevor er sie in Wachs baut. Am Ende des Arbeitsprozesses kommt ein Resultat heraus, das beim Beginn desselben schon in der Vorstellung des Arbeiters, also schon ideell vorhanden war. Nicht nur eine Formveränderung des Nürlichen bewirkt; er verwirklicht im Nürlichen zugleich seinen Zweck, den er weiss, der die Art und Weise seines Tuns als Gesetz bestimmt und dem er seinen Willen unterordnen muss.

... Die einfachen Momente des Arbeitsprozesses sind 1. die zweckmässige Tätigkeit oder die Arbeit selbst, 2. der Gegenstand, auf den sie wirkt, und 3. das Mittel, wodurch sie wirkt.

... Das Arbeitsmittel ist ein Ding oder ein Komplex von Dingen, die der Arbeiter zwischen sich und den Arbeitsgegenstand schiebt und die ihm als Leiter seiner Tätigkeit auf diesen Gegenstand dienen. Er benutzt die mechanischen, physikalischen, chemischen Eigenschaften der Dinge, um sie als Machtmittel auf andere Dinge, seinem Zweck gemäss, wirken zu lassen. So verwandelt er Dinge seiner Umwelt in Organe seiner Tätigkeit, Organe, die er seinen eigenen Leibesorganen hinzufügt, seine natürliche Gestalt verlängernd, trotz der Bibel.

... Sobald überhaupt der Arbeitsprozess nur einigermaßen entwickelt ist, bedarf er bereits bearbeiteter Arbeitsmittel, in der ältesten Menschenhöhlen finden wir Steinwerkzeuge und Steinwaffen.

... Der Gebrauch und die Schöpfung von Arbeitsmitteln, obgleich im Keim schon gewissen Tierarten eigen, charakterisieren den spezifisch menschlichen Arbeitsprozess, und Franklin definiert daher den Menschen als ein Werkzeug fabrizierendes Tier. Dieselbe Wichtigkeit, welche der Bau von Knochenreliquien für die Erkenntnis der Organisation untergegangener Tiergeschlechter, haben Reliquien von Arbeitsmitteln für die Beurteilung untergegangener ökonomischer Gesellschaftsformationen.

... Die Arbeitsmittel sind nicht nur Gradmesser der Entwicklung der menschlichen Arbeitskraft, sondern auch Anzeiger der gesellschaftlichen Verhältnisse, worin gearbeitet wird. (MEW.B. 23, 192ff).

40 (ibid., 187ff).

41 I. Der Hauptmangel alles bisherigen Materialismus (den Feuerbachschen mit eingerechnet) ist, dass der Gegenstand, die Wirklichkeit, Sinnlichkeit nur unter der Form des Objekts *oder der Anschauung gefasst* wird: nicht aber *als sinnlich menschliche Tätigkeit, Praxis, nicht* subjektiv. Daher die *tätige* Seite abstrakt im Gegensatz zu dem Materialismus von dem Idealismus – der natürlich die wirkliche, sinnliche Tätigkeit als solche nicht kennt – entwickelt. Feuerbach will sinnliche – von den Gedankenobjekten wirklich unterschiedne Objekte, aber er fasst die menschliche Tätigkeit nicht *als gegenständliche* Tätigkeit.

2. Die Frage, ob dem menschlichen Denken gegenständliche Wahrheit zukomme – ist keine Frage der Theorie, sondern eine *praktische Frage*. In der Praxis muss der Mensch die Wahrheit, i.e. Wirklichkeit und Macht, Diesseitigkeit seines Denkens beweisen. Der Streit über die Wirklichkeit oder Nichtwirklichkeit des Denkens – das von der Praxis isoliert ist – ist eine rein *scholastische Frage*.

3. Die materialistische Lehre von der Veränderung der Umstände unter der Erziehung vergisst, dass die Umstände von den Menschen verändert und der Erzieher selbst erzogen werden muss. Sie muss daher die Gesellschaft in zwei Teile – von denen der eine über ihr erhaben ist – sondieren. Das Zusammenfallen des Ändern[s] der Umstände unter der menschlichen Tätigkeit oder Selbstveränderung kann nur als *revolutionäre Praxis* gefasst und rationell verändert werden.

6. Feuerbach löst das religiöse Wesen in das menschliche Wesen auf. Aber das menschliche Wesen ist kein dem einzelnen Individuum inwohnendes Abstraktum. In seiner Wirklichkeit ist es das ensemble der gesellschaftlichen Verhältnisse. Feuerbach, der auf die Kritik dieses wirklichen Wesen nicht eingeht, ist daher gezwungen: 1. von dem geschichtlichen Verlauf zu abstrahieren und das religiöse Gemüt für sich zu fixieren, und ein abstrakt – *isoliert* – menschlichen Individuum voranzusetzen. ...

11. Die Philosophen haben die Welt verschieden interpretiert, es kömmt drauf an, sie zu verändern. (MEW, 3.B, 5-7).

42 At least, as far as the idealism is dialectical.

43 See Allport (1957).

44 See for instance Vygotsky (1982, 67).

45 Blonsky was one of the few Marxist psychologists in the generation preceding Vygotsky.

46 One of the reasons for this confinement was also the political climate under the progressive repression of Stalinism that had already started in Vygotsky's last years. In 1936, the central comity of the Soviet Union passed a resolution with the title "On the Pedological Distortions in the System of People's Commissariat of Education" (Petrovsky 1990, 252ff). Pedology was an eclectic discipline intending the integration of physiology, psychology and pedagogy into an integrated science on child development, and its ban was in itself no great loss for science. It was however a deadly poisoning of academic freedom. Great parts of psychology, such as the writings of Vygotsky, were in fact blacklisted as pedological distortions. Whatever the political and ideological motives for the pedology ban, it represented in my view a sociological tendency in the Stalinist version of vulgar Marxism.

47 See Piaget's comments in the appendix to Vygotsky (1962).

48 A monograph on Vygotsky's sign-concept is (Rissom 1985).

- 49 The Russian formalism (Bakhtin and Voloshinov) was at this time way ahead of Western linguistics. It was later destroyed by Stalin, who was himself an amateur linguist, but carried on by the Prager-formalism (Roman Jakobson) and eventually by French structuralism.
- 50 Wie werden die spezifischen Prozesse, die ein Lebewesen vollzieht und in denen sich die aktive Beziehung des Subjects zur Wirklichkeit äussert, von anderen Vorgängen abgrenzen und als Prozesse der *Tätigkeit* bezeichnen. (Leontiev 1973, 29).
- 51 Auf einer bestimmten Stufe der biologischen Evolution werden die der Lebenserhaltung dienenden Wechselwirkungsprozesse gleichsam in zwei Teile gespalten. Auf der einen Seite sehen wir die Umwelteinwirkungen, die die Existenz des Organismus unmittelbar bestimmen und auf die er mit grundlegenden Lebensprozessen und Lebensfunktionen reagiert. Auf der anderen Seite wirken neutrale Reize, auf die der Organismus mit Prozessen antwortet, die die organischen Grundfunktionen nur mittelbar realisieren, den Prozessen des *Verhaltens*. (Leontiev 1973, 110) [The English quotation is of my own translation, as the section quoted is not included in the English edition].
- 52 In fact, my first article about Leontiev, almost 20 years ago, was a discussion of this problem (Karpachof 1980).
- 53 Point 2 resembles the concept *appetence* introduced by Konrad Lorenz (1963).
- 54 When developing this theory, Leontiev evidently did not know that the same technique is already present in many animals, such as the great cats and wolves, not to mention the apes. An inclusion of this empirical material will no doubt infer a revision of the specific details of his theory. Thus, we need probably to operate with a kind of *proto-action* in the case of higher vertebrates. This revision is discussed in the next chapters.
- 55 In the continental tradition, the split between a rigoristic (natural) science, on the one hand, and a more relaxed everyday understanding of life is equally deep.
- 56 The quotation has been slightly modified by the author in accordance with the very accurate Danish translation, as the English version was not quite clear.