DE GRUYTER

Ferruccio Rossi-Landi

LINGUISTICS AND ECONOMICS

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LINGUISTICS AND ECONOMICS

by

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El lenguaje es obra del hombre,
y el hombre no ha de ser esclavo del lenguaje.
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In der Anatomie des Menschen
ist ein Schlüssel zur Anatomie des Affen.
KARL MARX

1.1 *Foreword*

The title of this essay indicates a juxtaposition of two different disciplines, economics and linguistics. Such juxtaposition does in fact take place here, but in ways and within limits which must be set forth in the beginning to avoid misunderstandings. In what follows neither economics nor linguistics is simply assumed as it appears today in the texts of the specialists. Rather we are interested primarily in the objects to which the two disciplines give attention: that is, to human language as the principal object of linguistic science and to economic exchange as the principal object of the science of economics. Such "objects" are taken up in the inquiry to the degree in which they lend themselves to being considered in a unitary way. It is my intention to begin a semiotic elaboration of the two social processes which we can identify provisionally as "the production and circulation of goods (in the form of commodities)" and as "the production and circulation of sentences (in the form of verbal messages)". These are two fundamental modes of human social development. Although they usually appear in disjoined fields, here we formulate the hypothesis that they are "the same thing" at least in the sense in which the two principal branches of one tree may be considered "the same thing". The essay is dedicated to some aspects of this relative "sameness". I will maintain that when goods circulate in the form of commodities they "are" messages; and that when sentences circulate in the form of verbal messages they "are" commodities. These two assertions will be justified by means of a conceptual framework derived from a general theory of man and of society. It is the theory of the *anthropogenic character of work* originating in Hegel and Marx. According to this theory, man is the result of his own work, and it is through such work that he has progressively severed himself from the other animals. One of the most important aspects of this theory is that everything that has value (and therefore, as we shall see, everything that has *meaning*) is always a product of human work; value is something that man has introduced and continues to introduce into the world (theory of labor-value[1]). All social sign systems also have meaning and value as products of human work. The background of this research is therefore that of a radical materialism, not mechanicistic but dialectical and historical.

When, in this context, we join 'dialectical' and 'historical' to 'materialism', our stress is more on the adjectives than on the noun. It is important to state that a number of negative connotations usually evoked by the term 'materialism' are excluded by the phrase 'dialectical and historical materialism' — an infortunate phrase, perhaps, but we cannot change or ignore our own history of ideas. What is especially excluded by the phrase 'dialectical and historical materialism' is the idea of a passive position of man in front of reality and in the process of knowledge. Indeed, even a political leader with a philosophical formation like Lenin stated that «man's consciousness not only reflects the objective world, but it creates it as well» (he was of course drawing on Marx's first three theses on Feuerbach).

An alternative to the conscious use of the general ideas of dialectical and historical materialism and the connected world-view is not the supposed emancipation from general ideas and from acting within a world-view, although many specialists are often subject to such an illusion. The real alternative, always to be found, is, instead, that of the conscious or unconscious use of *other* general ideas, and of a *different* world-view.

The ideas presented in this essay then, have not been elaborated inside two or more specialistic disciplines, rather they have been drawn in a deductive or applicative way from a nucleus of ideas whose founding power we acknowledge. In the application of such ideas to sign systems generally, and in particular to the sign systems of language and of economy, some unaccustomed aspects of these systems have come to our attention. As a consequence of the procedure followed, the bibliographical apparatus, especially for the part regarding linguistics, has an extrinsic character: it is aimed more at the verification, or at least at the clarification, of what is said than at its foundation; it serves rather to comfort the reader of

[1] In the fourth edition of Book one of *Kapital*, 1890, Friedrich Engels added to footnote 16 of Chapter I the following remark: «Die englische Sprache hat den Vorzug, zwei verschiedne Worte für diese zwei verschiednen Aspekte der Arbeit zu haben. Die Arbeit, die Gebrauchswerte schafft und qualitativ bestimmt ist, heißt *work*, im Gegensatz zu *labour*; die Arbeit, die Wert schafft und nur quantitativ gemessen wird, heißt *labour*, im Gegensatz zu *work*. Siehe Note zur englischen Übersetzung, p. 14». In the Dent translation of *Kapital*, which we shall use for our quotes, Engels' addition is omitted; and *Arbeit* is generally rendered by *labour*. Engels' addition is reported instead in both the Italian and the French translations, as it was in the English translation by Samuel Moore and E. Aveling, London 1887, Tome I, p. 14, note 1. In short, according to Engels the English language has the advantage of distinguishing between a more specific and a more generic productive activity — that is, between *work* and *labor*. I made the decision to use 'work' rather than 'labor' as a fundamental term because in this essay attention is mainly given to *specific* work, productive of *use*-values, while *generic* work, productive of "values" (cf. footnote 12) is considered as a derivation from the former. An additional point is that 'work' can be used together with 'worked' and 'works', while the same derivations from 'labor' would bear different meanings. In stereotyped expressions like 'theory of labor-value', the term 'labor' was however retained. Because of such terminological decisions, the English wordings may sound a little awkward whenever 'labor' might have been preferable to 'work' from the point of view of common usage.

Current trends in linguistics than to justify the author. There are cases in which it may even seem to have a post-eventum character. We have been trying to see what sense the developments of the theory of labor-value assume within the disciplines to which they would traditionally belong. This operation, even if technically immature, has given two types of results. On the one hand, we have come across indications which coincide with various notions commonly accepted by linguists and semioticians; on the other hand, various other equally common notions have been contradicted. We outline here, in a preliminary form and merely as an example, some of the points the reader will meet in the course of the exposition.

Let us begin with the points where the results coincide. In the study of exchange within the realm of social production from the point of view of communication, it is possible to distinguish various kinds of material bodies which are carriers of signs; with the thinning of their materiality, these bodies become more and more irrelevant to the sign they carry: this seems to offer an anthropological explanation for the Saussurian doctrine of the *arbitraire du signe*. — One of the types of value belonging to signs is identified with the *position* of the signs within total sign production; that is, a sign has the value (among others) which belongs to it as a result of the portion of work carried out to produce it. It is worth repeating that this identification came about through an exclusively deductive procedure beginning from the theory of labor-value. In the author's view, the most important point was that this fit together with other deductions drawn from the same theory. The fact that such masters of the field as Saussure, Hjelmslev, and Wittgenstein had reached much the same conclusion by a different path was taken into account only later on, as a confirmation, when the above congruence had already emerged independent of their authoritative research. — In a not dissimilar way, the application of the equation of value of commodity exchange to linguistic exchange has pointed to an interesting direction for the study of the sentence. The opposition between use-value and exchange-value, internal to every single linguistic sign that comes to be part of a sentence, "unfolds", so to speak, within the sentence itself. The sentence holds together precisely because this "unfolding" takes place — it is of such "unfolding" that it consists. Here verification has shown that in spite of their very different terminology, Tesnière and Greimas in France had reached positions not dissimilar by a different path (to make ourselves immediately understandable, let us recall Tesnière's well-known remark regarding the sentence as a "theatrical action", taken up by Greimas in *Sémantique structurale*). — Strictly connected to the two cases mentioned is the technique of pushing aside the semantic dimension for the purposes of syntactic inquiry. More than a similarity of results, we find here that the approach drawn from the founding notion of labor-value may be of help in understanding the *reasons* why linguists are both doing a right thing and going astray when they leave aside the semantic dimension. — Other cases regard the problem of the acquisition of language in its relation to the

non-parallelism between use of the language and intelligence brought to light by Eric Lenneberg and others. According to the theory of labor-value applied to language, we learn to speak so easily *precisely because* we don't have to contribute our intelligence; and we don't have to contribute our intelligence because the products of linguistic work which has already been done are offered to us to be used.

On the other hand, however, the indications obtained deductively do not seem reconcilable with some of the principles of contemporary linguistic and semiotic research. For example, it does not appear that any privileged position belongs to language and to *verbal* communication within the realm of social communication. *All* non-verbal sign systems, with paraverbal or postverbal systems as an obvious exception, enjoy their own independence from verbal sign systems; indeed, ***beneath*** verbal sign-systems there exists a "language of things" tied to material production. — In spite of the enormous complexity of their relations, the qualification as social applies to animal aggregates only in an extended sense of the word, because in them there is lacking the work which is at the foundation of human societies. — Entrusting meaning and context to the semantic dimension alone, considering extraneous to them the syntactic and pragmatic dimensions, does not make sense from the point of view of labor-value. According to this point of view, meaning and context are present instead in all three dimensions, and should be described by using the terminology of each of them. — Moreover, the Saussurian *parole* turns out to be an individualistic myth which should give way to the recognition of the *collective character of speech.* — Finally, plurality of articulation is to be found not only in the genetic code and in language, but also in other social sign systems. — Whether these and other similar indications which have been obtained by applying the theory of the anthropogenic character of work, and in particular of labor-value, to language, are correct or not; and whether they must be substituted for the ideas they seem to exclude, and in what measure, or made to agree with them — is for the reader to decide.

It is suggested that the reader consider the whole of the present research within the dialectic of contradiction and agreement — even if, given the intricacy of the problems and the multiform vastness of the literature, often this dialectic will emerge only in passing, in spite of the length of the essay. The reader will find, then, a certain number of new and (at least provisionally) unacceptable assertions. At the same time he may find that numerous assertions are a restatement of the obvious or are taken for granted, and will object perhaps that some of these things have already been said very clearly. I answer him with Roman Jakobson's remark that «only the things which have been said very clearly often fall into complete oblivion» (1953, French transl. 1963 : 40); and add that of the various assertions, the new as well as the obvious, those which will seem unacceptable and those which will seem to have been accepted for too long, at least come from a unitary basis and involve each other reciprocally. This brings up several questions. In the first place it is clear that errors to be found in these pages will have

to be localized *aut* in the process of deduction from, or application of, the theory of labor-value, *aut* in the theory itself. At this level, either the theory has been applied wrongly here, or it is false. In the second place, however, the application of the theory of labor-value to language has *also* given results which coincide with various commonly accepted notions, and this would remain unexplained. Where does the separation take place? — All this sends us back to that unity of approach in which the author finds an excuse for the imprecisions and the provisional character of his exposition. To an endeavor which is voluntarily pioneeristic and interdisciplinary, one will perhaps concede a certain number of extenuating circumstances.

In this first section we recall and briefly comment on some notions of semiotics. Readers acquainted with semiotic literature may skip over them and begin with Section Two. My aim is to secure a minimum terminological and conceptual framework, fairly widely accepted and common enough, necessary and sufficient to the ends of the discussion. At the same time, though always within the realm of habitual notions, I shall be trying to bring the reader little by little towards the theory I have decided to adopt and apply.

1.2 *Sign Systems*

Everything that is understood by 'human communication' — in the widest sense of effective transfer of information and meaning — is sign exchange (cf. 2.4.1 and 2.4.2). With this we do not at all want to exclude the fact that communication is itself a wholly material process. Clearly, in order for there to be communication there must be a transfer of matter-or-energy from one place to another, in space and time, even if this transfer is reduced to the movement of sound waves, in the case of acoustic communication and of light waves (or photons), in the case of visual communication. When we consider the exiguousness of the material transfer as compared to the behavior that may follow upon it, the notion arises of communication as a servomechanism. Signs too are *also* material objects external to our bodies. But they are not *just* or *only* that. For the transfer of an object or even only of a movement from one place to another to assume sign value and become a *message*, it is necessary that various conditions be realized concomitantly; one of these conditions is that a *code* be operating. We will clarify little by little some of these conditions.[2] Let us say for the moment that a code is an organized and strati-

[2] *Only some*, and limited to the purposes of the present enquiry. Since this is a comparative study of some basic features of human production, and not an introduction to semiotics as such, a number of issues usually considered fundamental for semiotics by contemporary scholars (including the present writer) remain outside our scope. Such are, for example, the questions concerning different kinds of signs (signals, symbols, icons, and the like) and different kinds of meanings (signification, denotation, connotation, and the like), as well as the dimensions of semiosis, and the relations between metalanguage and object-language. See also footnote 4

fied totality made up of the sign products of "completed" work, that is, of work which has been done previously to the moment in which sign work is resumed; and a message is a product of new sign work which uses as materials some of the elements of the code. Messages and codes exist together in reality. Any given message is what it is only because there is a code; any given code is what it is only because messages can be obtained from it. Between a code and "its" messages there is a constant dialectical relationship. It is only when we consider a code in its structural abstraction that we can provisionally leave its messages aside; and it is only when we receive messages in a "natural" (unconscious, or completely spontaneous) way, that we ignore or simply do not refer to the codes from which they are obtained. The fact that the first of these two cases is limited to the scientific enquiries of some linguists and other semioticians, while the second is what normally happens, confers to the opposition an interesting lack of symmetry.

The totality of communication is subdivided in sectors, each of which consists of (i) at least one code as a structured totality, (ii) the rules which regulate the use of the signs, that is, the modalities of the codification, decodification, and interpretation of the messages, (iii) the group of conditions which permit such operations, that is, the presence of (at least) one transmitter, one receiver, a channel (contact) and a context.[3] Here we need in the first place an expression designating any sector

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ad finem. Generic reference can be made to the writings of Peirce, Vailati, Saussure, Morris; and, more recently, Prieto, Greimas, Šaumjan, Jakobson, and Sebeok.

Under certain conditions, a low-level imput signal is transformed by a control-system into a higher-level movement. The control-system of communication is based on code and context, while on the other hand some code and some context must be operating for any servomechanism to exist. Thus in order to speak even of a servomechanism we must have already introduced the basic notions of semiotics. It is however apparent that to approach all sorts of communication in terms of the servomechanism involved helps to clarify some basic features of communication itself. For servomechanism in general, see H. Lauer, R. N. Lesnick, and L. E. Matson, 1960. Current notions of cybernetics could be discussed from the vantage point of communication as a servomechanism. Our main interest, however, doesn't lie in individual speech processes (such as those proposed in Liberman's motor theory of speech, for example), but rather in the "natural" or "spontaneous" emergence, within social reproduction, of the collective servomechanism of communication as an articulation internal to the moment of exchange. See for this 2.4.1-2.

[3] This is, of course, a highly condensed way of presenting the situation. Let us refer to footnote 2 above, and to the text as well, for the limits of our exposition. Alternative and more complete descriptions of the conditions permitting codification, decodification, and interpretation of messages, whether verbal or non-verbal, can be found in Peirce II, 227° fll.; VIII, 342°-379°; and *passim;* Morris 1938 (Ital. transl. with commentary, 1954); Jakobson 1961; Rossi-Landi 1961, ch.s VII and VIII; Sebeok 1965, 1969; Eco 1968 : 15-70; Britton 1970; and in many others.

It should be added at this point that if we turned to the *nature* of codes and messages, the proper place for their study would be at the boundaries between semiotics and other disciplines and would lead us to examine — to put it in philosophical jargon – the very *possibility* of codes and messages, *i.e.* their *foundation.* At the same time, such a study would help in the definition of semiotics as a discipline by assuming 'code' and 'message' as its fundamental terms. Whether or not these two notions can be traced back to 'mediated-taking-account-of', as proposed by Charles Morris in 1938, cannot be examined here. But it must be said that whenever such fundamental terms are traced back to something else we find ourselves outside the field of semiotics proper, perhaps dealing with a meta-semiotics. The procedure of explaining the terms

of communication in a neutral way, with reference, that is, not to its differential characteristics, but only to the fact that it is a sector of communication and consequently must be made up of the elements listed above. We will use *sign system*, which has several advantages. First, it introduces from the beginning the notion of the sign as the dialectical sum of *signans* and *signatum*, and thus renders central the notion of meaning, excluding the possibility that we might be referring to mere systems of *signantia*. In the second place it excludes the possibility that we might be thinking of communication as the mere arithmetical sum of messages as distinct from their codes. Sign systems are dialectical sums of codes and messages actually used by transmitters and receivers in favorable conditions. This is why they also include the rules for their own use (for qualifications see 2.3.3 and 5.2.3). Thus we refuse as ambiguous and incomplete the idea that codes are used *in order to* communicate. We will see more clearly in what follows (5.2.1.1) the importance of this refusal. Believing that codes are used in order to communicate means admitting that *first* codes existed (at least an *ur*-code) and *afterwards* communication began (cf. Eco 1968: 251–370). There is in such a belief an anthropomorphical projection of the fact that each of us finds his own language and the other codes of the community to which he belongs ready-made at the moment of his birth for him to learn and use. In this way justice is not done to other and more fundamental aspects of communication: like the contemporaneous genesis of any signal and of its use; or the modifications which, in this field as in others, use always brings to the object used; or the unconscious character of a large part of communication. On the other hand, the notion of sign system also excludes belief in a communication from which codes are absent — usually an anti-scientific temptation induced by the difficulties encountered in deciphering this or that code; what is more, it excludes the belief in a communication which *precedes* the formation of codes (cf. among many others Cherry 1966[2], 7: «There is no communication without a system of signs»). As to the question whether in principle *there can be* forms of communication from which precedently stratified codes are absent, judgment is suspended here, although we do not conceal a negative attitude towards such an idea. The

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fundamental for semiotics by means of other terms was partially followed — more philosophically than semiotically, and thereby with aims and terminology very different from those of semioticians — by Husserl in the three volumes of *Ideen*, Merleau-Ponty (especially 1945, but also 1960 and 1942), Lévi-Strauss (1958, 1962, 1964), Sartre (1960), and others who enquired into the origin and formation of codes as symbolic selections of experience and as a set of relations of the human body to all the rest of the world. Solìmini (1968 : 103-127) has summarized some of these enquiries.

The main obstacle to any enquiry of a meta-semiotic (or para-semiotic, or quasi-semiotic) kind is that it is very difficult to single out, or even to imagine, a situation in which no sign is present. Even if we say that there is no social relation, whether among men or among non-human animals, without signs, and trace back social aggregation to pre-social levels of life, we then also find that life itself is based on messages and codes. In my opinion, the only way to overcome this difficulty consists in approaching totalities of increasing complexity: sign systems are parts of such totalities, and develop with them. This is, indeed, the line of the present enquiry.

very identity between codes and messages found in animal communication (with the partial single exception, perhaps, of birds) does not refute but confirms the simultaneous presence of messages and codes (cf. Sebeok 1970: 125).

Our insistence on a unitary reference to the totality composed of codes and messages, including all the conditions which make possible their existence and their use, moreover, considers as unessential the question as to the status of this or that sector of communication — whether it has already been broken down by semiotic inquiry into the parts of which it is composed, that is, traced back to a code and to its use as construction, transmission, reception, and interpretation of messages; or whether it is still a virgin territory, or has been explored only in some of its aspects separated from others.

Let us instead divide all sign systems into *natural* and *social*. For example the genetic code (Sebeok 1963; Borek 1965; Sullivan 1968; Masters 1970) and the other codes found in nature by human interpretation (the code of sea and sailing, "written in things" but put into operation by sailors: Rossi-Landi 1968d: 296–303), belong to the field of natural sign systems. Here there is the problem of the measure of man's intervention in giving rise to signs which he finds, so to say, out there. In what way can we delimit the realm of signs within the realm of nature? It can be maintained that it is not proper to talk of mere nature through the thickness of codes, lexicons, and ideologies as in fact we do talk about it, and that as a matter of fact we should be doing the opposite operation of limiting the realm of nature within the realm of signs (Marx and Engels, *Die deutsche Ideologie:* 42–45; Engl. transl.: 57–61; Korsch 1938: ch. IV; Schmidt 1962: ch. II). One intricate and important aspect of the question is whether sign systems underlying the relations of animals in their aggregates should also be considered as only natural. Do animal aggregates constitute societies in the proper sense? Since what follows concerns only human sign systems, we will not be tackling these questions; for a treatment of them readers can see specialized literature (listed writings by Sebeok; Bronowski 1967; *Animal communication*, 1968, and *Approaches to animal communication*, 1969). In the following, only properly human sign systems belonging to the "second evolution" are considered social in the full sense. A "second evolution" superimposed itself upon merely natural evolution with the advent of the dialectic between use and exchange as a result of the division of labor. If, ideally, we were to fix the phenomenon of homination as the unitary initial phenomenon, then human social sign systems would be by definition subsequent to it; but we would be more nearly correct in saying that social sign systems *are* both homination and all that followed from it, that is, they are human prehistory and history considered from the point of view of general semiotics.

Let us proceed by distinguishing all *social sign systems* into two large classes: *verbal* and *non-verbal*. Since the two classes both belong to the social, it will not be necessary to add the adjective 'social' on each occurrence: 'verbal' is not opposed to 'natural' but — within the social — to 'non-verbal'. The adjectives

'human' and 'social' and the syntagm 'sign: verbal or non-verbal' all indicate the same zone of reality, shedding light on diverse aspects or levels of it.

Verbal sign systems are those that have languages and their various specifications and elaborations as codes. These codes are founded on distinctions made by man in sound material, the so-called articulate sounds. These are objects produced by man with his own body, but which are arranged, nevertheless, in supra-individual structures, and become immediately institutionalized. We are dealing with languages here only in the historical or universal sense, the most common sense of the word (English, Italian, Cheremis, Hopi); we are not just considering them separately (for example, English, insofar as it is distinct from Hopi, or Italian from Cheremis), but rather as particular cases of speech, that is, of the human capacity to use consistent codes of articulate sounds for normal expressive and communicative ends. Such ends are to be considered common to all the members of the community in which a given language is spoken, and, at a fundamental level, to all men, regardless of the particular language they speak. Furthermore, our enquiry is limited to the practico-communicative use of a language, leaving aside things like the poetic elaborations to which a language may be submitted or the formation of technical "languages", within and beyond a language, for special aims — whether these be internal to the community in which the language is spoken (like ceremonial language), or, instead, common to various communities (for example many ideological languages), or even actually or potentially panhuman (for example mathematical language).

The terms *language* and *linguistic* suffer from an irremediable polysemia — especially in English due to the cryptotypic character of the opposition between language in general and languages, an opposition which is instead phenotypically present in the neo-Latin languages. There's no one-to-one correspondence between English as an object-language and the semiotic metalanguage that studies this sector of the language (see footnote 4 hereafter). This is why, in our classification, we have preferred to call languages and their various specifications and elaborations, 'verbal sign systems'. As we go on, however, we will use 'language' and its derivatives whenever we are not particularly concerned with the opposition between verbal and non-verbal sign systems or with the presence of verbal sign systems that are not identical to languages as they are commonly understood. It remains to be mentioned that the notion of *verbal* sign systems does not take into account the distinction between *spoken* and *written* because it is logically anterior to it. In general, every verbal sign system can be written or spoken, and if it is spoken only, it can be transcribed. This is not a subdivision of all verbal sign systems into two subclasses; it is an internal subdivision for each separate verbal sign system. At any rate the distinction between spoken and written is not directly relevant. We have made these remarks only because they are handy for clarification of the subsequent use of 'verbal'.

All the other social sign systems are *non-verbal*. By this we mean that they do

not use codes founded on articulated sounds but rather codes founded on other types of objects. Such objects, which we will also call "bodies", already exist "in nature"; or they have been produced by man for other purposes; or they are produced with the purpose of being used as signs; or they are used as signs in the very act in which they are produced. Throughout the discussion we will be running into some of the inexhaustible complications implicit in these apparently rather obvious distinctions. It is a virtue of modern semiotic science to have brought numerous non-verbal sign systems to light and to have begun to make comparisons between them and to classify them. If here we risk a considerably simplified classification, it is only in view of what we have to say — with the forewarning, moreover, that verbal sign systems (as we will specify as each case arises) can also present characteristics belonging to this or that class of non-verbal sign systems, from which they remain distinct, however, because they *are* verbal. We can distinguish, then, sign systems which are (i) *kinesic* and *postural*: movements made, communication by gestures, facial and other expressions, physical attitudes and positions assumed; (ii) *proxemic*: regarding man's use of space, and the meaning of spatial relations as elaborated specifically in every culture and human group; (iii) *tactile*, *olfactory*, *gustative*; as well as *visual* and *auditory*, to the extent in which we exclude other non-verbal sign systems also founded on sight and hearing; (iv) *objectual:* founded on objects which man manipulates, produces, and uses (here also "verbal objects", that is, articulate sounds, are excluded): we have clothes, cosmetics, ornaments, utensils and machines, constructions of every sort (this is the field of so-called "material production"); music and the figurative arts enter into this class although they are not exhausted within it; (v) *institutional:* all kinds of social organizations, especially kinship systems, rites, ceremonies, mores, manners, juridical systems, religions, the economic market as the circulation and exchange of goods in the form of commodities, and so on (language too is institutional). One sees that — generally and with some complications or exceptions — the first three classes of sign systems refer to the human body, the human organism; while the last two refer to something external to the human organism. In fact the distinction between *organic* and *instrumental* sign systems is a current one (Jakobson 1970a: 3–16): in the former case man *behaves*; in the latter man behaves *with* or *by means of* — that is, he uses or applies — *something*.

One essential characteristic of all social sign systems — whether verbal or non-verbal, organic or instrumental, conscious or unconscious, more or less openly institutional — is that they do not exist *in nature*, and are instead *products of human work* (for our uses of *work* and *labor* see footnote 1 above and Section Two below, especially 2.3 and footnote 6). This is the characteristic to which we will most often return. We must bear in mind that not only are messages the products of human work but so are the modalities of codification and decodification, the rules for the use of codes, and the codes themselves, the addresser and the addressee, the channels, the context. Any social sign system whatsoever must be seen in

its entirety as the product of human work. This is one good reason for saying that 'social' is equivalent to 'human'.

Naturally the character of being a product appears more or less clearly according to the social sign systems examined. It is usually accepted by everybody for objectual non-verbal sign systems; it is fairly well recognized for institutional sign systems (for some of these last, however, the very fact of their being sign systems has still not been fully accepted). For the other non-verbal sign systems listed, that is, for all those united under the heading 'organic sign systems', the character of being a product of human work is usually much less recognized, when it is not simply denied. Finally, widely varied positions appear when the question arises of attributing to language the character of being a proper product. In my opinion these uncertainties and divergences depend upon a confused or overly limited notion of work, beginning with the fact that the *programs* to which every piece of meaningful behavior unconsciously refers have not yet been, or are just beginning to be, studied (1.4). It is clear that if by 'work' we only mean, *e.g.* the behavior of the artisan who modifies and puts together various objects (for example boards, glue, and nails) by means of utensils, and who offers a new object as a product (for example, a table), then the character of being a product of work would belong only to objectual sign systems, and perhaps not even to all of them. But the notion of work must be enlarged in an anthropogenic sense, and distinguished from that of mere activity. We will clarify this enlargement and this distinction in 1.4, when we discuss the communicative programs which underlie organic sign behaviors themselves; in 2.2, when we examine the possibility of generalizing the notion of artefact (for this spelling see 2.1); and throughout the whole of the discussion. As we have said, however, our principal aim is not to show that all sign systems are products of work, but rather to examine the relations between the sign systems of material production and economic exchange on the one hand, and the sign system of linguistic production and exchange on the other. Thus we will remain prevalently on the ground of social sign systems of the objectual and institutional type.

In theory, relations between sign systems obtain in the following cases:

a. Between social sign systems and natural sign systems, that is:
  a.a. between verbal sign systems and natural sign systems;
  a.b. between non-verbal sign systems and natural sign systems.

b. Within the realm of natural sign systems, that is, among various types of natural sign systems.

c. Within the realm of social sign systems, that is:
  c.a. between verbal sign systems and non-verbal sign systems;
  c.b. within the realm of verbal sign systems, that is, among various verbal sign systems;
  c.c. within the realm of non-verbal sign systems, that is, among various non-verbal sign systems.

All of these relations may be studied. In this essay we privilege a group of reciprocal relations to be located in *c.a.* (see the last part of footnote 4 below).

1.3 *The Autonomy of Non-Verbal Sign Systems*

Non-meaningful behavior does not exist. It is with the whole of his social organization that man communicates. No man can operate without consciously or unconsciously using some sign systems. These are propositions that recall those with which the social character of any human action is usually asserted. They raise the problem of the relation between a general semiotics and a general theory of society (cf. for ex. Carpenter 1969: 43–45; Kristeva 1969: 27–59 *passim*; Lotman 1967). It seems to me that there are two opposite solutions. One might on the one hand maintain that sign systems exist *within* social reality. But one has by this assertion divorced sign systems from social reality already, thus losing sight of the operations of social practice as what they are — essentially, sign operations none of which can take place alone because they all belong to one or more sign systems. Semiotics would seem accordingly to be a superimposed and auxiliary discipline. On the other hand, one might maintain that sign systems are *themselves* social reality. But this could lead us to believing that there is nothing more to social reality than sign systems. Social reality, instead, is based on need, work, and exploitation, that is, on factors which brutally beset the very body of man in its psycho-physical materiality and not just the sign systems practised by him (cf. for his notion of the human body Di Siena and Rossi-Landi, 1970). One possible line of mediating between the two solutions could begin with the remark that without social sign systems the contents of reality *would not be lived as social.* There's a big difference between shooting wolves on the moorlands, and shooting men on the street. Even considering as primary the fact that the organisms of the wolves and of the men are lacerated equally by the lead, the sign systems which the wolves put into operation while living this experience, though certainly not inexistent, are incomparably less complex and less pregnant with consequences than are those which the men put into operation. The human body lacerated by lead is a biological fact; but the various and complex interpretations that one can and must give for this fact are social, beginning with the victim's own interpretation. It is not through biological measures that one can stop men from shooting; and even if one succeeded, the *adoption* of such measures certainly would not itself be a biological fact; it would be a highly social fact. We can glimpse how the knowledge of sign systems is necessary not only for knowing social reality but also for operating upon it. This is particularly true in situations of a high level of reactionary sign elaboration, like the present mass societies dominated by money, consumption, and exploitation.

All this concerns all the social sign systems in principle, the verbal as well as non-verbal. But full recognition of the importance of non-verbal sign systems is

still hindered by a number of factors. Of these factors, perhaps the most insidious, because it is put into operation even by those who do study non-verbal sign systems, lies in the excessive pre-eminence attributed to language. Language is substituted for non-verbal sign systems, or unduly projected upon them. Let us consider the following steps: (i) One recognizes the existence of political, economic, juridical, and other *languages* (Ital. *linguaggi*).[4] This restricted use of 'language' describes a set of systematic ways of employing certain linguistic techniques and of developing them according to special aims, and this to an analogous (though not identical) degree within the various historical languages (Ital. *lingue*). This is obvious. (ii) It is also obvious that there are particular sectors of the historical languages dominated by those systematic ways of using certain linguistic techniques. That is, the technical specifications of language (*linguaggio*) are to be found within the various languages (*lingue*). But all this is not sufficient for bringing to light non-verbal sign systems *as such*. We must add that: (iii) politics, the economy, jurisprudence, as well as fashions, cuisine, games, and so forth, are *themselves* social sign systems, subjectable to enquiry just as much as verbal sign systems are. The central point is that: (iv) we are dealing with non-verbal sign systems which not only are distinct from verbal sign systems, but also not reducible to them.

Naturally, every time we approach a non-verbal sign system *ex novo*, we must

[4] Clearly different usages of 'language' are involved here, with the additional complication that they differ not only within any given language but also from language to language. All the different usages of 'language', 'speech', 'idiom', and 'tongue' make up a field which is in no way identical, though it is obviously similar, to the field made up by all the different usages of 'linguaggio', 'lingua', 'favella', 'parola', and 'idioma' in Italian. In 1.2 we spoke of the irremediable polysemia of the terms 'language' and 'linguistic', especially in English. In the following, as already stated, we shall be using 'language' in a rather conservative manner, with reference to verbal (oral or written) codes and messages *i.e.* to a sector of *human* sign behavior. For non-verbal human sign behavior and for animal sign behavior we shall instead speak of sign systems, and we shall specify what system is being described as the various cases arise. 'Language' will be used as the Italian *linguaggio* (French *langage*), while the Italian *lingua* (French *langue*) will be rendered by '*a* language', or '*the* language'. Restricted uses of 'language' are explained in the text.

The *Oxford English Dictionary* and the *Random House Dictionary of the English Language* list some 14 senses of 'language'. One has the impression *both* that the various sciences of language correspond, at least to some extent, to the various senses listed, *and* that such a correspondence is not complete and could be, so to say, improved to the advantage of scientific enquiry. It is refreshing to hear Shakespeare stating that «Ther's a language in her eye, her cheake, her lip», and Mozley remarking that «all action is ... besides being action, language».

This is perhaps also the place to spend a few more words on the complexity of the relations obtaining in the field of sign systems. We may list the relations among verbal sign systems, among non-verbal sign systems, and among verbal *vs.* non-verbal sign systems. The complexity would of course further increase if we were to consider the additional relations emerging when *post-verbal* sign systems (which form when verbal languages already exist, or grow upon them) and *para-verbal* sign systems (which form alongside verbal languages, or refer to them) are also taken into account. For these and other complications, which are left aside here, the reader is referred to the enquiries contained in other Sections of the present volume and in other volumes of the *Current trends* (especially Volume 3, on *Theoretical foundations*), as well as to their bibliographies.

discuss accurately the extent to which it is in fact distinct and independent from language, and not reducible to it. One much debated question is whether in order to justify the existence and operation of a given non-verbal sign system, it is necessary for a *previous verbal agreement* to have taken place among the users of the system. Often the discussion shifts to the origin of sign systems in general. When the burden of making non-verbal sign systems possible is attributed to language, then the problem ends by being that of the autonomous origin of language. If a previous verbal agreement was necessary for the institution of a given non-verbal sign system, itself born precisely as a consequence of that agreement, in fact, the agreement must have taken place between men to whom that very non-verbal sign system was lacking. In some cases, such as the institution of the Morse code, this is completely obvious and does not merit discussion. But in other cases, especially those of the use of utensils and of the most simple institutions, one would be forced to introduce the notion of a humanity that reproduced itself by means of speech alone, if one wanted to maintain the idea of a previous verbal agreement. The speakers would have been men only halfway, half men and half apes, people who talked but didn't work, and who did not possess any institution other than language — which is absurd. Moreover, the idea of a previous agreement takes us back to the *contractualistic prejudice*, that is to the notion of already-formed individuals, who start discussing in order to draw up that very contract to which instead the power to form them is attributed (Rossi-Landi 1967a: 99–109). This vicious circle is an ideological projection in the field of signs of a social situation which has contingently permitted the formation and the free self-expression of individuals of a particular type, that is, sufficiently privileged to feel themselves detached from their own formation, which allows the overgrowth of consciousness in its self-regulating certainty. The old American university joke 'don't put Descartes before the horse' contains an involuntary criticism of this operation precisely while referring to its principal modern doctrinal source.

In the prospect of a more correct evaluation of non-verbal sign systems, let us begin by totally refusing the position of those who make non-verbal depend upon verbal sign systems, and who see the ruling structure in language. We maintain in this essay, sometimes in an open way and sometimes implicitly, (i) that all social sign systems developed parallel to the progressive interpretation of natural sign systems, and moreover (ii) that all social sign systems, regardless of the distinction between verbal and non-verbal, have been from the beginning — to the extent in which they developed together in every given community — in conditions of reciprocal structural independence and at the same time of reciprocal influence. This does not mean that there was no hierarchy imposed by real needs on sign systems; but it does mean that all basic social sign systems are "primary modelling systems" — according to the terminology of Lotman, who considers primary only the system of language, and secondary instead all non-verbal sign systems (Ital. transl. 1969: 311). If all social sign systems have primary modelling power, the ex-

trapolation made by splitting off any one of them from all the others assumes a risky abstract character. When we study any social sign system we automatically find that we have to study various others (cf. some steps in this direction in Key 1970). The ideal situation towards which to move, indeed, would be that of a unitary examination of all sign systems presenting any sort of reciprocal dependence. The very idea of a social sign system isolated from others is not a correct one. Since man lives in nature and is (also) nature himself, not even the notion of studying social sign systems while isolating them from natural sign systems, can be correct. That all these descriptive distinctions must never be mistaken for ontological distinctions, is something over which there reigns a certain agreement; much more in words than in fact, however, given the profound difficulties that a criticism founded on consistent general principles succeeds so often in identifying beneath the sharply-outlined and compact surface of so much specialistic research.

To use one of Wittgenstein's well-known images, all sign systems are, then, at least to some extent, original "games", not reducible the one to the others. This does not mean, though, that there are not reciprocal influences among them. Ideologies, for example, depend upon the division of labor and of power. But these relations do not work equally in both directions. The English language is able to describe the natural sign system of the sea and the non-verbal sign system of fashion, while the natural sign system of the sea and the non-verbal sign system of fashion are not able to describe the English language. On the other hand, the capacity to interpret English or any other language cannot at all be substituted for the capacity to interpret the sign system of the sea or of fashion. The linguist is neither a sailor nor a tailor. Saussure, Slocum, and Christian Dior were masters of different arts.

The priority usually assigned to verbal sign systems is normally explained in various ways. We recall briefly three reasons suitable for beginning a realistic explanation of this attribution. A first reason is that the languages were the first social sign systems upon which attention was focused with conscious effort. It was about language itself that a sign-curiosity developed. Only in a second moment did this curiosity and the instruments elaborated for its satisfaction begin to extend themselves outside of language, moving over to other systems — whether or not these had been studied from other standpoints — and considering them as sign systems within which codes and messages could be distinguished. The sign nature of non-verbal systems began to emerge all around a zone of awareness which had originally been limited to verbal sign systems. (The awareness of the programmed character of every form of communication, see 1.4, also grew little by little in this way but still more slowly, and culminated unilaterally in the construction of computers.)

The second reason has to do with the very nature of verbal sign systems as compared to non-verbal ones; as such it offers a sort of meta-explanation of the preceding reason. The articulated sounds upon which the codes of languages are

founded are institutionalized objects produced by the human body. They are at the same time internal and external to the organism. This means that language, in one of its aspects, is kin to non-verbal sign systems of the objectual type; that in another aspect, it is kin to non-verbal sign systems of the institutional type; and that in still another aspect it is kin to the various types of sign systems which can be united under the heading of organic. These family relations confer to language proper a coverage which non-verbal sign systems usually do not possess. Each of us learns to produce by himself, with his organism, the articulated sounds of language without having to resort to anything external; still the sounds are objects existing in the external world; lastly they constitute an institutionalized, supra-individual, system. Clearly in spite of its complexity language presents itself as a more inviting and apparently nearer, almost handier, object of study. A colossal inversion.

The third is, I believe, the most important reason. It is an ideological reason: a projection of the way in which power has been handed down in more or less all of the historical societies, at least until a few decades ago. Language has always been the depository of power *par excellence*. The dominating classes, castes, and groups have always used language for their aims. The opposition between head and hand (Farrington 1947: ch. I) has been from the beginning an opposition between verbal and non-verbal sign systems respectively. It seems to have been more intense particularly during the periods when class distinctions were clearest; we are thinking, within European history, of language research done by Athenian citizens, who deputized material production to the great human machine of slavery; of medieval language research, prerogative of a privileged class of literate monks; or of sixteenth and seventeenth century linguistics, contemporary to the formation of the bourgeoisie; or the imposing foundation of linguistics in the nineteenth century, subservient to the take-off of bourgeois power.

One will notice that these reasons explain the fact that a priority has been and still is attributed to language; but they don't justify it. Moreover, they do not regard the priority as such. The reasons for which language has been and still is considered predominant over the other sign systems are not reasons in favor of its actual predominance.

There are, however, arguments that directly touch the question of priority or predominance. We continually see how other social sign systems, the non-verbal ones, contribute in a necessary way to the formation of the very stuff of all our lives. There are no alternatives to this situation. Consequently one doesn't see why non-verbal sign systems should be considered, as a group, less important than language. It is even difficult to understand what may be meant by a 'priority of language' in the absolute. Since in the absolute — that is, on its own account, without the other sign systems — language does not in fact exist, what in the world is meant when its priority is asserted? It seems a little like asserting the priority of digestion upon breathing, or of rivers upon seas, or worse, of downhill roads upon uphill roads. Since language and all other sign systems of a community are in reciprocal

relations in reality, we don't understand in what possible way one can attribute to any one of these sign systems a *real* priority.

But even if we did want to assert the *priority* or *predominance of* language over the other sign systems and we had good reasons for such an assertion, it wouldn't follow in the least that all the other sign systems would be *dependent upon* language. There are, if anything, good reasons for saying the contrary: not for all non-verbal sign systems, of course, but for many of them. Certainly it can be said that language depends upon sign systems that we find already present in the other animals, and this because of the biological continuity between them and man. Since they came before language, language must have been conditioned by them. Moreover, language continues to be fed and sustained by all the non-verbal sign systems to which it refers. It would be senseless to ask that the butter be passed to us at the table, if we did not know how to recognize it with our eyes and move it with our hands. If we took away from language sailing, fashion, eating meals together, and little by little all the other human activities that express themselves in as many non-verbal sign systems, the only thing left would be the soul talking to itself. Language, on its own, simply does not exist in reality. On its own, it exists only as an object of study isolated by means of deliberate specialistic abstractions.

Some relations between speaking a language and the rest of meaningful behavior were once caught very accurately by Bertold Brecht in California when he wrote in 1946: «I don't have the least hope of ever being able to learn everyday American .... It is not just that I lack the words, not just the knowledge of the syntax. Rather, I lack a very precise behavior [*Habitus*] which I simply don't see any possibility of learning ... I should learn to become a "nice fellow"» (1968: 298-299). Unable to assimilate the very different culture in which he found himself immersed, Brecht did not succeed in assimilating the language. But what does it mean to refuse a culture as distinguished from its language? What is left of a culture when we have taken its language away? Evidently, all the rest of the culture consists in nothing other than non-verbal sign systems. Not succeeding in mastering the non-verbal sign systems of a culture for him new and different, Brecht also refused its concomitant verbal sign system.

We will try to present by means of a brief analysis the way in which a non-verbal sign system is not only distinct but also (in one of the meanings of the term) independent from language. Let us consider the objectual non-verbal sign system composed of the physical objects of daily household use: like socks, shoes, shorts, trousers, belt; or like matches, cigarettes, ashtrays, pipes, pipecleaners, swabs, tobacco-pouches; or like soap, towel, comb, brush, toothpaste, toothbrush, etc. Let's take the case of silverware and start off paradigmatically with the knife. Here it is necessary to anticipate some of what we will be saying in Section Three about the homology between linguistic products and material products. A table knife is an artefact, a manufactured object, that is, a social object provided with specific properties that make it useful. It is not just an *instrument* occasionally potentiating the

human body, but rather is an object produced according to a model for precise aims: it is autonomous and finished in itself, an object that can be used and re-used in any moment and in diverse circumstances by any member of the community, with some minor exceptions (very small children, paralytics, and so on). Moreover, we find knives in any human community. A knife, then, is both species-specific and species-consistent. In a word, a knife is a veritable *utensil.* As such it has the level of complexity and the utility not just of a mere word or of a syntagm, as complex as this may be, but of a proper *sentence* or *judgment.* The utensil in fact consists in parts which are preproduced and put together according to certain rules, like the sentence. It is as if, in the language of things, the knife, every time we **asked** it, **replied**: **I am used for cutting.**

A knife is used for cutting. But what? It is easy to reply that it is used for cutting bread, fruit, meat, and so on; it is *not* used for cutting steel, stone, glass (it is not relevant to our argument whether or not in some technical language the utensils with which one cuts very hard objects are also called knives); *it can be used* for cutting paper, leather, and wood, but this is not its usual use (so much so that there are other types of knives, and moreover, other utensils, for cutting paper, leather, wood); it cannot be used for cutting air or water because these, not being solid, are not in the proper sense cuttable objects. Now, in what has been called the **language of things** (in our terminology a set of non-verbal sign systems) everything that can be done with a knife is equivalent to everything with which a knife can be put into a real relation, and thus constitutes the **discourses** (groups of interconnected sentences) of which the knife can be a part. The syntactic relations of the sentence **'knife'**, suitable for generating finished and meaningful discourse, depend upon its semantic value, upon what it tells us. In fact, **proper discourses** of the type **'the knife cuts the steel'** do not exist, even if this is a meaningful discourse. Absurd, or rather metaphorical, is instead a **discourse** like **'the knife cuts the water and the air'**. Transcribing: the discourse **'the knife cuts the steel'** is equivalent to 'that which is used for cutting is employed according to its proper use upon a thing which cannot be cut because it is too hard'; and the **discourse 'the knife cuts the water'** is equivalent to 'that which is used for cutting is employed according to its proper use upon a thing which is not a cuttable object because it is liquid'.

The essential point in the preceding discussion is that all the words, syntagms, sentences, and discourses printed in bold face should not be construed as they are presented on this page, that is, as verbal words, syntagms, sentences, and discourses in which we are *talking about* the knife and its relationships; they should instead be interpreted, so to say by making a jump outside of language, at *the level of things*, as homologous indications of relationships regarding the knife insofar as we use it as such (and not as an object of discourse). The description of the discourses in bold face as proper, improper, absurd, metaphorical, and so on, is not, then, a meta-linguistic description, that is, a discourse about a discourse, but it is a meta-sign or meta-communicative description in which we refer to an object be-

longing to a non-verbal sign system by means of discourses in the proper sense, that is, belonging to the language as a verbal sign system. **'The knife cuts the air'** is a **metaphorical discourse** beyond or beneath any verbal description. That is, the piece of behavior which consists in cutting the air with a knife is itself metaphorical: it is such at the level of things.

One gathers this clearly in terms of possible daily experiences. If we see our table-companion cut his bread with his knife, it seems normal to us. If we see him try to cut steel we understand what he wants to do: it "makes sense" even though we think that it is impossible. If he starts cutting the air or water instead, his behavior seems absurd or metaphorical to us. All this takes place in a way distinct and independent from the verbal sign systems to which we resort when we want to *talk about* these pieces of behavior, report them or make comments about them with words.

We can make analogous considerations as to the semantic relationships to which a knife is subject within the little system to which it belongs together with the spoon, the fork, and the other silverware. This system is a **semantic** or **semiotic field**, or simply a **sign field** (cf. footnote 66), at the level of things. It is, in its turn, only a part of the vaster system of table ware: the little knife-fork-spoon, etc. system is in relation to the system bowl-plate-saucer-glass, etc.; these two little systems are in relation to the system of food and drink; and so on, working in a field which it would be well worthwhile to interpret and describe minutely (as Lévi-Strauss 1964, 1966, 1968 has begun doing; cf. also Barthes 1967 for the terminology of fashion). It is on the basis of all these semantic relations that we must judge the **models of discourses** (**correct**, **incorrect**, or **absurd** as they may be) **at the level of things**, like **'to cut the meat with the knife'**, **'to skewer the potato with the knife'**, **'to cut the meat with the spoon'**, **'to drink the broth with the fork'**, and so on.

The considerations we have just made are in principle applicable, *mutatis mutandis*, to any non-verbal sign system. A fundamental heuristic instrument is the principle that man communicates not only with his verbal behavior but also with all of his non-verbal behavior. Human behavior is included entirely within verbal and non-verbal social sign systems and natural sign systems: whatever we may say or do is programmed by the sign systems of which we make use, or believe we *make* use.

The notion of the language of things opens the path for a consideration of what is probably the most profound sign dimension imaginable as far as man is concerned. Marx in fact talked about a *Sprache des wirklichen Lebens* referring to the *material behavior* of men in a work relationship. It is a question of *objective meanings, anterior to the formation of consciousness*, which men communicate to one another unconsciously during the course of their productive operation (Trân duc Thao 1966: 14). It will be precisely through a consideration of this "language of things" which is present in the exchange of commodities without men's being aware

of it, that in Section Four we will reach the notion of economics as a central sector of semiotics. First we must fortify ourselves with numerous other considerations.

1.4 *The Programs of Communication*

There is certainly a confirmation of the views of two great American scholars, Franz Boas and George Herbert Mead, in the modern Soviet conception of culture as information (Lotman 1967) and of its transmission as conservation of sign systems suitable for controlling the behavior of individuals (*Simpozium* 1962). Boas in fact had seen very well that communication is the constitutive and central process of every culture (Boas 1911; cf. Emeneau 1966, Jakobson 1966); and Mead maintained that everything we call *mind* is a system for communication, making it advisable to explain the mind in terms of signs rather than trying to explain the signs by means of some sort of ontological notion of the mind (1934; cf. Morris 1932: 322–325; 1970: 33–36, 126–128). As a matter of fact, a history of such doctrines should go back to the structural historicism, or genetic structuralism, inaugurated by classical German thought, beginning with Kant: especially that of Hegel and the Hegelian left, that is, of the materialistic overturning of the dialectic culminating in Marx. Indeed, it would not have been possible to "put man into sign systems" if there hadn't been a previous success in making man depend upon Reason, then upon the Idea, and finally upon the Modes of Production: that is, upon supra-personal entities, endowed with a movement and self-preserving structure of their own, which act and express themselves through human individuals. So that we could begin to see the semiotic position of man correctly, it was necessary to abandon pre-Kantian ontological dualism and to then proceed in a direction both social and materialistic. In 1914 Lenin, commenting on Hegel's "syllogism of action", wrote that «human practice, repeating itself billions of times, fixes itself in the consciousness of man by means of logical figures. These figures have the solidity of a prejudice and an axiomatic character just (and only) because of this repetition that happens billions of times» (*Works,* It. ed.: XXXVIII, 201). In 1927 the essay by Edward Sapir appeared on «The unconscious patterning of behavior in society».

Considering the human individual as a part of a wider organization also means recognizing (i) that experience takes place in an environment already shaped by man, so that *every single individual,* when he is born and develops, in a certain sense finds *everything ready-made*; and (ii) that the very behavior of the individual is anchored to something that precedes and guides it, that is, *it is programmed.* Now, we know that every piece of human behavior *is* communication (Watzlawick, Beavin, and Jackson, 1967), that communication supports every human behavior. But communication exists only insofar as messages are transmitted, and

these in their turn require the use of codes. The notion of communication sends us back to the notion of sign systems. Summing up these elements we come across the thesis, or if you prefer, the working hypothesis, according to which sign systems include programs of behavior, and communication itself is always programmed.

This had been glimpsed by Whorf (1956; as is well known, his writings go back to the thirties), who maintained that our very perception of the physical world is programmed by the language we speak. His was a case of exasperated glottocentrism in which it is not difficult to recognize an idealistic deviation (Rossi-Landi 1968b). Still, it is an important pointer because it can be extended from verbal sign systems, to which Whorf's research was substantially limited, to non-verbal sign systems, that is, to the totality of culture (Hall 1959, 1966), with particular attention to so-called material production.

As a matter of fact, many of the things that used to be said about verbal sign systems alone must now be said about non-verbal sign systems; and the very fact of concentrating our attention upon the latter leads us to say much that is new for both. For example, Boas used to counterpose the unconscious character of linguistic (verbal) activity to the externally conscious activity of cultural institutions. We know today that there are forms of communication still more profound and less noticed than the verbal ones. We continually send and receive non-verbal messages without even suspecting it. In comparison with such messages as these, the very verbal messages which appeared barely conscious to Boas are usually much closer to the threshold of consciousness or are more easily brought to it. Even if we don't know *what happens* when we speak, at least we know *that* we are speaking. As scanty as may be the intentionality we usually put into common speech, as fluid and as natural as the daily use of linguistic instruments and materials may appear to us (see 2.3.3, 5.2, and 6.5), the fact remains that the situation of linguistic exchange is immediately distinguishable from a situation in which such exchange does not take place. We can't even say this, though, for many other types of messages — but not only because we have just started studying them. The fundamental reason is that the use of social sign systems invests different levels of consciousness, from full consciousness to the most profound unconsciousness. It could not be otherwise, since the entire human psyche *is* this use. New semiotic research is in fact revealing vast series of mechanisms supporting the non-verbal strata of communication, that is, non-verbal sign systems, the existence of which formerly no one even suspected. These sign systems can require the use of language, or accompany it, or even precede it (as in the case of the "language of things": cf. the end of the previous subsection).

As a general comment on the tardy discovery of non-verbal sign systems, we can say that they remained submerged in confused and unexplored zones of a "nature" and a "society" which were not felt as dialectically related and therefore not prone to be investigated beyond well-determined limits. With a naturalistic or positivistic residue, it was maintained that natural factors were something independent from

socialization; or else, with a spiritualistic residue, it was maintained that socialization was a set of creativistic processes, that is, that there was a gap between them and nature. Now, since social sign systems by definition are human products, it certainly wasn't possible to find them in nature as detached from the social; and on the other hand, since they operate as machines conditioning our behavior, it wasn't even possible to find them within processes of a creativistic type. The antinomy is overcome and the natural begins to rejoin the social only when we realize that man is himself a product of his own work, and therefore also that the field of social conditioning to which the individual is submitted is immensely larger than we used to think. This is, in my opinion, the main path for introducing the notion of *communication as the execution of programs* by means of (which also means: within) social sign systems, whether verbal or non-verbal.

Saying that every piece of behavior is meaningful is, then, the equivalent of saying that every piece of behavior is a program in realization, the execution of an already established program (*Simpozium* 1962; Scheflen 1968, with bibliography). In every interaction, that is, in every social process during which two or more persons or groups influence each other reciprocally by means of various types of messages (Watzlawick, Beavin, and Jackson, 1967: 50; Gerbner 1967: 43 and *passim)* a program supporting the interaction itself can be individuated. The program prescribes both the individual or group roles and the relationships which are being instituted among its various executors. Diverse types of signals (kinesic, proxemic, and so on) are used during the transaction prescribed by the program; these serve to regulate and integrate the various pieces of behavior in a totality. One essential characteristic of such signals is that they are transmitted, received, and interpreted for the most part unconsciously. The verbal portion of the transaction, if any, not only transmits verbal meanings, but also, indirectly, meanings which do not reach the level of verbal expression even if they are presupposed by it. These are meanings contained in relations between the code and the context, or in non-verbal sign systems which remain permanently unconscious even when they are a prerequisite to verbal communication (Rossi-Landi 1961: ch.s vii and viii).

Every piece of behavior exists within a given culture in the form of sequences or aggregates of fixed and conventional units (Watzlawick, Beavin, and Jackson, 1967 : 118 fll.). It is precisely because of this that it is meaningful. The members of that culture have learned to act in such a way as to forge their own behavior in the form of these sequences, thus making them recognizable and predictable. To the units themselves various names have been given: for example, Pike calls them behavioremes (1967: ch. V and *passim*), Scheflen, "structural or behavioral units". These denominations, however, do not take sign systems into proper account. It would be better to call the units "non-verbal sentences". The most interesting points are the following: (i) the execution of behavioral units, or non-verbal sentences, is what is meant by 'meaningful behavior'; and (ii) the execution itself must come about *according to a program.* The executor follows instructions

which are implicit in what he is executing for the very good reason that they have been *codified in it*. Which means that the sign system to which the meaningful behavior belongs has been previously produced: it is a result of past human work. When he realizes a program by behaving in a certain way, the executor *transmits messages* interpretable in terms of a *code common* to all the members of the community. The previous human work which put the code into operation was, therefore, a social, communitary work: one *becomes* a member of the community insofar as, even without knowing it, one accepts its products and learns to use them. «Only by becoming part of the network of the sign systems functioning in a given community does man acquire those characteristics which differentiate his behavior from that of the animals» (*Simpozium* 1962, Ital. transl.: 36). *Communication is the execution of programs*. Learning to execute the programs, one learns to communicate and become part of the process of "social reproduction" (2.4). It is from birth that a child produces, exchanges, and consumes signs, non-verbal first and then little by little also verbal ones. As soon as he opens his eyes (according to some, perhaps even earlier), he is ensnared by extremely complex codes. His "spontaneity" certainly does not consist in acting without schemata, but rather in the way in which he reacts to prescribed schemata and in the particular ways in which he learns them and adapts himself to them. The process of homination stands over us and accompanies us in everything we do, much more than we are used to believing. The animalesque regression often found in prisoners of war or famished survivors of shipwrecks, or in various forms of organized sadism, confirms the relative subtlety and precariousness of the social sign systems which allow us to exist as men-animals with the added dimension of sociality.

New research on meaningful non-verbal behavior leads us to trace programs not only in objective and institutional sign systems, where everybody would expect to find them, but also in organic ones. Running through the classification of non-verbal sign systems again we find actions founded on the movements of the body, as Birdwhistell first showed in 1952; or the structure of a simple meal consumed at home (Pike 1967: 122–8); or a psychoanalytic session, any party or reunion, dating, the way in which a mother treats her baby (Scheflen 1964, 1965, 1966); or proxemic behavior (Hall 1959, 1966); or the economic market (Rossi-Landi 1966a, 1968b and c; in this essay, Section Four); and so on. Man becomes part of programs which then determine his behavior in *an automatic, i.e., unconscious way* for the rest of his life (Ivanov 1965, Ital. transl.: 45). Current research is piling up evidence for all this. There is, however, an armchair argument that all the above interactions are programmed, indeed, that they must be so in principle. It is a *reductio ad absurdum* (Ryle 1945) which begins when one asks oneself what would happen if they weren't programmed. If non-programmed interactions did exist, the relative behavior would be incomprehensible and unpredictable and it would be impossible to set up any human relations. But human behavior is, to a large extent, comprehensible and predictable, and human relations do exist. It follows

that interactions *are* programmed, that is, that they belong to sign systems into which every individual enters at birth. Both verbal and non-verbal communication depend properly upon a common behavioral morphology induced in us by the fact that we belong in common to the same sign systems. The meaning of such systems is shared by those who transmit and receive messages, whether or not they are conscious of doing so. This is a point which seems to put down, or diminish in importance, the usual opposition between voluntary and involuntary signs, as well as the more complex distinctions between signs which are emitted voluntarily or involuntarily on the one hand, and, on the other, signs received and interpreted — voluntarily or involuntarily — without the transmitter's knowing it.

It is interesting to compare these ideas with what Wittgenstein and then Ryle were saying in the thirties and forties about human behavior. Ryle's insistence on non-verbal behavior capable of exhibiting intelligence because it is (i) learned and (ii) executed according to rules (1949: ch. II and *passim*) bears an especially close resemblance to more rigorous notions which have been reached by considering all meaningful behavior as programmed, that is, by studying its codification and decodification. But, in a word, both Wittgenstein and Ryle were talking about *public* as opposed to private behavior; they certainly weren't talking about *social* behavior.

It is also interesting to notice how we are moving farther and farther away from the pseudo-profound problems of incommunicability, typical of a bourgeois society in decay and without hope. It becomes increasingly difficult to understand how many scholars, although they believe by a sort of act of faith in communicability, continue to think about it as an insoluble general philosophical problem. It is thus for the left-overs of the existentialistic school; but also for many scholars who are not reducible to it, and — alas — even for numerous linguists, probably of idealistic or at any rate over-humanistic descent. We understand each other because, without knowing it, we do everything according to programs; we become members of a community as we become actors in numerous sign systems. Such systems, certainly, would not exist without us, the individuals who act in the communicative processes. But the contrary is also true: we would not exist as individuals without the sign systems of which we are the executors. As individuals we "do the work" (later we will say more precisely: "we expend labor-power of a sign type"); but so that our expenditure of labor-power may *give rise to products, that is, make sense*, there must be materials upon which to exercise it, instruments for applying it, and modalities for its expenditure. All this is furnished, indeed, imposed upon us by the social sign systems.

What we have said does not imply that in executing a program man must necessarily feel that he is a slave of fixed rules. Freedom is a human invention (Di Siena 1969; Rossi-Landi 1969c) and is therefore itself founded upon communication, that is upon programs: if programs did not exist, we would never even find ourselves in one of those conditions which we do call "free". The more so, we could

never introduce new freedom into history. Liberation is in fact an enlargement of human planning, and planning is the *conscious* use of programs. Moreover, the programs themselves can prefigure measures of freedom in the form of choices or legitimate variations. The game of chess, on the one hand, and the code of a language, on the other, to mention a comparison which merits its longevity, both offer good examples of programs with a *certain amount* of freedom. We are less conscious of the code of a language than we are of that of chess both because the former is much more complex and because language is necessary while chess is not. Moreover, although it is a human product, language was certainly not invented in the same sense that chess and all other games must have been. Still less conscious because still less conditional are those non-verbal codes which we practice by the antique heredity of an evolution which is not only social but also biological.

One important aspect of the relations between verbal and non-verbal sign systems is the following. A non-verbal communicative program can be executed with or without verbal accompaniment. The fact that in the second case we say that it takes place "in silence" shows how the notion of silence has been traditionally reserved to the absence of verbal signs alone. It seems evident that we should also talk about non-verbal silence, and distinguish between them all the possible silences according to the specific sign system of which each of them denounces the absence.

When verbal accompaniment is present, at least two programs are developing contemporaneously, one non-verbal and one verbal. In some cases the executor of the programs is talking about something completely different. Sometimes it may even seem that the conversation has been introduced by mere habit, without its having anything to do with the non-verbal program it accompanies. In other cases a program can be accompanied by a commentary regarding it: for example one can teach manually the use of a machine and at the same time talk about it, describing the operations which are taking place, or recalling those done previously, or anticipating orally operations which will take place later on. In still other cases, finally, the discourse which accompanies a non-verbal execution distorts, falsifies, rationalizes, hides, mystifies, conceals the other program, or diverts the attention of the participants or spectators. On top of all this, the verbal accompaniment of a non-verbal program may even reach the point of representing the entire program in men's consciousness. The relationship between verbal canals and the totality of the communications which are taking place at various levels remains unknown to them. The verbal comment on the non-verbal programs is then transmitted by tradition «without anyone's knowing how it has been derived from the action as a totality, or what its relation to it may be» (Scheflen 1968: 51). In other words, we act without knowing how and why; and this "how" and this "why" are all the more difficult to discover because the action is accompanied by a verbal comment which traditionally represents it *and thus also hides it.* As Ivanov says:

The models of the world introduced into a man at a fairly early age (by teaching) often act (as a model of the world and as a program of behavior) in an automatic manner independently from their degree of correspondence to the conscious models of the world which the individual constructs in a subsequent phase. Becoming conscious of these semiotic models and programs which act unconsciously is therefore the indispensible condition for the conscious control of the behavior of the individual and of the collectivity [1965, from the Ital. transl.: 53].

An excellent example of all this lies in one of the objects central to our enquiry, economic exchange interpreted semiotically. Economic exchange is sustained by laws which have been put into operation over and over again for thousands of years; nevertheless, it was demystified and made conscious only by the Marxian analysis of commodities (1868). Since an exchange of some sort is the immediate result of the division of labor (cf. 2.4.3), we go back to the primordial stages of homination. We must assume that already at that time non-verbal group behavioral programs were beginning to be unconsciously forged, learned, and handed down. The verbal discourse that usually accompanies these programs has the peculiar character of not regarding them or even of contributing to their concealment. This is the case of the merchant who vaunts the quality of his merchandise only in order to sell it, even when he himself is not convinced of its worth or is perhaps quite conscious of its defects; it is moreover the case of the buyer who disburses money for that merchandise — thus putting into operation the non-verbal behavioral program of the economic exchange — insofar as he executes at the same time a verbal behavioral program induced in him by advertising or by other verbal elaborations of values wide-spread in the community to which he belongs; and it is, finally, also the case of numerous economic theories which, not succeeding in bringing to light the real dialectic of market, enroll themselves objectively in the service of very definite interests.

Bringing the programs of non-verbal communication to consciousness, and recognizing the structures and modalities of the use of non-verbal sign systems, can therefore work a powerful demystification. The dialectic between non-verbal and verbal programs is of exceptional importance for the study of *linguistic alienation*, of which one essential dimension consists precisely in the handing down of discourses which lack a real object or are detached from it, and in this case, indeed, are apt to conceal or estrange it. We can see also how scholars who limit their study to linguistic exchange alone, ignoring all the rest, are forced to substitute that enormous rest with something else. As Lenin says, «expelling the laws of science means, in fact, secretly introducing the laws of religion» (*Works*, It. ed.: XX, 190). And then we find that such scholars resort «to merely subjective approaches and to cultural myths» (Scheflen 1968: 51), from which they extract the data they use as a starting point. The data instead should regard communication as a whole, that is, all the programs in question. For some developments of these ideas see 4.3 and 7.4.

Let's sum up. Whatever he does, every man always executes programs *because* he cannot avoid using verbal and non-verbal sign systems which were established before he came into existence. Or rather, since these systems exist and he is a part of them, man is always in the position of executing programs (which are similar to those of a totally automated machine: cf. 3.2.3). If this is valid even in the field of organic non-verbal sign systems, so much the more so must it hold for objectual and institutional ones. Whether the execution of the programs is conscious or unconscious is something completely irrelevant to the existence of programs. Even if, naturally, an unconscious program is different from a conscious program, the main fact here is that there is always a program. Still, the measure of our consciousness of the entire situation — between the two extreme limits of the full practical and theoretical possession of the operations which are made, on the one hand, and on the other hand, of the totally unconscious, apparently only biological character of the action — has an enormous importance for human life. This is the meeting ground between semiotic enquiry and praxis.

2. WORK AND PRODUCTION

Die Arbeit is *gehemmte Begierde.*
G. W. F. HEGEL

2.1 *About Artefacts and Work*

An *artefact* in the most general sense, from *artĕ* and *factum*, is any product of human work, that is, something that did not exist in nature and that has required man's intervention for its existence. Since dictionaries admit of both the spellings *artifact* and *artefact*, let us use the latter, although it is less common, because it brings out the Latin roots. The notion of artefact is connected to the problem of the relation-distinction between *man* and *nature* and shares its profundity. Man and nature are measurelessly polysemous terms which pass from one to the other the difficulties of their own relations. The artefact is part of this relation as a product of work: so much so that we can say that nature is everything that is *not* artefact; and that man as well, insofar as he is not artefact, is nature (*remains* such), while insofar as he is the product of his own work, he is no longer nature, and is, indeed, himself the most important artefact.

The notion of artefact, in its position between the notion of man and that of nature, sends us back, therefore, necessarily, to the mediating notion of *work* (cf. footnote 1). Work is what transforms nature in artefact. In every single working process, the materials from which one starts are assumed as something natural insofar as they are *given* to us; the product, that *for which* we must work, will be non-natural. From the general point of view of work, we could say that everything from which we start is "natural" (and ends up by being felt as "nature"); while everything at which we arrive is artefact.

This is true for man, too. The essential point is the following: if we don't want to admit that something *human* exists for man without the intervention of man himself, we must hold to the principle that every artefact, however understood, is the result of work which man has done and can do again. Generalizing, between any product or human result as absent, and the same product or result as present, there is a difference that can be explained (for which reasons can be given) only in terms of the work carried out by men to obtain it. The most general category of these products is man himself, the historical result of his own work.

An essential methodological aspect of the notion of artefact is to be found in the use which is made of it in palethnology and archeology. Here it is said that an artefact is a prehistoric object produced by man *in so far as it is distinct from* a similar object formed naturally (cf. Gerow 1964: 37; Rouse 1953: 57–76; Bidney 1953; Oakley 1959; and the entry "Artefact" (or "Artifact") in the listed dictionaries). Since palethnologists and archeologists deal with the dawn of humanity and therefore with very simple objects, what counts for them is a mere *difference from* something similar. Thus for example the fact that a pebble bears some human trace, that is, that it has been modified by man for some end, is enough to rank it as an artefact. It does not matter if in nature there are many almost identical or even indistinguishable pebbles; what matters is that *that* pebble has been modified.

2.2 *Material Production and Linguistic Production*

What we have just said also suits another kind of object — the sounds emitted by human organisms. As we know, such sounds are the stuff of the codes of verbal sign systems. For simplicity's sake, in what follows we will call them, directly, linguistic sounds. The fact, then, that any sound bears the imprint of man is enough to make us regard it as produced in some way instead of simply emitted, and we can therefore recognize in it the character of artefact. Naturally we have no trace of the sounds produced before the era of the phonograph, and we cannot even imagine their system abstractly before the era of writing. This circumstance has certainly retarded the consideration of linguistic sounds as artefacts: perhaps, so that this characterization of them could appear in all its clarity, the development of the techniques of the registration and interpretation of unwritten languages was necessary.[5]

[5] Reference can be made to Bloomfield 1924, Bloch and Trager 1942, Pike 1947, Nida 1946, Gudschinsky 1967, Samarin 1967 (with extensive bibliography). New technical means of enquiry allow of a more comprehensive approach. Our own behavior doesn't appear to us in its real dialectical texture of "nature" and "history" but rather in a texture of "nature" and "history" which corresponds to the present state of the various techniques by which we approach it. One general consequence of this is that "nature" and "history" themselves – whatever we have come to understand by these immensely complicated notions — present themselves as unrelated, or as scarcely related, since the dialectic linking them together in the very essence of man remains

The fact that ceramic artefacts last through the millennia while ones made of wood disintegrate, certainly does not hinder us from considering the wooden ones artefacts as well: in the same way we do not doubt that prehistoric man possessed a brain although we find only its bone casing. Sound objects exist in nature as, for instance, geological objects do; and both kinds can be worked upon — with increasingly complex procedures into which numerous products of previous elaborations enter as materials — until they reach the heights respectively of a tragedy and of a temple. All sound objects constituting a language are the fruit of human work, that is, artefacts. Words, sentences, and discourses certainly do not exist in nature without the intervention of man; not even the individual variants of a phoneme exist in nature with the characteristics that make them suitable for the scope for which they were made. Often the emission of a single sound is enough to give immediate evidence of the possible presence of man. A very brief spoken chain, even one belonging to a completely unknown language, usually overcomes every obstacle, that is, takes away all doubt: a man is there (if it happens to have been a parrot that emitted just those sounds, a man has taught them to him). This means that the operations with which linguistic objects are produced are so specific and precise that we recognize them immediately in their products. It's even clearer in the case of writing, which, augmenting the corporality of linguistic objects in the direction of permanence, permits us to see a language according to designs which can be arranged, composed, and discomposed spatially, like other physical designs.

For the moment we won't raise the question of the meaning of this or that sound fragment belonging to a language; in the same way, we won't be asking ourselves about the meaning of this or that fragment of, for example, geological material which has gone into various non-verbal sign systems of the objectual type. What interests us is the difference between a natural sound or stone, and a sound or stone to which, *überhaupt*, the title of artefact belongs. The difference lies in the fact that the latter are products of human work. This is their most general value or meaning; it is precisely this that makes them available for the assumption of more and more determinate meanings at successive stages.

We sustain then the Vichian and Marxian thesis that the notion of artefact is in principle applicable to language (besides Vico and Marx, cf. Berlin 1960 and 1965 for an interpretation of Vico). Sign systems, both verbal and non-verbal, are systems of artefacts. Non-verbal production exists; so does verbal production.

In 2.4 we will come back to the material nature of any artefact, but also to the

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at least partially hidden in the darkness. If this situation is not taken account of, then the fact that the sciences of nature are technically more advanced than the sciences of history would appear to grant the erroneous conclusion that man is more a natural than an historical being. — For further sources and/or comments on the notions of artefact as applied to language — or, more specifically, as obtaining in verbal as well as in non-verbal sign systems —, cf. the "paleontology" of language put forward by André Leroi-Gourhan (especially 1964 : 161-166) and Gordon Childe's analysis of the overall use made by man of *precedent* products (for inst. in 1936, new edition 1961; ch. I).

fact that *no* artefact is *only* material. The description and explanation of any artefact can never limit itself to its structure as described in merely physical terms. It is immediately clear that there is a difference between the naked branch of a tree that the wind has broken off, and that lies on the ground without anybody's paying any attention to it, and the same branch used as a walking-cane (only metaphorically, with an anthropomorphic projection, could we say that "the wind has worked on the branch"). It is essential to understand that the difference does not regard the physical body of the branch, and that in spite of this it is not a difference to be located outside of the realm of material things (2.3.1). In order to shed light on just what it is that makes an artefact an artefact, we must explain that it has been produced in order to be used, that it can be employed in a number of ways, and so on: in short, it is a result-of-work and is therefore something not just natural but social as well. We have the two propositions (i) all artefacts are material, and (ii) all artefacts belong to social sign systems: they must be assumed together.

From the semiotic point of view, the principal *systematic* difference between non-verbal and verbal artefacts is to be sought elsewhere, that is, in the aims for which they are produced. While verbal artefacts are produced just and only for use as signs, and any other use of them is occasional or subsidiary, non-verbal artefacts are not used as signs *only*, and indeed, the majority of them are produced for other aims. The use-values are distributed differently. Even in the cases in which non-verbal objects are produced expressly for use as signs, like, for example, signal flags, they conserve beyond their sign use a "residue" which semiotic enquiry must take into account (2.4.2, 4.1). One can blow one's nose on signal flags; on phonemes, one cannot, and not even generated sentences are big enough.

We now want to examine the principal notions we have introduced somewhat more systematically.

2.3 *Work*

The first notion to be analyzed is also the most important and the most difficult — the notion of work. It is scarcely believable how very little has been written about it. As Tilgher (1928) and later Foucault (1966: 262 fll.) observed, it is a recent notion, connected to a renovation of culture and of society. Believe it or not, the entries "work" and "labor" do not appear in the *Encyclopedia of philosophy*; and only the entry "labor" is to be found in the *Encyclopedia of the social sciences*, but only within phrases and exclusively for some of its descriptive sociological aspects. Almost nothing seems to have been done of recent for an organic classification of the various types of work man is able to do, of the internal structure of work considered in its operative generality, of the levels reached successively by various cycles of production. The general idea of work was formed by Smith and Ricardo, dealt with forcefully by Hegel especially in his youth, placed at the

foundation of his whole theoretical edifice by Marx. Now it is as if this general idea had been deliberately cancelled or broken into small pieces.[6] In this long section, we have to resort almost exclusively to Hegel, to the treatment of alienated

[6] Unsurprisingly, little or no help can be found in the texts of economists posterior to the "classical school", *i.e.* generally, of the marginalists. Let us indicate a few passages where the reader can easily satisfy himself that this is the case: Marshall, II, III, and *passim*; Fraser, XI, 9 and XIII, 1°-4°; Böhm-Bawerk, I, 1°, with the long footnote at the end of the chapter where a welter of problems which would require a much wider discussion is surprisingly compressed; von Mises, I, V and *passim*; Samuelson, 1970 *passim* under *labor* and *work*. — Something better can be extracted from anthropologists and archeologists: see, for example, Gehlen 1962[7], «Introduction»: 5° and 6°, where "operating" (in the sense of *Handlung*) is distinguished from language and from impulses (in the sense of *Antriebe*); the well-known volumes by Gordon Childe; or Mead 1968. — In the field of sociology let us take up as an example Talcott Parsons' "theory of action" as we find it in 1937 (1949[2]), or perhaps more clearly in the essays «Values, motives, and systems of action», written together with Edward A. Shils and appearing in *Toward a general theory of action*, 1951 (1965), and «The dimensions of action-space», written together with Robert F. Bales and appearing in *Working papers in the theory of action*, 1953. Of Parsons, Shils, and Bales' approaches to "action" it can be said that they concern actions which are already seen as social, or actions which assume as their object something which is already social itself. It is only in function of a pre-introduced social dimension that their theory is articulated into operations internal to human action in general, or typical of various kinds of human action. — A much more comprehensive approach was developed in the fifties by Silvio Ceccato (cf. now his 1966 collection of essays), who was operating under a triple influence: that of Marx (undeclared), of Dingler and Bridgman as founders of operational schools, and of Gentile as a theorist of Action idealistically conceived. Ceccato's study of work was basically a splitting of Gentile's Pure Act of the immaterial Spirit into separate procedures — but even so, work *was* studied in some of its many differences. — Max Weber, now 1964 and 1972 (Part First on the fundamental sociological concepts), and Kotarbiński, 1948, 1971 should also be considered here. Some other books variously dealing with work and its structures are Tilgher (1943[3]), Welty (1946), ad Chenu (1955). For Freud, see footnote 10 below

Let us now take a look into the analytical indexes of the two big American encyclopedias. In the *Encyclopedia of philosophy*, under *Labor* there is just one reference to the "Labor theory of value" which is dealt with in one and a half lines in the second column of page 172 in Volume V, the entry being MARX. There are also three references under *Work*. These concern the history of the concept of energy (II,511); Wilhelm Reich's distinction between "compulsive-unpleasurable" work and "natural joyful" work (VII, 109); and John Ruskin's positive point that the separation of the work from man produces only an alienated being (which is right, of course, but utterly useless within Ruskin's own doctrine of labor as the "exertion of perfect life") (VII, 234). Thus there is nothing like labor or work for North-American philosophers, at least insofar as they are faithfully represented by their *Encyclopedia*.

One passes to the other *Encyclopedia* with great hopes. Certainly, one thinks, it must be a question of academic divisions. It must be that in the United States philosophers have decided to hand over the general treatment of work and labor to the social sciences. The entry WORK, however, doesn't exist. The main reference in the general Index is to the *sociology of work*, which is a section of an entry dedicated to INDUSTRIAL RELATIONS, and here we learn «that the activity of man in industrial society no longer has much in common with that of the earlier *homo faber*, since it is no longer bound to be either rural or industrial» (VII, 231). Since this statement is representative of one particular manner of looking at one tenth of mankind at the most, the authoress is very cloistered indeed. But of course, we are also given words of caution against *general* definitions of work (*ib.*) — lest we may find that we have something in common with people from underdeveloped countries, or of different color, or of a lower social class. Another reference is to *work tasks*, this being a paragraph in Section X, "Acquisition of skill", belonging to the entry LEARNING. The word 'labor', as hinted in the text, appears only within

work in the *Manuskripte* of 1844 and in the *Grundrisse*, to *Kapital* (especially the fifth chapter of the First Book, which remains the fundamental text on the topic), and to some pages of Engels.[7]

2.3.1 *Work and activity*

In the first place, we must distinguish between *work* and mere *activity*. According to Aristotle, activity bears its own ends within it, while the ends of work are detached from it (*Et.nic.* I, 1 1094[a]; VI, 4, 1140[a]; *Magna Moralia*, II, 12, 1211[b]). As Hegel, the Adam Smith scholar, noticed, the activity that satisfies need in an immediate way is pre-human. In order for man to develop, it is necessary that the immediacy be broken: that between need and satisfaction work be inserted. It is

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phrases: *Labor economics*, subdivided into "Labor force", "Labor relations", and "Labor unions". I am not in the least saying that these topics shouldn't be dealt with, or that the gigantic entry which comprehends them is defective within its limits (VIII, 469-546). I just want to point out that the notion of labor or work is never faced on its own ground. This is also true of the only entry where some words are spent about labor in general (with the stress on value, however, and not on labor): "Value, labor theory of" (XVI, 279-283), a section of the entry VALUE, which contains an historical sketch of the theory as maintained by Smith, Ricardo, and Marx. The point of view is professionally economic, which doesn't prevent the short paragraph summarizing Chapter I of *Kapital* (281-282) from being ludicrous. No mention of Hegel or of dialectics is made, and the idea that exchange may be of general importance for the study of man doesn't even begin to dawn. We are here in the darkest night of unimaginative separatistic academic delusion.

In the previous edition of this very *Encyclopedia* (1932), however, an entry LABOR did exist (VIII, 615-620). It was written by Emil Lederer, a distinguished Heidelberg professor, who, having fled from Germany when Hitler rose to power, also taught at Columbia for some years. Although it was not intended to say anything from an anthropological, or philosophical, or psychological, or operational point of view, Lederer's entry did trace a short history of the notion of labor and did insist upon its central importance: «The various attitudes toward labor are of course very closely dependent upon the social and economic status of the laboring masses in any particular society, while at the same time they help to create that status. The conception of the value of labor constitutes a determinate ideology ...» (617). Actually, the entry began with the words «The valuation placed upon labor is a significant element in the ideology dominating any period, for it reflects the social structure as well as the scale of social values»; and it ended with a reference to «the conception of an organization of the entire economy in the interest of society as a whole», which had «greatly enhanced the significance of labor in modern society». All this has been suppressed in the «entirely new, entirely expressive of the times» 1968 edition, «a historical document of its time», as the honorary editor Alvin Johnson so rightly affirms in his Foreword (I, xiii). Or, how to turn into a paper tiger.

[7] Marx's main *loci* are in the *Ökonomisch-philosophische Manuskripte* of 1844, Third Manuscript, cf. pp. 584 fll. of the *Frühe Schriften* 1962 edition, pp. 128 fll. of Milligan's translation; *Kritik der Hegelschen Dialektik und Philosophie überhaupt*, cf. p. 645 of the *Frühe Schriften* and p. 177 of Milligan's transl.; *Grundrisse der Kritik der politischen Ökonomie* of 1857-58, Dietz Verlag, pp. 264-270, 504 fll., and *passim:* see in McLellan's anthology pp. 87-93, 123 fll., and *passim*. In *Kapital*, besides Chapter 5 of Book First, there are in the three Books, as well as in the *Theorien über den Mehrwert*, a high number of passages which can only be found through integral reading or by means of an analytical index (like the 200 page Index appended to the Italian translation). For Engels see especially Chapter 10 of *Dialektik der Natur*, entitled «Anteil der Arbeit an der Menschwerdung des Affen» (rather poorly rendered by «The part played by Labor in the transition from ape to man» in Dutt's translation), and also *Antidühring*, ch. VI. For additional information on Marx's *Grundrisse*, cf. footnote 18; for Hegel, footnote 8.

only with work that something universal arises in man. Work is «appetite [or desire] *held in check*»; in it consciousness «goes out of itself in the element of the lasting»; and, therefore, work *forms* the object.[8] Activity is expenditure without a product; work aims at something. One works, that is, for some end. And still, not even this last clause is strictly necessitating. With regard to what interests us most here, a modification brought to an object, one can admit that man also works without being at all conscious that he is doing it for some end. The end can be supra-individual because imposed by a social program which remains unconscious. In this sense work is differentiated from activity because it is the execution of programs which are indifferently conscious or unconscious. Still, in order to distinguish work from activity from the point of view of the object, it must be possible to find in the history of this object at least the dialectic between a "before" and an "after": that is, once two temporal moments have been distinguished, in the second the object presents some characteristics not to be found in the first. Applying this criterion fully we can arrive at the limit-case of two objects which seem identical in all their observable properties, but of which one is a product and the other is only-natural, because we know that only the first has *passed through* at least one modification by the intervention of man; and this even if it is a modification that

[8] *Phenomenologie des Geistes*, p. 149 in Hoffmeister's edition; for a different English wording, cf. Baillie's transl., p. 238. It should be noticed that consciousness of labor emerges in the bondsman *within* the dialectic of Lordship and Bondage — here lies the main root of the conception according to which class-struggle, as an explicatory principle, is prior to anything else. That since the beginning of his activity Hegel was fully aware of the central importance of work in homination is clearly shown by his lessons on "Realphilosophie" delivered at Jena in 1803-4 and in 1805-6, now in *Jenenser Realphilosophie*, ed. by J. Hoffmeister, which were in their turn anticipated by the so-called Frankfurt Systematic Fragment of 1800 (now in *Hegels theologische Jugendschriften*, ed. by H. Nohl: 345-351), and by the *System der Sittlichkeit* of 1802 (now in *Sämtliche Werke*, VII: *Schriften zur Politik und Rechtsphilosophie*, ed. by G. Lasson, 1932²: 415-499). Hegel carefully studied Steuart's *Inquiry* (cf. Rosenkranz: 107), but the copy which he annotated on the margins was never found. The relationship of Hegel to Adam Smith was pointed out especially by Lukács in *Der junge Hegel*, 1948: II, iv-v and III, v-vii.

The more matter-of-fact approach used by Marx is also clearly shown if we compare Hegel's often cryptic remarks with such a simply-worded statement as the following: «Primarily, labour is a process going on between man and nature, a process in which man, through his own activity, initiates, regulates, and controls the material reactions between himself and nature. He confronts nature as one of her own forces, setting in motion arms and legs, head and hands, in order to appropriate nature's productions in a form suitable 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 the potentialities that slumber within him, and subjects these inner forces to his own control» (Paul's translation, I, p. 169). [«Die Arbeit ist zunächst ein Prozess zwischen Mensch und Natur, ein Prozess, worin der Mensch seinen Stoffwechsel mit der Natur durch seine eigne 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 anzueignen. Indem er durch diese Bewegung auf die Natur ausser ihm wirkt und sie verändert, verändert er zugleich seine eigne Natur. Er entwickelt die in ihr schlummernden Potenzen und unterwirft das Spiel ihrer Kräfte seiner eignen Botmässigkeit» (*Kapital*, Dietz Verlag XXIII: 192)].

does not regard the structure of its body but only its position relative to other objects. These are cases difficult to imagine as soon as one has left the most rudimentary level; but talking about them is of help in concentrating attention on man's work already at that level. Let us take the case of two identical pebbles, one of which has been found far away from its proper geological site, in a place and in a position announcing the intervention of man. The artefact is germinated. The extreme simplicity of the situation permits us to grasp the intervention of man in the nascent state. One will kindly note that the case of two or more identical tokens of the same model remains outside the discourse. Here we are dealing, at a more basic level, with two objects whatsoever, in order to decide if one has had a model of some sort and the other none. In the more rudimentary cases, like that of the pebble which was simply transported far from its proper site, having a model may have amounted to a vaguely planning intention. Obviously, if five pebbles bear the same imprint of work, as primitive as it may be, and ten others don't, the first five are tokens of some model, the other ten are not.

But how can we distinguish, then, between artefacts and the merely natural "products" of a human presence, like the footprints left by a man on the sand, or his feces? Aren't these perhaps also "signs" of man because they result from modifications made by him on materials which precede his intervention, in the first case by walking, and in the second by defecating (I mean, unintentionally)?[9] Certainly they are signs for an interpreter who arrives afterwards; but they are not themselves products. For the footprints to be also the products of human work, for example, they must be left there *on purpose*. This very specification indicates that usually they are not. We may respond to this last difficulty beginning from the recognition that the use of 'products' for things like the footprints and the feces *is not a proper use*. It is here that a distinction must be drawn between the work which gives us products in the proper sense, and mere activity, which at the most leaves traces *capable* of becoming products if work is superimposed upon it. The modification brought by work is usually willed, planned, intentional. But one can will, plan, and have intentions also in an unconscious way, by passive application of models received. This only moves the question backwards; it certainly does not take it outside the realm of the social. The *human* unconscious is certainly not something anterior to homination; it is by definition subsequent to it, and is therefore itself a product. Freud with deep insight called the production of dreams by the unconscious, *work*.[10] Even the worker who unconsciously applies models he

[9] This is not a joke, if we consider that even defecation and urination (i) may be directed to leave signs, as the male wolf does to mark off the family boundaries (Mowat 1963), and (ii) must be, to some extent, performed according to programs, as both parents and pet-lovers know only too well.

[10] *Dream-work* [*Traumarbeit*] is the title of Chapter VI of *The interpretation of dreams* ("Standard Edition": IV, 277-338 and V, 339-508; *Gesammelte Werke,* II-III: 283-515), as well as of Lecture XI of the *Introductory lectures on psycho-analysis* (*Gesammelte Werke,* XI: 173-186, "Standard Edition", XV: 170-183). The manifest dream-content is the product of dream-work upon latent dream-thoughts, or unconscious thinking. The latent dream-

has received, who executes programs of which he ignores the very existence, must *have learned how* to make every given modification that he does in fact make. In front of this basic point, it becomes a secondary question whether the worker makes those modifications heedingly or unheedingly, and whether or not he is aware of having been subjected to a process of learning.

That work is distinguished from mere activity because it leads to products, means then that work is situated necessarily in a social dimension. *Work is human social activity*. Physiological activity and any other activity not based on learning of some sort, is not. But even this formulation could also be understood the other way around, with the result of making us put the cart before the horse. We must not start off from a notion, however rudimentary, of the social, and *then* add the notion of work to it. We must *start off from work*: it is work that creates the social dimension from the beginning. Some anthropoids began to differentiate themselves from the others *because*, and *following upon the fact that*, they began to carry out a new type of activity by "holding their appetite in check" — they started to work.

2.3.2 *Elements of the working process*

Once work has been distinguished from mere activity, one can proceed to describe its internal articulations. They have been analyzed once and for all by Marx in chapter V of the First Book of *Kapital*, to which we refer the reader again. A normal complete working situation is formed insofar as the following "moments" (elements, factors) come together:

(i) the materials on which one works;
(ii) the instruments (or utensils) with which one works;
(iii) the worker;
(iv) the working operations;
(v) the end for which one works;
(vi) the product of the work.

Thus, for example, a carpenter uses a plane on rough wood with the aim of obtaining as a product a smooth plank.

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thoughts are the material which the dream-work transforms into the manifest dream. Why should you want to confuse the material with the activity which forms it? (*G.W.*: XI, 229; Standard Edition: XV, 223; cf. also, in the S.E.: 113-125, 128-9, and *passim;* and the exceedingly important essay, «The antithetical meaning of primal words», XI, 155-161; «Über den Gegensinn der Urwerte», *G.W.*: VIII, 214-221). As is well-known, however, Freud was always suspicious of political doctrines founded on work, and dedicated very little attention to the real processes of work as they take place out there in the world. It is as if this eminent representative of *Mittel*-European bourgeoisie and of the decaying Hapsburgic Empire had put all the work worthy of examination within the individual, and most of it so deep there that the individual himself could not quite grasp it — one of the most grandiose and elaborate ways one can imagine of avoiding the problems of work. The only labor which Hegel knows and recognizes is *abstractly mental* labor — says Marx in his *Critique of Hegelian philosophy*: cf. p. 646 in the *Frühe Schriften* edition and p. 177 in Milligan's translation. The idealistic side to a nevertheless basically materialistic approach like Freud's was in this way clearly grasped by Marx in advance.

The scheme of the six listed moments constitutes a simple model for the study of the internal relations among the moments themselves. Moreover, the various working situations can be measured on this model. This is not the place for a systematic study of the scheme; a few remarks can, however, indicate the direction such a study would take. The materials can be mere objects gathered in nature; or they can themselves be the results of previous work ("raw material", "semi-manufactured items", and the like). The instruments can also be parts of the body of the worker (we work also "with our own hands"); that is, the worker can use himself as an instrument. Then there are *instruments* which are simply used to prolong the body of the worker, and instruments which are in turn the products of a precise work cycle, that is, *utensils* (we take up this distinction again in 3.2.1 and 3.2.2). The end is a conscious or unconscious, desired or endured, "mental" anticipation of the product, and hence determines the finalistic character of work, its taking place according to a program. From this point of view, as Marx says, work is a *zweckmässige Tätigkeit,* an activity conforming to a scope. The operations of work can flow without apparent interruptions (6.5), or they can arrange themselves in successive cycles, that is, stratify in the discrete form of products taken up again successively. The work expended is the factor that keeps all the factors together, mediating between them.

Every working situation constitutes a totality outside of which the elements which make it up lose their character of parts, that is, "degrade" dialectically. This does not deny that each of them can be put back into the same or other working situations, that is, reassume the character of part of a totality. Basically, this means three things. First, the function of being material, worker, end, instrument (or utensil), and product, depends on the position assumed within the working situation. Second, changing the position changes the function as well. The rough wood on which the carpenter works is, in its turn, the product of different and previous work; and so on. Third, the worker himself can function as material, or as instrument, or as end, or as the product of various pieces of work. This constitutes a necessary enlargement of the vision of work beyond the restricted limits of usual "material" work. A sick man can be transformed into a healthy man; a recruit into a veteran; a Daddy's boy into a red guard. A teacher is used by the system as an instrument to inculcate an ideology in the students; a policeman, to keep a dominating class in power; an advertising agent, to make us buy certain products. An entire army is at once material, instrument, worker, end, and product, within the realm of a vast political operation, in which, in their turn, finalistically determined intranational and international class interests are expressed. Already in this rapid fanning of cases we may glimpse the various "positions" that men can assume in diverse situations which are, if only in a wide sense, working situations (one doesn't see why on earth they shouldn't be viewed as pieces of work, since all the "moments" present in the simpler model can be clearly traced in them).

The basic situation remains that of the use of the worker's labor-power on the

part of capital. Capital's complex *program* makes the workers act as its own instruments, and the workers themselves must therefore also be products and materials (cf. 1.4 on the historical genesis of the notion of supra-personal programming). It was in fact the study of this situation, that allowed Marx to enucleate the general characteristics of work. His treatment of the working process begins with the words *Der Gebrauch der Arbeitskraft ist die Arbeit selbst*, «the use of labor-power is work itself». The mature and complex situation of industrial capitalism permitted Marx, following the indications of Hegel, to identify the working situation in general and to re-affirm the anthropogenic character of work. This is one of the senses in which in the anatomy of man there is a key for the anatomy of the ape.

As a result of work, every artefact is the attained end of a working process in which — in a more or less explicit and articulable way — materials, instruments, worker, and working operations, have come together. Every artefact is a product. It therefore constitutes a *new totality*, which, once it is put into operation, functions necessarily in a new way with regard to the various ways in which its isolated parts used to function. If (going in the opposite direction) we have a compound artefact, and break it down into the parts which went together to constitute it, we find that each of them, in its isolation preceding the synthesis of work, functions in a different way from the way in which the artefact functions as a totality. The handle of a bucket or of a pot doesn't function as the bucket or the pot does; nor does a phoneme function as a word functions. We find again this renovation and complication of the functioning at successive levels, in such a way that sequences can be constructed. For example, a piece of crude iron does not function as a bucket or pot handle, and these handles do not function as a bucket or as a pot, nor do these utensils, in turn, function as a *sāqiya* (pot wheel of the Nile), or as the chain of buckets described by Vitruvius. In a not dissimilar way, [ī] does not function as [luv], nor [luv] as [love], nor [love] as [love you], nor [love you] as [I love you], nor [I love you] as [I love you and want to marry you as soon as I come back from my trip, provided grandmother doesn't oppose it]. Moreover, no grouping of the separated parts which does not give that very artefact as a result, can function as the artefact does. A series of pots arranged in an orderly way on the sand next to a well does not pull the water up however hard one may turn the wheel; and the words in our example must have just that order, so that, using them, I can transmit the appropriate message to my sweetheart. If I dispose them in another order, however accurately, for instance by a CVC criterion, there is no crying them aloud or singing them to the *Greensleeves* tune which can make them mean what I want them to. We must remember, however, that neither the pots and their pieces, nor the sentences and their pieces, lose *all* value through misarrangements. We still partially recognize them for what they are. But if, at a certain level of complication, we want a determinate working synthesis, it must be just that; no other disposition of its pieces will do. This shows both the specific importance of work and the "dignity" of products as coagulated human work. The artefact as a new totality can be

used for a certain number of ends which are interconnected because of the artefact's specific structure, and it has that structure because it is the product of a well determined working cycle and not of others.

The use of artefacts is further work that we do with them, using them as materials or as instruments. The most common case is that in which the use — that is, the new work — begins with a totality, already starts off from it. The totality is used as it is. Only for very particular aims is the totality broken down into the parts which make it up, and such parts examined independently from each other. We will see later the importance of these facts for the study of language as work.

The most common articles in the field of material production are the *utensils* of daily life; in the field of linguistic production, *sentences*. We are dealing, in fact, with products belonging to more or less the same level of complexity.

In what precedes, many readers have perhaps glimpsed further dimensions of work. We must take a look at them now.

2.3.3 *Work at different levels*

Prima facie, to produce an object is not to use it (except when we try it out to see whether it works). To use an object is not to produce it; it is, at most, to consider how it is made and try to repair it when it functions badly (cf. 6.5). Given any artefact whatsoever, we can distinguish between the work that is anterior and the work that is subsequent to it. The former is usually called productive work, the latter, use. We will insist in this section, and then again in 2.4.1, on the unity of these moments. Meanwhile, let us begin to single out some of their differential aspects.

The difficulty of productive work usually becomes greater in relation to its complexity. Producing a chair is more difficult than producing a smooth plank; producing a television set is more difficult than producing a chair; producing a car with an automatic shift is more difficult than producing a small sailboat with a simple sloop rigging. Instead, using a television set is almost as easy as using a chair; using a car, more so with an automatic shift, is much easier than using mainsail and jib in the various points of sailing; using a relatively simple instrument like a violin is immensely more difficult than using a rather complicated apparatus like the radiotelephone.

By these little examples, I certainly do not intend to start a classification which ranks from easy to difficult; ease and difficulty are always relative to numerous factors. But I wanted to give a quick idea of the asymmetries to be found between work and use. The basic factor for explaining these asymmetries, their secret, so to say, lies in the past work accumulated within every artifact. In a certain sense, using a car means not only utilizing the work which went immediately into forming it, but also all the planning that preceded its production, and moreover, also everything that preceded the car in the field of means of transportation. In principle, this "everything" extends indefinitely both backwards and on every side. You and

I can use our cars today because before there were cars there were carriages, because the processing of iron has reached a very high level, because electric power has been discovered, because a network of roads exists, because service stations function, and so on. Every time we use something, we are not dabbling our toes in a mud puddle, but taking a few armstrokes on the surface of a deep sea. The statement that "a man abandoned nude in the desert can't use a car, nor can he play the organ — but wouldn't be able to do so even if he wore his dinner-jacket with cane, top-hat, and monocle", grotesquely reminds us of how we each depend completely upon everything produced by our contemporaries and by our ancestors right back to the primordial tribes.

We may be able to clarify the relations between productive work and use by means of the distinction between models/programs and tokens/executions. Production regards both the models and the programs, both the tokens and the executions. When we produce a token we do it according to a model; when we behave in a certain way, we do it according to a program; the model and, respectively, the program, are thus confirmed, reproduced in the token and the execution. Reproduction does not regard, instead, the tokens and executions — except in the case of the reproduction of a unique prototype representing its own model, or in the case of a unique execution having its own program within it (it is the case of a one-member class). One can, instead, produce a model that precedes its own token, or a program that precedes the execution. Finally, in the case of a model that remains without tokens and of a never-executed program, we have the case of a no-member class.

If, from the level of productive work, anterior to the artefact, we move to the level of use, subsequent to the artefact, we find that the use also takes place according to models or programs. Actually, even production according to a model must take place according to a program. In this case, one would say, the model is a part of the program of production. Anyway, whether all models — both of production and of use — come under the general notion of program, or not, is a question we do not need to decide here. Let us content ourselves with calling those belonging to production, *models*, and those belonging to use, *programs*. There are obvious differences between the model according to which an artefact is constructed, for example, an electric drill, or a movie camera, and the instructions, that is, the program for their use, which accompany every token electric drill or movie camera. The program of use is connected to the model of production; but at the same time it is generally not reducible to it, on the contrary, it differs from it radically. This appears also in the types of performance required anteriorly and subsequently to the artefact: a good driver can be ignorant about motors; and nobody expects a surgeon to be an expert in the art of tempering steel and manufacturing scalpels from it. Let us say then, that we cannot use an artefact without at the same time following a program of use, with the aim of realizing it. In this sense, the work done with an artefact is "only" an execution. But the execution sends us

back necessarily to the production of that very artefact; moreover, since to use means to destroy or to consume, the request arises for the production of other tokens (cf. 2.4.1 below). The execution of the program for use contains a multiple appeal to the model of the production.

When we use a token of an artefact in a new piece of work, the use shows clearly that it is part of productive work at a level higher than that of the production of the artefact itself. But productive work and use are always interwoven to the point of seeming inextricable. Let us consider a very simple, indeed, an artificially simplified, example: that of the production and of the use of a common hammer, assuming that the parts of the hammer have already been produced, and limiting the discussion to one of these parts, the handle. Even in such an elementary and limited case we already have to distinguish between:

(i) the use of a handle to make a hammer, that is, the work on the handle, *vs.* the use of a handle as a part of a hammer which has already been made, *vs.* the use of the handle by itself (that is for some aim that doesn't have anything to do with the hammer, though it remains a handle which is actually or potentially part of a hammer);

(ii) the work with which the handle is produced *vs.* the work with which the hammer is produced;

(iii) the work with which a hammer is produced *vs.* the use of the hammer as a finished artefact constituting an autonomous totality.

Reflecting on this situation, we must conclude that we are dealing with a typical dialectical situation of unity-distinction. Use *is* work; at the same time, use is distinguished from work. Use is work, because in all the listed cases of use programmed operations take place. Suppose we wanted to distinguish between a use of the hammer which is not directly productive, for example its domestic use for driving nails into the wall, and a use for further productive aims which require the hammer, for example its use in a carpenter's workshop. We should specify that the one who is driving the nails is not an electrician hanging a light fixture, nor a decorator arranging pictures, nor any worker or artisan. After having said this, we should add that the nail driver does not practice any of these arts himself. At this rate, we would end up by having to specify that he does not set himself any aim at all, and that he is driving nails for pleasure alone. But this won't do either, and for two reasons. First of all, if the nail driver did not set himself any aim, he would not even set himself that of driving nails. In the second place, even if he drove nails at random and for mere pleasure, he has to follow rules all the same — he still must have learned to drive nails. For example, it is the nail that has to be placed against the wall, and point-first; the hammer must be held by the handle; and so on. In conclusion, even our occasional nail driver is still doing work: if he does it badly, he bends the nails, damages the wall, and bangs his fingers.

The only method for distinguishing use from work in which the present writer succeeds in having any faith consists in saying that, given a certain artefact, use is

subsequent to it while work is anterior to it. The artefact is here only a milestone for making the distinction. *Use is work subsequent to the artefact* — it is such every time the discussion is expressly limited to the state of things immediately before and immediately after the artefact.

From this we can obtain the following. In the course of the millennia (and, where basic artefacts are concerned, in the course of hundreds of thousands of years), humanity has produced (i) models for production, (ii) tokens of these models, (iii) programs for the use of the tokens, (iv) executions of these programs. Work is irradiated, distributed, and deposited on all this in unequal ways; at the same time it is what holds everything together. We have work in the most commonly accepted sense in the production of tokens. It is usually admitted that the production of their relative models is also work. That also the production of programs for use, and especially their execution, is also work, may sound irksome to some ears — especially in fields traditionally reserved for the "free activity of the spirit" or even only for "the individual". The fact is that the program, coming after the artefact, is reconnected to the model of production only across the artefact itself, so to say by piercing it through. The artefact opposes to this the thick skin of its own totality which does not want to let itself disintegrate. It is there, ready for use, *as if* it had not been produced by work. It *may seem* that the use of an artefact, the execution of a program, are not work, because the artefact bears in itself the work that has produced it, is itself work in a crystallized form. Work has made of it something remote from mere naturality, thus conferring upon it what can be called a *new* naturality. Using an artefact means taking this new naturality as a starting point and then heedlessly drawing upon the past work crystallized in it. About this work we may know nothing at all, but it helps and sustains us. Using an artefact means enjoying the interest on a patrimony, an interest granted to us through enculturation. Looking again synthetically at the situation in the direction of the flow of work, which is the direction of the process of homination: The flux of work is coagulated in the artefact and then goes ahead mediated by its own product, with a leap or after a pause, like the flux of a river when it encounters a lock-gate, or perhaps like a nervous impulse when it crosses a synapse.

The individual learns to use many programs, or to obey them. The programs are arranged in various types of sign systems, whose complete description would be equal to the complete description of culture. Only in a few cases does the individual learn the programs for use in a direct and explicit way, in the form of instructions given and received. In the great majority of cases he learns them only implicity, while he is learning to execute them. Every individual learns just a very small part of the models of production (we used to say, just those "of his trade"). We must therefore keep the *social work* of the production of models, of tokens according to models, and of the programs for the use of the tokens, quite distinct from the *individual work* of the use of tokens as occurs in the execution of pro-

grams. This distinction does not at all touch the fact that the individual use of tokens is itself work, and social work.

Let us run through our little example of the hammer again, but backwards this time, and inserting the dialectic between models and tokens and between programs and execution. What happens with regard to work at different levels when I use a hammer? Which are the levels of work referred to directly or indirectly? First of all, I am working, since use is work. I am working subsequent to the artefact, because there it is, already produced. I am executing a program for its use, otherwise I wouldn't even know which end was up on the token of a hammer that I have in my hand. And as for the program, then, I must have learned it somehow or other. It depends upon the properties of the artefact, which have been united and organized in the artefact by the productive work that has realized in it a token of a very precise model. The program for the use is therefore connected to the model of production. But it is an indirect connection because it is mediated by the artefact as a totality complete in itself, as a stable result of previous work. It is only, so to say, by penetrating into the totality of the artefact, and then coming out again on the other side, that one makes the connection between the program for use and the model of production: here we find the river lock-gate or synapse quality which is typical of the artefact. Meanwhile, in using the hammer I am in a certain sense using its parts; but I am not using them separately. The handle and the head of the hammer remain what they are; and the same is true for any parts at a lower level to which we might eventually reduce these two pieces constitutive of the hammer. However, when I expend the work that consists in using these pieces together, I am presupposing, though I am ignoring, or simply don't deal with, the fact that these pieces have been first produced, and then put together, to form the object I am using.

This description of the way work is articulated in the use of a simple artefact, is certainly not exhaustive. The complexity to be found in this articulation even in the case of such a very elementary use, however, should suffice to give a glimpse of the way in which work, product, and use are stratified dialectically.

To learn to get along in a world that work has completely transformed and stratified into countless layers of products, amounts to becoming a *homo sapiens.* We don't certainly mean to deny the ecological and biological complexities of the other animals' behavior when we say that man is distant from them to the exact extent in which the other animals have not learned to get along in a world *of their own* that *their* work has completely transformed and stratified into countless layers of products. What is then the ideology that may lie in the assimilation of man to the other animals from the viewpoint of semiotics? It may well be the ideology of an advanced industrial society which represents its products as natural, taking the attention away from the work which has made them into products. The restitution of man to himself, instead, can come about only by bringing all the dimensions of work to full and operative consciousness.

As we know (cf. 1.4) all learning takes place in so far as behavioral programs which are always meaningful are proposed to us or imposed upon us. Every piece of meaningful behavior is work, though often unconscious work, since it produces something that did not exist in nature before, and could never come into existence if not as a result of that behavior. If we consider now a list of successive pieces of work like the one indicated in 2.3.2, we find a very interesting fact. As work gets more complicated and we pass from one level to the next one, the possibility of choice diminishes for the interpreter. This means that information increases. The phenomenon is to be found in both fields of material production and linguistic production. When all we encounter is the bare moneme [luv], we are left free to interpret it in the most generic way; we have an enormous possibility of choice and therefore receive very limited information. Much more precise is the information we receive from the complex sentence 'I love you and want to marry you as soon as I get back from my trip, provided grandmother doesn't oppose it'. In a similar way, if we find a handle, any handle, we have little information and vast interpretative possibilities. If, instead, we find the chain of buckets described by Vitruvius, our possibilities of interpretation are limited to the chain of buckets described by Vitruvius; if we have a transistor, or a wizzen topgallant, our possibilities are limited to the uses of those highly specified products. This point concerns the information which can be drawn from material objects as messages belonging to various non-verbal sign systems, and not directly their uses; it is, however, obvious that such information is mainly information *about* their uses.

The layers of work, product, and use constitute an immensely complex vertical mass from which increasingly precise messages can be drawn. The more our position is subsequent to successive series of artefacts, the fewer are our interpretative possibilities with regard to each of them. Primordial man still had before him all the choices possible for an animal with his biological set-up; but he didn't have the objects to choose, nor was he aware of his position, so he certainly was not freer than we are. Freedom is a late and complex human product, founded on the liberation from need and on the intensification of consciousness. As Davydov puts it (1962, It. transl. 1966: 42), «the most general features of "freedom" as such (in its difference from "non-freedom") coincide with the most general features of work, of human production». This is the meaning of the great difficulty and profundity of every revolutionary reconstruction of history. Such a reconstruction finds itself in front of a barrier composed of all the established sign systems, beginning with those that protect and transmit exploitation; to overcome them, the most basic human relations must be put into question again. It is necessary, so to say, to run through homination again, but knowing that we are doing so. The most profound sense of the "Great proletarian cultural revolution" (but the deep-seated meanings of *wuchan jieji wenhua da geming* should be carefully discussed) promoted by Mao Tse-tung is perhaps just this: that it has faced sign systems squarely with the intention of changing them instead of limiting itself to the political seizure of

power and the redistribution of wealth. This is equivalent to saying that in China a serious attempt is being made at socially producing a radically new kind of man.

The articulation of work regards not only and most obviously all non-verbal as well as verbal sign systems and hence everything we mean by 'language'; it constitutes, indeed, in my opinion, the unique basis for an explanation of the way in which language functions as a constitutive sector of the social, that is of language not just reduced to a little formal system, but met with in all its reality. Here it is not a question of choosing between different interpretations of language but between different conceptions of man. Basic ideas are under discussion; in no case can we shirk the responsibility of declaring our own, or take refuge in the illusion that they may not shine through the texture of our specialistic technicalities as well. *If* man is the product of his own work, *then* work is the unique dimension for the explanation of that essential part of man — language. The only equally fundamental alternative consists in saying that man is *not* the product of his own work; one has then to find another explanation.

All the rest of this essay is dedicated to showing *some aspects* of the articulation of work in the field of language. This is perhaps the place for an anticipatory sketch. The speaker is a linguistic worker: in him is to be found the spring of linguistic operations, of the expenditure of linguistic labor-power. Such expenditure invests already existing products, united in the system of the language. As an extremely complex, human, social product, language offers to every linguistic worker an immediately accessible patrimony (as we shall say, a "constant capital") of linguistic materials, instruments, and "money" (5.2.1.1 and 5.2.1.2). Using the artefacts of language, the linguistic worker is in a position subsequent, not anterior, to them. He carries out programs for the use of linguistic artefacts which are shown to him ready-made by those who teach him to speak (and thus back through the generations). The sense in which each speaker himself "reproduces" tokens according to models of production is a very attenuated sense; rather, he is perhaps similar to one who picks up a hammer in his hand instead of leaving it in the closet. He does not so much reproduce them as he *repeats* them, *takes them up again.* This is the job of a machine, indeed, a computer, of still unequalled complexity, his organism (Rossi-Landi 1968c: 188–190). It was in this sense, perhaps, that Wittgenstein said that «everyday language is a part of the human organism and is no less complicated than it» (*Tractatus:* 4.002). This is also the site of possible confusion between the biological nature and the social nature of language. As a product of work, human language is *entirely social*; no contradiction arises when we add that, naturally, we are talking about hominoidea, that is, about extremely complex organisms. Not only does the second evolution not exclude the first; it presupposes it. The dialectic of work, product, and use as it applies in the field of language, and indeed of all social sign systems, accounts for current exaggerations of every linguistic worker's individual contribution, which according to some would be downright creativistic. It also helps to explain the opposition, which we

may encounter, to the operation of placing work at the foundation of language.

Not only is the production model unconscious, but so is the repetition of tokens. Tokens are used (usually in the very act in which they are repeated) according to programs which are unconscious in their turn. To become aware of the programs for the use of linguistic artefacts we have to study the operation of things which are already produced. The single linguistic worker rarely goes back from the programs for use to the production models, crossing backwards over the artefacts, though this is not impossible. It usually happens only in research, in the invention of new words which do satisfy a new social need, and in the case of so-called poetic "creation" (modifications brought to programs, or even to a few production models).

The speaker repeats or takes up again tokens of linguistic artefacts, and uses them in new work which consists in the execution of social programs. No objection is made to the idea that in such execution we may also find small individual variations of the type found in the handling of the various utensils. In so doing, the speaker produces sentences and messages. Messages are sentences, or fragments or combinations of them, effectively transmitted. Every message has its own end within it, the end of being received and interpreted, and possibly acted upon. In front of the multitude of messages, however, it is reasonable to extrapolate some common end, and distinguish it from the messages as products. This is how we come to the generalization that the primary ends of the speaker are to express nimself and to communicate.

The essential aspect of all this is that, exactly as it happens in the field of material production, the speaker uses the products of previous work even without being conscious of it, and usually considers these products natural (spontaneously *physiocratic conception* of language). At the most he arrives at considering the language as capital and speech as a sort of commerce (*mercantilistic conception* of language: cf. Ryle 1961: 223–229). When we apply the more mature theory of labor-value to language, we see in the articulations of work the appropriate design for beginning to explain some tangles of difficulties which up to now have remained mysterious, like the facility of language learning, reciprocal understanding among speakers, the "generation" of sentences, the relations between *langue* and *parole*, the spontaneous flow of speech, and many others. We will say what we can about them later on. First we must examine a further aspect of work, and try to situate linguistic (or more generally, sign) work within the realm of a global conception of social reproduction.

2.3.4 *Differentiated work and undifferentiated work*

Everything we have said so far about work regards the specific work with which we produce different objects or execute different programs. Let us take the case, new and original for us, of the production of a hammer and of its use. The work with which a hammer is produced is different from the work with which a pair of

socks is produced. The hammer and the socks belong to two different zones of the enormous objectual sign system which comprehends all "objects of common use" (as they are significantly called). The difference between the two pieces of work is to be found in the first place in the two different series of operations into which they can be divided. But this doesn't suffice. If we take the two entire working situations into consideration, we see that all the moments or elements that make them up are different. Not even the worker is an exception, because even if it is always Titius who produces a hammer today and a pair of socks tomorrow, the operations he carries out are different and therefore, in a strict sense, we are dealing with two different moments of Titius or even with two different Titiuses.

It is always possible to reduce two different kinds of work, either wholly or in part, to the same elementary operations. The worker, both when he produces socks and when he produces hammers, must carry out certain simple movements like pulling, pushing, pressing, applying, turning, cutting, and so on — apart from whether or not all such movements may be in turn reducible to *bringing together* and *separating*, as Pietro Verri (1771; 1964: 135) says with great ingenuity. The point is valid for the other elements of the working process as well; the wood and the iron destined to become a hammer, and the wool destined to become a pair of socks, both consist of molecules; the same for the hammer and the finished pair of socks. But the fact remains that each of the elements of the two working processes is different from the corresponding element in the other; so much the more so are the two working processes different when each is seen as a whole. Producing a hammer means doing work which is different from the work which is done to produce a pair of socks.

Work is, then, *differentiated*. It is *concrete*, *specific* work with which we modify something by impressing in matter qualities suitable for satisfying «human wants of some sort or another», as Marx says (*Kapital* I,1.: 49; Engl trans.: 35). And he adds: «The nature of such wants, whether, for instance, they spring from the stomach or from fancy, makes no difference. Neither are we here concerned to know how the object satisfies these wants, whether directly as means of subsistence [untranslated clause: *d.h. als Gegenstand des Genusses*, that is, as an object of enjoyment], or indirectly as means of production» (*ibidem*). The capacity of any object whatsoever to satisfy a human want or need, «being limited [bedingt] by the physical properties of the commodity, it has no existence apart from them» (*ib.* 50, Engl. 36). An object with such qualities is called a *useful object*, or a *good*, or a *value*. Since such value is realized in *use*, or rather, in *consumption*, we had better specify that it is a *use-value*. There are numberless different artefacts, numberless different use-values, suitable for satisfying numberless different needs. At this point it should be clear that each of them is the result of a different set of working operations. There are as many different working processes for obtaining artefacts as there are different kinds of artefacts. Work is differentiated into as many cases.

Each type of work is defined by its scope and therefore possesses an inherent qualitative differentiation. This is the social division of labor into working processes, the one independent from the other (the case of the parcellization of work for a single scope, for example in assembly lines, doesn't concern us here). The work called specific or concrete or differentiated is work that produces use-values.

We have encountered up to this point three different dimensions of work. The first is that of the working process generalized and broken down into its minimal constitutive elements (2.3.2). The second is that of the different levels of work, anterior and subsequent to the artefact, as productive work that realizes models, and as use (directly productive or not) that executes programs (2.3.3). The third is that of the differences existing among all the possible working processes productive of different use-values, as indicated briefly just above. There is another way to look at work, a fourth dimension of work, which is directly opposed to the third and indirectly also to the first two. Work can be seen also as an *undifferentiated totality* — leaving aside its productive differentiations, its constitutive moments, and its levels. The undifferentiated totality of work can then be subdivided in another way which is radically different from all previous subdivisions. This is one of the most difficult conceptual knots of all of political economy and of every general theory of work. For an exhaustive study of it I cannot but refer to those who have dealt with it more thoroughly.[11] I will try to explain very briefly in what follows, and limited to the applicative ends of the present research, (i) what one "undifferentiated totality" of work consists in; (ii) what the new subdivision of such undifferentiated totality is; (iii) what values correspond to the new subdivisions of the undifferentiated totality of work, and how they differ from use-values.

(i) The undifferentiated totality of work is all the socially useful work expended

[11] Apart from the texts of Smith and Ricardo and the translations of Marx available, good contemporary expositions in English are to be found in Dobb (1937, rev. ed. 1940, repr. 1960: chs. I, III, and *passim*; cf. also, for historical information, 1946, rev. ed. 1963; 1948, sixth ed. 1966; and 1967a and b), and Sweezy (1942, especially Part One). A few examples of a more general treatment are Boudin (1907, repr. 1967), who deals with the labor theory of value with reference to Böhm-Bawerk's historically important criticism (ch. V); Hilferding's 1904 answer to Böhm-Bawerk (Engl. trans. 1966); Lindsay (1925, repr. 1947), who indulges in a partial exposition of the theory before piling up several pages of undevastating criticism (ch. III); Schumpeter (1950 : 23-25), whose criticism, as Rosdolsky rightly observes (1971 : 6), is put forward *as if* Marx were only a positive scientist, and not also, basically, a dialectic thinker; and Korsch (1938, repr. 1963), who says relatively little about the relation between work and value but has the remarkable merit of placing what he does say within the right general framework (Part Two: 83-164). — Some essays which appeared in *Science & society* may also be recalled: Primbs (1965, where a number of American books on dialectical materialism are inspected among which additional analyses of the conceptual knot of undifferentiated labor can be found); Hodges (1965), followed by a discussion in XXX, 2°; Goldway (1967) and in general the whole issue of *Science & society* where it appears; Sherman (1970); and Duffield (1970). — The literature, of course, is immense; but the examples of analysis starting with work as such — with what can and must be said about work itself — are, as we know (cf. note 6) very rare. What usually happens is that after a few remarks about two "kinds of work" an author goes on to inspect their possible relations with two kinds of value — the problem of how work can be approached and articulated on its own merits isn't usually felt.

in a given community. If we consider all the artefacts of a given community not according to their differences but rather only for their common quality of being all products of work, it is clear that in correspondence to them there is all the work which has, in fact, produced them. At the level of a philological joke, perhaps with a touch of Heideggerian semi-profundity: all the *ars* corresponds to all the *facta*. If the *facta* are assumed only according to the viewpoint of their being *facta*, then the *ars* as well is assumed only according to the viewpoint of its being *ars*. Nothing is said about the differences between the various *facta* and the various *artes* — between the various artefacts and the various working processes which have presided differentially over their production.

(ii) The notion of undifferentiated work may be reached by abstracting from the specific determinations of productive activity. Undifferentiated work is mere *expenditure of human labor-power*. The differences among the various working processes do not count any more. We have moved from a qualitative to a quantitative consideration. The whole quantity of the artefacts produced corresponds to the whole quantity of the work expended. But the artefacts are a plurality and are exchanged the ones with the others. Thus the question arises of the quantity of undifferentiated work that, within the community of which we are speaking, belongs to every artefact. Work is at this point measured only according to its quantity — both the work actually expended in the present and that expended in the past and deposited in the variety of artefacts on which the life of the community rests.

(iii) A new and different kind of value of the artefacts corresponds to the new way of subdividing undifferentiated work. Every artefact possesses not only a use-value, a capacity to satisfy needs, which comes to it from the differentiated work with which it is produced; it also possesses a value *tout court*[12] which comes to it from the *quota* or *ratio* of undifferentiated work expended for its production. We can identify this value as the *position* which the artefact assumes in the system of all the arte-

[12] This terminology might give rise to misunderstanding owing to the presence of the same term, 'value', in different expressions. It has however taken such a deep root in the relevant literature that it isn't possible to change it any longer without raising even bigger misunderstandings. The following little table, which also comprehends some graphic devices, may be of use to avoid confusion:

— *use-value* [Germ. *Gebrauchswert*, Ital. *valore d'uso*]: utility, capacity to satisfy a human need; it comes from differentiated work (or simply *work*, according to Engels' remark on English usage: cf. footnote 1);

— *value tout court, i.e.* value without adjectives; sometimes hereafter put in quotation marks ("value"), or specified as value-as-position. This kind of value comes from a *ratio* of undifferentiated work (or, of *labor*, according to Engels' distinction). The phenomenal form of "value", that is, the form in which it usually appears to us and is grasped by us in reality, is *exchange-value* [Germ. *Tauschwert*, Ital. *valore di scambio*].

The following is the main opposition: the opposition between use-value and "value" (as position). But since in the reality of the market (as well as, as we shall see, in the reality of other social institutions) what we directly encounter is exchange-value, the *most frequent* opposition is that between use-value and exchange-value. See 4.2, 5.1 and 6.1-4 hereafter.

facts, and which is acknowledged to it within the community. This value-as-position does not satisfy needs; it does not have anything to do with the particular qualities of the body of the artefact. It is only an abstract property on the basis of which artefacts are measured with each other, that is, fundamentally, they are *exchanged*. It is value-as-position that makes artefacts into commodities. It emerges and is specified as *exchange-value* when two or more (types of) artefacts enter in a particular sort of relationship, the relationship which sustains commodity exchange already at the level of *barter*, the developments of which constitute a *market*. Notice: the value does not *derive* from the exchange; it is the exchange that comes about according to value-as-position.

In 4.2 we shall have to deal with this dialectic in the field of exogamic exchange; and in Section Five, with reference to language, we will return to the opposition between use-value and value-as-position, and the expression of the latter in the form of exchange-value. We will furnish at that point also a few simple schemata of the ethographic type, as well as some examples. Let us add here a few remarks with an aim at glimpsing, meanwhile, the importance of the dialectic of the various types of value for the comprehension of signs. In every sign system, whether verbal or non-verbal, every sign is an artefact (autonomous, or borne by another artefact: 2.4.2). As such, every sign possesses both a use-value and a value-as-position which is expressed as exchange-value owing to the plurality of signs and their entering into relations within the system. Moreover, every sign system in its entirety possesses not only use-values but also the values which come to it from its relations with all other sign systems. In the minimum case of a single sign, as in that of an entire sign system, the network of the value-as-position relations, expressed in exchange-values, derive in the last analysis from the subdivision of undifferentiated work, that is, from the quantity of mere expenditure of labor power that belongs to each of them. The quantity of the various *artes*, various only as to quantity, determines the position of the various *facta*, various only as to quantity.

A passage from the Marxian analysis of the commodity will conclude this subsection in the most appropriate way:

> As use-values, commodities are, above all, of different qualities, but as exchange-values they are merely different quantities, and consequently do not contain an atom of use-value.
>
> If then we leave out of consideration the use-value of commodities, they have only one common property left, that of being products of labour. But even the product of labour itself has undergone a change in our hands. If we make abstraction from its use-value, we make abstraction at the same time from the material elements and shapes that make the product a use-value; we see in it no longer a table, a house, yarn, or any other useful thing. Its existence as a material thing is put out of sight. Neither can it any longer be regarded as the product of the labour of the joiner, the mason, the spinner, or of any other definite kind of productive labour. Along with the useful qualities of the products themselves, we put out of sight both the useful character of the

various kinds of labour embodied in them, and the concrete forms of that labour; there is nothing left but what is common to them all; all are reduced to one and the same sort of labour, human labour in the abstract.

Let us now consider the residue of each of these products; it consists of the same unsubstantial reality [actually, *gespenstige Gegenständlichkeit, i.e.* 'a ghostly objectivity'] in each, a mere congelation of homogeneous [actually, *unterschiedsloser, i.e.* 'without differences left in it'] human labour, of labour-power expended without regard to the mode of its expenditure. All that these things now tell us is, that human labour-power has been expended in their production, that human labour is embodied in them. When looked at as crystals of this social substance, common to them all, they are – values. [*Das Kapital*, I, 1°; 52; Engl. transl.: 37-38]

2.4 *Schema of Social Reproduction*

In this section we try to identify the place of communication in the process by which every society is formed, proceeds, and persists in time, reproducing itself. At the basis of this process lies the fact that man, a social animal of a particular type, works and by working produces himself. This means that he institutes relations with nature and with himself as a kind. The relations of man with nature are, from the very beginning, relations between men. We will call this whole situation *social reproduction.*[13]

2.4.1 *Production, exchange, and consumption*

We can distinguish three fundamental moments in social reproduction: production, exchange, and consumption. As Marx showed once and for all, these three moments are so closely interconnected that only by deliberate abstraction can one

[13] Italian *riproduzione sociale.* It was felt by some English-speaking readers of this passage that 'social reproduction' wouldn't do in English because of its biological associations. Let us examine, however, some of the proposed alternatives. 'Social propagation' is not satisfactory because it gives the idea of something which increases in size or extension or power; this is not necessarily the case, for a society may also reproduce itself while diminishing in size and/or extension and/or power. Nor would 'cultural evolution' do, because what is conveyed by the Italian *riproduzione sociale* is merely the fact that a society goes on, not the fact that it evolves. 'Economic anthropology' wouldn't do either, for what we have in mind is *not* economic life as a subsystem of society but, rather, the *whole system of society* in the process of being handed down from generation to generation by keeping on producing and using the basic things which are necessary to human life. Reference to ethnology would make things worse, not better. Perhaps the best thing to do is just to say that 'social reproduction' is an expression defined by its use in sub-sections 2.4.1 and 2.4.2 and in this note, and leave it at that. It is noteworthy, however, that a difficulty is found in translating into English a basic term which is almost immediately clear and unambiguous in another S.A.E. language. As a point of linguistic relativity, it seems that the Italian reader slides back to the noun from the adjective, and *modifies* the noun; while to the English reader the noun is a citadel that the adjective can only *qualify*. The obligatory position of the English adjective before the noun may be connected with the phenomenon.

talk about them separately.[14] The goods men need, "use-values", must in fact be produced and consumed, consumed and produced; with the social division of labor the exchange of produced goods is inserted as the abstractly intermediate moment between the abstractly initial and terminal moments of production and consumption. As we have just seen, exchange takes place according to values which are different from the use-values, although they presuppose them. In the restricted sense of economics proper, we can begin to speak of exchange only from the moment in which there is production for the market. But in a vaster sense the process is at the root of homination. In various ways, to be inspected, the dialectic between use and exchange is inherent in the dialectic between production and consumption and has been so since primordial times. Any human activity is connected to it (2.4.3). As we will try to show below (in 2.4.2; then in 5.2 and in 6.1, 6.2, and 6.3), it is already contained in any form of communication.

The whole process of social reproduction is a material process. With this we want to assert both that needs and the conditions of material life determine all the rest, and that there are no ontological dimensions distinct from that of matter. The two assertions are much more strictly interconnected than might seem at first glance. It is indeed only when one denies that the needs and conditions of material life determine all the rest, that one fancies ontological dimensions, distinct from the material one, to which that very "rest" would belong. We maintain instead that *any* phenomenon is in principle always liable to be explained in terms of material modifications. Such modifications can be external or internal to man: by which we mean to say, unmetaphorically, that they can take place either outside or inside the human organism (or both). While much is already known about material

[14] One should also distinguish between mere *transfer* and *distribution, i.e.* the organization of all transfers according to social rules with the aim of reaching all the members of the social group. In this case we then have *exchange in a proper, or better in a restricted, sense* when what has been distributed is redistributed according to individual need. But it is also correct to speak of exchange at the level of transfer, provided transfer is not limited to the externally material level of an object moving from one spot to another — as we are presently going to see. On the interconnection of production, exchange, and consumption see Marx's «Einleitung of 1857», in *Grundrisse*: 10-21 (McLellan's translation: 22-33). «Circulation — says Marx — is but a certain aspect of exchange, or it may be defined as exchange considered as a whole. Since *exchange* is an intermediary factor between production and its dependant, distribution, on the one hand, and consumption on the other, and the latter appears only as a constituent of production, exchange is manifestly also a constituent part of production ... The result we arrive at is not that production, distribution, exchange and consumption are identical, but that they are all members of one entity, different aspects of one unit. Production predominates not only over production itself in the opposite sense of that term [actually, *in der gegensätzlichen Bestimmung der Produktion*, that is, «in its own antithetic determination»: meaning that the total process of production predominates over production *as distinguished from* exchange *and* consumption], but over the other elements as well. With production the process constantly starts over again. That exchange and consumption cannot be the predominating elements is self-evident. The same is true of distribution in the narrow sense of distribution of products; as for distribution in the sense of distribution of the agents of production, it is itself but a factor of production ... A mutual interaction takes place between the various elements. Such is the case with every organic body [*Ganzen*]» [McLellan's translation: 32-33].

modifications external to man, as far as the modifications internal to his organism are concerned, we must make a distinction. There is already a fairly stable body of knowledge about some of them, for example, the physiological processes that man has in common with other animals; but very little is known about others. The modifications internal to man about which we know the least are those which take place in his central nervous system, and which preside over the activities most specific to him (not shared, or shared only in part, by the other animals) — the so-called mental, or spiritual, activities. The ancient notion of a non-material dimension proper to man sends its roots down into this lack of knowledge (though that is, of course, only part of the story), and not by chance. It is an illusion still fed by philosophy and pre-scientific thought in general, and it is laden with the insoluble (because irremediably metaphorical) problems of the ontological dualism of mind and body.

Bearing in mind the fundamental materiality of every human activity, and of the whole process of social reproduction with it, let us take a closer look at the various moments of the process, with particular attention to its intermediate moment — exchange.

The production of goods as use-values is in the first place external material production, what anthropologists and economists usually deal with. It gives rise to physical objects detached from the organism of man, objects which man fashions in nature and can manipulate in various ways. *Bodies* are produced this way, *not signs*. We must specify with care what kind of negation this is.

Non-human animals also produce their signs; signs were certainly produced by primates chronologically (and not only evolutionally) anterior to the advent of man. We must assume that when some of the primates started to work, thus beginning to become men, they produced as many or more signs than the other animals. When work emerged, it must have been from the beginning accompanied by, or better, inextricably connected to, *signs of a new* type suitable for favoring working operations. We are speaking here of both verbal signs (or pre-verbal, *e.g.* in the form of cries), and non-verbal signs — down to the level of the "language of things" we had a look at in 1.4 (we shall come back to it in 3.3 and 4.2). But the point here is to distinguish the production *of signs* from the production *of bodies* suitable for satisfying corporal needs like hunger or the need for shelter. The disarticulated thigh of an animal that has been killed with a club, and a roof put together with branches, are themselves *also* signs: so they are for the members of the tribe and indeed for all human animals able to interpret them, and so will they be for the ethnologist. Meanwhile, however, *they are* non-sign bodies.

In an analogous way, the consumption of goods as use-values is in the first place a consumption of external material objects. Since it is human consumption, it is difficult for signs to be absent from it; but in its specificity as material consumption, *it does not* itself *consume signs*. It consumes bodies. Even the bodies consumed, when the act of consumption does not destroy them, may assume sign value

later on; they may indeed function as signs even when they are consumed. But so far we are talking about the consumption of bodies, not about the consumption of signs.

Thus I can produce beets by cultivating my garden and consume them by eating them myself. I am a man, hence I continually use various types of signs. My products can be interpreted by other men. But what I produce and consume are the bodies of the beets. Or you can fashion a branch to produce a walking-stick and then consume it little by little leaning on it when you walk. The walking-stick as such is not a sign even if it can be, or become, one; using a walking-stick does not mean using signs. The fact that the beets, when I eat them, immediately become internal to my organism and cease to exist as beets, while the walking-stick remains external to yours in spite of your using it, regards the modality of the consumption, not the external character of the objects consumed. One could naturally discuss at length the various types of objects which are produced and consumed, the various ways of using and consuming them, and the way in which various types of signs enter into play in all this. We have already said something about it, and we shall say something else later on. Here what interests us is that we haven't yet met with the *direct* production and *direct* consumption of signs.

In order to encounter human signs throughout the whole course from production to consumption, we must introduce the dimension of exchange at least in the embryonic sense of some sort of distribution or some sort of transfer, at least at the level of cooperation in work. This is *almost* a tautology. But it is worth while repeating that the first completely human signs can only have been formed with the social division of labor and in a way inextricably connected to material production. Considering the nature of the objects exchanged, we have to distinguish between an exchange which is material and external, made possible by the production of a surplus and placed between production and consumption as described so far; and exchange specifically of signs. If I give you my beets, or you give me your walking-stick, a transfer takes place of objects detached from our organisms. The same happens if we exchange the two objects, that is, if I give you the beets *in order to get* the walking-stick, and you give me the walking-stick *in order to get* the beets. The latter is the elementary economic situation known as barter, with which the dialectic of exchange begins. Now it is clear that not even a mere transfer can avoid resorting to signs of some sort. However, in the situation of barter, and generally of exchange, we come across something that is qualitatively new. Exchange not only cannot *limit itself* to external material objects; it is not even enough to say that during an exchange there is *also* the use of signs. There is something more, and it is precisely that real and proper *messages* are now produced, transmitted, and received (consumed). External material exchange is at the same time an exchange of messages, a resorting to codes. For two material objects to get *exchanged*, it is necessary that the two men who exchange them use

sign systems.[15] The exchange is therefore, in first approximation, double: bodies are exchanged and, at the same time, messages are exchanged. As we shall see better here below, it is not a question of having two classes, one beside the other; rather, two processes are developing which are overlapping and contemporaneous, even if with some notable asymmetries. By now the dialectic between use and exchange is operating in all of its complexity.

According to our assumption, even the exchange of messages must be resolvable in material processes. Nevertheless one rightly feels that here we are dealing with a materiality different from that which is usually attributed to the physical objects of the external world that we have called bodies. Messages, certainly, (i) are themselves *also* material objects external to our organism, at least as transfer of energy (1.2). But they are not *only* this. They are immersed in networks of relations which we do not find only in the physically considered external world, or better, the description of which is not exhausted by the description of objects in the external world and their relations. We must look for those sign objects that messages are, according to two other dimensions as well: (ii) within us, and (iii) in networks of relations which are not natural because we have constructed them. According to the first dimension the exchange of messages is external material exchange, like the exchange of any other object. According to the second dimension, it is *internal* because it involves material modifications within our organism. This means that, along with exchange, the human organism became adapted for accepting such modifications: work has changed the human organism. According to the third dimension, the exchange of messages belongs to a reality different from natural reality. This different reality is society, defined as the organized whole of all products of human work, and of all relations between individuals. Society is the aspect assumed by matter at the human level. Work has transformed matter into society.

When we want to give a description of man that is adequate in principle, the social dimension is what must be resorted to. In order to move towards such a description, it is not enough, in the first instance, to describe how the human body as a piece of nature behaves; it is also necessary, in the second instance, to describe what happens within man, the modifications of his organism. After having passed thus from the outside to the inside, penetrating man in order to look for material modifications internal to him, it is nevertheless necessary, in the third instance, to make the opposite operation, that is, to return to the outside from the inside. What we encounter in this "exit", which is a dialectical return, is no longer mere nature; it is society, something *newly external* to the individual. Society in this sense is general like nature (and can or indeed usually does manifest itself once more as nature). There is nothing mysterious or metaphysical in the above "passages": every child learns to go through them in the first years, even though of course he

[15] For the crucial distinction between signs and messages, cf. 1.2 above and 3.2.1-2, 4.3, 5.1, and 6.1-3 below.

doesn't put to himself the problem of giving more or less adequate descriptions of them.

As we know, man finds himself immersed in sign systems from birth onwards, beginning with the non-verbal sign system of the objects of common use produced by the culture to which he belongs, and with the verbal sign system *par excellence*, his mother tongue. Every *in-fans* is also an *in-ficiens* who becomes a child and then develops into an adult because he learns to manipulate such systems at least in part — but it must be an initial and substantial part. They precede him in time, contain him in space, and impose precise behavioral programs upon him. Collaboration and reciprocal understanding are made possible by all this (1.4).

Scholars who willingly make the first passage, from the outside to the inside, will maintain at this point that the relations the brain has with other brains — communitary relations between the individuals to whom those brains belong — must deposit investigable traces within any given brain. As soon as the techniques for this research are developed sufficiently, we should be able to find, for example, traces in the brain of a Cheremis folksinger different from the traces we find in the brain of a Hopi ceramist (leaving the task of investigating Cheremis ceramists to the editor of *Word ways, The journal of recreational linguistics*). This line of thought is legitimate but premature. At the present state of knowledge, in spite of very recent progress in the chemical study of memory, we are far from having at our disposal such minutely differential traces. But the main point is that even when we did find them, *they would be mute for us* if we did not already know music, ceramics, and the Cheremis and Hopi languages, as something that extends far beyond the brains of the Cheremis folksinger and the Hopi ceramist. Music, ceramics, the Cheremis and Hopi languages, and all non-verbal and verbal sign systems are social institutions. The materials and the instruments of the programs that make human relations possible are contained in them. Not only are sign systems not something we can begin understanding only after having better understood the brain; they are themselves the foundation for the study of the brain. Nobody learns a language in treatises of differential neurology, but rather in grammars, linguistic texts, and by consulting native speakers. Speakers let their brains function and in so doing they activate and make available sign systems they have learned as children. Being in a position subsequent to the sign artefacts to be studied, speakers use them and make them employable by those who hadn't known them before — a little as a warehouseman who brings the objects we ask for to the counter and shows us how they work. The whole process of learning a sign system never makes any reference to things like electric potential or chemical reactions.

Thinkers have always tried theoretically to penetrate into the black box of the brain. Whether it is a question of the Stoics' λεκτόν (Mates 1953: 11-26); or of Bradley's *idea as meaning*, that is, of a part of the content of the idea constructed and used artificially by men as something general (1922², repr. 1958: for example 5–6, 38 note 8); or of Peirce's interpretant, the transcribability of a sign

by other signs (I, §§ 553–555; II, §§ 92–94), taken up by Morris as disposition to respond (1946: 17 fll.); or of Saussure's *signifié* as a state of consciousness or psychic event that accompanies the *signifiant* (1967–1968, ed. Engler: 146–51, 257–8); or of the "mental work" of semantization studied by Ceccato (1964: 183-6, 1966: 256 fll.); and so on — we find everywhere, in spite of the differences of viewpoint and terminology, the appeal to something man produces and uses within himself. Semiotic literature, however, is also showing in an increasingly precise manner how sign exchange is immediately *external* to the individual *again* because it requires or indeed presupposes the existence of supra-individual sign systems.

2.4.2 *Exchange of bodies and exchange of signs*

We have talked so far about exchange in general only as the abstractly intermediate moment between production and consumption. Let us now see how it is articulated internally with the aim of beginning to bring out its sign aspect. Our hypothesis is that, at a higher dialectical level, exchange comprehends in itself the very tripartition between production, exchange, and consumption. This triad internal to exchange does not regard, however, the material objects already produced and destined for consumption, but rather the signs that must enter into play so that between production and consumption exchange may be inserted. We have sign production, sign exchange in a restricted and specific sense (exchange of messages), and sign consumption. *Sign* production, exchange, and consumption are part of exchange generally understood as the element mediating between external material production and consumption. Between external material production and consumption, the process of exchange is inserted as something unitary and dual at the same time: external material objects that are not signs are exchanged, and messages are exchanged as well — that is, communication takes place. It is *as if* two processes were taking place contemporaneously. One is that of the material transfer of a physical body from one pair of hands to another pair of hands. The other is that of all the sign work that must take place so that the transfer may have *a complete sense of exchange* for the two men to whom the two pairs of hands belong. It is *within* the sign aspect of exchange that we find production, exchange, and consumption again. The *differentia specifica* of the sign and of the message, "what makes a sign a sign and a message a message", is to be located and investigated in this reappearance of the triad of social reproduction within the moment of exchange.

Asymmetries between the two aspects of the process of exchange emerge as soon as we consider the different ways in which each is necessary to the other. For the exchange of external material objects (exchange, not mere transfer) to be present, there must also be an exchange of messages. Material exchange is *also* a form of communication; indeed, it is mainly such a form, because if there were no exchange of messages in it, it would be a mere transfer. It is in a different sense, and to a different extent, that the non-sign aspect of exchange is necessary to the

sign aspect. For the existence of an exchange of messages it is not essential that an exchange of non-sign objects, that is, external material bodies produced for other aims and suitable for satisfying other needs, also take place. It is enough that the bodies produced for the purpose of bearing signs be transmitted *in their relative physical indifference.*

It almost seems as if, once he had learned the gist of the game in the division of labor and in the immediate distribution of goods, man had begun to practice it on its own. The holding of surplus in the form of a reserve and its being then distributed among members of the community did certainly have an influence here. But still more influential is the fact that primitive communities, even when they leave free access to subsistence goods, institute *non-mercantile exchange* in other social zones. We shall return to this point both in 2.4.3 and then again in 4.1–2. What happened was that in this way the sign aspect of exchange detached itself, so to say, from the non-sign aspect, and assumed various measures of autonomy. We can communicate even without exchanging non-sign material objects (naturally we must still use sign-bearing bodies, or at least resort to the modifications of energy that transmit them). As sign-exchange became more complicated, social structure became more complicated too.

Communication is sign exchange: production of signs and messages, exchange of messages, consumption of messages and of signs (cf. 6.1). With a more concise formula, to be used below also in a graphically thriftier way, it is "sign-[production-exchange-consumption]". This entire process can in turn be subdivided according to various criteria. It can be wholly or partially conscious or unconscious, voluntary or involuntary, occasional or systematic, and so on. For our aims, the principal subdivision is that between verbal and non-verbal which we sketched in 1.2. We have verbal and non-verbal sign production-exchange-consumption. But things are not all this simple; indeed, as everybody knows, they are very complex. There is here another aspect of that complexity to be examined. We have just had a look at various types of non-verbal sign systems. Let us now consider the opposition between verbal and non-verbal according to various *working conditions* of the bodies used. This will permit us to study it more closely and to propose a unitary criterion for further subdivisions. Let us concentrate on two main approaches.

FIRST APPROACH. — *Non-verbal* sign production-exchange-consumption can be carried out with bodies already existing "in nature" or with bodies already produced for other aims: as, respectively, women who circulate as messages in exogamic systems and goods exchanged on the economic market.[16] In these cases

[16] This distinction, which I deem sufficient for our present aims, would certainly need further clarification if we were to face professional objections of a philosophical kind. The phrase 'bodies already existing in nature' cannot be construed as meaning "bodies independent of the historical process" — unless it is taken to mean "*purely* natural bodies". The point is that as soon as there is something historical, nature, so-to-say, is no longer alone. No intermediate interpretation is therefore available. But this is obviously not what is meant by our distinction:

exchange takes place fully according to both of its aspects: the material aspect and the sign aspect are manifest, so to say, at the same level, or with the same force. Or, non-verbal sign production-exchange-consumption can take place *with* bodies purposely produced as sign bearers, like street signs or signal banners. In this case material production remains; but sign exchange and consumption are detached from it because the object of the exchange is not the body of, say, the street sign as such but rather the sign borne by it (its sign value). Intermediate cases are those of objects produced for the purpose of functioning as non-verbal signs and delivered to the interpreter: a bouquet of flowers sent as a message of love or devotion and then kept by the receiver also for the use that is made of its non-sign body (flowers have a nice smell, signs do not). Another intermediate case could be that of an object that serves exclusively as a sign, *and* is either ignored or thrown away as soon as it is used. These are cases of *ostension* (as studied by

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women "already existing" and later on assumed into a sign system and made to circulate as messages, also belong to historically determined social groups. They certainly don't exist in a "purely natural way", for this would mean that they existed outside of or before history; all human persons, instead, *are* social, *i.e.* historical products. — Actually, what underlies the distinction between bodies already existing in nature and bodies already produced for other aims is, first, a classification of various types of production, and second, a clarification of the way in which "what exists already" is to be understood in function of new working processes which are in our case sign processes (see 2.3.3).

Let us take the opportunity of this prudential footnote for a few more methodological remarks:

(i) According to one current usage of the term 'material', that of anthropologists in the phrase 'material culture', the quality of being material would belong to both non-sign products and non-verbal sign products, while it would not belong to verbal products (one possible root of this illusion has been hinted at above in the text). Here 'material' is construed as 'externally material', and this hands down (through implicit negation) the blunder that verbal signs aren't material, and useless difficulties are raised as to the nature of non-verbal signs (are they at the same time material and non-material?). What is playing here is a tension among various uses or levels of the whole terminology referring to matter: a terminology well worth examining with a due amount of care. Suffice it here to repeat that, first, all *internal* material processes are one case of material processes in general and keep on developing in the presence, and not in the absence, of other material processes; and second, the internal material processes of communication are to be understood against the background of an already present social dimension — when social messages circulate, the "second reality" external to man is existing as much as the "first reality" of nature is.

(ii) Differences between the production of signs and the use made of signs while producing something else should be investigated. The ways in which signs enter into the constitution of various kinds of products, or otherwise accompany the products in their social route, can be described in detail. Cf. on this 4.3.

(iii) The very opposition between internal and external with reference to the human organism turns out to be over-simplified and static when we submit it to dialectical probing. As hinted at, what is working here is a complex dialectic which takes us from the inside to the outside, and then again to the inside and again to the outside: it is only within such a dialectic that the terms 'inside' and 'outside' acquire their full meaning. Cf. on this Husserl's *Ideen* and Trân duc Thao 1951 (Ital. transl. 1970a) and forthcoming.

Throwing some light also on the problems now raised does certainly belong to the range of this investigation; a systematic treatment of them, however, falls outside of our present scope.

I. Osolsobě; cf. Jakobson 1970a: 9); but it is not our job to enter into their study, interesting though they may be.

Verbal production-exchange-consumption, instead, takes place *only* with bodies produced for that purpose: articulated sounds, for which, in principle, no use is usually recognized other than that of functioning as verbal signs. Although articulated sounds are (also) bodies, the pre-eminence of the sign aspect of the exchange has gone still further. It is by now irrelevant which body bears the sign. The body, some body, is necessary, and it must be always the same one; but what counts is by now only the sign. This is the fount of the Saussurian *arbitraire du signe.* In the case of writing, the verbal sign reacquires a greater corporality, both because it is more permanent in its graphic shape than it is as a sound, and because it needs a substratum. This can be relatively labile, like paper, but also very lasting, like stone or bronze. With the advent of writing, then, as already in an embryonic way with the seal, a sort of pendular movement takes place, backwards towards the corporality of non-verbal sign-systems. There would be much still to investigate on this point by applying the theory of labor-value. But, as we said at the beginning, this too is a topic that remains programmatically outside of the range of the present essay.

All signs, non-verbal as well as verbal, can be interiorized. That is, the individual can entertain them "in thought" or use them unconsciously, without physically operating upon any object external to him. Interiorization leaves a residue, that of the bodies that have been used as signs but do not for this reason cease being bodies. Strictly, this also happens when the interiorization regards verbal signs; and we can understand how, in this case, the illusion that they have been interiorized *without residue* can arise. Since the bodies of verbal signs are produced and reproduced on purpose, and are of use only in the brief moment of their repetition, there is a sense in which, if I don't use them, I make or let them disappear. And since the physical nature of these bodies is irrelevant to their functioning as signs (only the fact that they are different from each other in a systematic way has value), even when the bodies disappear the signs seem to survive without them, they seem to outlive their own bodies. Unfortunately, however, they don't end up in a heaven for signs at all. Only a cancelling of the external bodies has taken place, and the internal material processes are left at work by themselves. That the disappearance of the bodies of signs is illusory, can be seen immediately. Even in the case of non-verbal signs, their bodies — in spite of the fact that I have left them there in the external world — are malignant enough to keep on functioning as signs for other people. In the field of verbal signs, the fact that I do not pronounce words, that is, that I do not personally reproduce bodies consisting in articulated sounds, certainly does not keep others from doing so. In both cases, the sign systems from which I thought I had somehow subtracted myself survive my every decision or illusion to the contrary. I had limited myself to *not executing* a given program, or not executing it in public.

What happens then, when we cut ourselves off from the external bodies of signs and only internal material processes are at work? A *new* passage from outside to inside has taken place. Society has been interiorized. This passage from outside to inside must not be confused with the previous passage in the same direction, which consisted of an interiorization of nature. It is distant from it by two degrees. Just this is the confusion resorted to by those who believe they can explain social things with biological facts, for example, sign systems with innate brain structures. The interiorization of sign systems is a late and so to say contingent process which does not touch the supra-personal and objective social substance of sign systems. Still, we may find in this interiorization, especially of verbal sign systems, an interesting track for moving towards an acceptable definition of consciousness and thought, or more generally, of the mental: the mind is *what is left* when the immediate practical relation to the external world has been annulled, and processes are taking place which only regard the matter constitutive of the human nervous system and the energies that move in it, considering, however, such processes not just as the support of sign systems, but rather as their interiorized product.

SECOND APPROACH. — Instead of beginning with the distinction between non-verbal and verbal, we begin with the distinction between bodies which already exist "in nature" or are produced for other aims (women destined to become exogamic messages, goods destined to become commodities) on the one hand, and bodies produced for the purpose of bearing signs. If what is used are already existing bodies, or those produced for other aims, sign production-exchange-consumption can only be non-verbal. If bodies produced on purpose are used, sign production-exchange-consumption can be either non-verbal or verbal. When the articulated sounds of verbal production-exchange-consumption are used in conversation and in writing, bodies external to man's organism are also at work; when instead those sounds and their relations have been introjected, as in visual reading or in thought, a cancellation or annullment of the external bodies, as we have described it above, has taken place; and only internal material processes are at work. The advantage of this second approach, if seen as complementary to the first, lies in the fact that it underlines the originally external character of all objects produced, exchanged and consumed, signs included.

We believe it will be useful to summarize by means of two tables the main distinctions advanced so far on the matter of social reproduction and of sign and non-sign exchange (facing).

2.4.3 *Non-mercantile exchange*

Our discussion of exchange and of its anthropogenic power (second only to that of work) would not be complete even within the narrow limits we have set for ourselves, if we neglected a group of problems which have emerged here and there between the lines, but which we have so far left aside. If by 'exchange' we meant only mercantile exchange in a strict sense, that is, the exchange of commodities,

TABLE I

SCHEMA OF SOCIAL REPRODUCTION

Social reproduction always comprehends, in a constitutive way, three indissolubly correlated moments:

1. External material **production** which, although *it uses signs*, produces not signs but bodies.

2. EXCHANGE, which is always, at the same time and constitutively,
   - external material EXCHANGE, that is, the process of exchanging not signs but bodies;
   - sign EXCHANGE, that is, communication, including as such within it:
     - sign **production**,
     - sign EXCHANGE in the strict sense, and
     - sign c o n s u m p t i o n.

3. External material c o n s u m p t i o n, which, even when *it uses signs*, consumes not signs but bodies.

TABLE II

FURTHER SUBDIVISIONS OF EXCHANGE,
regarding equally sign **production**, sign EXCHANGE, and sign c o n s u m p t i o n:

a. Beginning from a distinction between non-verbal and verbal:

a.a. Non-verbal communication: non-verbal production-exchange-consumption: can take place

a.a.a. with bodies already existing "in nature", or with bodies produced for other aims;

a.a.b. with bodies produced for the purpose of bearing signs;

a.b. Verbal communication: verbal production-exchange-consumption, only with bodies produced for the purpose of bearing signs.

b. Beginning from different working conditions of the bodies:

b.a. Comunication as a sign production-exchange-consumption done with bodies already existing in nature, or with bodies produced for other aims: non-verbal only.

b.b. Communication as production-exchange-consumption of bodies produced for the purpose of bearing signs: it can be

b.b.a. non-verbal,
b.b.b. verbal.

then a large part of what we have been building up should be exposed to radical criticism. We would be facing indeed a number of difficulties, which can be summarized as follows. One cannot assume the existence of mercantile exchange — in the sense of a proper market where independent private producers appear, each with his own commodities to exchange — in primitive societies; and the more so, the more one goes back towards primordial times. Marx and Engels are the first to be explicit on this point. Not all products are commodities, not even when they are consumed by persons other than the producer.[17] Now if the distinction between undifferentiated and differentiated work were applicable only to full-winged commodities, outside of the field of commodities it would not be permissible to attribute a "value" (value-as-position) to any other product. It wouldn't then be possible to maintain that non-verbal and verbal sign systems are interpretable by means of the dialectic between use-value and exchange-value, according to the two kinds of work that determine them. One of our fundamental hypotheses would then begin tottering. Everything that is not a commodity would have use-value only. The theory of labor-value would be inapplicable outside the field of the production and exchange of commodities proper, or its application would be only metaphorical.

We have already hinted in passing at the solution of these difficulties: non-mercantile exchange exists in social zones which are severed from that of the market, and precede it. Marx himself in the *Grundrisse*[18] asserts that «man is isolated

[17] In *Kapital* Marx makes it clear that his concern is purely with what happens «in a society of commodity producers». The division of labor, he says, «is essential to the production of commodities; although it is not true, conversely, that there is no social division of labour in the absence of commodity production. In the primitive communities of India there is social division of labour, but the products of this community production do not become commodities. To take an example that lies nearer to our hand, in every factory there is a systematic division of labour, but this division of labour is not brought into being by an exchange of individual products among the workers in the factory. The only products which confront one another as commodities are those produced by reciprocally independent enterprises» (Dietz Verlag: XXXIII, 56-57; English transl.: 11). In a passage reintroduced by Engels into the fourth edition of Book First of *Kapital* after Marx's death, we read again that «The medieval peasant produced cense-corn for the seigneur and tithe-corn for the priest; but the fact that they were produced for others did not make commodities of cense-corn and tithe-corn. To become a commodity, a product must pass by way of *exchange* into the hands of the other person for whom it is a use-value.» And in a footnote Engels comments: «It has often and wrongfully been supposed that Marx regarded as commodities all products that were consumed by other persons than the producers» (*ib.*: 55 and 9-10 respectively).

[18] The *Grundrisse der Kritik der politischen Ökonomie* (*Rohentwurf*) [*Fundamental traits of the critique of political economy (rough draft)*] were written in 1857-1858 and comprehend the real text of the famous «Einleitung of 1857», usually published in a somewhat alterated version as an Appendix to *Zur Kritik der politischen Ökonomie* (1859). They first appeared in Moscow in 1939 but were practically unknown in the Western world until Dietz Verlag of Berlin reprinted them in 1953. Among the first to speak of the *Grundrisse* in English were Hobsbawm (1964) and especially Nicolaus (1968), who must be credited with the first global exposition of the work. An important event for readers limited to the English language is *Marx's Grundrisse*, a short anthology prepared by David McLellan (1971), although the translation may appear flabby to readers of the German text (or even of the Italian translation). The most analytical use made

[actually: *vereinzelt sich*] only through the historical process» and that «exchange is one main instrument of this isolation [*Vereinzelung*]» (395, 396; engl. transl.: 96, retouched). Evidently here Marx is not talking about mercantile exchange, because the private producers who come to the market with their goods to exchange are already individuals, perfectly isolated from one another. These are indeed necessary conditions for a market to exist at all. Already in Marx, then, there exist two distinct concepts of exchange: mercantile exchange in the proper sense, limited to the rise of bourgeois and capitalistic society, that is of a society in which goods are produced *for the market*, which is a narrow sense; and a more general concept, which refers to any process in which some sort of exchange takes place between men. Mercantile exchange is only one among many types of exchange, even though it is the one through which the general structure of every possible exchange was discovered.

Contemporary anthropological research gives us empirical data on which to articulate a general doctrine of exchange. Let us recall a few points. The nineteenth century idea that primitives dedicated all their forces to mere subsistence has by now toppled. Already Malinowski had shown how the property rights of primitive societies formed composite systems (1922, chapter III on the "Kula"; 1929: 22-27). We must distinguish between various types of goods, subdivided in heterogeneous categories which vary from case to case. It is only in a mercantile

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of the *Grundrisse* for the purpose of clarifying theoretical issues is so far, to my knowledge, Rosdolsky's (1955, 1967; Ital. transl. 1971). Of the whole *Grundrisse* there are a bad French translation by Dangeville (1967-1968), duly chopped up by Howard (1969), and a painstaking Italian translation by Grillo (1968-1970). For additional information, see Nicolaus and McLellan.

The publication of the *Grundrisse*, or better their diffusion, has definitively rejoined the "early" or "philosophical" Marx of the *Manuscripts of 1844*, who used to be the object of existential interpretation like Fromm's (1963), or worse of shallow pseudo-religious interpretation like Tucker's (1961), to the "mature" and "scientific" Marx of *Kapital*, who, taken in isolation from his previous production, was made the victim of structuralistic interpretations like Althusser's (1965, 1966), the more misleading the more sophisticated and clever. As Lukács (1923; French transl. published against Lukács' will and to his utter dissatisfaction, 1960; Ital. transl. with a new 50 page introduction by the author, 1967; Engl. transl. 1971) and Korsch (1923, 1938) had foreseen although they couldn't have known the *Grundrisse*, several basic characteristics of Marx's thought have now been finally demonstrated by Marx himself. Among them are the gapless *continuity* (which doesn't imply repetitiveness) of his investigations from beginning to end, the inseparability of his economic analyses and doctrines from the general framework of his vision and from the great tradition of German thought, and his constant use of the Hegelian dialectical method. Of a particular interest for our present concern is what is said in the *Grundrisse* about the so-called "Asiatic mode of production" and, in general, precapitalist economic formations, on the one hand (cf. the text above); and, on the other, what is said about capital when it becomes itself a means of production (we shall be coming back to this in 7.3 and 7.4, *passim*). Once the scope and central position of the *Grundrisse* are duly taken into account, *Kapital*, in spite of its magnitude, appears to contain "only" the most profound analysis ever made of one mode of production historically determined and doomed to disappear; while Marx's whole approach, of which *Kapital* exhibits "only" a part, allows of a global interpretation of human history as the reality we first have to cope with whenever we begin to think or to act.

economy that a generalized exchange of all types of goods arises (the consequences of which bring about, with capitalism, a universal merchandization: cf. note 50). In pre-capitalistic economies, instead, and the more so in primitive ones, various systems of exchange are to be found. What is more, these are non-communicating systems (Godelier 1969: 101–110). While the mercantile system is open, these are "closed" systems. Only one of these closed systems regards subsistence goods; and since these goods, in general, are available to all, the very system within which the market will later be formed is originally subtracted from the dimension of exchange. As Godelier writes:

> Competition within the group begins .... more often than not beyond the sphere of production and of the appropriation of subsistence goods, and it does not cause the loss of physical existence but that of the social *status* of the individuals. By excluding the problems of access to the means of production (land) and to subsistence goods from the competition between its members, the primitive community guarantees their survival and assures its own physical continuity; while by authorizing competition for the rare goods that give access to women and to authority, it assures its existence as a *society* [Godelier 1969: 103].

To repeat, primitive societies do not limit themselves to producing goods destined for subsistence. The fact that such goods are common property, or anyhow freely available, eliminates the market in the modern sense. Primitive economies do produce surplus, but this is destined to the support of *social structures other than the market*, which function by means of numerous *forms of non-mercantile exchange*. The productive forces remain what they are, sufficient for the subsistence of all the members of the community. Surplus work is directed towards the production of special goods, which are exchanged in a non-mercantile way.

Now, goods which are not destined to be exchanged on the market are also products of human work. What work produces them? It will naturally be a specific working cycle for each of them as a use-value, that is, differentiated work (at the vanishing point, the "natural" utility of goods must at least have been identified). But, on the other hand, non-mercantile goods are exchanged also; it follows that the dialectic between use and exchange enters into play for them too. Besides being endowed with a use-value, non-mercantile goods must also possess an exchange-value as the phenomenal form of their value *tout court* (value-as-position within the system to which they belong). For non-mercantile goods as well, then, we must refer not only to the notion of differentiated work, of the specific work expended to produce each of them, but also to that of undifferentiated work, of the portion of such work pertaining to each of them within the system to which they belong, and, more generally, within the wider system which is made up of all the artefacts produced by the community.

All this permits some important clarifications. In the first place, the continuity between the sign systems already used by pre-human animals and those used by men is not wrongfully broken. It would have been, had we been forced to locate

the formation of sign systems too far ahead in social evolution, at a level which was no longer primitive or indeed even no longer primordial. And this would have been inevitable had we been able to talk about exchange only beginning with the formation of an economy which in some way was mercantile. But since pre-human animals can have very complicated sign systems, one doesn't see why human animals shouldn't have had at least equally complicated sign systems from the start. The point is that there is no need to antedate mercantile exchange, even in an early or immature form, in order to justify the fact that they had them. The continuity between pre-human animals and human animals is preserved insofar as men continue to be animals and inherit as such the non-verbal sign systems of their biological predecessors. At the same time, the continuity is partially broken, but only and precisely with the advent of work and with the institution of various orders of exchange that are not originally mercantile. Work and exchange preside over the formation of consciousness and of language.

The second clarification is offered to us by the fact that what we have just said is immediately transcribable into semiotic terminology. Having started from this terminology in the previous section, we moved away from it here with the intent of tracing it back to more basic terms, that is, of looking for a more adequate foundation. We can now face the rest of our discussion with a unified terminology. The passage from pre-human animals to human animals — we can now say — comes about with the increasing complication of basic sign systems: both non-verbal ones which are enriched by the sign value of all non-verbal artefacts produced by work, and verbal ones which are being formed as products of a fundamental branch of work, indispensable from the beginning.

Finally, a third clarification regards the generalization of an anthropogenic character — usually attributed *either* to work alone *or* to language alone[19] — to work *together with* language in the first instance; and, in the second, to work with all the sign systems that derive from it. This is the same as insisting upon the inextricably unitary character of work and of all its products in all sign systems. At the same time, two branches of production emerge as essential for the understanding of man: material production of common use objects (everyday utensils and tools), linguistic production of verbal messages. We are now ready to concentrate our attention upon them.

[19] 'Usually' here means that an historical inquiry would show how the attention of scholars fell *either* to the side of work, in the sense of material production, *or* to the side of language, in the sense of verbal communication. For concentration on language, suffice it to recall Sapir's classical opening of the entry LANGUAGE in the *Encyclopedia of the social sciences*, 1933, IX : 155 (now in Sapir 1963 : 7), where we read: «Of all aspects of culture, it is a fair guess that language was the first to receive a highly developed form and that its essential perfection is a prerequisite to the development of culture as a whole». For concentration on material work and production, see Lukács' otherwise magnificent Hegelian analysis of the founding power of work (1948, 1967[3]: II, iv and v; III, v, vi, and vii). For some words of criticism of either unilateral approach, cf. 1.3 above and Section Three hereafter.

3. THE HOMOLOGY BETWEEN LINGUISTIC PRODUCTION AND MATERIAL PRODUCTION

The one divides into two.
MAO TSE-TUNG

Between material artefacts like wooden planks, shoes, or automobiles, and linguistic artefacts like words, sentences, or discourses, a constitutive homology can be traced. It can be baptized with the brief expression *homology of production.* If we use 'production' in its general sense, the homology is internal to it, and thus present *between* the two types or branches of production here distinguished as fundamental.[20]

Man has never produced linguistic artefacts without producing material artefacts at the same time. It is only by abstraction that we place the former under examination without the latter. Wherever we look, we find artefacts belonging to the two classes existing together. That the material resist the wear of time longer than the linguistic artefacts do and can thus remain alone as witnesses to societies which have disappeared, does not concern the human essence of work expressed in them, nor the fact that they have been produced, but only some of the modalities man has utilized for the manipulation of these materials (cf. 2.2). A civilization which is "only material" or "only linguistic" does not exist in reality. Moreover, the production of utensils and sentences and of their developments, if considered in a unitary way, enjoys a privileged definitory power when compared to any other factor.[21] No definition or characterization of man is as radical as that which places in the *definiens* his capacity to produce material (*faber*) and linguistic (*loquens*) artefacts. But indeed, that material artefacts may be produced without the concomitant production of linguistic artefacts, and vice versa, is not even *thinkable.* Man would not have been able to work on any object without communicating with other workers, at least with rudimentary languages at the beginning bordering on gestures. Conversely, verbal communication presupposes a world of real objects to which language refers, and thus the advent of the capacity to distinguish and manipulate such objects. To put it in phenomenological jargon, such a capacity

[20] In what follows we shall proceed to make some systematic comparisons, which we label "homological", first, between production-exchange-consumption of signs and production-exchange-consumption of bodies other than signs (without forgetting that exchange is in both cases also exchange of signs); and second, between verbal and non-verbal production-exchange-consumption. Let us telescope these two orders of comparisons into one comparison of a more simple and direct kind, the comparison between *verbal* or (in the proper sense) *linguistic* production-exchange-consumption, and externally material (or, as it is usually called, simply *material*) production-exchange-consumption. And since it is not possible to consider production without necessarily bringing in the exchange and the consumption of the produced objects, because exchange and consumption are themselves moments and factors of production, let's use as an additional simplification *linguistic production* vs. *material production,* as we did in 2.2.

[21] Cf. note 19. — The prohibition of incest as a basic or indeed founding social rule belongs to exogamy, *i.e.* to a form of non-mercantile exchange which presupposes both material and linguistic production.

is rooted in the *constitution of things*.[22] Let us conclude that the homology of production is at the same time a logico-structural and a historico-genetical homology. Those particular animals that come together in communitary groups and, with the passage from unity to plurality, little by little become men, operate in a basically similar way when they organize all their sign systems, as different as these systems may seem at first glance. It would be strange if the opposite were true, since sign systems express the relations of social organization as it grew from the beginning. As Thao says «the cry of the animal becomes human language by *articulating itself* on the structure of productive work» (1970a: 222). There would be no division of labor without the existence of some form of communication; communication, however, would not arise without the division of labor.[23]

The similarities between the two orders of artefacts, the material and the linguistic, are presented in this chapter as pre-eminent over their differences (which, certainly, nobody wants to deny) for the good reason that the latter are accepted as obvious by everyone. When, at the level of reflection, we run into the similarities for the first time, they come to us as a surprise and can even arouse adversion or suspicion. For this very reason, insistence on the similarities has a methodological function and a demystificatory power. It is only after the similarities are clearly assessed that the correct differences between the two orders of artefacts — correct, as it were, from both points of view — should be expected to display themselves in a way that will allow us to proceed to put them in their proper arrangement. We usually talk instead about the differences without having at all taken

[22] Although language is by no means limited to *describing* the world (as is shown in great detail, among others, by Wittgenstein 1953), it would be impossible to imagine a system of words, *i.e.* of linguistic objects, operating independently of a system of non-linguistic objects; and since the latter are produced by men in various senses, which go from the pregnant sense of bringing into physical reality something which didn't exist before production to the attenuated sense of intervening upon nature by means of distinctions (cf. footnotes 16 and 26) — it follows that what man does to and with non-linguistic objects is essential to language, though in a problematic and reciprocal way (some comments on this in Rossi-Landi 1968b : 34-39). To put it in a nutshell, there is some sort of unbreakable continuity underlying whatever waves and leaps may appear at the surface of the processes which go from words to objects and from objects to words. Nobody, as far as I know, has ever gone as deep into these things as Hegel in the *Wissenschaft der Logik* and Husserl in the three books of *Ideen* and in the *Analysen zur passiven Synthesis*; but the task of reformulating their investigations in historico-materialistic terms has only begun. Cf. the pioneering works of Thomson, Schaff, and Thao.

[23] For communication itself *is, inter alia*, a division of labor; and it would be arduous to imagine that in a situation where the main daily problem was survival through cooperation, our earliest ancestors possessed the leisure and talent to build up systems of signs for systems of signs' sake. Bloomfield's statement that «the division of labor, and, with it, the whole working of human society, is due to language» (1964, 1933[1]: 2.2., p. 24) is ambiguous not because of what it does say but because of what it does not say, *i.e.* because it doesn't expressly make clear that "language in its turn, and with it the whole working of human society, is due to the division of labor". It is remarkable how these things were felt by various authors. For instance, at the beginning of the Eleventh Century Ratnakīrti was stating that «whatever is unproductive is no object of knowledge» («ajanakasyāprameyātvat» in *Kṣaṇabhaṅgasiddhiḥ Vyatirekātnikā*, 81.09).

account of the similarities: thus, from the beginning, the discussion leans in only one direction. Or still worse, we talk about what would *emerge* as different if and only if we kept both orders of production always under our eyes and examined them in a comparative fashion from beginning to end — and this is exactly what does not happen at all. As a result of our failure to compare the two orders, whatever we say about linguistic production is doomed to regard only a part split off from a totality which itself remains in the shadows. This being the situation, it seems advisable for a semiotician who has run across the homology of production, to concern himself expressly with the similarities between the two orders, at the risk of giving the impression that he underrates their (obvious) differences.

Linguistic production and material production develop according to parallel modalities and levels of complexity for which unitary explanations may be given. There is no reason why the internal articulations of work as we have described them shouldn't be valid for both. When we reconstruct the phases of production in a parallel way we find that for every linguistic level (distinctive features, phonemes, monemes,[24] words, phrases, sentences, and higher units of discourse) there is a corresponding level of non-verbal linguistic work, that is, a corresponding phase in the elaboration of non-sound material — this from the standpoint of language. But we can also take the opposite standpoint, and recognize in language the moments and levels of the various processes of "material", non-verbal, production. In this way we begin to carry out the program mentioned in 1.2, 1.4, and 2.3.3.

3.1 *Analogy, Isomorphism, and Homology*

Before we start to examine the homology of production a little more closely, we had better say something about the differences between analogy, isomorphism, and homology.[25] Since these notions are akin to each other at least apparently, they

[24] For the reasons stated in note 30, we are going to use *moneme* in the European sense, as made clear by Martinet, rather than the North-American *morpheme*. A *moneme* in Martinet's sense can be either a *lexeme* (also called a *semanteme*) as a unit of sense, or a *morpheme* as a modifier of sense. Thus, according to this terminology, *unacceptable* divides into the lexeme *accept* and the two morphemes *un* and *able*.

[25] To select just a few items out of a pretty large literature, cf. Melandri's extensive study of analogy (1968), Max Black on models and metaphors (1962, repr. 1966), *L'analogie* (1969), Paul on figurative language (1970), and Schlanger on the metaphors of the organism (1971). Our use of the terms 'homologous' and 'homology' has something akin to the use of these terms in biology, where they refer to a fundamental similarity due to community of descent, to a correspondence in structure and in origin (biological homomorphism is instead correspondence in form or external appearance but not in type of structure and in origin). The question may therefore be legitimately raised whether the homology we are going to describe is the object of discovery or of invention. In other words, does the homology between material and linguistic production exist in reality, or is it only an intellectual tool? In my view the dilemma is spurious, and the correct answer is that the homology is a successful intellectual tool for the study of reality *because* homology really exists. This answer is grounded on the materialistic

are also prone to easy confusion. It strikes the eye that differences and similarities — the basic corner-stones of thought[26] — enter into all three cases: and indeed, nothing less than the dialectic between similarity and difference is what has a different arrangement in the three different cases.

If we say that two processes, two conditions, two parts of the same or of two distinct totalities, etc. — let us say briefly, in the most general term, "two things" — are *homologous*, we are saying both that they are different and that between them there is *a similarity according to some criterion.* If they were identical according to all criteria, we couldn't even distinguish the one from the other (conversely, to mention an illustrious Leibnizian problem: "indiscernables are identical"[27]). But, on the other hand, if there weren't some sort of similarity between the two "things", each would wander about on its own, and there wouldn't be any reason for considering them together, for making them the object of a unitary discourse. Notice in passing that in what we have said the two "things" have been taken up as already constituted. We will continue, for simplicity's sake, to take them up in this way, that is, we shall not be going back to before "the thing". In a discussion expressly dedicated to the dialectic between similarity and difference, or to that of the constitution of the thing, it would be necessary to specify that differences and similarities enter into play in the constitution of the thing itself.[28]

What are the similarities and differences that are in action when we talk about

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theory of knowledge used by Marx, Lenin, Lukács and Mao Tse-tung. According to this theory, we find, *i.e.* "discover" in the essence of things what we have built, *i.e.* "invented" at the theoretical level in order to go through the surface of things, when we succeed in this operation. A dialectic of reality *vs.* appearance, essence *vs.* manifestations, and initial totalities *vs.* structured wholes is involved, and it develops through the so-called "concrete-abstract-concrete circle", or "praxis-theory-praxis circle". Cf. my essay on Mao Tse-tung's contribution to dialectics (1971 : 519-540).

[26] «The intellect has the dual necessity of perceiving the identical and the different, the constant and the variable, the one and the multiple ... The principle of identity and the principle of diversity are equally necessary to understand the universe» (Cattaneo, *Logica*, 1855-1856, ch. II, now in 1960, III : 227-228). Dingler put the *sheer relation of difference* — with equality and similarity as its special cases — at the foundation of his epistemological construction. The point is that underneath the level of differentiation only unnameable "presence" exists (1942, 1949). Perhaps this is part of what Lao-tse meant when he began his treatise with the words «The Tao of which one can speak (or, that can be named) is no longer the eternal Tao». Hegel however comes to his doctrine of "Something and an Other" only after dealing with Being, Nothing, and Becoming, and with the Determinate Being as such. On Dingler cf. Kramps 1955, Kramps (ed.) 1956, Sandborn 1952, and the entry DINGLER in the *Encyclopedia of philosophy*. And see footnote 28 hereafter.

[27] Cf. Ayer 1953 (now in 1954a: ch. 2); Parkinson 1965; and, for a review of recent Leibnizian literature, Costa 1971.

[28] Taking up again the digression contained in note 26, it may be observed that the very notion of a thing involves at least one difference internal to that thing. If there are no internal differences, there is no thing. In other words, an entity without internal differences is a non-thing, *i.e.* it is not something one can describe. According to Mao Tse-tung, however, the difference must be a contradiction, and there is no thing unless there is at least one contradiction internal to it. Contradiction is the origin of movement — the very stuff of the universe (1937, now in *Selected works*, I, 1967 : 315-319).

homology instead of talking about analogy or isomorphism? The first point to clarify is that, given two different artefacts, for example a type of sentence and a type of utensil, belonging with all their diversity to linguistic production and to material production respectively, the similarities which they will present to homological enquiry are not similarities to be traced empirically, by an *a posteriori* application of some criterion to heterogeneous and genetically disconnected situations. It is completely clear not only to the reader but also to the present writer, that there are differences between sentences and utensils. To neglect such differences would be simply silly. We have already hinted at them jokingly by observing that, for example, we can't blow our noses on sentences as we can on signal flags. A first difference between analogy and homology is just this: that tracing an *analogy* means operating subsequent to the artefact, assuming two artefacts as already produced, and operating on them *a posteriori* with the intention of finding objective similarities.

In the case of *homology*, instead, the two different artefacts are taken into consideration all along the range of the work regarding them. Thus the fact emerges that in the developments leading to them there is a common anthropogenic root both in the philogenetic and in the ontogenetic sense. We predicate the homology of at least two different manifestations of the same structure-in-becoming; this is possible insofar as the two manifestations present correspondences whose root lies in something essential common to both of them. What counts for seeing them as homologous is certainly not some immediate external similarity between two artefacts, found subsequently to them, but rather something that they have in common at a stage previous to the stage where they come to assume their full-winged status, *i.e.* some factor belonging to the process by which they have been produced. When we study homology as the manifestation of the same essence in different fields, we have to be careful not to be led astray by the differences of the fields, for this could make us lose sight of the homological factor. But on the other hand, we must also take into account the differences of the fields and thus also the differences of the manifestations. One may feel tempted to say that a relation between materials and forms enters here into play and that in the homology we are confronted with the results of the application of the same form to different *materials*. But this would be inadequate or indeed wrong, because what we are dealing with here are dynamic, and not static relations. What we have here is not just a model which is being repeated in different tokens; but, as we said, a structure-in-becoming. The whole dialectic is set into motion. Man develops himself by working; indeed, even before he develops *as man*, "he" *becomes a* man for the first time by virtue of the fact that "he" starts to work. In this process of becoming he expresses himself *in*, *with*, and *on* different materials which condition the techniques of expression and in this sense give rise to different products. But the work *is* unitary. This can be grasped at an elementary level — even today with so much history behind us, and a multitude of sign

systems of every sort available to us — in the cases in which there is a choice possible between two different codes for expressing or "delivering" the same thing. The poet expresses his love in a lyric, the painter in a picture, the shoemaker makes a marvellous pair of shoes for his girl, the sportsman takes her skiing with him. The same things, or very similar things, can be said with words, with gestures, with objects, with various types of silence, and by behaving in various ways.

Analogy is similarity, direct similarity between objects of any sort, isolated and kept immobile; the similarity is here traced *a posteriori*, from a position subsequent to the artefact, according to some criterion put to work contingently. An analogy provisionally reunites what is divided, or at least what is not united in a necessary way, superimposing upon any two objects whatsoever a third element extraneous to them; and it is just this third element that serves to bring the similarity to the fore. The homology shows that what appeared, or usually appears, to be divided is actually genetically united. With two brief formulae: analogy is the superimposition of the one upon the two; homology is the recognition of the original unity, that is, the genetic bringing-back of the two to the one. Using the analogical method means starting from two to arrive at one: the assumption is that the processes under consideration are separate at the origin. Using the homological method means, instead, starting from one to arrive at two, that is, recognizing that the real and original process has consisted in the division of one into two. The "struggle between the two lines" in China exemplifies the opposition we are talking about. The victory of Mao Tse-tung's line over that of Liu Shao-chi is presented as a victory of the homological method over the analogical method, of dialectics over empiricism.

An extreme case of the analogy is *isomorphism*. The Latin sentence *i vitelli dei romani sono belli* and the Italian sentence *i vitelli dei romani sono belli* are isomorphic to the point of showing up as identical. Except that the Latin sentence means *go, oh Vitellius, at the sound of war of the Roman god*, while the Italian sentence means *the calves of the Romans are beautiful*. The following are, instead, homologous: the Latin sentence, *i vitelli dei romani sono belli*, the Italian sentence, *vai o Vitellio al suono di guerra del dio romano*, and the English sentence, *go, oh Vitellius, at the sound of war of the Roman god*. In these little games, the essence that is expressed differently is the same message in different languages. Quite different slices of reality are taken into consideration when we substitute one of the above messages for another under the auspices of an isomorphic factor extraneous to them. The linguistic operations for producing the different messages examined continue to be very different. An illustrious example of isomorphism is the belief that the structures of language correspond to those of the world understood ontologically, as such subtracted from human production by definition, and then, so to say, "regained" by the procedure of a *post-eventum* comparison of the two orders of products. Thus isomorphism is a dialectical halt that from the beginning stands in the way of starting any sort of homological research. We could even say that it is its dialectical overturning, or at least its caricature.

The search for correspondences between the structure of a language and the structure of a society is, then, also analogical instead of homological. It is the case, for example, of Sommerfelt (1938), who carries out an enquiry on the relations between the structure of the language and the structure of the society in an Australian tribe, the Aranta. We can get an idea of his approach just by looking at his subtitle: «Caractères sociaux d'une langue de type archaïque». Sommerfelt follows the analogical procedure of contraposing *the* language *to the* society. This is an error from which, once it is committed in the very foundation of one's own research, one can never get free (cf. Rossi-Landi 1968c, 135-8; 1969b, 84-6). A homological approach, instead, consists in a study of the social *from the inside*, in the attempt to see how the human essence variously manifests itself within the reality of society. Naturally, what one actually ends up by studying is a certain number of *objects* isolated by abstraction; but it is of basic importance that the approach be the one indicated. We can, accordingly, view the language as one fundamental social factor in a position of comparison with other fundamental social factors. This is a job which is radically different from any and every comparison *of* the language *to* the society. Simple as the difference is, in my opinion it indicates whether an approach is healthy or wrong-headed. Because if I compare *the* language *to the* society I have already pulled *the* language *out of the* society — and then I will be faced with the impossible task of putting back together that which already exists together in reality but which I myself have separated by thought. Since (i) I have produced that separation myself and have superimposed it on reality, and (ii) I am now producing additional thought as a development of a separaiton I have made, it follows that (iii) whatever I now do I can't but confirm the separation, even if — at a stage which is now too far removed from the initial steps — I am instead aiming at bringing separated items back together. This is also the limit which B. L. Whorf never crossed in his research, stimulating as it nevertheless is (Rossi-Landi 1968b).

When we take instead the point of view of work, of what man does, and we study results obtained in different fields by means of the same or substantially similar working operations, then, between these different results we can find structures of similarity which bring us back, precisely, to work. The *deduction* of the homology is permitted by a properly understood genetic method, that is, by a genetic method which includes the structural study of synchronic and symmetrical phases of the processes under examination. The homological element breaks through specializations: it obliges us to take different things into account contemporaneously; it disturbs the independent play of separate sub-totalities; it refers to a vaster totality whose laws are not those of its parts. In other words, the homological method is an anti-separatistic method, as such unpleasant for specialists.[29]

[29] These statements refer to the big issue of a "unitary or global science of man" *vs.* the segregationism of the particular sciences, and of the "science of what should be done" *vs.* the science of what has been done. There are here some of the many issues which surround our

The homology may sound surprising. In order to accept it one must admit into the realm of founding thoughts the total, indivisible unity of man and his every production. Those who do not wholly admit this unity find themselves faced with an asymmetrical conjunction of heterogeneous elements and have to shoulder the weight of their explanation. This amounts to an impossible research for extra-human causes of the human. The process of the autogeneration of man is excluded, or at least the root of it is excluded; and just this exclusion, in the form of a bad negation, seems to confirm the non-unity. It is the antique superstition, or illusion, or perversion, of the ontological dualism of mind and body, in which, ultimately, the subdivision of society into at least one ruling and one subaltern class is expressed. As is well known, this subdivision presents itself again at the ideological level in the most unexpected ways, within the most modern theories, often hidden under the veil of new terminology which can be very difficult to disentangle and demystify. In such a way, the "interiority" of which Trân duc Thao speaks, «where the horror of bourgeois thought for the hard materiality of productive work is hidden» (1970a: 223), is handed down.

But we mustn't accept the homology indiscriminately either. It should be taken in the first place as a methodological instrument valid within its limits. It is the task of empirical research, inspired by the principle of homology, to establish what those limits are in the various cases. When we say that sign systems are systems of artefacts, for example, we certainly do not intend to deny the existence of languages as relatively neutral sets of instruments and materials (and, as we shall see in 5.2.1.2, of linguistic "money"). As such, languages are objects to study *also* by themselves, in their relatively objective structures and as to how they work. In much the same way material machines exist with their structures and the way they work, and all of us in our everyday lives use material artefacts, even very complex machines, and money. The common use of a language corresponds to the common use of all the objects that surround us in the society in which we live and into which we were born. It is not this or that individual factory or industrial enterprise that is going to be compared to linguistic production in the following pages (it would be a very dull idea), but the entire non-linguistic production of a community considered in its initial and founding phase. We know, moreover, that one can use artefacts also for ends which are not directly working ends, and that it is not impossible to distinguish sheer use from productive work (2.3.3). Thus it happens that, for example, words are used for the pleasure of their sounds, without really satisfying any need other than that perhaps recognizable in the pleasure itself; in the same way, we can toy about with various objects and draw from their

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central issue of the homology of material and linguistic production, issues which cannot be dealt with within this monograph but must at least be mentioned to avoid that what is said in these pages may resemble the emerging portion of an iceberg unaware of its own nature. My own views on the science of man are sketched in 1958a, 1967b, 1967c, and 1969b (now also in 1972: 253-339).

use a pleasure of some sort, which doesn't have anything to do with production as such. Even these pleasures, games, and toyings-about belong to verbal and non-verbal sign systems. Lévi-Strauss dwelt on some of their aspects when he dealt with *bricolage* (1962: 26–47). But not even pleasures, games, and toyings-about can be subtracted from the condition of being programmed in the codes of the society in which they take place. And, anyway, they presuppose the existence of the whole system of social products — both of the things one toys about with, and of man as a toyer-about. The *bricoleur* is himself a historico-social product. The basis can only reside in production. If produced objects didn't exist, there wouldn't be anything to use either productively or unproductively, and indeed, even the users wouldn't exist. If this is valid for material objects, it is necessarily valid for language also. We shall return to this point in 7.2, with particular attention to the opposition between play and work.

In conclusion, it would be well to remember that here we are always talking at the level of models and not at that of tokens: we are talking about things like shoes or hammers in general (about the fact that shoes and hammers do exist), or this or that sentence in general (about the fact that this or that sentence does exist), and not about *the* shoes I am wearing at the moment or about my uttering, *hic et nunc*, *a* sentence. Similarly we are always talking about programs, not single executions. These and other methodological remarks, for the foundation of which a unitary theoretical schema has been provided in Section Two, will from now on be considered obvious and taken for granted. Both in the case of linguistic production, *i.e.* of verbal sign systems, and in the case of "material" production, *i.e.* of non-verbal sign systems of the objectual type, they refer to the premises of the processes to be examined. We will try not to repeat ourselves any more about these premises. It is the processes to be examined, not the premises as such, that lend themselves to global and unitary considerations leading to the detection of the homology of production. Let us therefore proceed to inspect how such a homology is articulated.

3.2 *Homological Steps of Production*

The homology of production can be traced by contraposing successive levels of production, in which material and linguistic production correspond. The levels follow one another only in a unidirectional way, going from what is more simple because less work has gone into it to what is more complex because more work has gone into it. Differences which are also qualitative spring from the quantity and the progressive complication of the working processes; once reached, every totality is worth more than the mere sum of its parts (2.3.3). By splitting a product of a given level into its constitutive parts we descend to a lower level, and this amounts to destroying it.

The homological schema of production, like any other schema, is artificial. The description of the cycles of operations which must be carried out successively in order to arrive at producing a complete and functioning automobile is artificial if it is compared either to the automobile itself as a concrete object ready for use, or to the functioning of that object. The operations by means of which the various pieces are put together in an assembly line are not in the least the operations carried out by the totality reached, that is, by the same pieces as soon as they are able to be taken as a whole (2.3.2). Even more artificial is the schema of a natural process like breathing. The physiological description of breathing isolates one process from what is occurring in the organism, it generalizes to all organisms some minimal common conditions, and it unites data of very different provenience in its own explanations (for example: the mechanical description of the filling up and emptying of the lungs and the chemical description of the transformation of hemoglobin into oxyhemoglobin).

Artificial both for material and for linguistic production, the homological schema may seem less acceptable for the latter since schematizing what man has done and is doing with objects external to him comes more naturally than schematizing processes which take place within his organism, whatever man is or is not doing with external objects at the moment. Two considerations come to our aid here. The first is that linguistic production is a material process also; the second is that in order to understand any other internal material process, like breathing, we can advance and indeed can't avoid advancing explanatory schemata.

While the schema is shaped in a unidirectional way, there is only a partial unidirectional character immanent in production as such. As a matter of fact production does move in all directions — the more so, the more mature it is. In the reality of both material and linguistic production, moreover, the level which is usually taken as a starting point is not that of the greatest simplicity in the schema but, if anything (as we hinted at the end of 2.3.2), that of completed sentences or utensils (which *in the schema* appear at a middle-low level). Production can go both from the simpler to the more complex, and from the more complex to the simpler, so to say turning back on itself and retro-acting on its own previous phases. This turning-back and retro-action can be seen clearly on the yardstick of a unidirectional schema; in unconscious or only partially conscious practice, it can and usually does happen that we don't pay any heed to it. Products belonging to higher levels are also used to produce products belonging to lower levels. Simple pieces of sheet steel are today cut out by means of complex machinery. It is by means of long, fussy, specialistic arguments that we delimit the meanings of single words or discuss the nature of phonemes and morphemes. It is part of the circular and dialectical structure of productive processes and their relations that complex machinery and long pieces of reasoning are already themselves composed precisely of objects like the ones they serve to produce.

In spite of all this the schema, artificial as it is, regards real production as we

may suppose that it developed phylogenetically and as it repeats itself by jumps and with abbreviations in the realm of ontogenesis. We shall come back to this in 3.3, when we see how the linguistic doctrine of double articulation applies to the homological schema not only in the field of linguistic production but also in that of material production and must indeed be extended in both; and then in 6.5, when we deal with the spontaneous flow of speech in its relations to past linguistic work.

All artefacts, whether material or linguistic, derive from precedent objects by virtue of some working synthesis. Given an artefact as a starting point, it will always be possible to trace it back to pieces which are more simple than the artefact itself. In these terms, and taking into account that the anteriority of materials over products (that is, respective simplicity and complexity) is ranked according to a schema, the question arises again as to the *type of work* which will be called upon to justify the passages. What sort of work is it whereby "pieces" are combined in the ways required for obtaining a product under examination? With reference to the group of ideas brought forward in the previous Section, we can specify that the notion of work to bear in mind here is that of the differentiated and specific work which gives rise to use-values. But we must add the following qualifications: (i) such work is assumed in its operative generality; (ii) the community — either of material workers or of speakers —, not the individual, is posited as the worker; (iii) we are therefore going to deal in an abstract way with *the work which has socially produced models and programs.*

3.2.1. *Before utensils and sentences*

In this sub-section we deal with products that precede the utensil and the sentence respectively, that is, products that we find within the utensil and the sentence as their parts when we dismantle them to see how they are made.

First level: Pre-significant items. — Where and how does work begin? In 2.3.4 we remarked how any external material work can be broken down into simple operations. These must be operations that a human organism can perform alone and even in the nude upon objects that constitute his immediate environment. The most simple real operations one can imagine are operations like pulling, pushing, adding, taking away, turning, tracing, pressing; and like superimposing, overturning, heaping, flattening, sharpening, breaking, splitting, scraping, curving, spreading, reuniting, inserting, piercing. Whoever gives some thought to this list will soon realize that — apart from synonyms — it is not easy to add other equally simple operations which are neither immediately reducible to one of those already listed nor a combination of two or more of them. Notice that they must be operations carried out directly by the organism, not only without utensils but also without instruments and, indeed, without any intermediary. We also remarked about how all these elements of work can perhaps be reduced to the two basic operations identified by Verri, bringing together and separating, in which finding similarities, and respectively differences, seem to be reflected. It happens, then, that at a certain

stage man (like other animals before him) is able to make some distinctions and some modifications *between* and *in* the physical materials existing in nature, the former being results of perceptive operations and the latter of manipulative operations. All results belonging to this level, *i.e.* the most elementary modifications brought by man to his own natural external environment, will be called hereafter *matteremes*.

If we look for equally elementary elements in the field of linguistic production, we find that the first modifications made on sound material by the speaker are precisely the ones the linguists call *phonemes* as the minimal distinctive units traceable in a spoken chain.[30] Matteremes and phonemes can in turn be broken down. Phonemes can be broken down phonetically into acustico-articulatory "coefficients" or pertinent "features"; matteremes into movements of the human members and displacements of the objects upon which they act (we could talk here about visual-motor coefficients and pertinent features in non-sound material). What interest us are minimal working units producing minimal distinctive units. *Both* in the flow of vocal emission *and* in the flow of corporal movements, we single out some identifiable units which function as pigeon-holes able to accommodate individual variants.

The initial results of work lend themselves to various considerations. First of all, we cannot go below them and continue talking about work. A material object, whether a sound object or not, which bears not even one of the modifications able to make it a mattereme or a phoneme, is part and parcel of the field of "mere nature", it belongs to the world of the "unmanipulated" (compare on this subject Dingler's notion of *Unberührte*, 1942; 1955: 20–33, partially drawn from Husserl's *epoché* and certainly related to *Lebenswelt*). Here a very complicated tangle of problems arises, but we must limit ourselves to mentioning only two of their aspects. The reference to mere nature as unmanipulated can be understood either in the sense of what Hjelmslev calls substance (of the *signatum* as of the *signans*), or as the postulation of an undifferentiated level anterior to any human intervention. The notion of a substance not formed by man lets us glimpse the totality of

[30] At the risk of seeming to espouse one linguistic school instead of another, or more broadly and worse, linguistics *vs.* other social sciences — something that would be against the spirit of a homological investigation —, some terminological decisions had to be taken at this point in order to avoid useless periphrases. The problem is that some situations, on whose existence and structure sufficient agreement might otherwise be reached, are described in very different ways, and with terminologies which cannot be unified, not only by various schools of linguists but also by psychiatrists, anthropologists, archeologists, semioticians, philosophers, and other ists, ans, and ers. On the terminological frolics of even only the linguists, to the astonishment of the non-linguist, cf. Marouzeau 1963 (1951[1]), Matoré 1953, Vachek 1966, Pei 1966. The crowding waves of terminology clearly appear in Ivić 1965. As anticipated in footnote 24, we are going to use some terms in Martinet's sense because they allow the doctrine of double articulation to be taken up, discussed, and enlarged — which is the final aim of this section — without having to change terminology as we go on. The main writings where Martinet expounded his views on double articulation are listed in the Bibliographical References.

materials virgin in nature; it belongs to disciplines which are not specifically semiotic, like physics, chemistry, and biology. By this I only want to say that the chemical composition of a mattereme or the acoustical structure of a phoneme remain outside the semiotic discourse, or belong only to its fringes (cf. 1.2 at the beginning).

If we postulate instead a level of the undifferentiated, we find that the passage to the differentiated can be caught in three ways: in the realm of genetic psychology (animal as well as human), or as the first moment in a doctrine of the formation of consciousness (Hegel, Husserl), or as the basic step for a theory of the scientific grasp of reality (the *Ergreifung des Wirklichen*, according to a posthumous formulation by Dingler 1955). The study of any substance, whether in Hjelmslev's sense or not, naturally requires that the substance receive forms, and therefore that the level of *originary* differentiations has been abandoned much earlier (cf. Fischer-Jørgensen's approach to the patterning of elementary units). This also amounts to saying that not even the substance of the *signatum* — in spite of its pre-sign indifference — can be studied without systems of signs coming into play. Thus the difference emerges between the study of things upon which work has been done and things upon which work has not been done, taking for granted that the study itself requires complex products of (sign and non-sign) work. It is submitted that the *status* of the genetic code may perhaps be re-considered from this angle. Anything that is studied by humanity is studied at the level attained by humanity.

In the second place, the number of matteremes and phonemes is limited. It is surprising to notice how these first building stones of every successive material and linguistic working process appear in both fields with approximately the same number or quantity. Man is able to articulate, recognize, and use within natural sound material some few tens of phonemes because his articulatory and acoustic apparatuses are what they are; in the same way, he is able to articulate, recognize, and use only some few tens of matteremes as basic modifications operated on the non-sound material furnished by nature to him. His hands, his senses, and his brain are what they are (even if they can be modified precisely as a consequence of his work). The number of matteremes as well as of phonemes is also limited in view of the kinds of working processes that will have to be done upon them.

In the third place, matteremes and phonemes have no other signification[31] than that of being destined to serve as elements in further units which are only slightly more complex than they are These further units are the first human products to be endowed with a stable and independent signification. Since we have linguistics

[31] That matteremes and phonemes *have* an instrumental signification, or that they have *only* that, are perhaps debatable issues. It may be that in special circumstances, for instance, matteremes and phonemes also convey a signification of their own. But since phonemes are elements in linguistic production as matteremes are elements in material production, let us content ourselves with the notion that they are lumps or bundles of distinctive features (as Bloomfield would put it) in the two fields.

while we don't have any corresponding discipline devoted to the study of material production in all its details (there are, of course, bits and pieces of such study in the realms of philosophy, psychology, and education, and also, but in a scattered way, in the practice of technologies), the elaboration of simple elements into elements which are step by step more complex is perhaps going to have a more familiar look in the field of linguistic production than in that of material production. And still we are always dealing with one and the same thing. It is the one that divides into two. We can discern here one of the senses in which work is appetite held in check, desire under control. In order to carry out a piece of work, man needs a utensil; in order to build the utensil, he must pass through various stages previous to it, beginning with the stage at which he has to effect in nature modifications which lack an independent signification, and which will assume their proper function only when they are further combined with one another.

At this level we can also catch the first irreducible differences between man and the other animals; or at least we can grasp the initial emergence of things which will prove later on to be irreducible differences. Matteremes and phonemes have the simplicity and the availability of mere intermediaries, or at most, of quite elementary instruments. They are therefore remote from utensils proper. Non-human animals too use intermediaries and quite elementary instruments. They move a branch to bring a piece of fruit nearer, *i.e.* they obtain the fruit through the mediation "moved-branch", which makes an intermediary of the branch; they use a stone ω crack nuts, that is, they work on the nuts with the elementary instrument of the stone (which, one will notice, recedes into the un-worked-upon as soon as it ceases being used: it has simply been assumed as an elementary instrument). To the same order of considerations belongs the fact that non-human animals also communicate, often in complex ways. These have only begun in the last few years to be subjected to systematic enquiries which probably have many surprises in store for us. There don't seem to exist any animals other than man, however, that produce modifications lacking a stable signification of their own *for the purpose* of combining them later on by means of a working synthesis, in this way producing artefacts endowed with a signification that begins to become specific and stable (in different terminology, this is the situation indicated by Jakobson as the production of "tools to build tools", 1967: 103; see also Tétry 1948). Leaving aside minor exceptions about which very little is known, and while we are waiting for empirical discoveries which will demonstrate the contrary, it turns out that a proper *activity of combining by successive levels* is after all typical of man alone. This activity is, as we know, work.

As soon as we leave the first level and move towards the second, we cross the zone in which Martinet's "second articulation" takes place: the articulation of monemes in phonemes and, as we shall see, of objectemes in matteremes.

Second level: Irreducibly significant items. — At this level we encounter stable, characterizing, and completed modifications made on materials by means of com-

binations of matteremes or of phonemes. At this point separate, independent new items have been created in the matter of the world. Each of these items already has some sort of a signification, it is already a "significant unit" different from all the others. It can not be broken down without destroying its signification; nor can this signification be traced back to significant elements that precede it at a more elementary level. However, we are not dealing here (if not in a minority of cases) with such completed significations as those we shall begin to encounter only at the next level, the third. The set of these pieces or significant units forms the first articulation of utensils and sentences, as will become clearer for both of the fields of production just as soon as we have all the levels up to that of sentences and utensils laid out in front of us.

Let's examine our old friend the hammer again. It is composed of a head and a handle. According to artisan terminology, the head is in turn composed of a face, a peen, and an eye. The peen is the tapered striking end of the head opposite the face; sometimes it is divided into a claw and serves as a lever for extracting nails. The eye is the hole into which the handle is introduced; it can be circular, oval, or square. The face is the flat part used for hitting: it is that part of the whole head, and thus of the whole hammer, that enters into direct contact with the nail or any other object one is working upon. Let's call these three significant aspects of the head of the hammer *objectemes.*

Objectemes are at one and the same time parts and functions. They *are* parts — or, this is the aspect of them that emerges — every time it is easy to distinguish the objectemes from each other within the higher level unit to which they belong. Whenever this discrete aspect does not emerge we consider them as functions instead. Is there anything like a hierarchy among the parts making up the head of a hammer? There seems to be one in this sense: since the hammer is mainly used for hammering and you hammer specifically with the face, this is the principal significant unit, while the others concur to make its workings more precise, or equip it with additional signification in various ways. Let us call the part or aspect or function that bears the principal signification a *lexobjecteme* and the others *morphobjectemes.* The face of the head of the hammer is a lexobjecteme; the peen and the eye are morphobjectemes.

In the field of linguistic production the significant units described above are pieces of a complexity inferior to or, at the most, equal to that of the word.[32] As announced we are going to use Martinet's term *monemes* for such pieces or significant units in linguistic production. We can also further transpose the hierarchy of material objects to the linguistic field, and specify that monemes subdivide into *lexemes* (also called *semantemes*) when they constitute the significant nucleus, and *morphemes* when they serve to modify the nucleus. Thus 'love' and 's' are both monemes; but the former is a lexeme, the latter a morpheme (as a completed word,

[32] For the problem of what should be called a "linguistic unit", cf. Ebeling 1960; for words in particular, Krámský 1969.

'loves' belongs to the third level of this schema). It belongs to the nature of objecteme and monemes that they can be taken apart, for each of them is the result of combinations made with results of previous operations. The working process leading to any given moneme or objecteme is always the same. Thus the moneme 'love' can be analyzed into phonemes, as the objecteme face (of the hammer) into matteremes. As categories or pigeon-holes, phonemes and matteremes cannot undergo any change; or better, a change brought to phonemes and matteremes would affect to some extent the whole of whatever sign system is built upon them. Their combination gives rise to a high number of monemes, and of objectemes respectively, usually several thousand or tens of thousands for every historical language and for every objectual, non-verbal sign system of a given community.

The signification of all the products described up to this point lies in the first place in this, that they are all *products of work*. This includes the way in which they are produced, the functions which they have to be able to carry out and their lending themselves to different uses for different ends, the relations into which they enter with other products of work, and so on. Just these, and not others, are the factors that constitute their signification in the general sense. Let us think for a moment instead about the consequences we would have to face if we wanted to attribute to products a signification *that accompanied them*, that is, if we wanted to think of them only as *signantia* and started searching for their respective *signata*. With things put in these terms, signification ought to join the products of work in a realm different from that of matter. This would mean resorting to a dualistic conception of human activity, and therefore, in the last analysis, bringing into play some non-human factor of what is human. It is certainly legitimate to ask oneself what is the signification (what they are used for) of the monemes constituting the word 'loves', *i.e.* 'love' and 's'; in the same way it is legitimate to ask ourselves what is the signification (what they are used for) of the parts constituting the head of the hammer, *i.e.* the peen, the eye, and the face. But we would never dream of relegating the signification of these "material" pieces to a different realm; in the same way it is advisable not to try to do it with "linguistic" pieces.

An argument upon which we cannot dwell here, but which would complete this sketch of a homological schema, concerns the place of the noises[33] and the cries that men produce. It seems to me that the noise and the cry correspond somehow to the intermediary and to the elementary instrument. The production of a noise in the field of signs is like the use of an intermediary in the field of material objects. A cry is like an elementary instrument, used and then left there. Noise and cry on the one hand, intermediary and elementary instrument on the other, do in

[33] We speak here of noises actually produced by men and which are either intended to mean something or can be construed as meaning something by an onlooker independent of the intention of the producer. No reference to 'noise' as used in information theory is involved at this stage. It follows that when the channel of the noise-message is disturbed, we shall have to say that there is a noise diminishing the quantity of information carried by another noise. Total noise deprived of internal differences would have as much information as total silence.

fact present the character of being used, but without there having been previous work done upon them. A discussion of them would therefore enter almost fully into the first two levels distinguished above: in the first level because very little or no work has been exercised upon them, in the second because of the use that can be made of them anyhow (while a phoneme or a mattereme does not have any distinct use *per se*).

Third level: "Completed" pieces. — If we go on towards more complex units, in the field of material production we find, *in the first instance*, the pieces constituting a utensil, those whose parts we have so far described as objectemes. With restrictions which we will specify later, let us call these "completed" pieces; and since we lack a specialistic term we will keep on using this expression even when it seems unsatisfactory.

Often, perhaps in the majority of cases, these pieces are more or less easily separable from each other: for example the head and the handle of a hammer, the vamp and the sole of a shoe, the lens and the frame of a pair of glasses. A hammer is a complete utensil (more about this later on); the head and the handle are the "completed pieces" which make it up; the face, the peen, and the eye are the objectemes of which the head consists. The difference between an objecteme and a "completed piece" is clear in cases like these. A stable modification made by man in non-sound matter, endowed with a generic signification and able to be used in various ways, for example a wooden plank of a given form, is an objecteme. A semi-finished product which already lends itself, and is limited, to a particular use or working process, for example a wooden plank that has been reinforced, varnished, and accurately smoothed, and under which legs can be attached to obtain a table, is a "completed piece". Here various objectemes have been joined to each other in such a way as to form units which in turn are immediately able to give rise to finished utensils. In fact, putting two or more "completed pieces" together usually suffices to give us a utensil in its turn complete and ready for use. By this we do not at all mean to exclude that there may be utensils made up of a single "completed piece" (for example, a walking stick made from a single piece of wood, without other additions). However, we must distinguish carefully between utensils made up of a single "completed piece" and the isolated use of a "completed piece", perhaps as a substitute for a utensil which we lack. Nor should we ignore the existence of groups of "completed pieces" which may even be fairly complex but which are not yet organized in such a way as to constitute a utensil proper.

In this first instance, we said above — for a little thought shows us that things are not that simple. For expository purposes we have used some examples rather than others, and in so doing the situation has undergone a process of simplification. The combination of matteremes in objectemes, of objectemes in "completed pieces", and of "completed pieces" in utensils is obvious in the case of the hammer as in all artefacts which are at the same time equally simple and equally easy to

take apart. It is not at all obvious for other, less simple utensils, or for utensils which are equally simple but not equally easy to take apart. A tree cultivated in the garden, regularly fertilized, pruned, and protected from the cold, is an artefact too. Certainly, there is a sense in which we can say that a tree in flower is the sum of its own natural growth, plus the fertilizer, the plastic that protected it during the winter, and the pruning operations. But the sense in which we are dealing with component parts which have been pre-produced and then put together is different from that of the hammer. A big oil jar appears to us as a single piece. If we wanted to distinguish "completed pieces", objectemes, and matteremes in it, we certainly wouldn't succeed with the same comfortably discontinuous progression that we find in other cases, and perhaps we would not even succeed in doing it convincingly. Its matteremes have been resolved step by step into objectemes, which have been resolved in turn into "completed pieces", which, without a break in continuity, constitute the finished artefact, the utensil, jar. A plastic toy of a complex shape but stamped out by a single operation does not possess matteremes and objectemes independent from those belonging in an ideal way to the project according to which the matrix used in the stamping machine has been realized. Sailor's knots, from the simplest to the most incredibly complex, are artefacts realized by operating on a single "completed piece"; we can use a longer or shorter stretch of rope, the only limits to this being that there must be enough rope for tying and using the various knots; the objectemes of the rope are a large number of intertwined fibers.

Examples could be multiplied. Those offered here are already sufficient for raising a number of points which limit or alter the notion of "completed pieces", and in part also the notion of objectemes, as well as the relations between the two. There are artefacts produced by letting natural forces develop, or by assisting them. There are others in which no separation or difference can be found between matteremes and objectemes — artefacts, that is, in which the production of matteremes slowly assumes the status of a production of objectemes without a break in continuity. There are still other artefacts in which continuity is to be found in the process by which objectemes become "pieces" of the finished utensil (pieces which are therefore no longer "completed" *by themselves*). Others in which it is difficult or even impossible to distinguish between the level of objectemes and that of "completed pieces". There are also artefacts in which the objectemes that go together to form "completed pieces", or some of these objectemes, can be traced only as *functions* present in the "completed pieces", this being clear sometimes only from the vantage point of the finished utensil. And there are even artefacts where the level of the utensil seems to be reached directly by mere accumulation of matteremes.

All this shows how the level of "completed pieces" — as products at an intermediate stage between objectemes and utensils — may even be a sheer abstraction by which we are trying provisionally to fix some stage of the very complicated

processes of material production. At this point it is useful to distinguish various families of objectual sign systems. Some utensils belong to families that we may call analytic, where every "completed piece", so to say by "isolating" itself, tends to remain always the same, as such always distinguishable from all the others; the difference between "completed pieces" and objectemes here tends to disappear. Then there are families where "completed pieces" which are homologous to each other are produced by means of different objectemes. These objectemes carry out the same function (even without having anything else in common) only because of the way in which they are fixed in constant objectual nuclei, that is, in lexobjectemes. And there are families where, instead, the objectemes are the ones that remain always equal to themselves, so that they reappear with the same function in the formulation of different "completed pieces" by being so to say pasted on to each other in different ways. The different "completed pieces" can here be reduced to constituent objectemes of a clearly inferior level (this is the family to which the hammer belongs). One of the conclusions to be drawn when we consider the multiplicity of the families of objectual artefacts, is that they harbor remarkable differences in the relations between objectemes and "completed pieces". We can imagine that, given an objectual sign system, the *ratio* between the number of the objectemes and the number of "completed pieces" may be calculated, and that the result may offer an index of the analyticity of the utensils belonging to that family. The closer such *ratio* is to 1, the less one will be able to distinguish between objectemes and "finished pieces", and the more the utensil will be composed directly of objectemes.

These and other similar particularities of the various arts and trades have certainly been well-recognized throughout the millennia by their respective master artisans, even though they set them out and commented on them almost exclusively in their own language, practising and refining the non-verbal codes of their arts, and verbally talking about them only for the purpose of handing the art down to others. The masters of the verbal arts, shut up as they were in a class isolation which convinced them of the superiority of intellectual over manual labor, certainly did not pay attention to the way in which the master artisans of the non-verbal arts were aware on their own of what they were doing all the time. Recently things have changed, however. Part of the immense complexity and variety of production seems to have made an impression on the masters of verbal arts also. We face difficulties very similar to the non-verbal difficulties described in the last few pages, in the linguistic field as well, just as soon as we begin to deal with "completed pieces" of a level higher than that of monemes, like so-called "words" and other "linguistic units" (syntagms, locutions, dictions, phrases). Thus, for instance, one recognized master of the verbal arts explains how the difference between a completed word and a moneme, for example between the English word ***unacceptable*** and the three monemes *un*, *accept*, and *able* (which in his terminology are "morphemes"), may seem at first glance just as acceptable as instead

it turns out to be unacceptable as soon as we try to establish general rules capable of explaining the exceptions and of being extended beyond the limits of any individual historical language (Lyons 1968: Chapter Five). This is not the place to take up current discussions about the nature of words and other units in which it may seem convenient to subdivide the spoken chain. The variety of human languages, we must admit, is almost as great as the variety of objectual sign systems — even if we mustn't forget that in the latter very different bodily residues come into play, because their *signantia* are made of multiple substances instead of being limited (perhaps in a slightly monotonous way) to sound (or at the most graphic) substance.

Not directly relevant for the immediate ends of our classification by successive levels — which in turn only has the purpose of setting forth the homology of production — are the different ways in which, in the various languages, distinctions can be drawn within the *continuum* that goes from a word-moneme constituted by a single phoneme up to an extended and complex syntagm. Before going ahead to the level of sentences and utensils, we have only to recall one more thing, *i.e.* that it is within the last two levels distinguished, the second and the third, that the "first articulation" takes place. This is the articulation of utensils and sentences in "completed pieces" and/or objectemes, and, respectively, in words and/or monemes. In a general theory of material production it is necessary to renounce the naïve view that utensils are always and only the combinations of prefabricated pieces — almost as if there were a sort of universal lexicon of such pieces, so that to obtain utensils it would be enough to apply constant rules to equally constant classes of pieces. Contemporary linguistic theory has arrived at a similar renunciation and is now a long way from maintaining that there are rules operating directly upon word-classes and that sentences are generated by applying such rules to all the lovely ready-made words listed in the dictionary. The fact remains that the utensil and the sentence occupy a recognizedly central position in their respective productions and that they are, after all, reducible to simpler elements.

3.2.2 *Utensils and sentences*

Fourth level: Utensils and sentences. — This is, in an order of rising complexity, the first level at which we encounter fully finished though still very simple artefacts lending themselves to *uses* or *working processes* which are complete in their turn. Let's call artefacts at this level *utensils,* generalizing the term somewhat, and, respectively, *sentences.* Sentences are verbal utensils, so that it may be said that all utensils divide into material (or, non-verbal) and linguistic (or, verbal) utensils, and that the latter are also called sentences[34]. For clarity's sake, however, we

[34] Alternatively, we may confine ourselves to speaking only in terms of sentences, and specify that there are *verbal sentences* and *non-verbal sentences*; and that the latter, which are also called utensils, belong to a number of non-verbal sign-systems of the objectual kind (cf. 1.3

shall mainly use 'utensils' for *material utensils*, and 'sentences' for *linguistic utensils*; and in using 'utensils' for both we shall always add the clause 'whether material or linguistic', or 'whether non-verbal or verbal'.

Examples of various types of simple material utensils are hammers, sickles, flags, stilettos, bottles, shoes, handkerchiefs, pots, spoons, pipes, tobacco pouches, cages, stools, chairs; and so are lawns and the trees and bushes in the garden insofar as they comply with the double character of being products of work and objects for use (even if one doesn't usually call them utensils). Simple pieces of more complex machines, like gears or tire inner tubes are also simple utensils, although they are usually employed only within more complex totalities. Examples of simple sentences are: 'the water is hot', 'the daisy is a flower', 'the apple is tasty', 'the sun will shine', 'it's raining', 'Amelia laughed', 'the children were playing', 'children like toys', 'Eve ate the apple', 'Adam ate the apple too', 'the snake smiled', 'hurray for Europe!', 'down with Europe-centrism!', 'he came here', 'come here!', 'are you coming here?', 'aren't you coming here?', 'why don't you come here?', 'why didn't you come here yesterday?', 'she didn't want to come', 'they will not be able to get there', and so on. These are sentences in the traditional sense. Let us say in traditional jargon that they are all composed of subject, verb, and predicate, or of subject and intransitive verb, in some cases with slight syntactical complications which are not supposed to involve any necessary reference to *other* sentences.

Simple utensils, whether verbal or non-verbal, present the differential character with regard to previous products, of possessing *in se* the *form* of the use or of the working process to which they lend themselves. Shoes are used for wearing, hammers for hammering, pipes for smoking, lawns for restful walking, and so on. Instead, the "completed pieces" and/or the objectemes of which they are made up, although they lend themselves to various uses, do not possess this form. With the finished utensil, as simple as it may be, the material productive process has arrived at its first halt; a working cycle has reached a conclusion, though a provisional one. The same can be said for verbal utensils, *i.e.* for simple sentences: as complex and as diverse as their genesis may be in the various languages, sentences possess, differently from words and/or monemes, the form of the use to which they lend

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ad finem). While for the use of 'sentence' we may refer to current linguistic discussion — after all, in the early thirties there were 160 definitions of 'sentence' available in the literature, as Ivić reports (1956 : 203 note 1) —, the use of 'utensil' requires a few comments. As explained in the text, we use it here in the largest and perhaps in an extended sense, to mean any artefact of the objectual kind belonging to the level where some sort of *completeness has at least dawned*. In this usage utensils comprehend not only tools or implements which can be used in further work, like hammers, or to make something simply available, like corkscrews; not only pieces which are not used by themselves but go into something more complex as distinguishable and necessary elements, like carbureters or loudspeakers; but also all useful objects destined for consumption, *i.e.* for the production of consumers (cf. 2.4 and footnote 14), like a loaf of bread or the wine contained in a bottle (immediate consumption), or like a pair of shoes or a bottle containing wine or any other liquid (protracted, or instrumental consumption).

themselves — whether it is a question of using them just as they are as messages, or instead of combining them with other simple sentences to obtain complex sentences and then discourses. If I say 'laughed' I don't yet know who was laughing *or not laughing*, while if I say 'Amelia laughed' I know that a person of the female sex did *not* do any of the many things that are excluded by the indication of the thing she was doing, that is, laughing.

Common to all the pieces of the first three levels (putting it in a unitary way: previous to the utensil, and respectively to the sentence) is the fact that they are not usually used alone; they are not ends in themselves. They are *instrumental pieces* whose ends lie outside of them, serving precisely and only for this, the production of pieces of a higher level, beginning with the level which we have here distinguished as the fourth, *i.e.* with utensils and sentences. Nobody ever set himself the task of producing sixty-six hammer handles without any regard to their respective heads, without at least supposing that somebody else was going to produce the heads; nobody ever went about plowing thirty-three acres of land in the certitude that he would never be able to sow it, or in the ignorance of the existence of seeds. Nobody repeats a given moneme, well-identified as such, ninety-nine times without ever going on to combine it with others. When things like this do happen we talk about pathology, or we have to construct very complicated explanatory contexts. We *usually* don't have any use for an isolated word or piece of a utensil. It does not at all follow from this that we don't know what their signification or function is. But the idea of the utensil must be operating for anybody to be able to go back to the first level and then come down again through the second and third, following the flux of work, to the fourth, where the realization of the idea itself takes place. In the same way, we can isolate and discuss words and monemes only if we possess the idea of the sentence. In a different sense, however, the utensil and the sentence do presuppose their own parts. We will come back to some aspects of this situation in 3.3.

The fact is that the notion of what is presupposed must not be made absolute. To begin with, the notion of a generative idea must not be made absolute, as is typical in old and new idealism, since even the idea which it seems indispensable to possess cannot itself have avoided being formed little by little in the course of social evolution. As far back as we try to go, we will still have to stop at the period in which the type of activity called work appeared on the planet, in so far as the appetite of certain primates was held in check and between their needs and the respective satisfaction of the needs something universal was inserted. It is in fact tautological that there are no *human* ideas previous to homination. Isn't it a little ridiculous to imagine that one fine morning, even if we may concede that he had slept on a fortuitous bed of fronds, a single anthropoid merrily woke up *with* the idea of a sentence or a utensil all formed in his brain. (A geometrical idea, as Husserl says in Appendix III of the *Krisis*, would make the performance particularly stirring; but also the idea of nothing more than a pot would do.) And

that that very anthropoid went about realizing his idea by *facing an intact nature for the first time.*

But on the other hand, not even the notion of the elements of the lowest level should be made absolute. For, unless we indulge in a sort of childish evolutionistic mechanicism, it would be almost insane to suppose that first man produced matteremes and phonemes without doing anything else, and only afterwards dedicated himself to the production of objectemes and monemes, passing over to the production of "finished pieces" and words at a still successive stage. And then again that, perhaps after having rested for some tens of thousands of years, he made the further step of starting to combine the previous products (which meanwhile had lain there waiting for him) into utensils and sentences.

The central character of the utensil and of the sentence in the process of production, and thus also in the process of social reproduction as a whole, lies precisely in this duality of reciprocity: they presuppose the pieces that go together in forming them, and are in turn presupposed by them. Of utensils and sentences, and of these alone, we can say that they are the finished items of the lowest level, in which the reciprocity of presupposition is fully present. That is: it is fully present, as we will mention, also in items of a higher level. Moreover it is also present, but not *fully* present, in the relation between monemes and words and between phonemes and monemes, and respectively between objectemes and "completed pieces", and between matteremes and objectemes.

All this amounts to saying two complementary things: the first, that sentences and utensils have been developed together with their own component pieces; the second, that the quality of being utensils and sentences is not an absolute quality but rather a relative quality. There are available sentences and utensils that are always such, but also utensils and sentences that *become* such in given circumstances but stop being such when those circumstances dissolve. Thus sailor's knots are utensils with respect to the rope that functions as a "completed piece"; but the rope is a utensil with regard to the strands of which it is composed. 'It's a lovely day for fishing trout' is a sentence; but so are, if taken by themselves in given circumstances, 'it's a lovely day', 'a day for fishing', 'fishing trout', and even 'trout!'.

These considerations bring us to the next level of our schema.

Fifth level: Aggregates of utensils. — In addition to simple utensils there are also compound utensils. The notion of compound utensils is in turn a compound notion. Space and time, to which the real responsibility must be attributed for the accidental death of the passer-by hit by the Hegelian roofing-tile, manifest their dominion even here. Compound utensils may be implements with a multiple use, which always remain what they are themselves but are built in such a way as to be applicable in different working processes; or they may rest on the joint use of two different utensils which must be applied, either contemporaneously or one after the other, in the same working process, or in two working processes one of which

is subordinate to the other or both of which concur to one purpose. Some examples are: a sofa bed, a complete suit made up of trousers, jacket, and vest, simple gardening tools seen as a whole, a group of weights for a scale, a wallet for documents, notes, and coins. In the field of linguistic production we have sentences combined or interconnected in various ways, like those in the following discourse: 'Rome is the capital of Italy, it has almost three million inhabitants, it is situated about half-way between Florence and Naples, it possesses many beautiful monuments, the traffic is terrible there, it is the seat of both the Papacy and the largest official Communist Party in the West'.

One soon realizes that the distinction between simple utensils and sentences and compound ones is much more arduous than it may seem at first glance, or than it may appear from the examination of a single group of examples. If the disjunction of the levels is to be measured on the yardstick offered by such substantial differences as those between matteremes and objectemes (respectively between phonemes and monemes), or the differences between objectemes (or "completed pieces") and utensils (respectively, between monemes — or words — and sentences), we might perhaps decide to renounce distinguishing the fifth level from the fourth. There is not an equally important leap here between simple and complex. What is simple and what is complex with regard to utensils and sentences depends upon too many criteria. Probably only the application of distributional criteria to a single "text" of objectemes or monemes, or even better, to the totality of an objectual or verbal sign system, would permit us at the present stage of research to provisionally stratify categories of utensils and sentences according to a larger or smaller degree of complexity; provisionally, since distributional procedures can be nothing other than rationalistic-formal approximations imposed on material which has been collected only empirically — one way for keeping side-by-side the two disjoined members of a process which in reality is unitary and dialectical.

Still, once two or more utensils, or two or more sentences which are distinct from each other (without repeating the reservations about the various ways in which they are composed) have been joined in some way for an end which cannot be accomplished by a single utensil or a single sentence, a situation arises which we do not have the liberty to ignore. What we are concerned with here is this, that the two or more utensils or sentences *have entered into a relation with each other.* Dealing with work in the last section we saw how at a certain point the working process coagulates in an artefact which then remains there like a river-lock or synapse, conditioning every other working process by its own presence. Utensils and sentences, as we mentioned then, and as we have been trying to show in the preceding pages, are the most typical examples of artefacts endowed with this character. In 6.4 we shall come back to the sentence and try to examine it in terms of the "unfolding" of the values internal to the words (or monemes) composing it. Well then, when two or more utensils or sentences enter into relationship, the dialectic internal to a single utensil or sentence *begins* to become a dia-

lectic external to each of them. This amounts to saying that a new totality *begins* to form, dialectically posterior to that of the utensil or sentence. The dawning of this new totality had to be pointed out somehow to the reader, and this is the sense of the distinction made between the fourth level and the fifth. As soon as a dialectic *external* to the utensil or sentence has *fully* emerged, we have reached a further level, the sixth: we are, in fact, at the threshold of a fascinating stage, that of mechanism.

3.2.3 *After utensils and sentences*

Once we have reached and recognized the utensil — either material or linguistic — as the central unit of all production, everything that follows it in order of complexity is a combination of utensils. The property of being useful for something, as we know, does certainly not belong to utensils alone: it belongs to all artefacts (with the partial and perhaps niggling reservations made in 2.1 and 2.3.1) and is the most general matrix for possessing a signification (3.2.1). The utensil is "only" an artefact at an intermediate level between the first elementary modifications which man brings to nature and his highest constructions. At the same time, the utensil is the definitive sign of the irreversible separation of man from all other animals, not only because it is a finished product of work and requires the dialectic of exchange, but also because, more specifically, it has been obtained through a double selection of instrumental artefacts of a lower level, and therefore presupposes the use of communitary codes (we shall come back to this last point at the end of the section). As Hegel says: «The plough is nobler than the immediate pleasures which are procured through it and which are the aims. The tool preserves itself, while the immediate pleasures vanish away and are forgotten».[35]

Sixth level: Mechanism. — The first new totality built by man after the utensil is the mechanism. We shall describe a material (non-verbal) mechanism as a *machine*, and a linguistic (verbal) mechanism as a *syllogism* (see below in the text, and note 38). Machines are utensils combined and organized for an end, endowed with the capability of working in a uniform way, even prescinding from how and where they are used and from who uses them. When it has assumed the rank of a mechanism, the artefact is called upon to carry out a working process which is already present or anticipated in its structure. The relation between working process and structure has become so close that the working process is at this point more or less obligatory; other working processes are excluded because they are impossible, or have an effect incompatible with the one expected, or are absurd. All this can be caught in the first place almost intuitively — although the

[35] «Der Pflug ist ehrenvoller, als unmittelbar die Genüsse sind, welche durch ihn bereitet werden und die Zwecke sind. Das Werkzeug erhält sich, während die unmittelbaren Genüsse vergehen und vergessen werden» (*Wissenschaft der Logik*, Drittes Buch, Zweiter Abschnitt, Die Objektivität, 3. Kapitel (Teleologie), Lasson's Herausgebung, II : 398). For an alternative English wording see Johnston and Struthers' translation, Volume Two: 388.

"intuition" to which we have recourse here is nothing other than the only partially conscious stratification of the common experiences we have as individuals belonging to non-primitive communities. Consider, in the field of material production, the way in which looms "work", and bicycles, record players, lathes, electric saws, typewriters. What we aim at describing here is the system of the differences between such artefacts and the more simple artefacts we have so far discussed as belonging to lower levels. Not that the advent of the mechanism has excluded the worker; it continues to require him. But while at previous levels the worker had to carry out the whole working process himself, here it suffices that he put the machine he has decided to use in motion. Naturally, he has to have learned this too; but the machine functions "on its own", in one way and not in another, according to an operational cycle fixed beforehand. While external material operations done by anyone who uses a simple utensil still have an internal material guide, the working operations of a machine no longer need a guide of this sort for the good reason that they *are* themselves external material operations carried out according to a plan (cf. 2.4.1, and Section Two generally). The functioning of a machine appears as something pseudo-natural which has been generated by society. The machine bears its own programs and imposes them. Man, not satisfied with programming himself as an individual, has come to the point of programming the behavior of pieces of matter external to him. The modifications which a material machine has to be able to bring about in the world if it functions well, are constant and impersonal modifications: the loom always weaves, impersonally. The worker has gone outside of himself, he has inscribed himself in nature, he has ordered her to guide his own working steps.

Between the level of the utensil and that of the mechanism, then, we have a real substantial difference, a qualitative leap due to the formation of a new totality. Just as the totality "utensil" is not reducible to the pieces of which it is composed, neither is the totality "machine". We can of course think of the vanishing point where a utensil is used as a machine; and there can be cases of utensils that so to say shade off into machines as well as cases of machines used as utensils. For example, the literature is uncertain whether to call a plow a utensil or a machine; and the expression 'machine-tool' is in current usage. The complexity of production compels us — as the case arises — not to forget these prudential remarks. Still the new totality of mechanism imposes itself. Using a screwdriver merely as a weight for a scale is not only using it in an improper way, but also wasting it. What need is there to use a specific utensil like a screwdriver for its weight alone, one can ask oneself. But the waste and the regression are immeasurably more serious if the weight is a high precision, water-proof, self-winding watch.

In what, then, does a machine that is no longer a utensil consist? What "additions" must the structure of the utensil receive for a new totality of a higher level to be born? Does a minimal level of mechanism exist beneath which we cannot talk about machines and revert instead to utensils? I want to hazard an

answer, or better a proposal, as abstract as it may sound. So that an artefact may proceed to the rank of a machine, there must be at the start (at least) two pieces which condition each other reciprocally. Each of these two pieces must have a recognizable sense and a precise function. In brief, there must be (at least) two utensils. Now, if the two utensils confined themselves to contrasting with one another, one of the two might take the upper hand, or there might not even be any decisive action between the two. Nothing new would be formed. The two utensils must instead (i) find themselves in *opposition*, and (ii) this opposition must be overcome dialectically, that is, it must give rise to a synthesis. The kernel of mechanism lies precisely in this, that an artefact in the position of synthesis carries out the role of at least two utensils in opposition to each other. The two elements must become three, and binarism give way to dialectic. Let's take it up again. Two utensils act upon each other; this reciprocal action, whether or not it is physically represented by a third artefact of a higher level, is the dialectical sum of the work that the two utensils can carry out separately (or of essential parts of this work). The two elements have become three. When this happens, the mechanism dawns.

Thus, for example, the archer draws the string of a bow and thereby bends the wood, storing up energy which will later be discharged all at once into the arrow. In the first phase the string acts upon the wood, in the second, the wood upon the arrow through the string. The string so to say belongs to the bow when it is drawn, and belongs to the arrow when it is released. The string is the mediating element. Although they are processed in such a way as to work together, wood, string, and arrow can be useful for something and be considered utensils each on its own account; but the machine "bow-and-arrows" (one of the most primitive machines) consists of the sum of the *two actions* of drawing and releasing, and cannot be reduced to one of them alone. Notice that the two actions are similar but certainly not identical; indeed, the machine "bow-and-arrows" benefits precisely from the way they differ. They are moreover separated in time; finally, the man who has accumulated energy by drawing the bow can release it at his discretion, triggering the machine without otherwise intervening in the process. A similar mechanism is to be found in the oar and the rowlock: one rows by applying a force to the arm of a lever, which, resting on a fulcrum, transmits the force to the resistance of the water and thus moves the boat. The oar and the rowlock are utensils, the whole made up of the two together is a machine.

Let us consider now the wheel-and-axle and its differences from a mere roller. The roller is among the most primitive of utensils, at the confines of the mere instrument, even when it is produced on purpose. If one uses the trunk of a tree which has been struck down by lightning as a roller, the level of the utensil is not even reached and what one is using is only an instrument which then is abandoned there, left to itself like a cry which serves only once for attracting attention. The roller comprehends in itself the functions of both wheel and axle, but in a still

unseparated manner. In the wheel-and-axle instead the two functions have been externalized for they have been embodied in two materially independent artefacts. An internal dialectic has become external. Man has discovered and extracted it and is by now able to reproduce it and make it work at his orders. At this stage, *post eventum*, he can also look backwards and say that that dialectic was present already in the roller, though in an undistinguished and indeed "undistinguishable" manner. The wheel-and-axle is manufactured according to a plan and carries out its function insofar as the wheel rotates on the axle, which in turn forms one piece with a cart. In this way the cart is easier to push. Because of its exploiting in this way rotary motion, the wheel-and-axle deserves to be considered a primitive machine.

Another example, perhaps a heterodox one, could be that of a pot filled with water and put over a fire of wood which has been arranged under it and lighted on purpose. Much human knowledge already goes into this simple procedure. Used in this way for boiling something, the pot is not just a mere container. It acts on the fire because it arrests the flame and receives it according to its shape and structure; the fire, naturally, acts on it by heating it. The water can be heated by the fire by virtue of the pot; and the pot can avoid getting burned by virtue of the water to which it transmits the heat received from the fire. Pot-and-water is the mediating element. Hot water is the result of the operation within this machine, much as the hurled arrow within the machine bow-and-arrows. An arrow, then, is expected to hit some target as hot water is expected to boil raw food: with these achievements the machine has been successfully applied. There is, then, a reciprocal action between the water-filled pot and the fire which is synthetically overcome by the operation of boiling. It is remarkable that the whole operation is described in terms of what happens primarily to the water (the importance of boiling when compared to roasting is well-known: in some Amerindian languages, 'to boil' is synonymous with 'to banquet'). One boils something by putting a water-filled pot and a proper fire in the above relation and letting this elementary machine do its job.

Other primitive machines, just a little more complicated than utensils, are traps, bow drills (both derived from the bow or kin to it), bellows and blow pipes, bolas (which already require a complex play of forces). Generally, all so-called "simple machines" of elementary physics and their derivatives are primitive.[36] This is not the place for dwelling technically on the nature of these machines, the formal description of which belongs to abstract scientific discourse, *i.e.* to a recent development of human thought. Reference to the section on statics in any text of mechanics

[36] For a description of man's earliest technological endeavors, cf. Volume I of *A history of technology*, 1965 impression with corrections (1954[1]), especially Parts I, II, and III. Papers by Oakley, Childe, Harrison, Sommerfelt, Leach, Leakey, Forde, Forbes, and Bradford, as listed in the References, will easily be connected by topic to various moments of the treatment given in the text. Cf. also Hooke in Part VII of Volume I, and references to earlier developments in Volume II (for instance Jope). Other histories of science and/or technology where im-

will suffice. It is advisable to recall, however, that every simple machine is a device in which a resistant force is counter-balanced by a motive force. The machine is the result of *the play of* these *two forces* — whether this happens through the exploitation of the equilibrium of the bodies around an axis of simple rotation (lever, winch, and pulley); or the motive force counter-balances only a small component of the resistant force, releasing the residual component on a fixed tie (inclined plane, wedge, and screw); or, finally, the forces are transformed into pressure by making them act upon pistons with conveniently different areas, according to Pascal's principle of the equivalence of pressure in all the particles of a liquid in a state of rest (hydraulic press).[37]

In the field of linguistic production, the difference between the level of mechanism and previous levels can be struck in the bullseye as soon as one considers the *syllogism*.[38] The syllogism starts from two sentences (from the enunciation of

portant observations on the dawning of mechanism can be found are Derry and Williams (1960), Kranzberg and Pursell (eds., 1967), Lilley (1966), Bernal (1965). Cf. Forbes 1958, Oakley 1959 and 1961 (in *Social life of early man*: 176-193), and the works of Gordon Childe. See also the *Dictionnaire archéologique des techniques*, 1963-1964; and other essays in *Social life of early man*, 1961.

What should be *called* a utensil or instrument or tool, and what should be called a machine, is to some extent open to discussion. For instance Störig (1965 : 26) uses 'instruments' [*Werkzeug*] for the hammer, 'machine' for the plough and the cart. The difference rests on the amount of thinking which goes into the machine as compared with the instrument: «even simple machines like the lever, the pump, or, for instance, the ballistas used in forgone wars presuppose a theoretical foundation» (26). The genealogy of earliest machines is also open to disagreement, and one comes across many statements like the following by Larssen (1969^2: 15): the bow «may be regarded as the *first device* for storing up energy, to be released at will» (italics mine). Whether there are or not simpler and earlier examples, will depend on how one conceives of man's will, and on what is meant by 'releasing'.

In Hegel's *Jenaer Realphilosophie* of 1805-1806 mechanism is viewed as a modification of man's work (Hoffmeister's edition: 197fll. and 213 fll.), and the machine is defined as relationship of the abstract forms of space and time, *i.e.* as abstract external activity (215). Hegel was always deeply interested in the mechanical process; his most thorough treatment is, of course, in the *Wissenschaft der Logik*: cf., in Lasson's edition, II: 359-406 (English transl. Vol. II: 350-394). And see footnote 38 hereafter.

[37] As noted by Störig (1965 : 27), Bernal (Volume I: 117 fll.), Forti (Volume I: 27-32), and practically all students of technology who don't confine themselves to externally material artefacts, there are also "non-material" instruments and machines, beginning with the zero and the value acquired by figures according to their position. These, however, belong to the other division of our dual enquiry, *i.e.* to linguistic production (actually, to sign production in general). More on this below in the text.

[38] We are all so accustomed to the term syllogism in its contemporary technical sense, that it isn't entirely useless to recall that it came from σύν and λόγος, that the Greek term has a host of different meanings circling around the notion of "collecting" or "putting together", and that a huge number of related terms also derive from the union of σύν with some form of a verb of action, especially λέγω (the συλλογεύς, for example, was the man who called in confiscated property). In studying the dawning of syllogism as homologous to the dawning of mechanism, we have to keep in mind the pre-scientific linguistic family from which it arose and to which linguistically it still belongs. Otherwise we would fall into an anti-genetic fallacy.

The Hegel of Jena had already anticipated the idea that the work of man with the instrument is essentially a syllogism (cf. Lukács 1948, new edition 1967: 433, and *passim*). In the *Wissenschaft der Logik* the syllogism and the mechanism have a parallel treatment: the former

two propositions), which are put to work together. The conclusion is the dialectical sum of the two premises. The content of the conclusion was present in the premises, but it emerges from them on the condition of their entering into reciprocal action. We cannot have less than three pieces if we want to talk about a syllogism. The elementary form of the syllogism, indeed of the various possible syllogisms, is homologous to the elementary form of the various possible mechanisms in the field of material production. One has to distinguish here in both fields between the study of pure and elementary forms and the study of whatever is actually produced in reality. As they are non-existent or extremely rare in material production, pure and elementary forms are also rare in the field of linguistic production. This amounts to saying that we are not expected to find and discuss the mechanism only in the formalized study of mechanics or logic, but rather all along the variety of everything that assumes some sort of mechanical power in either field.[39]

For a verbal mechanism to begin emerging, a more or less correct and complete argument, or just any grouping of sentences organized for some end, capable of communicating something in an at least relatively unambiguous way to any interpreter, is sufficient. One important requirement is that a double disconnection take place: the group of sentences must function *regardless of* (i) their immediate, actual use by whoever has emitted them, whether or not he is responsible for having organized them in that way; and (ii) the context they belonged to originally or in which they happen to be placed later on. This means that a given message, usually a non-rudimentary one, is already inserted in the structure of the linguistic

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is the final stage of "Subjectivity", the latter is the initial stage of "Objectivity" (cf. footnote 36). For Hegel, as is well known, things had mainly to go from the inside to the outside; or, they had to be prepared within the subject's mind before they could be used in the external natural world. We needn't in the least accept his idealistic bias in order to be able fully to appreciate the depth and rigor of his treatment of both mechanism and syllogism, beginning with his vision into their homological structure.

[39] Although we must admit of some parochial, academic, insular, cultural, ideological, social, and political limitations of theirs, Oxford-Cambridge philosophers, especially in the Fifties, did certainly have the merit of dealing carefully with *informal linguistic mechanisms* as found in the sort of language they called natural, common, and everyday. Once the key for the understanding of this jargon is given — *i.e.*, once one realizes that 'natural' meant "social", 'common' meant "the dons'", and 'everyday' meant "used for the purposes of philosophical analysis" — it can be said that Oxford-Cambridge philosophers dealt informally with *subtle linguistic mechanisms* to be found in the peculiar English language they were speaking within the walls of their clubs. In so doing they duly attacked the myth that everything can be formalized: they did it so thoroughly, that sometimes it almost looked like they were endorsing the opposite myth that nothing can be formalized. They certainly adored language in such a would-be monogamous way, that they were blinded by their own passion, up to the point of ignoring that language was already married to the professional linguist, and that on top of that (possibly because of the linguist's *laissez-faire* tolerance) was having more or less public relations with other lovers of less distinguished descent as well, such as, *horresco referens*, the psychologist, the sociologist, and even the anthropologist (whether cultural or not). Meanwhile the semiotician was duly holding his desire in check.

mechanism in such a way that it cannot avoid being received as such by whomsoever does receive it, independently of the circumstances. Or, to put it negatively: we are by now a long way from the contingent and indiscriminate use of a simple sentence for the aims of immediate expressive and communicative contact. The needs that are satisfied by using linguistic mechanisms are sophisticated needs which can only be thought of as forming in a well organized (though "primitive") culture. Sound material has received a type of elaboration which constitutes a new level with regard to all previous levels.

The first linguistic mechanisms, probably, developed along with the emergence, if not of writing itself, at least of consolidated techniques for the oral handing-down of knowledge. One can assume that their development was parallel to the production of the first material machines. If men had not learned to make a group of utensils function by itself, impersonally, it is unlikely that they could have learned to report anything in an equally impersonal way, regardless of the immediate performance of individual linguistic workers *i.e.* speakers. As we said, any connection among sentences apt to form a whole is sufficient for a linguistic mechanism to emerge. We can see this when examining any narrative passage in which a number of sentences of the factual kind (statements) are linked together in such a way that each of them is specified by the simultaneous presence of all the others and a global effect is obtained. Any grouping of sentences organized in this way functions by itself precisely because it becomes a communicative mechanism which stands alone. A small chain of interconnected sentences, *prima facie*, can seem much more simple than a formal syllogism. The opposite is true. If I say 'It's raining', 'water gets you wet', 'I want to go for a walk', 'I don't want to get wet', and 'I go back in the house', I am using several disconnected sentences. But if I say 'I wanted to go for a walk, but as soon as I went out, I came back in again because it was raining', I communicate in an unambiguous way a remarkable quantity of information which presupposes an already rather crowded network of formal relations between the various sentences. The simple group of sentences 'I wanted to go for a walk, but as soon as I went out, I came back in again because it was raining' already functions as a complete, impersonal, communicative mechanism. This doesn't have anything to do with the fact that it is you or I or somebody else who is making that utterance.

As often in these cases, the field of infantile language learning offers good examples. Whether we are dealing with material or linguistic mechanisms, it takes many months for a child to learn to make function properly a mechanism which the environment does make available to him. Meanwhile he already knows how to express himself by using phonemes, monemes, words, syntagms, and finished sentences; in the same way he already knows how to get about with matteremes, objectemes, "completed pieces" of utensils and their aggregates, and finished utensils. The machine and the syllogism, by objectifying the world, mark the advent of rationality.

Going ahead in the direction of increasing complexity, our schema offers four more levels. We can deal with these more rapidly because we have already met all but one of the dialectical leaps which are most important for us. These are the leaps between intact nature and matteremes; between matteremes and objectemes; between objectemes and utensils; between utensils and machines; and thus for linguistic production. We shall examine one more leap, leading to automated machines and program-bearing codes, presently. Apart from such a leap, at the higher levels which remain to be seen we find material and linguistic artefacts a thorough examination of which would take us far beyond the limits of the present research. Moreover, the complexity of the artefacts renders the distinction between levels more and more uncertain.

Seventh level: Complex and self-sufficient mechanisms. — Here we find machines able to carry out multiple working processes. Their difference from simple machines is usually only quantitative, but as such it can be enormous. The whole historical development of technology from the origins up until a few decades ago enters into it. As examples we give automobiles, automatic looms, printing machines, office calculators. In the field of linguistic production we find all artefacts usually described as lectures, speeches, essays, books. Hundreds or thousands of sentences and syllogisms, and respectively of utensils and mechanisms, are organized here with an eye to sets of ends which can vary remarkably from case to case with regard to their different applications. The human performer, however, is still there. For the program to be carried out, the erogation of human labor is still required from beginning to end, though relieved by the presence of mechanisms. In other words, there is still, at this level, a difference — which will instead disappear at level nine — between the program and its various executions. A professor can teach the same things, or extremely similar things, an indefinite number of times, repeating the same course. In much the same way, the artisan operator of an automatic loom can always weave according to the same program, producing the same type of material. Not for this is the loom operator reduced to that type of material, or the lecture operator to that course. They both have alternative programs in their pockets. Many different types of material can be woven, and of lectures delivered, by using the same complex mechanism. But further comment on the artefacts belonging to this level is unnecessary for our aims.

Eighth level: Total mechanism or automation. — We can consider this level as a development of the level of simple mechanism, from which it is distinguished by a new qualitative leap. It is listed here after the level of complex mechanism because it presupposes its *quantitative* presence, its historical accumulation. One does not immediately get to automation by starting from a simple machine. Between the abacus and the computer there is not only a qualitative leap but also a difference of quantity. We could also say that the quantitative accumulation of technological development has its outlet in a qualitative leap which can be seen as a

recovery and development of the qualitative level of departure. In terms of our schema: level eight is a dialectical return to level six, that is, a recovery of level six at higher level, and this is made possible by the developments described as belonging to level seven.

Here we find *self-regulating* automatic machines, capable of substituting man entirely in complex and protracted working processes which previously were not conceivable as detached from continuous human intervention. Such machines are not made up only of a plurality of complex and self-sufficient mechanisms, like those encountered at the previous level; they also include all the programming necessary for passing from one mechanism to another according to a plan, for example: (i) subjecting a product to successive and independent working processes; (ii) putting semi-finished products aside to take them up again later together with other semi-finished products; (iii) taking account of the fact that each artefact, as soon as it is produced at any given stage of the total program, immediately possesses a reality of its own; (iv) respecting the qualitative leaps whenever they occur; and so on. The elements of the working process (2.3.2) and the diverse levels of work (2.3.3) are here all part of the machine. It is precisely because of this that at the level of total mechanism the machine is able to substitute man in an entire cycle of production, thus inserting itself in the very process of social reproduction. Think of the *possibility* of a program beginning with geological prospecting and the excavation of minerals and arriving at the stage where airplanes ready for use are manufactured (including automatic pilots and, with further refinements, automatic political hi-jackings).

Now let us ask the usual question: what do we find in the field of linguistic production that corresponds to a completely automated machine? The interesting answer is that we could even not find anything: it may be that we have already found everything there was to find. In fact, just as soon as we set foot on the ground of material automation, we find ourselves already on the ground of linguistic production as well. At the level of automation, material and linguistic production are reunited, as it were, and exhibit their homology up to the point of beginning to resolve it in identity. This happens for *one sector* of linguistic production in correspondence to *one sector* of material production. In other words, there is a sector where the two overlap — the special technical or formal language which is realized in the matter of the machine as an integral part of it. It is the zone of the relations between hard-ware and soft-ware. The typical case is of course the computer.

Still we can hit on an independent linguistic production at this level as well. It is a question of self-sufficient codes functioning in social reality in such a way as to condition and absorb more or less completely the individuals who use them. If by deliberate abstraction we want to remain on the ground of language alone, we shall be dealing with sub-codes or lexicons fed by an historical language: for example, ritual and ceremonial "languages", or literary production (but see level

nine). These are portions of historical languages which become specialized for some separate aims forming relatively limited *post-linguistic sign systems* investigated by *semiology* as a sector of *linguistics* (which is, in turn, a sector *of semiotics*[40]).

But as soon as we give up the abstraction of an independent language and widen our discussion to all verbal and non-verbal social sign systems having to do with the problem under examination (as, in principle, one should always do: giving the upper hand to the object of inquiry instead of to the inquiry about the object), we find again the same communicative programs we were talking about in 1.4 and elsewhere in Section One. We shall then have to face not only ritual and ceremonial "languages" as something parasitic on a historical language, such as the ritual or ceremonial terminology belonging to the Navajo language, studied by anglophones, or that belonging to the English language, unstudied by the Navajophones; but also *non-verbal sign systems* of rites and ceremonies, pregnant with their non-sign residues and carrying all their typical power to absorb and condition the individual — a power often only very partially experienced [*erlebt*] by individuals at the level of consciousness.

Thus we have arrived, after a long tour, at the point where it is possible to specify the following. Programs of communication, and sign systems in general, are self-regulating machines of a complexity which is *at least equal* to that of a perfectly automated material machine. When the enormous development of mechanical and electronic technology permitted man to realize this kind of machines in matter, they were necessarily founded on sign systems proper. This is the sense in which reference to a totally automated machine automatically involves reference to a sign system with *at least* one program contained in it. The same point is more accurately made by saying that totally automated machines, in principle, have been able to develop only because verbal and non-verbal sign systems of an even greater

[40] If we say that semiotics is the general science of signs, linguistics is the science of all verbal sign systems, and semiology deals with post-linguistic (post-verbal) sign systems, this seems to be the correct terminology. On the European Continent, however, there has been a tendency to use 'semiology' instead of 'semiotics', sometimes reserving the latter term to the objects studied, *i.e.* to the sign systems themselves (which could rather be called semiosic systems, from *semiosis*). The Saussurian descent of these by now highly confusing usages is obvious. They often express the tendency of the literary critic who deals professionally with post-linguistic signs, to reduce all semiotic enquiry to the boundaries of his own tradition and interests, in this way putting a part in the place of the whole it belongs to (cf. Rossi-Landi 1967a: 90-93).

More generally, the literary man as distinguished from the scientific man finds it delightful to think that there are systems of signs proper only as a result of the cultural use of language, when man is at least partially aware of what he is doing as an individual. Now since linguistics is the science of language, it is easy to jump to the conclusion that linguistics is the queen of all sciences. But in this way, paradoxically, linguistics loses its pilot role instead of affirming it. For there is no boat with a helmsman on board unless there are waters all around on which the boat floats and which must be crossed at the helmsman's guidance.

complexity existed already. Machines have been built from the beginning by imitation of such systems. Before mechanical and electronic technology made it possible consciously to manufacture these complex machines in external matter, they *existed socially* — even if mainly at an unconscious level — in the form of verbal and non-verbal sign systems. As we know, verbal and non-verbal sign systems require material processes internal to the individual; at the same time, since they are social, they constitute the form which matter has reached as the result of the stratification of human work for tens of millenia (cf. 1.4, 2.4.1, 2.4.3, and level ten below; also, the treatment of "linguistic capital" in Section Five; and, for some remarks of a slightly more speculative kind, Rossi-Landi 1968c: 188–191).

We insist on the fact that machines have been built from the start by imitating already existing human sign systems also in order to reassert their character as products and servants of man, while at the same time vindicating a structural continuity between producer and products.

Ninth level: Non-repeatable production. — We can relegate to this level, in both fields of production, artefacts which are usually considered *original.* While using the term 'original', however, we are not entering into questions of value (whether artistic or of any other kind). The term is used only descriptively, the assumption being that there must be a recognizable kernel of objective originality at a stage less complicated than the stage at which any question of value is usually raised. One doesn't even begin talking about the original value of a shovel or of the sentence 'it is raining'. Original production in the descriptive sense is in the first place a single person's or individual group's production, projected and realized only once for ends and through modalities which are unique and, at the extreme, unrepeatable. The program is set out in the act of its realization; or, the model is one with the single token produced. In the field of material production this is the case of "unique prototypes". Instead of unique prototypes we may also have a very limited number of tokens, but then each token is cared for and modified individually, bears variants which are all original, and can itself be proposed as a prototype. This type of production is exemplified by a very special automobile or yacht made-to-order; an ocean liner or a non-conventional dam; or, at a higher level, enterprises like the transfer of the temple of Abū-Sìmbel following upon the creation of Lake Nasser. Altogether, every artefact which is the final result of purposely projected and realized working cycles and possesses a unique character can be described as belonging to this level.

In the field of language, this is the place of literary and scientific production viewed as the construction of special languages; while the production of non-verbal arts, as well as that part of scientific production which cannot be reduced to scientific languages, exemplify non-repeatability and originality within the respective non-verbal sign systems. It is worthwhile to add that the printing of the works of a poet leads us completely outside of the level under examination. The production of books is a production of tokens according to a material program

and does not have anything to do with the production *of the text.*[41] The poet realizes his model in the very act in which he realizes the unique token of the model. The typographer takes only the non-sign body of the text as the model to be reproduced, while the text as such remains the unrepeatable model of itself. If things weren't like this, misprints would be welcome, or at least they would not arouse protest. With the necessary variations, much the same would hold good for the production of any original artefact as distinguished from the various ways in which it can be reproduced. That, on the other hand, any "original" literary text is the expression of a social group even without the author's knowing it, so that the author is in the position of acting as an individual channel for a collective work (Goldmann 1959, 1964, 1970a, 1970b), confirms the social character of original production itself.

We can attempt to say that we find here a dialectic between levels, not dissimilar from that found for automation. The products of level nine are a further development of those of level seven, but they are made possible by the quantitative accumulation of products of level eight. Even without entering into questions of aesthetic or other assessment, there is something more to an original book than to a book which has only been compiled. It is in comparison with a current, average assembly line car that a special model Ferrari is something new; and if Nicholson, Stephens, or Harlé accepted to project and build a yacht for the America's Cup, it wouldn't cease being a yacht because of such a special and highly competent planning. But the original book, the special model Ferrari, and the yacht for the America's Cup, because of their self-contained character and perfection, also presuppose the developments of total mechanism. This, at first glance, seems clearer in the field of material than in that of linguistic production; but it becomes clear here too as soon as we recall how total mechanism was operating in the form of sub-codes or lexicons even before it was able fully to manifest itself in the form of artefacts which are deliberately planned and manufactured in the external material world. This is the sense in which we say that every poet has his own self-contained and self-sufficient language; or that the Pyramids, the taming of the Yellow River, or mass anti-polio vaccination, are unique phenomena. In other words, original production arises in both fields as a sign subsystem which conveys in its way a vision of the world, partial as this may be, offering to interpretation all the richness of the layers accumulated in it.

Tenth level: Global production. — We will only say a few words about our tenth and last level, although it is the one upon which one might enlarge the most. It is a widely varied level, or perhaps it is not just one level at all, but many; for our purposes, however, we don't need to examine them one by one. Let us locate

[41] It is the particular merit of the French school of Marx-inspired semioticians (actually, semiologists) to have studied this highly complicated layer of sign production. Cf. Macherey 1966, Kristeva 1969, and the journals *La nouvelle critique, Tel Quel,* and *Communications.* Cf. also Goldmann's writings quoted below in the text.

here all artefacts that result in one way or another from the work of any historically real "productive unit". So we'd better have a look at this last notion. A productive unit can be a man, a more or less wide and/or permanent social group, a whole culture; the widest productive unit one can think of is mankind as the totality *hominum sapientium*. In other words, the overall production of a single individual, of various social groups, of various cultures, of mankind as a whole can be examined.

Social sign systems, whether verbal or non-verbal, belong by right to each of the last three levels we have distinguished. As we saw, they already appear at the level of complete mechanism; their originality and unrepeatability shows that it is convenient to consider them at level nine too; finally, their global character makes them an appropriate object of study for anybody who wants to see things from the point of view of productive units. A culture as a whole is a system of sign systems, a sort of enormous historical "language" transmitting messages to whom it may concern. That a whole sign system may be viewed from the outside is apparent, if only we concentrate in the appropriate manner on even very simple cases. A glance at a written page, without really reading and retaining anything of it, suffices for us to decree what language it is written in (provided we are at least a little acquainted with it, of course); and there are artefacts one single token of which suffices for the identification of a material culture. By considering, moreover, how a simple artefact abandoned in a deserted place does inform us of the fact that man has worked near there, we can glimpse the methodological possibility of examining from the outside even the total production of humanity. A single artefact appears to be sufficient for distinguishing man not only from the other animals but also from everything non-human which has ever existed on the planet.

We mustn't forget that all these are comments made about provisionally distinguished levels in an artificial schema, the aim of which is to exhibit progressive homological complications of production in two expressly privileged fields. The *level of complication* at which *complete* sign systems begin to appear shouldn't be confused with the items that every sign system must include. A sign system does not *consist* only of automated mechanisms, but also of artefacts of previous levels. Verbal and objectual sign systems are already present in reality as soon as sentences and utensils begin to develop. As for organic sign systems, it would seem that they begin to form at even lower levels. It remains to be seen, however, whether or not they possess at least the two articulations that lead to sentences and to utensils and are therefore typical of the initial phases of verbal and objectual sign systems. But a structural comparison between the production of utensils and sentences and the production of "organic artefacts" lies entirely outside the scope of the present enquiry.

What is, in conclusion, the relation between (i) a verbal sign system and a non-verbal sign system of an objectual type, and (ii), the homological schema of linguistic and material production? We shall try to say that the schema is a sounding-

ARTIFICIAL SCHEME OF PROGRESSIVE COMPLEXITY	MATERIAL PRODUCTION	LINGUISTIC PRODUCTION
Zero level: intact, unworked-upon nature	material non-sound substance	material sound substance
First level: pre-significant items	matteremes	phonemes
	intermediary-noise	
Second level: irreducibly significant items	objectemes (lexobjectemes or morphobjectemes)	monemes (lexemes or morphemes)
	instrument-cry	
Third level: "completed pieces"	"finished pieces" of utensils; syntagms, expressions, parts of speech, phrases in the "language of things"	words; syntagms, expressions, parts of speech, phrases
Fourth level: utensils and sentences	simple utensils, *i.e.* material sentences	simple sentences, *i.e.* linguistic utensils
Fifth level: aggregates of utensils	compound utensils	compound sentences
Sixth level: mechanism	machines of a simple type, *i.e.* material syllogisms	syllogisms, organized groupings of interconnected sentences: *i.e.*, linguistic mechanisms
Seventh level: complex and self-sufficient mechanisms	self-sufficient mechanisms	lectures, speeches, essays, books
Eighth level: total mechanism or automation	automated machines	sub-codes and lexicons (post-linguistic)
	objectual and verbal program-bearing codes	
Ninth level: non-repeatable production	special constructions, unique prototypes	"original" literary and scientific production
	objectual and verbal program-bearing codes	
Tenth level: global production	all objectual sign systems of a "productive unit"	all verbal sign systems of a "productive unit"

rod inserted vertically into any sign system and describing its stratification, with no claim at describing also its width and coverage. Some clarifications in this regard are to be found in Section 3.3.

Meanwhile, a table as on the preceding page allowing a comprehensive glance at our ten levels may be of help for grasping some of their interconnections.

3.3 *Plurality of articulations*

Let's examine one essential character of the homological schema of production again. Some passages between levels require proper qualitative leaps, others do not; or at least, some of the qualitative leaps are decidedly more important than others. The most important qualitative leaps are: from intact nature to matteremes and phonemes (the schema begins with matteremes and phonemes as *first results* of work); from matteremes and phonemes to objectemes and monemes; from objectemes and monemes to utensils and sentences; from utensils and sentences to mechanisms and syllogisms; from mechanisms and syllogisms to automated machines, that is, to non-verbal and verbal program-bearing codes. Extrapolating these five levels means further simplifying an already simplified schema, paring it to the bone. This further simplification is useful for a new order of reflections which were already implicit in the exposition of the schema, and which we want to delineate more clearly now. As we shall presently see, even the schema "pared to the bone" appears to be a relatively complex one if we compare it to current tenets on the same basic issues.

For each of the levels in which a qualitative leap is realized, the artefacts, whose production is made possible by that leap and whose structure is characterized by it, so to say *pour out of the productive process* and *stay there waiting*. Let us try to see what are the real processes hinted at by these metaphors. Artefacts are all bound together, whatever level they belong to, by the general process of production. There is among them all a continuous dialectical play by virtue of which the modifications brought by work to artefacts of any one of the levels end up sooner or later by reverberating at all the levels. But artefacts, as we know, are new totalities superior to the sums of their parts; work is coagulated in them, furnishing them with a skin that opposes a more or less long-lasting resistance to the entry of new influences from the outside (2.3.2 and 2.3.3). Artefacts tend to remain what they are even when they are used in new productive processes. The more so, of course, they don't lose their properties if they are *not* used. Indeed this is necessary, otherwise any worker wanting to start a new piece of work at a given level wouldn't find anything ready to start working with and would always have to begin from scratch. The absurdity of this will be taken up again at the end of the section. Meanwhile, let us find an expression describing the condition of artefacts that have poured out of the productive process and of their forming groups by

levels. *Faute de mieux* we choose *parking lots of artefacts*.[42] New workers learn to use "parked" artefacts in new working processes, or else they simply consume them to satisfy a need. Generally, we use arte-facts leaving aside the fact that they *are* artefacts, *i.e.* products. The consumer goes to the parking lot, gets his car, and goes on about his business. A dialectical terminology avoids in its way the anti-climax introduced by talking about parking lots and cars: the artefacts are assumed "in their new immediacy", "in themselves and by themselves".[43]

That artefacts pour out of the productive process, arrange themselves in parking lots, and are used in themselves and by themselves, is particularly evident when we are dealing with artefacts destined for immediate consumption (even if it should never be forgotten that *consumption is production anyhow*: 2.4.1). One does not "work" any more on food which is ready to be eaten, if not in the possible but not essential sense, which is also an attenuated one, that usually men eat according to ceremonial or ritual programs. The parking lot of all food ready to be eaten is available to the market. The parking lot of all "units" ready to be used is available to the linguistic market.[44] Less evident is the fact that there are parking lots of artefacts not destined for immediate consumption. If we take another look at the

[42] Let us insist that this expression is not entirely satisfactory and should be used more to *label the situation described* than for the associations it bears. Alternative expressions could be 'working store', 'provisional dump', and the like. One of the difficulties of the expression 'parking lot of artefacts' is examined below (footnote 44). Another is that a parking lot in the usual sense is a place for numerable, physically existent objects; while some of the objects we want to describe as "poured out of the productive process" and "waiting for us" are brought into existence only when, and insofar as, they are used to build something else.

[43] Cf. 2.3.3. — While this is certainly not the place for a treatment, however cursory, of dialectics, let us recall the importance of the synthetic moment of a dialectic triad. We may call it after Hegel's fashion (*Enzyklopädie:* § § 18 and 81) the "in itself and by itself" moment, and add that it is taken up "in its new immediacy", as Marx, Lenin, and Mao Tse-tung do; or we may content ourselves with saying that it is the final stage of a process of growth which comprehends in itself the various elements gone into the process; and add that the object is then taken up in its final stage as it is, without going back to the process of its growth any longer. In either case the dialectical leap signalled by the presence-and-the-new-use of an artefact is cleary indicated.

[44] Here the problem may arise of the nature or ontological *status* of linguistic parking lots as distinguished from material parking lots, and with it the question of finding their proper place or *locus*. It is a complex question which can also be a futile or dangerous one. Linguistic objects are a part of verbal sign systems. Now once one has admitted that verbal sign systems "are in" the nervous system of individuals ("internal material" dimension and the question of differential traces: 2.4.1-2) and that they constitute, moreover, groups of univocal sound stimuli commonly emitted and received in speech-acts, as well as groups of the corresponding graphical stimuli listed in dictionaries and grammars and used in everything that is printed (5.1, 5.2.3), 6.5), one has said all that it is possible to say about their ontological *status* and about their locus at *this level of generality*. One must be very careful if he wants to avoid useless elucubrations. Linguistic objects are artefacts, as such they share the problems which arise for any artefact. The fundamental distinctions between models and tokens and between programs and executions (2.2, 2.3.3, 3.1 *ad finem*) cut across the opposition between material artefacts and linguistic artefacts, and vanify any worries one may have about the "non-materiality" (and therefore about the possibility of placing them) of linguistic artefacts alone.

A deeper look into the ontological nature and the localization of *all* artefacts can take

homological schema of production, concentrating on the five levels at which a qualitative leap occurs, we find that we have to list the following *parking lots of artefacts*:

parking lot of matteremes and (respectively) of phonemes;
parking lot of objectemes and monemes;
parking lot of utensils and sentences;
parking lot of mechanisms and syllogisms;
parking lot of automated machines and of non-verbal and verbal program-bearing codes.

We are dealing with parking lots which are very different from each other in nature, structure, and use. Many considerations of a descriptive type could be made about them. For example, the lower the level, the more intersubjective is the parking lot in principle. A polished stone is less culture-bound than a mortar and pestle, and a simple mortar and pestle is less culture-bound than a carpenter's tools. Japanese and Italian phonemes are similar even if the two languages are very different. The most vast and multiform parking lots can be found at the fourth and the sixth levels of the schema: a curve developing along the axis of the abscissa and indicating the extent of the parking lots, would have its highest ordinates at these levels. The wealth and variety of forms, in fact, are greater for utensils and mechanisms and for sentences and syllogisms than they are for matteremes and phonemes at one end of the schema and for codes and programs (considered in their formal abstraction) at the other.

But these and other similar descriptive features, on which it would be easy to harp at length and minutely, are not central to our argument. What interests us here above all is that we have five levels of parking lots of artefacts, each of which is *composed of* artefacts of the previous level *plus* the work done to compose them, and will serve (together with new work to be done) to compose artefacts of the subsequent level. As we know, the process often takes place through quantitative accumulations realized at intermediate levels, *i.e.* at levels that are not marked by qualitative leaps themselves, or not by equally decisive ones. Thus objectemes

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various paths. Let's recall two of them: the path of research into the way the nervous system works together with the construction of the relative cybernetic models, and the path of the dialectical and social study of the relations between products and producers, with special attention given above all to the fact that the former reflect the latter in an imperious though mystified manner. The second path was opened by Marx in one of his most profound and overwhelming analyses, the fourteen pages dedicated to «The mystery of the fetishistic character of commodities» (actually, «Der Fetischcharakter der Ware und sein Geheimnis») (*Das Kapital,* Erster Band, 1. Kap., 4; Paul's translation I: 43-58). The commodities Marx talks about, *and likewise any other sign object,* indifferently non-verbal or verbal, certainly do not have sign value by themselves, independent of man. On the other hand, the system of commodities *and likewise any other sign system* certainly cannot be reduced to facts of the human consciousness, rather it rises up in front of man as a formidable reality. Overcoming the opposition between these two orders of problems, mediating the one by the other, is a job that is waiting for both general Marxist theory and general semiotic theory (cf. the conclusion to Section One).

and monemes are composed of matteremes and phonemes: utensils and sentences are composed of objectemes and monemes: mechanisms and syllogisms are composed of utensils and sentences; automated machines and non-verbal or verbal program-bearing codes are composed of mechanisms and syllogisms (and in them the two branches of production approach one another again up to the point of appearing reunited: the homology finds a ground upon which it may be resolved in identity).

At this point we must ask ourselves if the expression 'composed of' has the same sense at the various levels; or, in Oxonian jargon, we may ask what its "logic" is. But we'd better transform this way of putting it into a question about the real processes under examination, as distinguished from a question about the ways in which we describe such processes. The main question, then, is the following. Is the dialectic presiding over qualitative leaps always the same at the various levels, or is it at least a similar dialectic? Or, rather, is it a dialectic that changes substantially with the changing of levels? For example, when we pass from the level of sentences to that of syllogisms, are the operations presiding over this passage substantially similar or dissimilar to the operations by which we passed from the level of monemes to that of sentences? Is the work which brings together sentences in such a way as to build a syllogism the same sort of work which is applied to the task of bringing together monemes in such a way as to build a sentence? The answer to such questions — apart from anything that might be said at the level of linguistic usages, whether popular or donnish — is that *it must necessarily be a similar dialectic as far as the substantial part of the whole process is concerned.* And the substantial part is nothing else than the *articulation of work.* We know that all the objectemes and monemes we use are produced with a few tens of matteremes and phonemes. Moreover we know that it is with a few thousand objectemes and monemes that utensils and sentences we use are produced. *Hic Rhodus, hic salta.* Does a process of the same kind obtain when we produce mechanisms and syllogisms by means of utensils and sentences, and then automated machines and program-bearing codes by means of mechanisms and syllogisms? Is there in these two cases as well a parking lot of artefacts upon which production can draw — a parking lot, we mean, which can be held under practical, operational control because of its being numerically *limited* (even though it may be a very high number)? Obviously yes, as we have seen during the exposition of the schema (3.2.3. and *passim).* Thus the problem is resolved already. But it is worth our while to look at its facets a little longer.

The conventional reply to the last two questions we asked sounds more or less like this (try it and see). The two questions don't make sense for language because there is an "infinite number" of sentences which are produced by the "free creative activity of individual speakers". So there is no parking lot of sentences, leaving alone syllogisms. As far as material production is concerned, the problem is not even raised. Thus *the progression of production is interrupted* on the linguistic

side at the level of sentences, without even taking further developments into account. On the side of material production, the progression is *not even introduced.* In this way various pieces of knowledge are left to wander about on their own, without any attempt to bring them together; indeed, obstacles are erected against their unification. Suffice it to think of the programs governing every form of verbal and non-verbal communication. These programs are artefacts of the highest level and as such they presuppose the progressive and organic play of all previous levels. How in the world could we ever arrive at a theoretical foundation for the simultaneous presence of (i), the common use of language understood as the free production of sentences, and (ii), the programs governing every form of verbal communication from a level of elaboration higher than the level at which the very production of sentences takes place?

These are basic difficulties. In order to overcome them, or at least to face them on their proper theoretical ground, it is necessary to make great sacrifices, leaving the security of the sown field and hazarding into virgin territory. Let's say this, then. *Even in the case of utensils and sentences, and then of mechanisms and syllogisms, we can only be dealing with dominable parking lots which are numerically limited and subject to precise organizational choices.* Otherwise, it would be simply impossible to proceed to a higher level and produce more complex artefacts, for the techniques which are used in this as in any production could never have been invented and much less transmitted to new workers. Techniques exist only for what is selected and determined. You don't build anything with the indeterminate, or worse, with the infinite.

Let's take up again the important case of sentences as materials for the construction of syllogisms. We shall maintain in 7.1 that, as big as their number may be, it is certainly not an "infinite" number. Indeed, sentences are all reducible in principle into tribes, families, and sub-families, the structures of which are transmitted from generation to generation as an essential part of linguistic know-how. Syllogisms can be constructed by man because he has succeeded in isolating some typical cases of sentence-making, choosing them from all possible sentences and conferring an organization upon them. This is the most important point, lending itself to generalization as regards the constructive relations between artefacts of all the levels. As we saw in dealing with the level of mechanism (3.2.3), a syllogism occurs when at least two sentences are put in opposition and this opposition is overcome dialectically (binarism thus giving way to dialectic); and moreover, when one prescinds from both the immediately existential use of the sentences and the context they happen to belong to. In this way a permanent and autonomous formal relation, the syllogism, is instituted among sentences. Well then, we do not see any difference in principle between these operations of selection, freezing, and organization of reciprocal relations and the operations that govern the formation of linguistic artefacts of either a lower or a higher level.

We shall have the opportunity of returning to all this later on. Meanwhile, let's

draw a first general conclusion from what we have been developing. Production is articulated in *four* main successive phases, those conjoining the *five* listed parking lots of artefacts. Production — material as well as linguistic — rests on a *quadruple articulation.* In order to grasp this articulation it is necessary to move continually back and forth along the schema. Articulation in fact is the relation of any given artefact to a number of artefacts that precede it; as such it is a passage from unity to plurality. This passage is possible, however, and makes sense, only insofar as there is a previous possession of that unity. Thus we shall say that every objecteme and moneme *is articulated in* a certain number of matteremes and respectively of phonemes. This means that *in order to build* a given objecteme or moneme, some matteremes and phonemes *are required* which have been selected and isolated from all other possible matteremes and phonemes and organized in a certain way. Work is necessary too, of course; and indeed, its notion has been introduced already in terms of 'building' in general, and, specifically, in terms of 'selection', 'isolation', and 'organization'. Another aspect of articulation is that when we have an objecteme or a moneme, we have at the same time certain matteremes or phonemes. And since *these* matteremes and *these* phonemes do not and cannot exist without *the other* matteremes and phonemes that are produced by the community, the notion of the parking lots of matteremes and phonemes turns out to have been already introduced as well. Considerations of the same sort are valid for all the other articulations, up to the highest level. We shall also say, therefore, that automated machines and program-bearing codes are articulated in mechanisms and syllogisms. That is, certain sets of mechanisms or syllogisms which have been selected and isolated from all possible others and organized in a particular way are necessary for the construction of any given automated machine or program-bearing code. Thus when we have an automated machine or program-bearing code we already have those mechanisms and syllogisms and therefore we already have their relative parking lots.

Maintaining the existence of a quadruple articulation, and maintaining it both for the field of linguistic production and for that of material production, means moving away radically from the common doctrine according to which only a double articulation exists, and only with regard to language (of which it is held to constitute a differential characteristic, perhaps the most important one). Let's look at the two points separately.

It is still a current conception that language is a system of words and expressions *by means of which* the speakers of a given linguistic community "express feelings and thoughts", "analyze experience", and "communicate with each other". This amounts to saying that language is an instrument which we use for further ends. In the course of the next Sections we shall come back repeatedly to this conception of language, attacking it from various points of view (cf. es-

pecially 5.2.1–3; 6.5; 7.1, 7.3.1, and 7.4). Notice, for the moment, that if this is what language is, then the place for locating the other three parking lots we distinguished is outside of language. An alternative would consist in extending the notion of language to include all five parking lots. In this case the notion of language would be stretched until it became identical with the notion of "verbal sign system" (1.2). A verbal sign system, in fact, includes all five parking lots by definition, for it consists of codes and messages and thus of the program for realizing the messages, which also means that all lower-level parking lots are already involved in its construction and, of course, continue to be used.

Neither of the alternatives — restricting language to the first two parking lots or extending it to all five — seems sufficient to us. The problem is, instead, how to tie language to work in the proper ways. The precariousness of the Saussurian notion of individual *parole* begins to emerge here. It is a very partial conception of linguistic work, able only to put a two-parking-lot language in motion, but certainly not capable of justifying higher-level parking lots. If *parole* is individual work, whatever factor there is which binds the innumerable individual *paroles* in communion, thus making communication possible, remains totally unexplained. One doesn't understand how on earth the parking lots of sentences that all speakers learn to produce univocally, and then also more complex parking lots, were ever produced. Really, one doesn't even understand how the first two parking lots have ever been produced. There have been well known attempts to overcome these difficulties by enriching the two parking lots attributed to language [*langue*] with operative and generative rules and by introducing intermediate ideas for the purpose of linking individual *parole* to language [*langue*] as a collective patrimony. One of these "linking ideas" is the contradictory invention of a "speech pact" to which already-speaking-individuals adhere (cf. 1.3). The Saussurian opposition between a two-parking-lot collective *langue* and an individual *parole* has thus been substantially accepted. Remedies to its deficiencies have been proposed in the form of various corrections or integrations made for the purpose of sewing up again precisely that which had been irremediably lacerated from the beginning.

In order to put all the five parking lots of linguistic artefacts in motion, the overall power of linguistic work is required. According to the present writer, the first notion to introduce is that of a *collective parole* or *speech* (Rossi-Landi 1961, especially chapters V and VI; 1968c: 186–7 and *passim*; cf. also 2.3.3, and further developments in Sections Five and Seven). Making some sort of "terminological decision" and leaving it at that is of course of little importance. The basic task consists in *not interrupting* the continuity of articulations in favor of something abstract. And this instead is exactly what happens when language is postulated as a two-layer system of phonemes and monemes and all the rest of linguistic production is left vague; or else one "passes the buck" to other disciplines with the self-congratulatory excuse that it doesn't enter into the field of linguistics; or again, one loads it all onto that mean slice of linguistic work which

is individual *parole*. Whether in the course of a reconstruction of the continuity of linguistic production the notion of language turns out to be extended, or whether its restricted notion is arranged within a vaster organism, may also be, from the point of view of basic theoretical decisions, a secondary question. What is important is to turn to the primacy of work.

The reconstruction of the totality of the articulations is intended to be a move towards a more faithful and pregnant representation of reality. A child immediately learns together with words the use of the most common sentences, just as he immediately learns the use of the simple utensils currently employed in the community to which he belongs. Moreover, a child does not just learn the use of sentences and utensils, but that of mechanisms and syllogisms as well, with a remarkable homology in this learning process of his. Thus he learns, for example, to recognize the generic sense of a little discourse, that is made to him with the purpose of inducing him to behave in a certain way, homologically to the way in which he learns the generic use of an everyday mechanism, let us say a watch. He will be able to use the watch and the little discourse in a superficial but practically adequate way much before he begins to look at all into the way they function, and much before he even glimpses anything of the principles guiding the construction and functioning of such complex mechanisms. Simple sentences present themselves to whoever is learning to speak together with their combinations — 'it's raining', 'I'm going outside', and 'I'll get wet' present themselves together with 'if I go outside when it's raining, then I'll get wet'. In a homological manner, complex machines present themselves together with the simple machines and with the utensils that make them up. Finally, the child immediately learns to execute, or at least to comply with, verbal and non-verbal programs so much so that one can assume (as we saw in 1.4) that he is entangled in them from birth. It is necessary to take account of all this in a unitary way and not by bits and pieces. We must acquire the capacity to face both philogenetic and ontogenetic homination in their totality.

There is a question which has been hiding between the lines so far, and which may seem futilely numerological, or at the most intellectually elegant; we want, instead, to attribute much importance to it. While adding *three* parking lots to the two which are usually recognized in language, we have only added *two* articulations. We have brought the parking lots of linguistic artefacts from two to five, but the articulations from two to four. Let us take a look into the reasons for this apparent asymmetry.

According to the doctrine of linguistic double articulation, sentences produced by speakers are traced back to parking lots of monemes in which they are articulated, but they aren't seen as forming a parking lot themselves. The speaker, according to the doctrine, produces sentences "freely" and in "infinite" number. Rules do exist which he has to follow somehow; but they are either immanent in the production of sentences — or they are biological features of the human organ-

ism, and with this the progression of production is interrupted in the most radical way. Consequently, parking lots of a level higher than that of monemes (or at the most of words) wouldn't exist. But our highest parking lot is instead that of program-bearing codes. Therefore we have to ask ourselves whether or not, above codes and programs, there may be working processes that have to program-bearing codes the same type of relation that sentences are supposed to have to the parking lot of monemes. If they did exist, they would be working processes not belonging to any parking lot but still traceable to the parking lot immediately previous to them, that of program-bearing codes. Then there would be a fifth articulation (to tell the truth, this would be the first articulation, all the others descending by one unit along the numerical scale), consisting in the articulability of verbal behavior (freely produced in infinite number) in what we could call "programmatic units", in the same way that sentences can be articulated in "meaningful units" (monemes). *Prima facie*, such an hypothesis would seem to fit into what we were saying in 1.4 about the programs of communication and their being reducible to sequences or aggregates of fixed and conventional units (Pike, Scheflen, etc.).

The temptation to admit this fifth (first) articulation is remarkable, also because it may appear as necessary for the justification of the free human use of the codes and programs themselves, beginning with the work consisting in their production. We'd better renounce this temptation, however. Accepting the existence of behavior of a level higher than that of the parking lot of the highest level, does not so much mean affirming the freedom of that behavior as deferring to another parking lot the property of belonging to the highest possible level. In other words, we only make this property slide, leaving the rest as it is. Let us explain. Communication *is* the execution of programs. Behavioral units in which the behavior of those who execute programs is to be articulated, are by definition units of a *lower* level. By opening the door to a further level of linguistic production, we would then find an impossible choice in front of us. On the one hand, we could not avoid formulating the pseudo-problem of a further level, still higher than the level just produced; that is, we would run the risk of an infinite regression. On the other hand, it could happen that, in order to get around the regression, we might not know how to refute a conception of man — of his most intimate and motivating portion — as an entity winging its way above its own parking lots of artefacts (to which, however, with a further contradiction, we would still have to resort for an explanation of what man himself was). But this would mean that we hadn't understood anything at all about communication as the execution of programs and that we were regressing to a romantic vision of human activity.

Let us therefore refuse these philosophical complications *toto corde* and state that the freedom of human behavior cannot reside in something that wings its way above all the parking lots of artefacts, but rather in conscious and original ways of using units of any level — up to the point of modifying from within the

verbal and non-verbal sign systems to which we cannot avoid belonging. The very work that has produced codes, programs, and whole sign systems, if it is work, cannot have been exempt from programs. Original planning itself is either new use of sign systems, or doesn't make sense (cf. 1.4). If we want to find the fount of all human programming, we must look for it in needs and in the work done for their satisfaction, certainly not in something human precedent to work. Consequently, it seems more correct (and healthier) methodologically, to include all human behavior within the apparatus of the five parking lots here distinguished and the four articulations which join them internally.

All human communication takes place by using the parking lots of artefacts and the articulations *that can be distinguished.* Beyond the parking lots of artefacts and the articulations that can be distinguished, communication does not obtain. This is a definition, or if you prefer, a characterization, of communication, made in terms of elements that must be working together for it to exist at all. It should be clear that we are not in the least defending *a certain number* of parking lots and articulations. Empirical research and the work of theoretical systematization can always bring us to modify our descriptive data and their arrangement. For example, in the examination of a given language or objectual sign system, we might find it convenient to single out the level of words and "completed pieces", recognizing in it a qualitative leap as important as the leaps occurring at the levels we have selected in this Section, our present aim being the construction of a schema as general as possible. When this is the case, the parking lots will become six, and the articulations five. The same thing can happen with aggregates of sentences and of utensils. And so on. Questions of this sort should always remain open. What we have to defend, instead, from a general theoretical point of view is the notion of the *system of all parking lots.* This system should be viewed as an autonomous and irreducible bloc of interdependent levels. We are moving away from the conventional doctrine of the articulations also in this: that we don't defer to anything external, on the contrary, we contend that everything that happens within a given field is in principle capable of being explained with the conceptual instruments that define the field itself.

Let's go on to the second point. Not only is the articulation quadruple instead of double. It exists, and is quadruple, also in the field of material production. In this field as well there is a full realization of that thrift which linguists rightly insist on when they observe how a few thousand monemes suffice to produce an enormous number of sentences, and a few tens of phonemes suffice for the production of all the monemes of a language. If a utensil entirely new in all of its constituent parts, that is, different from every other artefact, were necessary for every material working process; and still worse, if entirely new modifications, different from all the others, were necessary for the construction of the parts of every distinct utensil, then there would never have been anything like technolo-

gical development on the planet. This would simply mean that man would never have learned to dominate nature. Instead we know that a utensil is composed of objectemes which are in turn composed of matteremes, and that objectemes and matteremes have the homological level of monemes and phonemes.

The structural similarity of the parking lots of the same level permits us to find and recognize more or less the same artefacts in all equally developed cultures. This happens insofar as the artefacts are assimilated to each other by means of an operation which we could baptize "material translation". One finds, for example, that a given group of objectemes, taken as a whole, corresponds to another group of objectemes with a completely different origin. One can say then, that two different utensils belonging to two different cultures are equivalent: one of the two utensils has been "translated" into the other, so that it can be employed in the place of the other. Even the observation that the form of the *signans*, since it is articulated into phonemes void of *signata,* withdraws from the value of its corresponding *signatum* and in this way acquires a greater stability (Martinet 1960, 1966[6]: 22), is an observation that is equally valid in the field of material production. Matteremes, in fact, as modification of the first level, are not significant by themselves. A mattereme is a modification that anyone can bring to formless material even independently of the use that he may make of it, if and when he combines it with other such non-significant elements, in this way forming a significant unit, *i.e.* an objecteme, which may in turn become the part of some utensil. A mattereme, moreover, is a stable modification. A piece of wood which has been cut, and a polished stone, remain cut and polished independently of the use that may be made of them — indeed, independently of their being later used or not used at all.

To conclude this long section we want to insist again on the presence of the articulations in the field of material production through the negation of the negation that they exist. We want to make a little intellectual experiment founded on a *reductio ad absurdum.* What would happen if every time we started a given working process we found ourselves in the condition of having to procure a completely new utensil, appropriate just and only for that? Let's suppose, for example, that somebody wanted to start hammering on a planet void of hammers (*adgnosco veteris vestigia flammae!*, *Aen.* IV, 23). Naturally, the hypothesis itself is odd: not because it is absurd to imagine planets without hammers, but because it is contradictory to bring to the limelight an actor without a part, a specific operator without a specific utensil, assuming that on a planet void of hammers one would want to hammer, just hammer, nothing else but hammer. We can reduce the oddness, though not eliminate it, by supposing that it makes sense to want to use a type of hammer that while being a hammer is different in all of its aspects from all existing hammers. Our argument, anyhow, begins with the vision of a future hammerer who finds himself forced to start all over again from scratch.

What will he have to do when the desire to hammer descends upon him? He will have to begin to examine the thousands and thousands of objectemes available, choose the ones most suitable for his aims, transform the objectemes he has selected in completed pieces and finally combine these pieces with each other in an original way. Specifically for the hammer: our future hammerer will have to select some metallic or at least solid and resistant bodies from the sea of objectemes, bodies neither too big nor too tiny for making up part of a manageable object, of a cylindrical or polyhedric shape, presenting a flat surface suitable for violent contact with hittable objects, that is, suitable for functioning as the face of the head. Then, in the bodies he has found, if there aren't any already, he will have to make some holes into which he can introduce the handle which meanwhile he will have had to produce by means of an equally complicated research. The enterprise seems desperate: our future hammerer might declare that he felt himself to be reduced to the condition of a Robinson Crusoe.

He would be wrong. His apparently desperate enterprise, in fact, already presupposes the existence of a parking lot of previously produced objectemes. Contrary to first appearances, starting to "search for" a hammer on a planet already populated with objectemes means finding oneself already in a relatively privileged position. *All* you have to do is to draw on the appropriate objectual parking lot, choose the suitable objectemes and combine them. A big waste of work, but posterior to previous products already bearing distinct significations.

If he didn't have any objectemes either, then the future hammerer really would be in difficult waters. In that case he would have to produce objectemes from the start, resorting to their constituent elements, matteremes. Fortunately, somebody may say, there are only a few tens of matteremes. But the fact is that these few tens of constituent elements lacking autonomous signification permit, in their various combinations, the production of billions and billions of objectemes. The hammerer, therefore, will have to choose the right combinations for producing the objectemes he needs. He will have to know how to use rigorous selective and organizational criteria from the very beginning.

Even so, however, the hammerer still wouldn't have reached the worst conditions imaginable. After all, we were still assuming that from the start he had at his disposal at least one parking lot of matteremes well-distinguished from each other and fully possessed one by one. We have conceded to him that he may be able to realize matteremes — the matteremes he can realize, given his biological equipment and given the objective structure of the planet. And if, instead, the future hammerer didn't even possess the art of producing matteremes? If he didn't even know yet what the most rudimentary modifications are which he will be able to bring to matter, and if he couldn't succeed even in following, directing, and remembering the movements of his own limbs and the resulting changes in the external world (which, we grant, he is able to feel as external)?

At this point we can call a halt to the hammerer's tribulations. We don't have

any need to put ourselves in his shoes and follow his regression to the state of a new-born *homo sapiens*, then of pre-semiotic ape, and so on down to the state of a protozoon. Let us rejoice about it: matteremes already exist. Indeed, so do objectemes. And even utensils exist, and mechanisms made of utensils too, as well as automated machines made of mechanisms and partially overlapping program-bearing codes. Quadruple articulation of material production already exists. Quadruple thrift has already been taken advantage of. It is on a planet which has already been completely transformed by human work that we have opened our eyes; it is through an atmosphere already teeming with highly articulated sounds that we have uttered our first whimpers. Let us therefore feel consoled. Humanity, even if it has developed in an unsatisfactory and dangerous way, has at least already developed. The fatigue of starting everything over again from scratch does not lie ahead of us. If anything, we shall have consciously to undo what has already been done, and to rebuild it at the service of a better human condition. Let the reader not lend an ear to certain linguists, then, when they malignantly try to make him believe that only a double articulation exists, and only in the field with which they themselves are concerned.[45]

[45] It would be well to recall, at least in a note, the homological approximations of two authors who are as original as they are relatively neglected, George Thomson and Trân duc Thao. George Thomson advanced the hypothesis that *human* rhythm (as such distinguishable from the *solely* physiological rhythm which man has in common with the other animals) had its origin in the use of utensils. Taking up an idea of Bücher's, later also developed by Paget for the physiological part, he maintained the originary homology between the articulation of the hands and of the vocal organs as the premise for the elaboration made by consciousness of such reflected actions into socially accepted communicative systems (Thomson 1961 [1955]: 445-454; Bücher 1919; Paget 1930).

Trân duc Thao (who was at one time minister of Instruction under Ho Chi Minh), beginning from a Marxist interpretation or integration of Husserl, whose unpublished manuscripts he studied at Louvain, reconstructed some of the main aspects of animal behavior in terms of the development of "sensorial certainty". They are the passage from the "ghostly object" to the "real object" or "thing", and then the series in which appear the forms of the *intermediary*, the *instrument* (individual and temporary), the *utensil* (collective and permanent) and *language* (considering the last two as forms at the same level). Thao makes the sign equivalent to the instrument understood as the development of a merely intermediary object. We then have «the use of the *utensil*, when ... the mediating object is no longer simply utilized in the present situation, but is also a product which is consumed ... thus assuming for consciousness the sense of an instrument which is of itself efficacious» (1951: 213). The important point for us, noticed by Thao, is that the development of the instrument into utensil requires a common activity, that is, collective habits, techniques acquired by a group; and that therefore «the immediate acts of collaboration and of tradition diversify by articulating themselves according to these techniques and they rise in this way to the form of language ... In the exercise of language the subject has the consciousness of realizing a common value and a transmission of power» (216). Going ahead in this analysis, Thao arrives at the assertion that, «with the use of verbal schemata, real behavior already begins *de facto* to rise up to the level of utensil», which indicates that «the constitution of the vocal sign presents itself as a first form of the process of making» (221; but see all of pages 217-230, and the essays to be collected in 1973 as well). These ideas, in one so deeply acquainted with Marx and Husserl, which came to my

4. FROM LANGUAGE TO ECONOMY

If commodities could speak,
they would say ...
KARL MARX

4.1 *The Corporal Residue of Non-verbal Messages*

An important part of semiotic research still consists in "going" from the verbal to the non-verbal, that is, in the application of the mentality, the methods, and the instruments developed in the study of verbal sign systems, especially of languages, to this or that non-verbal sign system. One well-known and much-discussed example is given by Lévi-Strauss, who applies notions of structural linguistics in the field of anthropology, studying the rules of matrimony and kinship systems «as a kind of language, that is, a group of operations destined to assure a certain type of communication between individuals and groups». According to Lévi-Strauss, the fact that "the message" is constituted of the *women of the group* who *circulate* between clans, stirpes, or families (and not, as in language itself, of the *words of the group* circulating between individuals), does not in any way alter the identity of the phenomenon considered in the two cases. Lévi-Strauss generalizes his own comparative approach affirming that «in every society, communication takes place on at least three levels»: of woman, of goods and services, and of messages as such. With regard to the other two forms, economic exchanges would have an intermediate position: this because goods and services, unlike women, are not persons, while, unlike phonemes, but in this like women, they are values. Still, «just as soon as the economic system reaches a certain degree of complexity» symbols and signs are necessary for the exchange of goods and services (Lévi-Strauss 1949 and 1967[2]; 1958: 69, 326, 327 and *passim*).

This last statement is remarkable for the variety of interpretations which can be made of it. Here we take three distinct propositions from it, beginning with the

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knowledge several years after I had presented the homology of production in *Language as labor and trade*, have been of great comfort to me and have encouraged me to develop the homology further in this section.

Many specifications could be added to what has been said above in the text. We are dealing, in fact, with arduous problems more often hinted at than faced squarely. It can seem easy to talk about them only when one subtracts a portion of them from the material dimension and from the dialectical flux: because then the portion of them which has been subtracted, taking vigor from traditional, unanalyzed values (these are always class values), absorbs and hides within itself all the unresolved difficulties. As Mao Tse-tung says, «idealism and metaphysics are the easiest things in the world, because people can talk as much nonsense as they like ... Materialism and dialectics, on the other hand, need effort» (1955, now in Chapter XXII of any edition of *Quotations from Chairman Mao Tse-tung*). Some typical ways to "forget about difficulties" — and favorite subjects for big discources — are (i) a "mind" which is seen as being able to do by itself the work that must instead laboriously be sought for and described in material terms on the one hand and in social terms on the other; (ii) sign universals of *the biological sort*, as such withdrawn from historical development or even made precedent to homination; (iii) sign systems and processes isolated from all the rest and examined only as self-sufficient machines.

proposition, certainly a just one, that (i) the economic market does not take place without *the use of* a language. This amounts to saying that a market from which all languages are absent has never been seen. For this point we refer the reader to the discussion in Section Three of the homology between linguistic production and material production. However, it would be an error to proceed from the proposition affirming the *simultaneous presence* of the two productions to either of the following two propositions: (ii) the market would not be a non-verbal sign system if a (verbal) language were not a *constitutive part* of it; (iii) the economic market has non-sign residues within the field of its being *a market.*

Keeping, as we must, (ii) well-distinguished from (i), we can free ourselves from it immediately by repeating the statement that non-verbal sign systems enjoy the *status* of existing to the same extent that verbal sign systems do. In other words, the language as a verbal sign system must be distinguished from any non-verbal sign system. Proposition (iii), instead, indicates a rather intricate situation which we must examine more closely. Here there is a tangle of problems regarding the double use of non-verbal codes, that is, regarding the *bodies* of non-verbal signs as the bearers of properties which are not just or only sign properties.

The women of whom Lévi-Strauss speaks, even if they are *communicated* from family to family and therefore function as messages, are also flesh-and-blood persons. Although it is fundamental and necessary under any other aspect, this character of theirs is extra-verbal, indeed, extra-sign, and thus does not concern semiotic inquiry as such. Semiotics as applied to kinship systems does not study mates as mates, but rather mates as messages: that is, *prima facie*, not their use-values, but instead their exchange-values. But this is only the first layer of the situation.

On the other hand, the corporality of verbal messages lies in the very sign vehicles which constitute their codes: indispensable, but relevant only insofar as they are the vehicles of something other than themselves. This seems to hold true even when verbal sign vehicles are studied on their own account, in their objective structure, for particular ends like those of phonetic inquiry or formal logic, or those of poetic language and the doctrines dedicated to it. And anyway, as we have said from the beginning, in this piece of research we are dealing only with the practico-communicative use of a language. One can moreover recognize a corporality in verbal messages by the fact that they are produced and emitted by human bodies, of which they constitute modifications (or by machines produced by human bodies: in which case one talks about modifications intervening in *extensions of the bodies themselves*). But such corporality does not exist by itself outside the sign system to which those messages belong. In other words, the use-value of verbal messages does not exist outside of their existence as messages, as it does in the case of mates. Such value must then be sought *within* their function as messages, as we will try to show. From this it follows, however, that also in the case of mates a use-value must be found *also* within their function *as*

messages, independently of the use-value they already have *as mates* (and that can therefore determine, so to speak from the outside, the type of exchange which takes place).

Let's take the case of roast chickens. In the non-verbal sign systems of etiquette and cuisine, in their turn connected to those of the market and of production, chicken is still partially a highly-prized food in Italy, while it is a popular or even "cheap" food in the United States (and also has a low price). But the corporality of roast chickens, their use-value, is in turn completely independent of the value that they assume in the above non-verbal sign systems.

The *way* in which we use sound material to construct words, and words to confection verbal messages, regards their *bodies* much more and much less than the way in which we use the bodies of other objects (which nevertheless do assume sign value in non-verbal sign systems) when we leave aside the fact that such bodies can function *also* as signs: much more, because the only use of the bodies of words lies in their function as signs; much less, because we can't do anything else with them. The meaning that any non-verbal object comes to assume in a sign system is connected to the use that is made of it as an object: if chicken weren't edible it could never assume the sign value of refined or of "cheap" food in the "language" of etiquette or of cuisine. The same thing happens to commodities: the assumption of an (exchange-)value by any product, that is, its transformation into a commodity, requires, as is well-known, that it have a use-value, even if it doesn't depend upon it in a direct way. It is a question of various non-verbal sign systems, that is, of non-verbal objects that assume this or that type of sign value, thus coming together to form a system of their own. Still the fact remains that raising a chicken or eating it are not by themselves sign operations, or not primarily. A chicken does not develop in nature, nor is it produced and consumed, as a sign; but rather, precisely, as a chicken.

Every time that we apply conceptual instruments originating in linguistics to objects different from those constituting a language in the usual sense, we come upon what I have elsewhere called the *corporal residue of non-verbal messages* (R.-L. 1968c, ch. II). The danger to avoid at this point is that of becoming bogged down in this corporality in the sense of assimilating the production and consumption of those objects *as messages* to their production and consumption *as objects*. In order to avoid this danger it is, in the first place, necessary to make a distinction between the production and consumption of *the body* and the production and consumption of *the sign*. We have already given a fairly systematic discussion of this point in 2.4.1 and 2.4.2; but it is worth-while insisting in a more analytic and exemplificatory way on some of the aspects of the distinction (to say it in a brief way) between "body" and "sign". For this purpose we find particularly fruitful (i) a closer analysis of how the dialectic of exchange takes place already in the field of the non-mercantile exchange of mates (cf. 2.4.3); and (ii) an examination of commodities as messages, of the sign character of the economy and thus of the

semiotic character of economic science. We shall find that the fundamental processes of *exchanging* and *communicating*, which are usually studied separately as if each of them belonged to a separate field of reality, are instead present together in various fields and can be dealt with in a unitary manner.

4.2 *Dialectic of Exogamic Exchange*

In the exchange of mates the dialectical crossing of use-values and exchange-values, which was first brought to light by Marx in the analysis of the commodity, is fully realized. Such a crossing is always present whenever exchange occurs (whether mercantile *or non-mercantile*, 2.4.3); moreover, we are going to place it at the basis of a study of the formation of sentences (cf. Section Six). Let us, then, take advantage of the fact that the crossing of use- and exchange-values is easier to understand in the case of exogamy, and explain it in some detail. What follows is by no means an empirical generalization from fieldwork in anthropology or related disciplines. It is, by application of one main procedure in the dialectical method, a *model* constructed by determined abstraction, *i.e.* an *abstract* instrument for enquiring into the structure of exchange (cf. footnote 25).

We shall assume *as a paradigm* the case of a human male adult who is at the same time potent, heterosexual, and non-incestuous. Let's call him M_1 and examine his social behavior with regard to two categories of women, those who are related to him by blood, and all the others. Let's call these two categories, simply, "blood relations" and "other women": by which we understand that coming under one category or another is a property that belongs to every given woman in relation to a given man. Insofar as he is non-incestuous, M_1 gives up the use of his own mother, sisters, and daughters (as well as grandmothers, aunts, nieces, and other more or less close kin) for sexual purposes. Insofar as he is heterosexual, he uses sexually — or is willing to use, or has used in the past — at least one woman belonging to another category.[46] Let's look now at another human adult male, also potent, heterosexual, and non-incestuous, and moreover not bound to M_1 by any kinship relation. Let's call him M_2 and repeat the same line of reasoning for him. We will find, naturally, that the women who are "blood relations" of M_1, the ones M_1 gives up, belong to the category "other women" for M_2; while the women who are "blood relations" of M_2, the ones M_2 gives up, belong to the category "other women" for M_1. The two categories of women, "blood relations" and "other women", have crossed each other. M_1 gives up his own blood rela-

[46] It should be clear that in this context the use of 'using' is just a usage to be found in the relevant literature *describing* exogamy and other basic social processes. As such it is a neutral, pre- or post-sexual usage, and no lack of respect either to the users or to the used is involved. If the issue were the exchange of men, we would have to describe the ways in which women "use" men in an equally asceptic manner.

tions and has free access to all the other women, including the blood relations of M_2; and thus, symmetrically, for M_2. If we add M_3, M_4, and so on, until we have listed all the men who in a given social group are potent, heterosexual, and non-incestuous, we have the same situation for all: each one gives up his own blood relations and has free access to all the other women, that is, to the blood relations of all the other men.

The situation is worth-while examining more intimately, in terms of values. What each man of the group gives up when he gives up his own blood relations is their use-value. Now the use-value of women for men originally lies in the properties, possessed by the female body, of satisfying the male sexual need and of generating children. These properties, however, cannot be isolated from the ability, acquired by women through enculturation, to carry out services useful to all the members of the group. From the beginning, in fact, everything has become social: even the "values of the female body" appear as social variables, so much so that they differ from culture to culture. And it isn't enough to generate children, it is also necessary to submit them in their turn to the specific processes of socialization required by the group. As adult members of the community and objects of exogamic exchange, women themselves are complex social products; the use-values they bear come from the specific work with which the community "produces" them.[47] By giving up his own use of his own blood relations, every man of the group makes them available to all the other men of the group as use-values. The blood relations of M_1 are offered to M_2, M_3, and so on, to whom access is given to their use-values. With this giving-up, and this offer, M_1 acquires the right of access to those who are "other women" for him, that is, to the blood relations of M_2, M_3, and so on (cf. Godelier 1969: 97–8).

Thus a non-mercantile exchange has been instituted. In order to bring forth the dialectic more clearly we will reduce the analysis to the most elementary case: let's isolate one female blood relation of M_1, and call her W_1, and one female blood relation of M_2 and call her W_2. The situation is then the following: M_1 gives up the use-value of W_1 in order to be able to enjoy the use-value of W_2,

[47] Cf. note 16. — What is involved here again is the notion of the social production of human beings in general. As far as exogamy is concerned, we are dealing with the social production of *women liable to be exchanged* for the purpose of mating. While it is clear that mateable women are "produced" in an attenuated sense if compared with the production of, say, hunting instruments, the fact remains that if all human beings are social products so are mateable women. Some aspects of the issue, to be carefully distinguished are the following: (i) the production of the body of human persons is, of course, basically natural; up to a certain point, there is little difference here among various families of mammals; (ii) even by non-human animals, however, there is at least *some* social production of individuals (cf. Ford and Beach, 1951, repr. 1965); (iii) the social production of human individuals varies enormously in time and space, and is inextricably connected with class struggle (cf. for example Poole's 1971 remarks on the origins of the "bourgeois production of women" and on literary myths which try to justify at the ideological level the view of women as part of the material patrimony, etc.).

while M_2 gives up the use-value of W_2 in order to be able to enjoy the use-value of W_1. W_1 has acquired a "value" that allows her to be exchanged with W_2, who has in turn acquired a "value" that allows her to be exchanged with W_1.[48]

It is then by crossing the different values, that M_1 and M_2 present themselves in the arena of non-mercantile exchange with W_1 and W_2, and exchange them. We'd better say a few more words on this interweaving of values. By permitting W_1 to assume an exchange-value, M_1 suppresses her use-value for him. M_2 does the same with W_2. The whole operation emerges only because W_1 and W_2 are contraposed and exchanged. If W_2, or to be precise, the use-value of W_2, didn't exist, desired by M_1, he would not set aside the use-value of W_1; and thus for M_2 who desires the use-value of W_1 and in order to obtain it sets aside the use-value of W_2. If, in the arena of (non-mercantile) exchange, we use the simple formula of equality, '$W_1 = W_2$', in the moment in which we affirm the equality of the two W under the aspect of their exchangeability, we can also specify that it is the use-value of W_2 that "cancels" (*auslöscht*, as Marx says) the use-value of W_1, expressing its "value".[49] If we turn the formula around, that is, we say '$W_2 = W_1$', the use-value of W_1 will cancel that of W_2, with what follows. The first formula, in fact, expresses the point of view of M_1 as the one who has brought W_1 into the arena of (non-mercantile) exchange; the second expresses the point of view of M_2 as the one who has brought W_2. M_1's end lies in W_2 as M_2's end lies in W_1; and it is just because of this that the process starts to move which, by crossing the values, leads to exchange.

With this brief analysis, which we should remember in the course of this Section and then in Section Six, we believe we have shown two things. The first is that exchange proceeds directly from work, of which it constitutes a dialectical complication. If work is "desire held in check", so also is exchange from the time in which it begins to develop as barter. M_1 *gives up* W_1 *in order to acquire* W_2 *through* an exchange. The desire is, at this point, held in check in an institutionalized way. The division of labor has assumed the social figure of a production for others, where the producer prescinds from the use-value of his own products. With the formation of a production for the market, a degeneration of the holding-in-check will take place. The second thing is that the dialectic discovered by Marx in the analysis of the elementary form of value of the commodity also holds good for the exchange of mates, and therefore, we can imagine, for other cases of non-mercantile exchange too. Actually, if we define exchange in terms of a crossing

[48] Cf. 2.3.4 at (iii) and footnote 12. — Let us recall that, according to this terminology, (i) 'value' is opposed to 'use-value', while 'exchange-value' can be used instead of 'value' when reference is made to the actual process of exchange; and (ii) exchange-value is then the phenomenal form of value. For further details, cf. 6.2-4.

[49] 'Setting aside', 'suppressing', 'giving up', and the like, are quasi-synonyms describing various moments of the unitary behavior of M_1 with regards to W_1. 'Cancelling', instead, is a specific description of the action exercised by a use-value on another use-value through the dialectical crossing of exchange.

of different values, it follows that some type of crossing must obtain for any exchange to exist, whether mercantile or not.

4.3 *Commodities as Messages*

Prima facie, a commodity presents itself as the *simple* object of an act of barter, or of selling and purchasing. But one comes very soon to see that the simplicity of commodities is only apparent. Or better, a commodity as a physical object may be as simple as you want; but it cannot exist in isolation, and it acquires its signification only in a special context. Even the most elementary cases of barter, below the level of exchange proper, presuppose a pretty complicated network of social relationships. The fact is that all commodities belong to non-verbal sign systems, and function as messages within highly programmed non-verbal communicative situations.

A commodity appears on the market as the bearer of several layers of signification; interpretation must distinguish between these different layers and trace them back to the sign-systems they belong to. A commodity doesn't go to the market by itself; it needs somebody who sells it; and it isn't sold until somebody buys it, that is, accepts it in exchange for money, or for other commodities in the case of barter. A product doesn't transform itself into a commodity like a caterpillar into a butterfly; it undergoes such a transformation because there are men who put it into significant relations, that is, make it a member of a non-verbal sign system. But when a commodity is used to satisfy a need, this means that its character of being a commodity is so to say dropped off, forgotten. In short, a commodity *is a commodity* rather than being a product or a useful article because, and insofar as, it operates as a message of a certain kind. It is remarkable that Marx's analysis of commodities is crowded with references to their status as messages, which so to say creep up from thought towards verbal expression in such clauses as «if commodities could speak, they would say . . .»; «the coat means more when brought into a value relation with the linen than it means apart from such a relation»; «the linen . . . conveys its thoughts in the only language it knows — the language of commodities» (*Das Kapital*, I: 97 and 66; English translation: 58, 21, and 22); and many others.

The shop-keeper who displays his goods in the shop-window is accepting and applying semiotic rules which allow him to tell any potential buyer his intention to sell goods as commodities. The important fact here is that such semiotic rules are being used quite independently of whether any given commodity is or is not accompanied by a price-tag, or by a label conveying additional verbal information about the commodity itself. A commodity *may also* be the bearer of *verbal* signs (for instance, a word may be printed on a scarf), and there are verbal commodities; but in no way is it necessary for a commodity to have anything to do with

verbal signs, and whether it does or not has nothing to do with its being a commodity. Since being a commodity means, among other things, functioning as a *non*-verbal sign, we find here a clear example of reciprocal independence between verbal and non-verbal sign systems (cf. 1.3).

There are of course products which *signify as products, i.e.*, which are products insofar as they are interpreted by men according to some code other than the code of commodities. They may be non-verbal, like traffic-signs, or verbal, like books. The sign-function here is also to be found in the use-value of articles — within their capacity to satisfy human needs. The property, however, of being a commodity belongs to another order of signification. If the case at hand is that of a commodity which also signifies as a mere product, as traffic-signs and books do, *i.e.* which signifies something before becoming a commodity and independently of this additional condition it may attain, we have then to deal with two kinds of signification, the one superimposed on the other.

In other words, the sign function may be present in two ways: (i) within the use-value of the commodity; this sign function has nothing to do with the fact that the object is a commodity, because it is a sign function which exists already at the product level; (ii) within the commodity as such, that is in its *exchange-value* (see footnote 48). It is the latter kind of signification, exchange-value, that turns any object whatsoever into a commodity. If this kind of signification didn't exist, the object could only be described as a product or as a useful article; it would belong to the realm of production and respectively to the realm of mere usefulness; it wouldn't have reached the level of commodities.

In addition to all this we have to consider that products or useful articles are themselves the carriers of non-verbal significations. The signification of a product is the value of the specific human labor crystallized in it, of all the operations which have gone into its production (2.3.2). The signification of a useful article is its capacity to satisfy a human need. These significations belong to social sign systems of the non-verbal kind and are also linked to biological systems of signification. By taking all the cases examined into account and presenting them, as it were, from bottom to top, the following classification of five levels as regards the sign-functioning of commodities can be attempted:

I. For man even a non-produced good, like the water of a spring or the edible fruit of a wild tree, bears signification: this lies in its capacity to satisfy a human need, to be used for some end.

II. The greater part of goods, however, are produced. Even the water of a spring, or the fruit of a wild tree, is partially a product of human work if man has deliberately gone there in order to reach it. Products bear with them the signification of being goods; and, *in addition*, they also bear the signification of the operations which have been necessary for producing them according to a plan. Notice that the type of work under consideration here is specific work: the specific procedures required for the production of that product as distinct from all others,

together with the end or group of ends for which the product can be used (cf. 2.3.1, 2.3.2).

III. Almost all products are commodities. Today indeed one speaks of the universal transformation of everything into commodities, and of commodities into independent entities and fetishes.[50] Commodities are messages that bear a third kind of signification, superimposed on the first two, and coming synthetically into being only at this level. The kernel of this third signification is the "value" deriving, as we know (2.3.4), from the *ratio* of human work which belongs to each commodity within the global production of a community or group of communities. The consequences of the formation of this third significant layer are enormous for human life. It is here that, to begin with, we find "the fetish-character of the commodity" first brought to full light by Marx in a classic section of *Kapital.*

So that a commodity may be a commodity, it is then necessary that the message which it constitutes draw upon all three of the layers of signification which we have set forth. We consider as a particular, indeed an exceptional, case, that in which a mere good — as distinguished from a true product — becomes a commodity. In this case our second level is left out. For example, one could even exchange — or, sell and buy — a stone which has been picked up on an uninhabited mountainside, transmitting it as a commodity; in this case we would say

[50] The Italian *mercificazione* and *feticizzazione* (as the French *marchandization* and *fétichization*) express the process by which anything can be and usually is automatically transformed into, or assumes the status of, a commodity and respectively a fetish, this transformation being a general feature of contemporary neo-capitalistic societies. Of course much of the original pregnancy gets lost in a periphrastic translation. Here and elsewhere, the English language shows a sort of resistance to the transmission of general ideas of a dialectic character — a fact well known to translators of Hegelian or Marxian texts, and on which there is general agreement among Continental scholars.

The following is a convincing passage by a scholar who went through the terrible job of rewriting in English a book he had previously produced in German: «As to terminology, the reader will find some unusual terms, or usual terms applied with a somewhat modified meaning. This was unavoidable in a book that had to deal with Hegelian and Marxian terms which can by no means be translated into conventional English. We have not availed ourselves of all the liberties which were declared necessary in an article contributed by Engels to the November 1885 issue of *The Commonwealth.* We have refrained from linguistic innovations as far as possible and even from coining new English terms corresponding to the many new-coined German terms used by Hegel, Marx, and present-day Marxists. However, we have followed the advice of Engels to risk a heresy rather than to render the difficult German words and phrases by more or less indefinite terms which do not grate upon our ears but obscure the meaning of Marx» (Korsch 1938[1], 1963: 13).

As one can now read even in the *Times literary supplement* («Coming to terms with class», 1971, No. 3,615, p. 2), «Lukács dissects skillfully and profoundly the process of "reification" in capitalist society, whereby what are essentially human relations are transformed into entities apparently possessing an independent existence of their own (commodities, exchange-value, laws of the market). This process not only stands in the way of any true understanding of reality, except at its most superficial empirical level, but protects and perpetuates exploitation, since both exploiters and exploited see themselves as subject to the rigid compulsion of external realities though these are in fact merely the relations which bourgeois society has itself created».

that the stone is a good without being a product because it doesn't consist of previously existing materials put together by work, *i.e.*, it is not manufactured. Naturally one could maintain that even the stone is a product in the sense that it has been fixed by attention and picked up by human hands instead of being left in its indistinct naturality. The immense value of a stone collected on the moon clearly shows how work gives its value to an object even in cases where it doesn't modify its internal structure. The risk involved in a discussion like this is that of starting a perfectly useless academic argument on the relations between idealism and empiricism in the theory of knowledge. Or else it is a question here also of distinguishing — as in the case of the women-messages of Lévi-Strauss — between the various senses of such terms as 'producing', 'product', and the like. It seems to me that the case of the stone picked up on the (terrestrial) mountainside and then sold is not only very rare but also artificial. And anyhow, the distinction between idealism and empiricism cannot be drawn by an arm-chair study of the theory of knowledge as it has been developed through the centuries by feudal and bourgeois philosophers, but rather by investigating how things actually developed in the reality of historical development. In this reality we see that a virgin nature from which non-produced goods might be drawn has ceased to exist from remote millennia, and that the notion of such virgin nature is in its turn a well-defined historico-ideological product (Marx and Engels, *Die deutsche Ideologie*; Lukács 1923, English transl. 1971; Korsch 1923; 1934-36, English transl. 1963; Di Siena 1969; Rossi-Landi, 1969b and 1969c). Let's drop, then, the particular case of the direct passage from the level of the good to that of the commodity, and consider normal and paradigmatic the case in which the three distinct levels pile up one upon the other in the order in which we have set them forth.

There are two more levels, which for the sake of simplicity we list as fourth and fifth, but which we could consider as variations or complications of the second and the third. These two variations or additional layers occur frequently, but they are not at all necessary for the existence of a complete three-level commodity-formation.

IV. A product, independently of its being a commodity, can signify as a product: it can be, that is, a *sign product*, a product only insofar as men interpret it by means of a given code. We gave two obvious examples already: a book is a sign product of the verbal subspecies, a street-sign is a sign product of the non-verbal subspecies. As we know, this sign character of theirs does not regard the commodity-formation. Even in a perfectly socialist society, from which the typical commodity-formation of the capitalist mode of production is absent, books and street-signs will continue to be produced. The sign character we are talking about regards the product *as a product*, before the alternative between making of it a commodity and simply using it even arises. This fourth level, then, is really a variation of the second. In the case of a sign product, the commodity-message will bear anyway *also* this signification. And here is, finally, the last level:

V. The body of the commodity can be the bearer of further signs regarding the commodity itself or other things. For example, the commodity can have a tag indicating its price or its use or the fact that it belongs to a certain sector of production. A typical case of a commodity-message bearing all five significations, that is, which signifies contemporaneously at all five of the levels distinguished, is that of a book displayed in the shop-window of a bookstore with a price tag attached and a paper band describing the book itself or the series to which it belongs.

We have used the term 'signification' at all five levels. Certainly it would be helpful to distinguish even in their names the various ways of signifying to which we have referred. The signification of a good for human life as the satisfier of a need is certainly not the same thing, nor does it perform the same function, as the verbal signification of the pages of a book. The issue is not only terminological; indeed, it is connected with a tangle of problems. 'Meaning', 'sense', 'significance', 'signification', 'denotation', 'connotation', and the like, are terms unequally used in the various languages, and their "families" oppose remarkable difficulties to being transported from one language into another. One could even feel tempted to say that there is one such family in each individual language, and conclude that meaning is not an exportable article — that the "commodities of meaning" are to be consumed only on the domestic market (cf. Rossi-Landi 1955 and 1961). Fortunately there have been numerous attempts at putting in order all the members of one national family, or a number of families on the international market; and unfortunately, a host of new terms have been introduced, to be learned in special contexts. This is the situation as it appears to anybody who sticks his neck out of his own special orchard. In front of it the most important thing for fruitful spade-work in a new field of semiotics seems to be not to unduly extend this or that terminological model beyond the field in which it has been elaborated and in which it has a specific job to do. Once we have admitted that talking about signification at all five of the listed levels sounds generic, we must also understand that in this unitary use a just demand for generality is expressed. What ties all the levels together is the presence of some sort of signification. If we want to begin from the trunk, we have to examine what sign system is at work at each of the levels described. The first thing to realize is that at least one different sign system is operating at each level.

Keeping all five of the levels of the sign function of the produced-good-which-has-become-a-commodity well in mind, means avoiding underrating the play of the factors that concur dialectically in its coming into existence, and thus also avoiding overly simple solutions.[51] We call this play *dialectical* because here we are not

[51] Let us consider as an example some statements by Lefebvre (1966, ch. VIII), which at first glance seem to be kin to the content of this section: «Toute marchandise est un signe, mais n'est pas qu'un *simple* signe ... Le monde de la marchandise ... constitue un système de signes, un langage, un champ sémiotique. Il nous parle, avec quelle éloquence persuasive et contraignante ... [these last three dots are Lefebvre's] ... L'objet se perçoit d'abord dans son rapport au besoin. Sans ce rapport, il ne nous dit rien; mais aussitôt, sous nos yeux, en tant

dealing with the mere arithmetical sum of various factors, but rather with their having concurred in the formation of something that serves us for something else in its new immediacy, through a qualitative leap, as is typically the case of the

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que marchandise, l'objet se change en signe. Il unit en lui le signifiant (l'objet susceptible d'être échangé) et le signifié (la satisfaction possible, virtuelle, pas seulement différée mais dépendante de l'achat)» (p. 342). This is a very confused way of referring to the complex situation which has been analyzed above. Lefebvre passes through the distinctions we have noted without seeing them at all. He makes something of a mess when talking of the signification of commodities. He collects in a single *signifié* of the commodity as such, the significations that come to the commodity-message from the level of products and from the level of mere goods; and instead, he puts the whole signification of the commodity as such in a notion he has of the *signifiant* of the commodity. In this way everything that has genetically gone into a commodity is flattened into the idea of a *signifié* of the commodity considered as a mere sign; and the message character of the commodity as such is flattened into the idea of a *signifiant* of that very sign. In short, Lefebvre reduces the five levels distinguished above to a mere Saussurian opposition of *signifiant* and *signifié* within a presumptive commodity-sign. Thus Lefebvre, though his research doubtlessly has a Marxian flavor and though he does present himself as a Marxist, falls completely under the ferocious criticism of Karl Marx, who had already denounced with due energy the danger of considering commodities as mere signs (see below in the text, and footnote 52).

One can therefore consider completely erroneous Lefebvre's identification of the *signifiant* of a commodity-sign with the commodity-object susceptible of being exchanged on the market, as well as the identification of its *signifié* with the potential satisfaction to be had from the body of the commodity. To put it better, rather than simply erroneous, it appears in the first place to be arbitrary; and in the second place to be seriously out of phase with regard to reality. It is arbitrary because one could turn it over, or move it around in various ways, and then discuss uselessly and endlessly about the various operations made. In fact, even if one were to accept the hypothesis that Lefebvre was right in maintaining that the commodity is a mere sign, one could turn what he says upside down and maintain that what functions as *signifiant* is the presence of the material body; this would seem to be kin to what is usually said about the materiality of the verbal *signifiants* themselves as opposed to the (let us say in the first instance) "non-material" character of the *signifiés*. The *signifiés* would then be concepts *à la* Saussure; interpretable, on the other hand, as *uses* of the respective *signifiants*, as ways of employing them. Let us go ahead and say that the uses *are not material* in the sense in which the objects used are material (what is important is to avoid making the idealistic leap that brings one to consider them as *immaterial*). The same is true for a hammer too, or a pair of shoes: the uses of such objects are not in their turn material objects. Accepting the hypothesis, then, that it is the material body of the commodity that functions as the *signifiant*, where would the *signifié* of the commodity be? This is what one can vainly begin to hunt for. Where would it be? In the exchange-value of the commodity as such, for example? This distribution of the rôles of *signifiant* and *signifié* would be just as gratuitous as the one made by Lefebvre.

The most serious error, however, remains that of mistaken phasing: the over-simplified view of the formation of a commodity-sign at a level which is already much too high, that is, a level much more complex than the one at which the signs of the non-verbal sign system of economics *begin* to function.

Parsons' approach to money as a specialized language, to the circulation of money as the communication of messages having meanings according to a code, etc. (1967: 357-360; 1968: 465), the importance of which was stressed by Jakobson (1967: 84; 1970b: 427-428), should also be discussed. It seems to me that a treatment of money as a language (better: as a sign system) should be founded on the underlying layers of production and exchange of commodities, rather than isolated from them — and this is true for *any* treatment of money, deliberately semiotic or not.

product which becomes a commodity prescinding from the specific working process from which it derives as a product. It appears then, among other things, that the nature of the commodity as a message belonging to the sign system of mercantile exchange cannot be fully grasped unless one keeps in mind the whole dialectic of work and production, resorting to it in order to delve out whatever internal relations are buried in the "mystery of commodities".

4.4 *Economics as a Sector of Semiotics*

Every economic discussion is founded on the triad of production-exchange-consumption, that is, on the entire process of social reproduction (2.4). The way in which the economic discourse refers to each of the three terms is, however, radically different. The demystification of economics shows that it does not regard production and consumption as such (even though, given the continuous circle between production and consumption, they are, *in fact*, present as second level objects of the discourse). It is with other instruments that the initial and terminal moments of the triad of social reproduction are usually faced. From the viewpoint of production, the description of how a particular good is produced belongs to various branches of technology; the description of its characteristics or properties, that constitute its particular use-value, to merceology; and the description of the value of the goods produced, taking the general situation into account, to sociology and history. Economics proposes itself as the study of the intermediate moment of social reproduction — of something that happens *between* production and consumption, that is, of exchange. It is hardly necessary to add that when we talk about exchange we are also talking about its developments: the transformation of the product into commodity, the development of the market as a system of commodities, money as the universal equivalent of commodities, the formation and use of capital, and so on.

Obviously economics cannot avoid making constant *reference* also to production and consumption: still it is not part of its job to consider them from the inside, but rather from the outside, insofar as they constitute the two social zones in the midst of which exchange and its developments are inserted. The paradigm-case of a possible piece of behavior of an elementary sort will clarify the issue. If I produce something and consume it right away or let somebody else consume it, *i.e.*, if not even the embryo of exchange or barter is present, the "economic" moment is simply absent. Only the production of a good, of a use-value, has occurred; the production has not had time to *assume* an exchange-value, that is, to *become* a commodity. So that an economic moment in the proper sense can take place, it is necessary that a mediation constituted by exchange be inserted between production and consumption. An additional sign system must begin operating. Indeed, as we have seen in 2.4.3, if the exchange is to be mercantile in the proper sense two independent producers must present themselves on the market. While

the mediation of exchange is taking place, the product is so to say suspended; and during this *suspension*, extraneous both to production as such and to consumption as such, it assumes values of another type, radically different from those for which it had been produced originally as an object of consumption, capable of satisfying a need. Making production contiguous to consumption would amount to eliminating the very object of economic science as it is usually understood. If this happened in an integral way, economics as the study of the market and of the individual use of resources would be entirely substituted by social planning of production in function of human needs. And since such a study cannot even start without facing the distinction between "natural" and "artificial" needs, as well as other categories of human needs, a general theory of man would be almost immediately involved. As we know, this is not an alternative between the sheer presence and the absence of any such theory, but rather between the conscious use of an adequate theory and the passive acceptance of whatever theory happens to be handed down in a certain society at a given moment. In other words, a general theory of man is dialectically prior to social planning; but no social planning can avoid conveying an attempt at bringing about a determinate conception of man (cf. Rossi-Landi 1968c, ch. 6).

In semiotic terms — with references to the classifications set forward in the previous Sections, to the hypothesis of the homology of production discussed in Section Three, and to what we just said in 4.3 about commodities as messages — the following characterization can be attempted. Economics proper is the study of the non-verbal sign system which makes it possible for particular types of messages, usually called "commodities", to circulate. More briefly, and with a formula: *economics is the study of commodity-messages*. External to the commodity-messages lie the production and the consumption of the bodies of the commodities — sign or non-sign bodies as they may be with regard to their *status as products*.

Notice that we say "commodity-messages", not "commodity-signs". A message is made up of signs that are already complete for they consist of the synthetic union of at least one *signans* and one *signatum*. A message gets to be built and to function as it does as a feature of real social life. We are thus two stages distant from the *danger*, denounced by Marx with just force, of *considering commodities only as signantia* (instead of as the union of *signantia* and *signata*).[52] Such

[52] Marx: *Kapital*, I: 2, 105-106; English transl.: 66-67. Cf. the brief discussion of Lefebvre in the preceding footnote. It is hardly necessary to remind the reader that Marx was writing in an epoch in which linguistic science was much more rudimentary than it is today, and the very concepts of semiotics and of information theory hadn't yet begun to develop. A certain amount of interpretation and "translation" is therefore necessary whenever we construe his texts in contemporary semiotic terms. But this happens with all great thinkers; or indeed, there is no alternative to the interpretation of past messages according to present interests, for there is no alternative to a progressive variation of the code of the receiver as compared to the code of the transmitter. While it is the historian's task to learn as much as possible to think in terms of the transmitter's code, it is the task of the theoretician, as well as of the man of action, to make as much sense as possible of earlier messages within the contemporary code.

partial considerations would be cases of reductionism, that is, they would amount to using a part for the whole. The danger is avoided by considering commodities, instead, as proper messages composed of various complete signs. Messages function in society, not within some abstract system; they circulate in the real world, and it isn't enough to dissect them according to some partial interest in their formal appearance. With commodity-messages information is transmitted about human work, about the way in which the society is organized, about exploitation. If we come to know of just one commodity which exists in a given community, *i.e.*, if we have received from that community just one commodity-message, what we have *ipso jure* come to know is that in that community there is a production for the market — with all that is involved in it. The distinction between signs and messages, here as elsewhere, is decisive. A message is an organized group of full-winged signs that is electively used. It is something codified: the use of a code has already taken place for a message to exist at all. A sign can be just repeated, but a message is usually manufactured. There is new human work in it. The fact that a commodity is a complex message and not a mere sign can be seen by investigating the type of codification that makes the form of commodities possible at a level higher than the level of products. Therefore the various levels are all taken into account, if only in an indirect way, whenever a commodity-message is described.

The economist, however, can leave out of consideration what happens *within* the processes of the production and consumption of goods, and consider the use-values of the bodies of commodities only insofar as they are the bearers of particular exchange-values. Why is he able to do this? Because, as a student of messages, he deals with the way in which, *after* material production, a product (whether a sign-product or not) becomes a commodity (that is, a message belonging to a certain sign-system); and then, *before* material consumption, it becomes a product again. He studies the way in which the product is codified into a commodity, and the commodity de-codified into a product. (Let's recall that it *can* be a question of a mere *good*, in the sense that it isn't *necessary* for the thing to have been produced in the proper sense of the word.) The economist thus studies not only the way in which the message is exchanged but also (*as a message*) produced and consumed. It is *within exchange* in the wide sense, as distinguished from production and consumption in the wide sense, that he finds *those* processes of production and consumption that interest him as a semiotician (cf. 2.4.2). Economics offers an excellent model for the study of non-verbal sign systems because one finds very clearly here the formation of a message on the substratum of a material object, which then, when this character of being a message ceases, usually conserves a corporal residue.

One part of the greatness of Marx as a thinker of general ideas — of the fact that in writings of his apparently dedicated to the economic problem alone one continues to find incomparable stimuli for many different studies — can be pre-

sented in just this way. After having eliminated from economic consideration production as a group of technological processes and consumption as a group of physiological processes, he described for the first time *both* the exchange of commodities *and* the production and consumption of the commodities themselves as commodities. He described, that is, the *entire process* of the functioning of commodities as messages within a non-verbal sign system programmed by every society which has arrived at the stage of production for the market. An economic science, in fact, that does not study the commodity as a message, limits itself to the acceptance of commodities as simply given or "natural"; and an economic science that, though it does see a message in the commodity, considers only its exchange while ignoring its production and consumption, can never make a proper use of the theory of labor-value nor ever come to face the deep-seated problems of exploitation. The Marxian demystification of bourgeois economy, because of its studying commodities as messages and of its considering the entire trajectory of these messages, offers the first complete dialectical model of a socially real communicative process, and the first conscious grasp of a non-verbal sign programming (cf. 7.5) which was accepted and repeated unconsciously by billions of people. Semiotics as the general science of sign systems has its most important root in *Kapital.* The systematic exploration of non-verbal socially real communicative processes, and thus also of the codes that, hidden beneath them, support them, begins with the Marxian demystification of the bourgeois economy and particularly with the analysis of the commodity. It was Marx who first brought to light the reciprocal relations between men on the one hand and those omnipresent products of theirs, non-verbal messages, on the other hand, as well as the relations between these messages themselves. Precisely the fact of leaving aside the production and consumption of the bodies which bear these messages makes Marxian economics a typically semiotic science; but precisely the fact of considering the entire communicative process of commodity-messages makes it a completely human science, a complete science of the social.

The reasons are by now clear why the economists referred to here can only be those of the so-called Classical School, Smith, Ricardo, and Marx, with the addition of some of their contemporaries, and some of their current continuators or commentators.[53] The thinkers of the Classical School face the economic

[53] Among others writing in English, we recall again Baran, Dobb, and Sweezy (cf. footnote 11 and the References). Piero Sraffa — the English-writing Italian Marxist editor of Ricardo's works, a fellow of Trinity College of Cambridge, and, according to Wittgenstein, the main influence on his passing over from the static world of the *Tractatus* to the mobile (even if not historical) world of the *Untersuchungen* — would require a discussion apart. His *Production of commodities by means of commodities* is the first big scientific step in bringing economic *thought*, as distinguished from economic statistics or sociologistic analyses, back where it belongs, *i.e.* to the categories of the Classical School, after the long marginalistic parenthesis expressing the bourgeois reaction to the development of Marxism as a demystifying and revolutionary science. — Cf. Wittgenstein 1953, Foreword: x; Sraffa 1960; Napoleoni 1963: 194-201; Vitello 1963: 124; Pietranera 1961, 1966²; Pesenti 1970; Rossi-Landi 1966a, b (now in

problem squarely, trying to resolve it within a theory of society, which, with Marx-after-Hegel, also has the bearing of a general theory of man and history. They deal with the economic problem in all of its extent, as an organic part of human *reality* — for human reality is basically the totality of social sign systems.

Naturally, all of this gets lost if the situation of simple economic exchange, or indeed of mere barter, is interpreted as a sheer material passage, as such filmable in all of its aspects — the physical transfer of two objects from the hands of one person to the hands of another, and vice-versa. According to a point of view of this sort (see for example Samuelson, 1949, 1970[8]), it is through the observation of a large number of material transfers of objects between two persons that the economist collects his basic protocol statements; he can then quantify them, and by going ahead in this manner he will finally derive the *laws of economics*. When one asks such economists if it isn't possible to investigate *within* exchange, reconstructing the sign processes without which exchange would not take place and beginning, for example, from the fundamental distinction between the use-values and exchange-values of the exchanged objects, the answer that one usually gets is that such questions regard "the psychology of the subjects" and cannot lend themselves to the quantification necessary for the construction of "an intersubjective science in the modern sense". In this way what is set aside as mystificatory and ideological is precisely the analysis of the value of the commodity — which is the irreplaceable foundation not only of every demystificatory investigation and of every doctrine of ideologies, but also of every over-all semiotic approach to social reality. In the place of investigations aiming at unburying deep social processes which go on unnoticed and affect our whole lives, one then puts an "objective reality" made up of "facts" which are supposed to be fully describable by means of "perceptive judgments": a veritable tombstone, smooth and flawless, which nobody should ever dare to lift.

5. FROM ECONOMY TO LANGUAGE

Utilitas expressit nomina rerum.
LUCRETIUS

5.1 *Messages as Commodities*

The messages which we exchange when speaking a given language make up the linguistic community to which we belong, that is, the society as a whole in its speech-aspect. Here 'linguistic' is used as a derivative of the Latin *lingua* (*a* language): to contrast "a language" with its corresponding "linguistic community" is partly equivalent to contrasting the code with the totality of messages expressed in it. The concepts "a language as a code" and "linguistic community as totality of messages" indicate two reciprocally necessary elements within the sphere of an

existing totality. The one necessarily implies the other; but to say only this would be incomplete, and furthermore inexact, for a language can outlive its own linguistic community of origin when it is studied within and by another linguistic community — just as the products of non-linguistic work survive, and an abandoned factory is adapted and used for new production processes.

A linguistic community appears as a sort of *immense market, in which words, syntagms and sentences, used as verbal messages, circulate in the same way as commodities do.* We can ask ourselves what are the regularities which determine the circulation of these messages, starting from the *values* according to which they are *exchanged and consumed.*

A market is a system of equivalences and at the same time of differences. In order that the situation of mercantile exchange may be realized, it is in fact necessary to have commodities embodying, first and foremost, use-values. Without use-values there would be no exchange-values. We have therefore, immediately, a system of differences: the differences between the individual use-values and their respective exchange-values. Furthermore the use-values are themselves based on differences: they refer to needs and to ways of satisfying them; they are the result of production processes and bear properties to which the description "different" can be very fittingly applied. When use-values constitute a system, this is consequently a system of differences; but for the same reason it is also a system of equivalences; and the other aspect of this system, that of exchange-values, is a system of equivalences, and for the same reason also one of differences. A market comes into being precisely in the dialectical inter-play of all these factors. We maintain that the same is true in a linguistic community.

However, the products of non-verbal work do not cover the entire field of objects capable of satisfying non-verbal needs, while *all* verbal signs are by definition produced by man himself (cf. 2.4.1-2). Using some terms in a static rather than dialectical manner: "unproduced" objects exist "in nature"; their existence "precedes" that of "man" or is "independent" of him, such as air and water, which satisfy precisely his most fundamental needs. But only so-called "natural" signs can be regarded as equivalents to so-called "natural" products: neither of them are produced in the proper sense of the word, that is by specificially human work. Without the activity of an organism to "interpret" them, not even the most rudimental signs would be signs; without their identification, seizure and consumption by an organism, not even objects like air or water would serve to satisfy needs. All this not only does not contradict the characterization of *verbal* signs as products, but on the contrary gives a useful indication precisely for the demarcation of mere activity from work (2.3.1).

Messages too, like all the products of human work, have, first and foremost, a use-value or utility insofar as they satisfy needs. The needs satisfied by messages are those of expression and communication, with all the varying stratifications which historically have piled up and become entangled around them. Without

verbal signs, these needs are not given full satisfaction *on the human level.* Once the conception of language as work has been accepted, the first hypothesis for research which presents itself is this: that not only the products of non-verbal work but also words and syntagms are used, and messages are transmitted and received, not only according to their use-value, but also and principally according to their exchange-value. As a first approximation: in the case of words and syntagms considered in the abstract, their exchange-value is to be sought in the reciprocal relationships into which they enter within the language of which they are a part, within the code when it is considered independently from the further linguistic work through which they are converted into messages. In the case of messages, their exchange-value is to be sought in their being transmitted and received within the sphere of a linguistic community, that is, in their circulating on a linguistic market of which they themselves are the constituent parts.

The terminology of values, as we encounter it in the texts of the classical economists and notably in Marx, has been put aside by marginalist economics, but survives in an attenuated form precisely in the works of linguists, for whom it is often normal to regard the *value* of a word or expression, and even of a message, as equivalent to their *meaning.* Common speech assists us too on this point with many idiomatic and proverbial expressions. It is difficult to consider these facts as purely accidental analogies; and it is remarkable that they have been paid such little attention. Saussure himself has many things to say about it, even if he does not appear to possess a theory of linguistic work, the most viable foundation for any theory of linguistic value.[54]

With things put in these terms, the basic proposition to be examined is the following: *the field of linguistic value corresponds entirely to the field of meaning.* To put it in a slightly more determined manner: 'having a value' has the same value as 'having a meaning', 'being worth something' is equivalent to 'meaning something'. However, one must avoid right from the start overestimating this correspondence or equivalence. The pie of all that which is (or has) linguistic value is divided into slices which do not correspond to the traditional slices into which people used to divide or still do divide the pie of meaning. Linguistic value, furthermore, is here introduced at a certain level in the elaboration of a general structure, which is that of work and production considered homologically

[54] Saussure's insistence on linguistic values is so well known that it is certainly not for us to re-expound it here. We are going to make some use of it in 6.3. Cf., however, ch. V of his *Cours* (1915, 1955[5]; English transl. 1966), his "notes" published by Robert Godel in the *Cahiers* (1954, 1957), Godel 1957, and especially Engler's critical edition (1967-1968) and De Mauro's abundant commentary on the Italian translation (1967). The whole notion of linguistic work developed in the present research (and first stated in 1961: ch.s IV and VI; cf. also 1967a: 99-109; 1968c: 185-192), contains a criticism of the Saussurian *parole* which we see as only one secondary case of linguistic work. One could say that Saussure did start a comparison between linguistics and economics and was fully aware of it (*Cours*: 114-117; English transl.: 79-81), but that his whole *Weltanschauung* and his intellectual tools, in spite of his towering stature, remained "marginalistic" — an expression of bourgeois individualism with all that goes with it.

in the linguistic and "material" fields. We are proceeding here from work to value, and consider value as a general property of that which has been produced by work. This is contrary to what happens in many theories of meaning, where meaning is placed as the foundation of a whole structure which then seems to have been fabricated so as to explain meaning itself; not to speak of those cases in which it is precisely meaning which is neglected, that is to say the machine of the language is considered with no regard to the values which it produces. It would be misleading, at least at this stage, to attempt comparisons between this or that type of meaning and this or that type of linguistic value.

Let us say rather that the types of linguistic value which we shall be able to distinguish will constitute a new subdivision carried out within the field traditionally indicated by the generic use of the word 'meaning' (as of *significato*, or *Bedeutung).* We reaffirm that the theory of linguistic value as a product of linguistic work is an attempt to explain meaning by tracing it back to something else. In this way even the possible suspicion that linguistic values should not be called "use-" and "exchange-values" is dismissed as being terminological. To paraphrase Wittgenstein's celebrated remark, that «the meaning of a word is its use in the language» (1953: 43^{0}), the path followed in this investigation consists in stating not only that the meaning of a word is its *value* or rather its *values* in the language, but also and principally that these values are to be traced back to the human work which makes them into what they are. This tracing back of value to work presents right away the following advantages: (i) the notion of linguistic use is included in that of linguistic work which, as a part of the notion of work in general, already possesses an articulated structure of its own; (ii) the important distinction between use and meaning is not lost (*even* Wittgenstein had reservations as to the reducibility of the latter to the former: 1953, I, 138^{0} and II, xi, 215); (iii) one does not run the risk of seeing in meaning only what is done with a product which has already been produced, that is, the risk of reducing use to consumption; (iv) nor does one run the opposite risk of seeing in meaning only its production.

Every message appears on the linguistic market as a *unit* of use-value and exchange-value. It must in fact have a use-value, that is, it must be able to satisfy some communicative need, in order to be able to assume an exchange-value; but on the other hand it must present itself as an exchange-value so that it can be possible for people to reach its use-value and enjoy it. It is through a complex dialectic between the two types of value that, when I tell you something, you understand it. The elegant but peripheral question arises of whether, for such a dialectic to obtain, it is sufficient to have a use-value which, existing in the absence of an objectively retraceable communicative situation, is *only* expressive. The question will be ignored hereafter because even an "only expressive" use-value must nonetheless belong to a code, which in its turn refers to previous communicative situations.

When we examine a message from the angle of the two types of value, use- and exchange-value, which are enclosed within it, we find that in this field too the notion of linguistic work must in its turn be broken up in correspondence with the values which it is called upon to justify: to determine exchange-value one must use a different notion of work from that which serves to determine use-value (2.3.4).

Use-values satisfy varieties of needs (wants). So linguistic work bringing about use-values capable of satisfying different needs must also be work which varies and differentiates itself with the variation of its products: concrete and specific work, giving equally concrete and specific products which can be easily distinguished from each other. It is, in the field of verbal as of non-verbal sign systems, the same type of work which in the field of material production produces the bodies of goods in their quality of useful things, that is of use-values: objects and situations with specified properties capable of satisfying human needs. Any type of message (verbal or non-verbal, intentional or only detected from the outside) is primarily a thing whose qualities enable it to satisfy expressive and communicative needs. Verbal messages, those which make use of the constant capital constituted by the language, satisfy expressive and communicative needs such as expressing, denoting, connoting, showing, distinguishing, informing, reporting, qualifying, commanding, begging, reasoning, and so on, and also the complex need of connecting up various pieces of linguistic material at various levels of elaboration. In the literature of contemporary linguistic analysis, the study of the workings of language in general and of the different languages from the point of view of the satisfaction given to various expressive and communicative needs has only just begun to be felt as a requirement for the science. The labor hitherto accomplished by linguists and philosophers, huge as it is, is mostly limited to this or that aspect of the workings of the linguistic machine or — at the opposite extreme — to various aspects of existential situations in which individual speech acts occur.

The determination of exchange-values is closer to what linguists habitually do and does not present, as a research undertaken descriptively and *a posteriori*, the difficulties which appear to impede the determination of use-values. But the abstract and general *notion* of exchange-value and of the type of linguistic work which justifies it is more difficult to grasp.

The new-born *homo sapiens* finds himself immediately and insurmountably surrounded by (i) all the useful things that the society to which he belongs has already produced and continues to produce as tokens, *according to determined models*, (ii) the programs for their use, and (iii) the executions of such programs (2.3.3). This is just as true for the products of linguistic work as it is for the products of material work — for verbal sign systems as for non-verbal sign systems. Within the field of non-verbal sign systems, both the sign quality and the materiality of the sign-carrying bodies operate on the baby. He will find words and syntagms already opposed to each other in the system of the

language which was constituted before his birth and which he is learning as his mother-tongue; subsequently he will discover that words and syntagms are also globally opposed, as parts operating within that particular system, to all the words and all the syntagms of every other system of the same kind, that is, of every other language. For both types of work the models were originally developed as forms of social planning for the satisfaction of needs. The infant learns to use the products and therefore sets in motion the programs to which socially he adheres; in so doing he consumes tokens and also exercises, indirectly, an action in favor of the models which have presided over production. But he is certainly not aware of the specific work which is the basis of production according to models, and even less does he learn the construction of new models. It will be only very partially, and much later, that he is possibly going to learn how to deal with new models; and then only if he learns thoroughly, and with originality, given professions. As we have seen (1.4), the very programs which govern the forms of execution are indeed largely unconscious. The tokens produced in conformity with the models are for the most part used only in their new immediacy, as materials and instruments. As such, the objects progressively produced come to belong to systems which are institutionalized according to programs not necessarily connected with a planning aimed at the satisfaction of needs, and indeed quite often detached from it. The dialectic between models, tokens, programs and executions interposes here an insurmountable thickness or barrier (2.3.3). Both in the world of commodities and in that of verbal messages, it is the social programming of the use of already produced items, and not the operative rules for the satisfaction of needs, which determines exchange and circulation and which decides what the exchange-value of the objects produced will be. As far as their exchange-value is concerned, commodities and verbal messages appear detached from the operations which do, in fact, produce them.

What all verbal messages have in common when their use-value is left aside is precisely the quality of being simply messages, that is, the mere *results* of linguistic work.[55] When we observe the linguistic market we notice that everyone speaks; everyone is capable of using words and syntagms and of producing verbal messages. This is independent of the particular relationship which each word-as-product and each message-as-product must nonetheless have with the specific linguistic work which has determined its use-value. Given the existence of a language spoken by a certain human group and of its linguistic market, we have here

[55] Wittgenstein seems to be pointing to this when he speaks of words *in general* as compared with tools *in general* (1953: I, 11°, 12°, and 13°), or when he states that «the clothing of our language makes everything alike» *(ib.*: II, xi, p. 224). This was anticipated in the *Tractatus,* for instance, 4.02: «we understand the sense of a propositional sign without its having been explained to us»; 4.002: «the proposition *shows* [zeigt] its sense»; 4.121: on the logical form "mirrored" in propositions; and *passim.*

a phenomenon which we could call "inevitability of meaning",[56] *i.e.*, the grasping of meaning as something natural (it is the social pseudo-naturalness of which we have already spoken). A hearer cannot help *beginning* to interpret in a given way an expression uttered by a speaker of his own linguistic community, whatever further interpretation he may then give to that same expression according to differing context and to his own personal inclinations.[57] If I say or write 'water', the reader will not take it to mean "earth" or "fire", and if I say 'if . . . then . . .', he will not take it to mean "neither . . . nor . . ." or "equal by definition to . . .". None of us, as a speaker, has it within his personal power to get out of this.

All the same, the inevitability of meaning, the fact that we cannot shirk the initial signification of each message which, as it were, impinges on us, does not

[56] «. . . when there is sense there must be perfect order. — So there must be perfect order even in the vaguest sentence» (1953: I, 98°); «. . . the sentence must . . . have *a* definite sense. An indefinite sense — that would really not be sense *at all*» (*ib.*: I, 99°): these are just two of the many passages where Wittgenstein is saying, or almost saying, that no speaker can *escape* the "apprehension" of sense. Cf. also *Pragmatics of human communication* (1967: 2.2, on "The impossibility of not communicating", pp. 48-49): «Behavior has no opposite . . . There is no such thing as nonbehavior or . . . one cannot *not* behave. Now, if it is accepted that all behavior in an interactional situation has message value, *i.e.*, is communicative, it follows that no matter how one may try, one cannot *not* communicate». It will be noticed that while Wittgenstein is stating something about the nature or structure of the message, and the authors of *Pragmatics of human communication* are stating something about (or from the point of view of) the sender of the message, our main point in the text concerns the receiver. Given the communicative situation, the three approaches converge, and the general formula may be attempted that "one cannot help communicating — by means of a message endowed with a definite sense — to a receiver who cannot help interpreting the message according to that sense". But this is only true of an *initial portion* (in the interpretation) of the message: cf. below in the text and footnote 57.

[57] In my book of 1961, ch.s VII and VIII, I tried to deal with this problem in terms of a distinction between "initial meanings" and "additional meanings", opposing this distinction to other distinctions such as — with regards to meanings — direct *vs.* indirect, immediate *vs.* mediated, explicit *vs.* implicit, literal *vs.* metaphorical, present *vs.* latent, and so on. Once the initial meaning has been grasped — which, as said before, is "inevitable" —, additional meanings are either spontaneously or purposively extricated from various layers of context. The initial meaning, whatever it may be, can trigger further interpretation (though it doesn't trigger it necessarily). The main point is that no descriptive or systematic definition of 'initial meaning' holds water. The only possible definition is rather a methodological one: the initial meaning is any meaning one starts with *de facto* in any given case (or class of cases) of interpretation. Whereupon the difficulty arises that in many cases (or groups of cases) the meaning one does start with belongs to a more complex, and not to a simpler, level than the additional meanings delved out by further interpretation. In other words, there is no possibility of simply pairing 'initial' to either immediate, or explicit, or literal, or present meaning — though there are of course measures of overlapping. Some messages are received and interpreted, for instance, for their metaphorical import, while their literal (underlying?) sense may *or may not* be discussed at a later stage. The first answer to some other messages is such that one has to construe it as an unconscious response to a latent aspect of the message, etc. Two complementary orders of enquiry open up at this point, and present themselves as unavoidable: the enquiry into the relations between meaning and context (cf. Slama-Cazacu, 1961), and the enquiry into universes of discourse (a notion first introduced by Augustus De Morgan in 1846 and clearly related to the current notions of semantic, or semiotic, field: cf. Rossi-Landi 1958a, 1958b, and 1961 ch. II; also 6.3 and footnote 66 hereafter).

involve in the least that the reader or I are in control of the linguistic working processes with which those words and those syntagms are produced and those verbal messages are made up and transmitted. When we begin to discuss these processes in a systematic manner, we in fact realize how immensely complicated they are and we run into the most serious disagreement on their effective nature and importance and consequently also on the nature of their results. On the level of common linguistic exchange, we all know how to use, with fluency, those same terms over which argument amongst scientists and philosophers has been raging for thousands of years: terms like 'number', 'cause', 'duty', 'part', 'movement', and very many others. We all produce correct sentences, but only over the last few years has scientific investigation given rise to hypotheses of working models which attempt to explain how this happens.[58] Here the possible deception hidden in the idiom of linguistic use reappears, the empirico-mercantilistic reductionism that sees language in action as the mere use of words and syntagms which have already been produced while ignoring their production. In an important sense, knowing how to use a word is not at all the same as knowing how it functions — in *this sense*, consumption is not production. The ability to understand the exchange-value of words, syntagms and verbal messages is mere expenditure of linguistic labor-power: that is, we are always dealing with linguistic work, but considered in its abstractness, as generic and undifferentiated productive activity. It is in relation to this type of linguistic work that linguistic exchange-values are determined as distinct from linguistic use-values. An insight on this can be gained if we consider how certain people, who "speak badly", "do not know the language very well", "cannot express themselves convincingly", and so forth, are sometimes capable of understanding thoroughly this or that sector of specific linguistic work producing linguistic use-values. We all know of stuttering poets, logicians who make a mess of every period, language analysts who seem to suffer from aphasia: these are cases which recall those of the inept businessman or the bankrupt banker who turn out to be excellent artesans in only one of the innumerable fields in which the capacity to produce something is exercised.

Studying commodities as messages and economic science as a sector of semiotics, we proceeded to "leave aside" the corporal non-sign residue of economic objects. With this we certainly did not wish to deny that a product, indeed a mere good, also may have a signification even before it is transformed into a commodity: in a

[58] Whether they belong to Chomsky's generative grammar, or to Ceccato's study of "mental operations" (cf. 2.4.1 *ad finem*), or to other attempts at describing what goes on in language, the danger of all such models is that they may refer only to the activity of the linguist who "reconstructs" the activity of the common speaker within his specialized jargon. Alternatively the models may pay for the "glory" of approximating a "realistic description" of what the speaker is actually doing with the "shame" of becoming mentalistic (cf., on Chomsky, Ponzio 1971b; on "mental operations", 6.5 below). Wrong or provisional models, however, are better than no models at all insofar as they contribute to overcoming that pseudo-natural approach to language which considers it as the "free", relatively unconditioned activity of speakers. Cf. 7.1 and 7.2 below.

product, as we said, there is all the signification that it receives from the work which is crystallized in it, in a mere good there is the signification of the use-value for the satisfaction of a need. As Hegel says, language (to be here understood as a general sign capacity) penetrates everything men make their own. The leaving aside of the corporal residue of non-verbal messages, moreover, brought us on to the fundamental affirmation that *merchandization is a form of semioticization* (cf. 4.3 and footnote 50), in fact that it is the constitution of a special non-verbal sign system in which men effectively and systematically exchange messages of a certain type (whether they are aware of it or not, and even though they are usually victims of it).

The leaving aside of the corporal residue of commodities is an essential condition for being able to consider them as messages. This means that when we proceed in this section to the complementary operation of applying in the field of the verbal, considerations on non-verbal signs drawn from the sign system of commodities, we find that the leaving-aside has *already been done*: it must have been done previous to the new application. To pick out those structures which are communicative of meaning in the economic market means to progressively disregard some of its other aspects, connected with the body of the objects of which those structures are also formed; instead, to apply those structures elsewhere means to have already disregarded the corporal aspects, to have done so *before* the new application. One can perhaps discuss whether this is always and completely necessary in cases where the application is made with respect to another type of non-verbal sign system, for example in the case where we pass from the non-verbal sign system of commodities to the non-verbal sign system of kinship relations. Disregarding the corporal aspect, on the other hand, is completely necessary in the case of a verbal sign system, of a language, because the non-sign aspects of a language exist *only* insofar as the sign aspects exist. One could say that in verbal language the operation of disregarding was carried out, in a "naturally" social way, since the very birth of language (cf. 2.4.2).

In other words, we can set up a comparison between the verbal sign system of a language and the non-verbal sign system of commodities or "economic language", insofar as we have recognized a sign nature in the latter; and this recognition has been possible to the extent that, following Marx's teaching, we have, as it were, *looked through the corporal density* of the economic market, beyond its non-sign aspects. It is then possible to state not only that capital is a non-verbal sign system, *i.e.* a kind of "language" (*langue*), but also that a language is a kind of capital. We arrive at the two orders of statements by starting from the same premises and developing them in a parallel manner. The comparison is made not between two heterogeneous activities, but between two sign systems; and when we find that the non-verbal sign system of commodities presents certain features, we can argue that the same features, or fairly similar features, must also be possessed by the verbal sign system of the language. The two systems both belong in fact to the same funda-

mental situation of social reproduction in the intermediate moment of exchange (cf. 2.4 and footnote 13).

We repeat that this should not surprise us. Man has succeeded in producing and using verbal messages in the sphere of the same real process — historical evolution — within which he has also produced and used non-linguistic objects and has organized them into non-verbal sign systems.

5.2 *Linguistic Capital*

Let us now try to introduce into the study of language some of the conceptual instruments developed in the study of the work and production which are usually called "material", *i.e.* (from the semiotic point of view), non-verbal. As already announced in 1.3 and hinted at again a moment ago, this is complementary to the now fairly wide-spread operation of applying conceptual instruments originally formed in the study of verbal language, to non-verbal sign systems. Just as we speak of determinate negations and abstractions, so we can speak of determinate extensions: the extension being attempted here is determined — through reaction and complementarity — above all by the existence of a science of verbal sign systems which has even taken on, rightly or wrongly, the functions of a pathfinder-science.

5.2.1 *Constant linguistic capital*

Capital is distinguished, according to Marx, into a (relatively) *constant* or *fixed* portion and a *variable* portion. The constant part is made up of materials, instruments,[59] and money; the variable part is the workers. The two parts are in relationship of continuous reciprocal action. They are both necessary to social reproduction, that is, to production, exchange, and consumption.

We maintain that a language is homologous to what is understood by the constant part of a capital (or accumulated wealth, or patrimony[60]). In order to demonstrate this we must be able to trace in the language, linguistic materials, linguistic instruments, and linguistic money as constituent and indispensable parts of the language itself.

[59] Or *utensils*: the difference being, as we know (1.3, 3.2.1), the difference between an object which occasionally potentiates the human body and an object produced according to a model for precise aims, surviving its production and available for further use in the future. Now, since not all instruments are utensils while all utensils are instruments at a higher level (in the sense that they are instruments plus something else), it is convenient to speak here broadly of all linguistic instruments rather than only of linguistic utensils. The formation of sentences as verbal utensils (3.2.2) will be examined again in Section Six.

[60] I use these synonyms to avoid the over-interpretation which would make linguistic capital homologous with what is usually understood by 'capital' in an advanced capitalistic society like ours. Accumulated money and patrimonies of various description obviously existed even before the formation of capitalism in the modern historical sense, as exchange existed even before the formation of mercantile exchange (cf. 2.4.3); and references to language as a sort of wealth are frequent in the literature (cf. 5.2.1.2), as they are in common speech.

5.2.1.1 *Linguistic instruments and materials* — It is a widespread view that a language is a system of verbal *signantia* and of rules for their use, and that by applying these rules the *signantia* function as complete signs, *i.e.* as the dialectical sums of *signantia* and *signata*; and, furthermore, that a language is a system of rules for the combination of these signs at successive levels of elaboration. This is the system that we use to communicate, that is, to construct, transmit, receive and interpret verbal messages. The study of the dynamic relationships among the various elements of the language, of what happens inside the system when it is used, is the main task of traditional linguistics. In our terminology, it belongs to the treatment of that part of the working process which is more specifically linguistic because it refers to the language as a code and to the various stages of linguistic elaboration. But this is not our present concern. We shall concentrate instead on the customary approach to a language in its entirety as an instrument. The discussion thus begins to shift from the working process to the mode of production. An examination of the former is only the first step for an examination of the latter.

Let us examine some features of the instrumental view of the language. If the language is an instrument, we find ourselves working *with* it, *by means of* it, *on* something else. This amounts to saying that the language turns out to be inserted in a broader totality — the totality of the communicative process by means of which verbal messages are produced, where it constitutes a part alongside other parts. But what then, according to the view under examination, will be the nature of these other parts? What will their relationship to the part represented by the language be?

If all that we understand by instrument or utensil (or aggregate of instruments and utensils) belongs to the language, then the other parts of the whole communicative process must perforce be linguistic workers on the one hand, and materials and products on the other. Of linguistic workers we shall say more further on. Let us deal here with materials and products. What is the *status* of materials? If, after identifying the instruments alone as linguistic, we wished to consider the materials too as linguistic, we should find ourselves extending the very conception of the language as an instrument backwards to include items previously described as materials — that is, we should be taking up the matter at some other point as a consequence of having displaced the *locus* where the distinction between instruments and materials is drawn. According to this view, therefore, materials are not allowed to be linguistic; and the construction of messages by means of the language lies in working on non-linguistic materials by means of linguistic instruments. As for the nature of messages, it would be partly linguistic and partly non-linguistic. It would be linguistic because messages are products of linguistic work done with definitionally linguistic instruments, and it is therefore impossible for them not to receive the imprint of these instruments and of the operations performed with them. It would, however, also be non-linguistic because — and to the degree that —

materials assumed to be non-linguistic enter into the messages. In other words, something of the non-linguistic nature of the materials must after all continue to exist, surviving the operations which they undergo — rather in the way that the wooden nature of the material used by the carpenter remains part of his product even if the carpenter's operations and instruments are not themselves made of wood. Things of this sort, particularly the non-linguistic nature of the materials, are contained in the current definitions of a language as an instrument for organizing and communicating "feelings", "thoughts", and "experiences". "Feelings", "thoughts", and "experiences", indeed, show up as "non- or pre-linguistic materials" which many linguists, concentrating in an exclusive or excessive manner on the language as a complete system in itself, willingly abandon to other fields of study — to psychologists, sociologists, philosophers, and all the other unfortunate "non-linguists". In a similar manner, a purely instrumental conception of economic science abandons to the "non-economists" the very dialectic between use and exchange (cf. 4.4).

The view under examination is vulnerable to serious criticism. What on earth is «experience as such, prior to all attempts to transmit it to others», *i.e.* experience as (linguistically) described, for example, by Martinet (1962: 21, with what follows)? Faced with the difficulties raised by this "simple" question, one is almost tempted to say that a "functional" view of language consists precisely in leaving them brilliantly aside, artificially simplifying the problems for the benefit of specialists. The feelings or thoughts or experiences which are completely extraneous to language — entirely pre-linguistic, and on which the instruments of a language are supposed to act — are items very difficult if not impossible to identify. Do they not form and become distinguishable only insofar as we learn to speak, that is, insofar as we are, as it were, taken into service within the verbal sign system of our mother tongue? And does not all this so-called "non-linguistic material" itself vary, at least to some degree, also in relation to our mother tongue, or even in relation to the language which we happen to be speaking at a given moment? According to the instrumental view of language, the feedback of the different languages on the varying of experience remains inexplicable; it becomes impossible to tackle the problems of the constitutive action of language-in-general on the formation of consciousness and experience; and the reciprocal influences of verbal and non-verbal sign systems are simply ignored.[61]

The instruments of a language are not instruments in the absolute. We mean

[61] The semiotic enterprise is then always apt to reduce itself to the mere contemplation of self-contained sign systems. On the contrary, the continuity between those sectors of human experience vaguely described by such umbrella-terms as 'language', 'communication', 'thought', 'social life', and the like, should always be stressed — and it is better to over- than to understress it. The notion of thought as something non-linguistic, for instance, is even more untenable than the notion of thought as something merely linguistic; and so are the notions of culture, or of society, or of *human* activity in general. To distinguish language from all the rest as a mere instrument is absurd.

both that they are themselves the products of previous linguistic work *and* that they are liable to turn into materials again. There are no limits to the ways in which any language can be worked upon. If a language consisted only of instruments that always remained instruments, this elaboration would not be possible. Indeed, if instruments were not in their turn products liable to become materials again, we would be forced to the awkward conclusion that the language's whole armory had been furnished to us once and for all. Always equal to itself, unable to evolve, this serene equipment would serve to encapsulate and transmit non-linguistic and thereby muddy feelings, thoughts and experiences. If you want to enjoy the revival of a most ancient dualistic doctrine opposing earth and heaven, here you have it. According to such doctrine, all the variations in the messages produced would depend solely upon the proneness of the terrestrial, non-linguistic materials, which are worked upon by the language, to undergo change, to be affected by contingent factors; or, at the most, they would depend on small personal variations in the use of the supra-personal, unchangeable, heavenly instruments of the language. The linguist is turned into a theologian.

In order to overcome these difficulties, it is necessary to admit that a language consists not only of instruments but also of materials, and that both are the products of previous linguistic work. In using a language we work with linguistic instruments on materials which are (at least partially) linguistic. In any given moment, the linguistic instruments and materials that we use appear as the products of previous linguistic work. Someone could object that at least the original materials and instruments, in the beginning of human evolution, could not themselves have been linguistic. The big problem which should be dealt with here is the problem of the origin of "the linguistic": both in the sense of the origin of language in general, and in the sense of the way in which non-linguistic elements are absorbed into the linguistic function every time speech is used. But the problem of where linguistic instruments and materials originally come from is only an interesting pseudo-problem. One can certainly reply that they come from messages, *i.e.* from the products of previous linguistic work, which leave behind them an instrumental residue. But with what are these messages constructed, if not already with linguistic materials and instruments? A vicious circle seems to form, which might lead one to wonder whether in the beginning there was *the* code or *the* message. The logic of this question is not unlike that of the famous question about the chicken and the egg. Both these pseudo-problems are resolved when we consider the antinomies that seem to constitute them, as totalities which descend from previous totalities. Probably the verbal code-and-messages totality, typical of linguistic work, can be traced back to a previous and less complex non-verbal code-and-messages totality, typical of a communicative form of work which is still to be found both in men and animals. (*En passant*: there are interesting similarities between the concepts of sign and cell, word and seed or reproductive cell, message and organism.) Here too, moreover, non-verbal work comes to our aid with homologies:

the hand is already an instrument with which instruments are produced; and the first instrument with which work was done was produced by work. Approaching the language in more than merely instrumental terms is a decisive step towards the basic principle that *the linguistic and the non-linguistic necessarily stand together*: they can be distinguished and opposed to each other only within one totality which includes them both. To put it in a graphic formula which lends itself to changes in tones of voice: you cannot have something *non*-linguistic which is non-*linguistic* before and unless you have the linguistic too. An important consequence of this principle is that it helps explain the way in which we carry along with us the whole linguistic experience of the species. Each child, when he begins to speak, is already using immensely complicated instruments *and materials*. The same is true for the use of material products, *i.e.* for the acquisition of non-verbal sign systems. The point will be taken up again in 6.5.

Let us say then that a language consists not only of instruments but also of materials. This fact begins to reveal the homology of the language with the part of material capital called constant or fixed. But we know that constant capital is also made up of money. We must therefore ask ourselves if a dimension corresponding to money can be found in languages — if "linguistic money" also exists.

5.2.1.2. *Linguistic "money"*. — The idea of money applied to language has an unaccustomed sound; its formulation is not easy. And yet, this is the aspect which has most strongly caught the attention of various scholars and men of letters. Horace spoke of the "coinage of words"; Francis Bacon of the "money of intellectual things"; Hegel, Marx, and Lenin of logic as the money of thought. Bacon indeed went so far as to write that «words are the tokens current and accepted for conceits, as moneys are for values» (*The advancement of learning*, Book VI, I). Lévi-Strauss reminds us that while we (Europeans and Americans) are always talking and thus abusing the language, «the greater part of those cultures which we call primitive use language parsimoniously — one does not talk on any occasion and about anything. Verbal manifestations are often limited to prescribed circumstances, outside of which words are saved» (1958: 78; text somewhat different in the English transl., 1963). The philosopher of law Bruno Leoni attempted to make a parallel not only between language and money in general but also between production, exchange, and falsification of coins and of words (1962: 541-567). The many pages in which Saussure compares the value of signs to economic value are well known.

I shall mention three possible explanations of the fact that linguistic money has attracted attention more than the other features of linguistic capital. The first is that we make use of our language in a "natural" manner. This is, as we know, a pseudo-naturality, but one which creates a zone very difficult to pass beyond; it is hard to recognize a form of work in its various articulations, or even only the use of previous products, in a fundamental daily activity common to everyone such as is the speaking of one's mother tongue. Only over the last decades have we begun

to be aware of the programs which we realize when communicating. The second explanation is that the primitive conception of money as true wealth, or even worse, as the source of wealth, may have contributed to emphasizing precisely and solely that aspect of language which is its wealth. No theory tracing value back to work was yet available, and the vision of social reality was distorted by the presence of exploitation to the point of being completely overturned. These two factors made it acceptable to see wealth in a language and also to place such wealth over and above other aspects of the language, or even to make the latter depend on linguistic wealth. To see constant linguistic capital only in the shape of money was in effect an ideological reflection of the life-situation of someone who lives off his income without ever concerning himself with the instruments and materials of work. Work itself, the prerogative of the servile classes, in this way turned out to be doubly remote.

A third explanation of the reduction of constant linguistic capital to mere money lies in the fact that any language shows in a macroscopic way its own character of being a means of universal exchange. He who speaks can address anyone, he can say anything — similarly a person who has money in his pocket can go into any shop and buy any commodity, since it is with money that all other commodities are bought and sold. The very limitations to these freedoms, reference to which was made already (5.1) and will be made again further on (7.3.1.1), accentuate rather than diminish the significance of the homology. Furthermore, the patrimony of the language is present universally and necessarily within every given linguistic community. Not only can everyone make use of it, but it is also true that no-one can entirely escape from it. It is on the yardstick of a language that we measure all messages that are exchanged: they have a value insofar as such a measurement is possible and gives a result which is at least partially positive (cf. Rossi-Landi 1961: chapters V and VI). Without going so far as to consider linguistic money as a real and proper "excluded commodity", one can perhaps say that it is the general equivalent of all possible communications in the sense that it controls them all, placing a limitation on each. Secondarily, it is reasonable to admit that some linguistic values take on the functions of privileged commodities, those which can be immediately exchanged for all other commodities, or a majority of them. Much the same thing happens on the market with precious stones. I am referring for example to terms called precisely terms of value, or to the existential use of the verb *to be*; and here one may see what George Thomson was saying about the relationship between the formation of a monetary economy and the formation of the Parmenidean One and later of the notion of substance (1949-1955, II: ch. XIV).

It is possible to distinguish further elements of homology between the exchange of so-called material goods and the exchange of sign goods in communication by studying, in the field of language, the progression: barter — simple exchange — mercantile production — capitalist production — neocapitalist production. Barter would correspond to the communicative exchange of one or more meanings in an

immediate manner. On the other hand we would have a schema similar to that of exchange through money, that is, a Commodity-Money-Commodity transaction, when the linguistic exchange is broken in two by the permanence of words and syntagms in the language, *i.e.* by the fact that a part of the linguistic capital is now passed down from generation to generation as something essential and indispensable. The language lies in the memory rather like money in a coffer. Linguistic money would be found to subsist precisely in this permanence of the wealth of the language outside actual communicative transactions.

The shift from occasional linguistic barter to subsequent and more complicated levels of exchange can be made clearer by introducing the notion of *linguistic need.* In correspondence to *occasional barter* — the satisfaction of one's own needs through a private exchange between two producers — we would have a linguistic barter performed for the satisfaction of immediate expressive or communicative needs. The fact that already in such cases words are employed is not dissimilar from the fact that in barter the various types of goods must already have been produced and are susceptible of being considered objects of exchange, and it does not constitute for this reason a difficulty in the homological survey of this phase of the development. Corresponding to *simple mercantile production*, where money has been introduced and production is directed towards *consumption*, we would have the institutionalization of linguistic materials, that is, the social possibility of keeping them apart or of "conserving" them separately from their live meaning, independent of the use that can be made of them — a procedure which can be accomplished through writing or even through memorization and handing down of ritual or technological formulae which no longer represent in an immediate manner the specific linguistic work that produced them. Here then communication as immediate and direct linguistic exchange is interrupted by "words and syntagms kept in storage"; in social terms what happens is that linguistic circulation is interrupted by whoever "possesses" these words and syntagms. It is difficult, at this level, for real linguistic crises to appear. What we will finally have is *"capitalistic" linguistic production*: a linguistic capitalism corresponding to capitalistic production aimed at *profit,* with its crises and depressions. In a system of linguistic production for profit, profit would be limited to those who possess the sources and the means of comunication, *i.e.* the control of codes and channels; while the common linguistic worker, or common speaker, would continue to produce for consumption (cf. 7.3-4).

Another way of saying the same thing is the following. Linguistic money is that aspect of the language which permits and indeed promotes communication with anyone whomsoever in addition to and beyond the needs which emerge in the division of labor. This allows the development of an indeterminate number of ever more complicated, and to a large extent artificial, linguistic needs (Rossi-Landi 1968b: 54–5).

So far, we have discerned in the language the aspects of instruments, materials,

and money. We can therefore describe a language as fixed or constant capital. What will be the nature of the variable linguistic capital, which, added to the constant capital, determines total linguistic capital and sets it in motion?

5.2.2 *Linguistic capital, variable*

Fixed or constant capital is inanimate if variable capital is not added to it. In the case of language (as in general of social sign systems), the variable capital must be sought in the speakers and identified as the value of the *linguistic labor-power* expended by them. Men who speak and understand a given language, who are able to express themselves and communicate in it, expend this capacity of theirs whether they are in the position of transmitter (speaker or writer) or in that of receiver (listener or reader). We are speaking here of the normal quantity of success in communicating which presides over every exchange; and since we are dealing with a considerable quantity, by dialectical law this turns into quality each time that an infant *has learnt* to speak; without a qualitative leap of this kind, no social-linguistic community could ever have been formed. Linguistic labor-power can thus be defined as the mere capacity, generically understood, to use a language, to speak in it; it qualifies one as belonging to a verbal sign system.

The attribute 'constant' when applied to capital doesn't certainly imply an ontological fixity or even only a naturalistic one; rather, it indicates a difference in comparison with variable capital. Constancy and variation are both relative and one can grasp them very well by considering the permanence of a language from generation to generation. The historical tempo of individual linguistic workers is quicker than that of the language — the variable part of linguistic capital *becomes* more rapidly than its constant part.

If we take away variable capital we are left with only materials, instruments, and money, which without work are dead things. Before being dead, a language must have been alive; it is precisely the notion of a dead language that *we arrive at* when variable capital is taken away. On the other hand, *the addition* of variable capital to constant capital appears clearly when we consider the case of a linguist who succeeds in interpreting a dead language: he is like one who enters an abandoned factory and little by little starts up the machinery, whose workings he has learned to understand; and puts to use once more the materials which were left there waiting. To take away all constant capital, concentrating one's attention solely on variable capital, would mean instead limiting the discussion to man's body understood in its psycho-physical materiality — full of potentiality, but at the same time wholly unexpressed.[62]

[62] As we know, man is more than a biologically organized piece of matter because he belongs to sign systems, *i.e.* to a higher level of organized matter. What lurks in the operation of concentrating on variable capital and forgetting about constant capital — to put it more traditionally, on speakers rather than on codes, or worse on *parole* rather than on *langue* — is the danger of subsequently making the further substitutive step of searching into man's biological body for a basis of social codes. Linguistic innatism of the biological kind is thus born — a

For the capital of language [*langage*] to continue to operate, it is necessary that not only its constant portion, that is, *the* language [*langue*] but also its variable portion, that is, the linguistic workers, survive. But how does one *produce linguistic workers*? The answer, which is only apparently obvious, is that they are produced *by* language [*langage*], that is, by their being a portion of linguistic production, a controllable and exploitable element of it. If we carry out the operations that, in economics, make us sort out wages from other prices, and if we consider the working class as a commodity, then we are struck by this fact, that we are dealing with a *talking commodity*. The language must continue to function; for this to happen, those who speak it must continue to exist; the transmission of language from generation to generation is also a transmission of linguistic exploitation and alienation. The most important point regarding variable linguistic capital is just this — the way in which it is handed down.

The relationship between constant linguistic capital and variable linguistic capital, that is the *organic structure* of linguistic capital, also lends itself to interesting considerations. We can suppose that a truly primitive language (much more primitive than those of societies we commonly call primitive) constituted a constant capital of little value, which as such allowed a certain freedom to the speaker. The very conversational parsimony of the primitives, described by Lévi-Strauss and other anthropologists, is an indication of a certain amount of closeness to the specific linguistic elaborations with which we obtain use-values — to the relative independence and integrity of the craftsman. As constant capital grows, any interruption or defect or modification in the working of the machines endangers an ever greater value. Not for nothing purists are conservatives and the avant-garde revolutionaries. The more complex and regulated the structure of constant capital, the more the speaker is atomized, reduced to the condition of an individual who works without freedom inside an immense machine. At this point, as Marx says in the *Grundrisse*, the worker's activity «is limited to mediating the work of the machine»; it is an activity which is «determined and regulated in every direction by the machinery's motion» . . . «The accumulation of knowledge and talent, of the general productive forces of the social brain, is thus, with regard to work, absorbed into capital and manifests itself therefore as a property of capital, and more precisely of *capital fixe* [French in the German text], to the extent to which this enters into the productive process as a real means of production» (trans. from the German text; pp. 584, 586; Italian transl., II: 390, 392). It would seem that the extreme stage one can reach is that of coming once more to believe that a language is something only natural: a force which cannot be opposed, a necessary condition. At this point linguistic exchange-values put themselves forward again as linguistic use-values, they appear as if they were themselves linguistic use-values. The worker's

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very important case of "biologism" as a basic error in thinking and as an ideological projection of the fear of change. Cf. 2.4.2 above, and 5.2.3 below.

resignation is complete since it is no longer even felt as resignation. The transition from capitalism to neo-capitalism, linguistic as well as non-linguistic, is accomplished.[63]

5.2.3 *Total linguistic capital and its operation*

The operation of total linguistic capital, *i.e.* of a language as constant linguistic capital together with its speakers as variable linguistic capital, is communication: production, circulation and accumulation of messages within a linguistic community, on a communicative market. The process must be viewed as something unitary and circular: there is no speaker without a listener, no listener without a speaker, nor speaker and listener without messages which go from one to the other, nor comprehensible messages without a code in common, nor a code in common without previous linguistic-communicative work. *The whole situation takes shape little by little in its entirety.* It is only much later, at a much higher level of dialectical elaboration — the spiral having already turned innumerable times upon itself —, that each individual begins first to distinguish himself within the process of communication, and then to assign himself a particular position as a speaker, that is, as an expender of linguistic labor-power. Linguistic labor-power supports and animates the whole edifice. To perform this function, it was unknowingly forged over hundreds of thousands of years by supra-personal and therefore objective structures; and these structures were in their turn produced by linguistic work which accumulated from the first beginnings of mankind. The question of the origins, which presents itself again at this stage of the argument, is once more a question of going back from one totality to a previous, less complicated totality. *Linguistic* labor power descends from communicative labor-power which is already present in pre-human animals; but an immense qualitative leap has occurred through the division of labor and the institution of exchange (cf. Sections Two and Three, *passim*).

If communication is the operation of *total* linguistic capital, it is not possible to characterize it as a function of only a portion of that capital. When people say that communication takes place *by means of the language*, that is, with only the constant capital, and then add that the language *is made use of* by the speakers, they seem to be repeating a banality which merely describes the surface of things; but in reality, on closer examination, we find that they slide into considering the language and the speakers as separate entities, each one produced independently of

[63] This process has been described along more or less Marxian lines by Lukács 1923 (Engl. transl. 1971); Benjamin 1955: 148fll.; Horkheimer 1947; Adorno 1963, 1964, and 1966; Horkheimer and Adorno 1942-1944; Marcuse 1964. For a general interpretation see Scalia 1966 and especially Perlini 1968a and b, 1969. Banfi 1965 and 1966 are careful examinations of the "return" of exchange-values as "new" use-values. The *Grundrisse* are now the main text for the whole discussion (see footnote 18). See also Section Seven hereafter, especially the last three subsections (7.3-5).

the other. The old, impossible problem of joining together again what has been arbitrarily divided will then rear its malignant head. What gets lost is the simultaneity of the formation, and the reciprocal influence, of the two parts of the same totality. The situation is even more distorted if we suppose that only a part of the language is made use of — only the materials, or only the instruments, or only the "money". We have seen the difficulties that one runs into by developing the reductive hypothesis that the speakers are able to communicate by means of linguistic instruments alone (5.2.1.1), or the supposition that this can take place by means of linguistic money alone (5.2.1.2). The third reductive hypothesis would be that speaking consists in using linguistic materials alone. In this case both the instrumental part of the language and everything in it which has the character of a monetary generalization of linguistic values would be pushed back *into* the speakers; their activity would take on a pseudo-creative character liable to impede any developments in depth of the research; the social dimension of language would then become impossible to understand. It is worthwhile noticing that this third reduction can be either spiritualistic or biologistic. Spiritualism and biologism are pseudo-explanatory devices which substitute for a properly social approach two complementary errors: whether it is the soul alone or the body alone to be made the mysterious carrier of social activity, is, in the last analysis, almost irrelevant.

If at this point someone were to ask whether the rules for the use of constant capital, including programs as their systematic developments, belong to constant capital itself, or, rather, to the workers, he would be posing not only a just and important question, but also a relatively original one in the field of theoretical Marxism. To arrive at a correct answer, let us first consider two partial replies. If rules and programs belonged only to constant capital, workers as the variable part of capital would find themselves learning rules and programs as something objective, detached from themselves; the active intervention of individual workers, or of groups of workers, on rules and programs would then be impossible — unless one takes into consideration the case of a change operated by them with regard to constant capital. Such a change is certainly foreseeable; it is, however, difficult to understand how it could be performed by workers who find their *own* operations located entirely outside themselves, extraneous to their bodies. To say the least, the idea creeps up of second-order rules and programs governing the use of objective rules and programs. The second partial reply is that rules and programs belong exclusively to the workers. In this case, however, it would remain to be seen how it is that you have on the one hand the instruments, materials, and money, and on the other hand workers who are the bearers of rules and programs and are capable of applying them to objects extraneous to the workers themselves. The appropriate reply is to be found, once again, in a synthesis of the two partial replies. Rules and programs constitute the meeting place, the ground for exchange and reciprocal influence, between constant capital and variable capital. If we consider that it is work which mediates all the factors of the working process, then this is

the only way to interpret rules and programs. Articulated into programs, broken up into working operations governed by systems of rules, variable capital and constant capital interact in specific ways — so that workers modify objects and are modified by them.

There is of course no prohibition against considering a language separately, "on its own", as is often said, as a relatively immobile structure. Much in the same way, there is no prohibition against studying any form of production *in the abstract*: as presumed reciprocal action of materials, instruments, and money, leaving out men; or only as the relationship of instruments and materials, leaving out all the rest. For a variety of purposes, these types of separatistic make-believe are indispensable. But he who believes that in such cases work, without which the objects studied remain inanimate, has been eliminated, is forgetting that he is introducing it himself as a scholar.

And yet, what often happens is precisely that the language and the speakers are presented to us as separate entities which confront each other in the act of speech. What is then lacking is nothing less than the most important dimension — work. Ancient anti-dialectical and anti-materialistic resistances are certainly operating here. They were originally built up as ideological defenses of class privilege. The doctrine of Sense Data, for example, was an ideological projection of the wish that the substance of reality could not be changed. The doctrine of the so-called Moments of the Spirit was an ideological projection of the wish that all experience should allow itself to be dominated by something higher, pre-arranged and immutable. In both cases it was a question of imposing a fixed capital, not to be touched because already in the hands of the ruling class, while ignoring the variable capital or rather admitting it only *a posteriori*. This ideological use of fixed capital undergoes interesting metamorphoses. Today, for example, we often find it transferred into the Structures of the Language. What must instead be proposed as primary and foremost is a totality comprehensive of both the language and its speakers as its intrinsic and constitutive parts. It must be shown how total linguistic capital is itself the social reality which proceeds with its own motion, a motion which includes both the language and its speakers — its constant as well as its variable portion.

Messages, as the products of the operation of total linguistic capital, can exhaust themselves in the act of reception, that is, upon linguistic consumption or fruition. Or else they can retro-act on the constant capital of the linguistic community, bringing about modifications in the units and in the aggregates of which the language is made up, and in the rules for the use and the combination of both. Another path that messages can follow is that of their piling up and organizing themselves in the form of higher level capital, remaining available for further and more complex linguistic elaborations to be undertaken with that language within that community. Here I am referring to the ceremonial, ritual, folkloristic patrimony,

both oral and written, as well as to poetic and literary activities; and I believe that here we could bring out elements homologous with financial capital.

Inside the limits within which translating is possible, the patrimonies thus formed in the various languages exert reciprocal influences. This is therefore the place to add that beyond the national linguistic markets corresponding to the various languages, the plurality of the languages and the exchanges that take place among them determine various international linguistic markets and tend to build up one planetary linguistic market. The ways in which we receive and absorb messages translated from other languages present in fact remarkable similarities with the ways in which we absorb commodities imported from other markets. They are still messages and commodities, even if "we" have not produced them; and, in both cases, there is the same interplay between similarity (recognizability, usability) and difference (originality, strangeness, or amusement).

6. DIALECTIC OF LINGUISTIC VALUES

> After a fashion, it is with the human being as with the commodity. Since the human being does not come into the world bringing a mirror with him, nor yet as a Fichtean philosopher able to say "I am myself", he first recognises himself as reflected in other men. The man Peter grasps his relation to himself as a human being through becoming aware of his relation to the man Paul as a being of like kind with himself. Thereupon Paul, with flesh and bone, with all his Pauline corporeality, becomes for Peter the phenomenal form of the human kind.
>
> KARL MARX

The mere opposition between use-value and exchange-value is insufficient, not only with respect to the complexity of language, but also for the purposes of an elementary approach to a theory of linguistic labor-value. Enlarging the discussion semiotically, the same is true for any social sign system interpreted by means of a theory of sign labor-value. We must now say something about two necessary qualifications.

The first qualification regards the fact that the opposition almost indiscriminately applied up to the present stage to "words, syntagms, and messages", must be examined separately for each of these. The second qualification regards the fact that — as hinted at in 2.3.4 under (iii) — there are not two values, but three. The two points are closely interwoven; in what follows we shall first examine each of them separately, and then together within a wider approach.

6.1 *Use-Value and Exchange-Value, from Word to Message*

The dialectic found in the opposition between use-value and (exchange-)value is

present at various levels of linguistic work and of its products. These levels come usually together and they are circularly interconnected; but it is convenient to distinguish between them for the purpose of analysis. At the *level of every single word* (or *moneme*, or *linguistic sign*[64]), we find a *first opposition* between a *signatum* and a *signans*: the linguistic work of *semantization* produces the word as the unity of the two. By putting the dialectic between use and exchange to work at this level, one can see an embryonic form of use-value in the *signatum* and of (exchange-)value in the *signans* (the two, let us recall, always exist together). A need, insofar as it is satisfied by the work of semantization, is a *signatum* exchanged by means of a *signans*. This does justice to the conventional character of the *signantia* by which, in different linguistic communities, the same or very similar *signata* are transmitted.

When we look at a word as already formed, it presents a *new opposition* of use-value and (exchange-)value superimposed upon the previous opposition. Since as a matter of fact isolated words do not exist (a point not to be confused with the *isolated use* of a word), we find ourselves already at the *level of words in the plural*, as they appear one next to the other within the system of a language. The use-value of a word in a language is its use; a *signatum* as something external to the word does not exist. But since when we use a word we use it precisely in its capacity as that very unity of *signans* and *signatum*, the use we can make of it depends in turn upon the properties it possesses. The word as a unity of *signans* and *signatum* is a product of linguistic work; its use is further linguistic work. The (exchange-)value the word has in the language proceeds from its entering into relationships with other words. This is what I had in the back of my mind when I kept on adding the term 'syntagms' to the term 'words', for with a syntagm the stage of separate linguistic units gives way to the stage of initial association between two or more words.

There is a *third opposition* between use-value and exchange-value at the *level of communication*. A message can be transmitted and received because it embodies in its turn the dual character of being a use-value and an (exchange-)value. It is manufactured as use-value but transmitted as (exchange-)value; it is received as (exchange-)value but interpreted as use-value. Signs become a message and the message becomes signs again. The homology with what happens in economic communication is startling here: we will come back to it in 6.3 and 6.4.

The main dialectic leaps are then *two*, taking place *in between* the following *three* levels: (i) When a single word is used, it is already a unity of pieces put together synthetically; it already has the value that comes to it as the product of this work of synthesis. This is its use-value as a complete word. (ii) When two or more

[64] For *monemes* and *words* cf. notes 24 and 32, and the theory of linguistic production from phonemes to sentences in 3.2.1. *Linguistic* sign is a notoriously more comprehensive term, to be preferred to monemes, words, and other such terms; in the following, however, it will be sufficient to resort to the common usage of the word *word* as the basic linguistic unit.

words are united in any expression whatsoever, each of them is connected to the others within the expression according to its value and to the (exchange-)value it has in the language: words act upon one another with their values, and these actions form the unity of the expression. (iii) A message in turn is the bearer of a duality of use-value and (exchange-)value when it is transmitted and received.

6.2 *Use-Value, "Value" as Position, and Exchange-Value*

As we know one has to distinguish between the *use-value* and (simply) the *value* of every word and every message individually considered, and find their *exchange-value* in the establishment of relationships among them. The fundamental texts for the study of the dialectic of the three values are — naturally in addition to *Kapital* (beginning with the first chapter of Book I) and to the *Grundrisse* — «The form of value», 1867, and the «Randglossen zu A. Wagners *Lehrbuch der politischen Ökonomie*», 1881-82. In the «Randglossen» Marx begins not from value, but from the commodity: this is the «*concrete social figure* of the product of work». Analyzing the commodity «in the *form in which it appears* [in der *Form, worin sie erscheint*]», we find *in first place* the opposition between use-value and exchange-value; but then, «a further analysis of the latter . . . shows that exchange-value is only a "phenomenal *form*" [Erscheinungs*form*], an independent mode of presentation of the value contained in the commodity» (Dietz Verlag, XIX, 369).[65] This amounts to discovering that, in reality, the commodity *is* use-value and "value"; and this discovery is made possible by the fact that the commodity *manifests itself* as use-value and exchange-value, that is, it possesses an independent phenomenal form which represents its "value". A commodity acquires its own phenomenal form — by which its "value" is expressed — in the relationship between different commodities (one of the texts where this transition is formulated with greatest clarity is «The form of value»). It is not that a commodity, even in isolation, doesn't possess a "value" corresponding to the portion of undifferentiated work pertaining to it; the point is that such "value" cannot emerge until a commodity enters into relationship with at least another commodity, whereupon its "value" becomes manifest as exchange-value. Or, a commodity acquires a full-winged *status* as a commodity only by entering the situation of exchange. In this sense «commodities themselves are not things» (Marx: *Theorien über den Mehrwert*, Dietz XXVI, 3°: 268). The wrong operation, for which Marx rebukes Wagner, consists in beginning with value and then subdividing it into use-value and exchange-value; as if an entity, value, existed on its own, and we could grasp it as such. It

[65] Cf. note 12, and 2.3.4 on differentiated and undifferentiated work. The dialectic of reality and appearance, of essence and phenomenon or manifestation is present in Marx's statement. We hinted at it in passing in footnote 25 as an object of study for the materialistic theory of knowledge, strictly interwoven with other dialectical processes.

is clear that this would be an idealistic hypothesis sending us back to a realm of values detached from reality. The correct operation, instead, consists of finding the opposition between use-value and "value" *within the commodity*: and of then recognizing that exchange-value is a phenomenal form of the latter. We have talked commodities; but we know the same basic dialectic obtains and must obtain in other forms of exchange as well (2.4.3, 4.2, and *passim).*

6.3 *The Dialectic of the Three Values at Diverse Levels*

By bringing into a single approach the two qualifications made, let us look at how they work at the level of words (in the plural). The "value" of *a word*, as distinct from its use-value, can be understood *as its position within a language*, just as the "value" of a commodity is its position within the market. This does not mean, however, that either language or market may be conceived of as something previous to words and commodities. As we know, a commodity in the first place is not just an external object, a body to be described according to its physical or chemical properties; it is an object potentially related to man because of its being endowed with properties suitable for the satisfaction of a need. This is the use-value of a commodity; or, the commodity is, to begin with, a use-value (4.2). As such it can be compared to a word. A word, as the unity of *signans* and *signatum*, is the bearer of the property of being usable for communication; this is where its use-value resides. The position of the word in the language, its "value", is brought to light by the exchange-value that the word assumes upon entering into an active relationship with other words.

When dealing with *redouter* [dread], *craindre* [fear], and *avoir peur* [be afraid], Saussure expressly asks himself what the "value" of each of these words may be, and concludes that they «have value only through their opposition: if *redouter* did not exist, all its content would go to its competitors, etc.» (1915, 1964: 160; Engl. transl.: 116; Godel 1957: 90). It is clear that he is not investigating here what each of these words may *mean*, what its *signification* may be, that is, what specific linguistic work may have constituted those three relationships of *signans-signatum (signifiant-signifié).* If the problem that Saussure is setting himself were the latter, he couldn't deny the words under examination a value independent from their opposition and previous to it. Saussure is asking instead what the value may be of those words in the *sign field*[66] *to which they belong*; and he finds it represented by

[66] We prefer *sign field* to the more used *semantic field* in order not to exclude from the start meaning-as-value from the syntactic and pragmatic dimensions of semiotics. If we wanted instead to relegate meaning-as-value to the semantic dimension alone, we would then have to introduce a semantics-of-syntax and a semantics-of-pragmatics. It would follow that also a semantics-of-semiotics would have to be introduced. The issue certainly is not merely terminological; indeed, it raises a group of basic difficulties that every theory of signs should consider its duty to face and should be able to solve. These difficulties cannot be dealt with in the

their reciprocal opposition, that is, by their exchange-value: «the value of just any term is accordingly determined by its environment [par se qui l'entoure]»; «un signe dépend d'un système de signes . . . Toutes les grandeurs dépendent les unes des autres» (1915, 1964: 160; Engl. transl.: 116; and 1908–9: 20). Actually, he goes even further, and states that the content of a word «is really fixed only by the concurrence of everything that exists outside it. Being part of a system, it is endowed not only with a signification but also and especially with a value, *and this is something quite different*» (1915, 1964: 160; Engl. transl.: 115; for all these quotes, cf. Engler's edition: 256 fll.; my own italics).

The "value" of words depends upon how linguistic work of the "generic" or "undifferentiated" kind (2.3.4) is subdivided in the sign field to which the words belong. When we make this quantitative consideration, we are referring to work in general as mere expenditure of human linguistic labor-power, constitutive of the substance of value — the "measurer" of exchange-value. This is why all of its content would go to its competitors if *redouter* did not exist: because the *same quantity* of undifferentiated linguistic work, continuing to be expended, would be distributed into two rather than three pieces. It is, however, precisely on the subject of underlying work that continues to be expended that Saussure remained silent. His conception of work is still a conception of personal or private performances in spite of his appeal to the social sanction that such performances (are expected to) receive and to the obvious fact that a language *is* a social product (cf. especially 1908-9). The "official" Saussure, in the passage quoted, also seems to be saying that a sign field subdivided into three signs is operating; but if these three signs weren't *signantia-signata*, each of the pairs being joined in that specific way by the specific linguistic work of the community, *the problem would not even arise.*

The "value" of words, like that of commodities, is measured according to the average linguistic work socially necessary for their production (*Das Kapital*, I, 5°: 204; English transl. by Paul, vol. I: 183). This point comes forward as soon as we consider how the *total* value of a language can be traced back to nothing else than the total social work of the community speaking that language. The totality of the linguistic work of a community brings into being the totality of the value of *all* the words that constitute that language. When normally developed languages are concerned, it is not usually possible to keep in mind at any given moment, or even in the course of a single piece of research, the position of every word (its "value") with regard to all the other words of that language. This position is therefore to be determined by studying the limited *sign field* of the word

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present essay, but reference can be made to the fact that as early as 1938 Charles Morris was clearly stating that meaning is present in all the dimensions of semiosis, and *certainly not only in the semantic dimension* (1938: VI, 1°). How it happened that the presence of meaning was confined to the semantic dimension, so that the phrases 'taking account of, or giving up, meaning' and 'taking account of, or giving up, the semantic dimension (or, semantics *tout court*)' came to be felt as homonymous, is an interesting subject for historical enquiry.

under examination (Greimas 1966: 174 and *passim*). The word one has decided to examine will therefore exercise the function of a provisional nucleus around which the sign field is arranged (cf. Ducháček 1968: 26).

Every sign field belongs in turn to broader sign fields (cf. already Trier 1931, Leisi 1961², Ullmann 1962 and 1957²); and so on until we arrive at the sign totality of the language. A path complementary to that of finding sign fields arranged around a "word of departure" (the word one starts with) consists in subdividing the language (aprioristically with regard to the piece of research that is being started) into categories organized according to some criterion, in order then to accommodate within them various groups of words. That one must, in part, resort to such subdivisions is shown by the very process of singling out partial sign fields. Our linguistic "knowing-how" is always present in us every time we begin any enquiry; it is to something we know already that we have to resort, as soon as we begin wondering about any problem.

Let us imagine a rudimentary ethogram according to which a community of animals has only one signal, for example, a breeding signal. All the sign activity of the animal group would go into the emission and reception of that single message. Now, this activity can already be viewed in two ways: according to its quality — that is, according to the physiological, behavioral, ecological, or other processes that make it what it is, and in which it consists; or it can be viewed according to its quantity. This double approach is different from what is usually understood as an ethogram since not only does it not expunge semantics (or, at least, what is usually understood by semantics: cf. footnote 66), but it introduces it instead at the level of departure. If the signals become two, for example, one for the breeding situation and one for danger, the approach becomes more complicated, but does not change. We would have now, in fact, two distinct qualities pertaining to the activities carried out for each of the two signals, that is, two different processes or groups of processes; and, moreover, we would have the quantity of the global activity, divisible into the two quantities of activity that separately belong to the two types of signals. Let us go on to imagine that, for example, two out of every three signals regard sex, and one, danger. Given *all* the sign activity carried out, one would thus find that two thirds of this total activity go into the production of signals for breeding and one third goes into the production of signals for danger. The signals can be used separately: we shall then say that the quantity of activity expended for one of the two types is equal to the total quantity *minus* the quantity expended for the other type of signal. It is clear that as soon as these quantitative considerations come into play, the qualitative differences between the two processes are set aside: we are not talking about them now, even though their existence is a premise in the new argument. This is a first, rudimentary situation in which we, the investigators, can discern an embryo of the opposition between use-value and "value" in each of the two types of signals. That is, again: each of the two types of signals bears within it both a use-value, which comes to it from the processes

by which it is produced, and a "value", which comes to it from its position in the system to which it belongs.

A slightly more complicated paradigm is offered us by the ethogramic hypothesis of an "animal tribe" in which the whole "language" consists of only three groups of signals centered around the notions of requesting, accepting, and refusing. If I now designate these three groups with the English words 'come on!', 'yes!', and 'no!', it is clear that I am using a rather forced prolexis in which the English language is used as a metalanguage with regard to that primordial object-"language". In the case described, all the linguistic work of the tribe is distributed among those three groups of signals, and determines their "value" according to the quantity of such distribution. The three groups of signals constitute three sign fields outside of which that "language" does not exist; they therefore assume a reciprocal exchange-value which depends upon that quantity. This is indicated by the possible combinations of signals which belong to different groups: a signal from the 'come on!' group may be answered with a signal from the 'yes!' group, thus excluding the 'no!' group, or vice-versa. A signal from the 'yes!' group may be answered with another from the same group or with one from the 'no!' group; but it becomes useless to answer with one from the 'come on!' group. And so on. The most important factor is that the group of signals which has been provisionally excluded continues to exist in the very act in which it is being negated: it is in fact precisely this oppositional permanence of the excluded group that determines the "value" of the group whose signal we are using instead. Here too what we find is a form of what is often called binarism — just a case of dialectic.

The examination of the relationships between the groups of signals is certainly not something that can regard the signals themselves as isolated from their real function. If a word did not have a specific use-value, it would not have its possible exchange-values either. If 'dog' could not be used to distinguish dogs from wolves, and, in another direction, from cats, it would not be possible to put 'wolves' and 'dogs' together as 'canines' as distinct from 'felines', or 'dogs' and 'cats' as 'domestic animals' as distinct from 'wild animals'; and if 'white', 'black', and 'brown' did not distinguish certain colors, it would not be possible to say that 'this dog is brown' while 'that one is white and black'. The conjunctions, oppositions, and implications of words bring to light their "value" — the position that each of them has in the language; and this sends us back again to the existence of their use-value. Our saying, however, that 'dog' is used to distinguish (among other things) dogs from wolves and cats, does not mean that we are making a reference to the complex procedures of distinction and cataloging by which that linguistic use-value, in the form of that unity of *signans* and *signatum*, has been developed in the praxis of a community which has *become* a community of speakers precisely by carrying out that work. When we use a word according to its exchange-value with other words, we always presuppose its use-value; but this doesn't mean that we go through those communitary procedures again. In other words, original meanings are always

necessarily presupposed; they make up the indispensable dimension which underlies any enquiry into sign systems; but, at the same time, they are something that is temporarily set aside. We will come back to this point soon.

For the "value" of a word to get expressed *as* exchange-value, *speech* — the actual use of the language for expressive and communicative ends — must come into play. Now, speech always refers to the already-spoken and, indeed, includes it: it takes place *on*, *with*, and *in* the language understood as an institution, as the constant portion of capital, consisting of linguistic materials, instruments, and money, that we examined in Section Five. Whenever we speak, the constant capital of the language is there, ready to let itself be used according to all the combinations possible with it. But constant capital, as the already spoken, in turn, always presupposed past speech. Exchange-value must therefore be sought already in the verbal sign system of the language as including the programs which pre-delimit all possible exchanges, that is, all possible messages. It is not for nothing that exchange-value is the form of money in embryo (4.1.1). Here too, the parallel with commodities and the market in the ordinary sense comes to our aid: the equation of value 'x commodity A = y commodity B' does not regard any real act of barter; it is a formula that expresses the dialectical nucleus, the minimum and original structure for any possible act of barter to take place. In the same way, the equation of linguistic value '*A* is *B*' — where '*A*' and '*B*' are two words and 'is' is a third word indicating an operation regarding the other two (or else it is such an operation as indicated by a suffix and/or the relationship between the other words, as in 'Charles laughs') — does not regard an actually communicated message, it isn't an act of speech; it is only a formula expressing the dialectical nucleus, the minimum and original structure of every possible message of that kind.

Here too, then, as for the commodity, exchange-value is the *phenomenal form of value*, which is realized in speech (speech including, as stated, the already-spoken) as the external form of the social relationship between the speakers of at least two words. This relationship is equivalent to that between at least two speakers: just as «to become a commodity the product must be transferred to the other person, to whom it serves as a use value, through exchange» (*Das Kapital*, I: 55; Engl. transl.: 41). «Exchange-value does not exist in the singular» («Randglossen . . .»: 358). It is through speech that the opposition, internal to every word, between use-value and "value" is expressed or made manifest. The sentence is the possible message: this possibility is founded on the dialectical crossing of the values borne by the words in the language.

Remembering that the language is a result of a common production, let us consider the following passage from Marx:

> When consumed in common, the means of production give up a smaller part of their value to each single product; partly because the total value they part with is spread over a greater quantity of products, and partly because their value, though absolutely greater, is, having regard to their sphere of action in the process, relatively less than

the value of isolated means of production. Owing to this, the value of a part of the constant capital falls, and in proportion to the magnitude of the fall, the total value of the commodity also falls [*Das Kapital*, I, 10°: 334; Engl. transl.: 324-325].

In Italian everyone commonly says 'dammi dell'acqua' [give me some water] or 'l'acqua è limpida' [the water is clear]. Such a common consumption of these means of linguistic production distributes their value over a large number of messages. The value of these means of linguistic production is greater in the absolute, but it becomes relatively less if we consider their sphere of action. Just the opposite happens when one says something unusual like 'acqua tinta e neve' [painted water and snow], 'non scuse / d'aprir lo core all'acque della pace' [don't refuse to open your heart to the waters of peace], or 'una montagna . . . lieta / d'acqua e di fronde' [a mountain . . . serene with water and foliage] (respectively: *Inferno* IV, 10; *Purgatory* XV, 131; *Inferno* XIV, 98): the value insofar as it comes from isolated means of production goes entirely onto that product, in that message. This could be the beginning of an enquiry in which modern theories on the consumption of sign objects (artistic objects, particularly) are traced back to, interpreted by means of, and ultimately founded on, an articulated theory of the sign work that produces them.

6.4 *Dialectic of Values in the Definition*

It will be well to give for what we have said up until now in this chapter some other examples which, in their culturally intuitive immediacy, may be more useful than abstract discussion. They are examples that belong to what we have called the level of words in the plural, that is, of expression and sentence making; more particularly, they regard the definition and the judgment, which, being typical of language, constitute the very nucleus of syntactic structuring (cf. Jakobson 1970: 16). We want to apply to such cases the most simple and fundamental equation, '*x* commodity $A = y$ commodity B'. Let us consider the definition, which is also a value judgment:

'God is omnipotent'.

Here the quantity (x,y) is reduced to one for both of the terms: there is only one God, and he is omnipotent. (It would be easy to quantify: for example, by asserting that gods, or a certain type and number of gods, are omnipotent; or else by graduating the power of the various beings.) Let us follow literally the beginning of the Marxian analysis of the commodity. The value-as-position of a word can only be expressed relatively to at least another word. Within the equation which is instituted between them, the first word plays an active part, the second word a passive one. Thus, 'God' expresses its own "value" in, and by the merit of, 'omnipotent'; 'omnipotent', indeed, serves to express the "value" of

'God'. This comes about by means of the use-value of 'omnipotent', which, in its form of equivalent to 'God', operates a sort of cancellation of the use-value of 'God', mirroring and expressing only its "value". It is relative to the use-value of 'omnipotent', that 'God' expresses its own "value" and therefore assumes an exchange-value. The result of this intricate network of operations, only hinted at here, is that 'God' can be put into the linguistic circulation as the bearer of such value. In terms of work, the amount of average, undifferentiated, human linguistic work (in a given society) with which 'God' is "measured" (the importance of 'God' in that society) is brought to light by setting 'God' in relation to the use-value of 'omnipotent'. The opposition internal to the linguistic "commodity" is represented by an external opposition, it unfolds in it. The sentence as a unity has been created and can be used as a message.

Generalizing, we can say that this corresponds to one of the ways in which words are reintroduced into the use of the language by means of definition; at the same time, it gives us the following definition of one type of definition: two words or groups of words are set in an equation which establishes such a relation between them, that in force of this relation the second group as use-value reveals the exchange-value of the first, at the same time "cancelling" its use-value. The sign of the relationship is represented by the copula 'is' or by 'has' or by some other verb or linguistic sign indicating the active part of the first term of the equation.[67]

Through the *total or unfolded form of value* (what Marx expresses with the multiple equation 'z commodity A = u commodity B, or = v commodity C ... etc.') we move on to the *general form of value*, in which a certain number of commodities express their own values by means of a single excluded commodity. The excluded commodity, upon which as use-value the exchange-value of all the other commodities as objectified quantity of work are measured, corresponds linguistically to the known term in a definitory series. A good example can be found in the following Crocean definitions of Art:

> '*Art is intuition*, or
> *feeling locked in an image*, or
> *individual theoretical moment of the Spirit*'.

This means that art is measured as the unknown term upon the others as known terms, and, turning it the other way around, that it can be the only known term of the series. In this way Benedetto Croce introduced the exchange-value 'art *as* intuition, or *as* feeling locked in an image, or *as* individual theoretical moment of the Spirit' into the linguistic "market". After which, his followers were able to write, 'art, which *as we know*, is intuition, etc.' Just as they could have written 'ten pounds of tea, which *as we know*, are worth twenty yards of cloth, etc.'.

[67] For the possibility of interpreting the sign '=' in linguistic terms, as referred to common language, cf. Vailati's fundamental essay «La grammatica dell'algebra», 1911: 871-889 (repr. 1966 : 131-157). For the not necessarily mercantile character of sign exchange, cf. 2.4.3; for another example of the dialectic of use-value and exchange-value, 4.2.

We can now see a little more clearly what is beneath the cancellation of meaning, that is — as one usually says (footnote 66) — of the semantic dimension. As is well known, this cancellation is considered necessary by many linguists and semioticians for the systematic development of their research.[68] Already at the level of the simple sentence, the dialectic between use and exchange, between use-value or utility and "value" as position, demands that the use-value of the grammatical subject be provisionally set aside ("cancelled" as Marx would say) so that it may be put into linguistic circulation. In this way, as we have just said, the opposition between use-value and "value", internal to the subject, can become an opposition external to it which unfolds in the sentence; indeed, the *sentence* in its elementary form *is this unfolding*, this transfer of the opposition from inside to outside the grammatical subject. In order for this to come about, it is necessary that the subject enter in contact with other words, these too necessarily endowed with both use-value and "value", in such a way that a crossing may take place among the various values. From this crossing, which each of us unconsciously learns to bring about when he learns to speak, a new quality emerges. A leap, or dialectical strengthening, takes place: the sentence is *something more* than the sum of its parts. What happens, therefore, when we concentrate our attention on that "something more", is that we leave aside what the parts of the new totality were *before* they became such parts.

I believe that many linguists and semioticians have felt just this: that *if one wanted to talk about the structure of the sentence, one shouldn't talk any longer about* the use-value of the various words, that is about their original meaning (signification). They felt that it was necessary, instead, to concentrate attention on the relations of words insofar as they had already concurred in the making up of a sentence — with a formula which I believe an unhappy one, one had to "abandon semantics in favor of syntax". Still, since they did not use the theory of labor-value, and thus were not able to distinguish (while at the same time keeping present) the two kinds of value, of use and position, as the fruits of two different kinds of work, they believed that the setting aside of the use-value of words was equivalent to cancelling it completely. That, moreover, with the contact between (at least) two words, as between (at least) two commodities, a third type of value, exchange-value, should emerge as the phenomenal form of "value", was an ulterior difficulty that couldn't certainly be faced alone, outside of the complex theoretical schema that serves to explain it. The procedure was discontinuous instead of being dialectical. As we said, what enters into the equation as the first term becomes exchange-value because and insofar as it is invested by the cancelling power of the

[68] A few references for the discussion are Bloch and Trager 1942; Jakobson, Fant, and Halle 1951 (1961); Ullmann 1951 (1957²); Harris 1951 (1963); Hocket 1954; Martinet 1960 (1966³); Burger 1961; Ullmann 1962; Harris 1962 (1965); Rossi-Landi 1966a (1968c); De Mauro 1967. It may be of interest to notice that the different *status* of the sign-carrying body in non-verbal *vs.* verbal sign systems makes it a little cumbersome to deal with sheer *signantia* when the bodies aren't just articulated sounds...

second term of the equation itself: for this reason only "it is no longer" a use-value. Both the new and provisional exchange-value of the first term and the exchange-value of the equation seen as a whole, were instead taken into account by linguists only as they appeared *at the end* of the dialectical process, while the process remained ignored — or better, let us repeat, its underlying presence was indeed felt, but the tendency was to dismiss it as being an obstacle to clear and distinct work.

6.5 *The Flow of Speech and Past Linguistic Work*

In spite of its complexity, linguistic work is usually carried out by speakers and listeners without any heed to the techniques put into operation. The use of language *manifests* itself as natural; seemingly man talks as a bird flies or a fish swims. This apparent naturality is instead a *social pseudo-naturality*, that is, a level of sociality so high and complex that it seems natural. An offshore yacht gives us the impression of proceeding in a totally natural way only when everything is perfectly ship-shape: this is obtained when a highly elaborated, complex, and costly machine, which is at any rate very remote from mere nature, is exploited to the full by a thoroughly trained, that is, highly socialized, crew.

The reasons why the speaker and listener do not think at all about the machine of language are as profound and tangled as language itself, and it is not possible to separate them from each other in reality. Still, because of the problems they raise, we attempt to list some of them. (i) Language learning takes place through ten or fifteen years of novitiate, during which time a large portion of our resources are committed to the task. (ii) In a preponderant measure the object of learning has been a constant linguistic capital, that is, an already constituted patrimony of linguistic materials, instruments, and money, together with the rules for using them (5.2). (iii) All this has come about alongside of and jointly with the learning of the non-verbal sign systems without which the verbal sign systems would not make sense, indeed, would not exist (1.3). (iv) Finally, almost everything has taken place according to programs that have been imposed upon us without our knowledge (1.4). We expend verbal and non-verbal sign labor-power putting an immensely complicated social machine in motion, a little as if we were punching the right buttons of a computer by chance. Clearly this is a very difficult situation to unravel. In the rest of this section, on the basis of what we have previously said, we will touch on some points of it. In order to use linguistic materials, instruments, and money, that is, to produce with them sentences to be transmitted as messages, we must have rules and programs. As pointed out before (5.2.3), these rules and programs are the *locus* of the dialectical conjunction between the constant portion and the variable portion of total capital. Learning the rules and applying the programs does not at all mean *running historically through the production* of sign sys-

tems *again*. The speaker produces sentences and messages; this does not mean that he produces the relative codes; it doesn't even mean that he invents the programs (2.3.3). To the contrary: if sign systems *and* programs didn't exist, the speaker wouldn't produce anything, indeed, he wouldn't even be a speaker. Avoiding the empirico-mercantilistic prejudice of those who study language while ignoring linguistic work (5.2) does not necessarily mean falling into the opposite error of believing that everything is produced *ex-novo* by every speaker. The production of sign systems consists in social processes carried out through tens or hundreds of thousands of years. Certainly the ontogenesis cannot but consist in a sort of "entrance" of the individual into a number of sign systems; thus we may even say that the child, in a sense, recapitulates their production, although in a highly abbreviated and partial manner. But it would be excessive to think that the child lives this production over mechanically step by step from the beginning (Solìmini 1968: 108–114), and it would be absurd to think that every individual runs through it from the beginning every time he uses a code to produce a message. The same happens in any material working cycle: no one, when he learns to use those instruments on those materials for given ends, reconstructs, on his own, the history of the working cycle to which they belong. Ideas of this sort can only come from wild exaggeration of the powers of individual consciousness, subtracted from, indeed, made prior to, the historical and social processes which have instead produced it. No one would say that the miner reconstructs the history of the extraction of minerals in his own consciousness. But the same is true for the speaker.

The theory of labor-value applied to language is a social theory which permits the mediation between research limiting itself to the study of already produced linguistic artefacts, and research attributing to individual linguistic operators a sort of possession of production itself. A conspicuous example of the former were the philosophers of Wittgensteinian descent who analyzed common language (the variegated school of Ryle, Wisdom, and Austin); conspicuous examples of the latter can still be found in various forms of mentalism, especially in those who study the so-called "mental operations", "constitutive of language". We have already made some remarks about the former, let us dedicate a few words to the latter. Studying individual mental operations supporting speech amounts to trying to find the social dimension by exploring the individual. The assumption here — certainly an idealistic residue — is that the individual, by the fact of having learned to use a language, that is, to produce sentences and messages, has also learned linguistic production. Since he doesn't know it, though, and can't talk about it, he must have also *forgotten* it, somehow. Production therefore should be present within the individual in some latent form. The idea then is to search for it there. According to this approach, it should be possible to *bring back* every individual to the awareness of what he is doing when he speaks. What isn't clarified here is that such awareness can only exist as the result of a very specific process. But a process of the kind is especially that of research, when a particular piece of language is lifted

out of the spontaneous flow of speech and made into an object of study (I don't mean to exclude other cases in which a similar isolation of the linguistic object may take place: cf. Rossi-Landi 1968c: 20-21, 161-164). When awareness is instead assumed as something present but hidden within what every speaker does, it is gratuitously attributed to the speaker as a point of arrival in a univocal, predetermined, and potentially necessary psychic process — the process of becoming aware. At this stage awareness is dealt with as an item in the furnishing of consciousness, and this seems to be nothing other than one more *Ersatz* of the soul.

It'll be healthy to compare rapidly the two positions sketched above to similar positions that could be maintained in the field of non-verbal sign systems as well. Let's take the case, belonging to our main argument, of manipulative and transformative work and products, that is of the various objectual sign systems. With its appeal to the nursery as the school of language, the Oxonian position as applied to objectual sign systems would contain two tenets, of which the first is entirely acceptable and the second must be entirely rejected. The first tenet would be that in the nursery everyone begins to learn to use a huge number of objects of common use produced by the culture to which he belongs — combs and brushes, silver and glasses, keys and drawers, pencils and erasers, and so on. The second tenet would be that the production of all the above objects has nothing to do with their use. There they are, ready-made for use, and there are plenty of them. Why should we bother with the social processes by which they are produced? But in this way the second tenet, and the whole theory with it, looks like a bird trampling on the soil of everyday practice while we expected it to take off and perform some handsome piece of flying before us. *We know* that artefacts are ready-made, good gracious! but we also have an interest in learning more about them. It's over-gentlemanly to assume the artefacts as naturally given to us. The appeal to what is ordinary, everyday, and common, if you leave it at that, is like studying a market as given instead of as produced. Precisely by presenting itself as social while it stops at a level of pseudo-naturality, the theory under examination impedes our going back to the social work from which that very pseudo-naturality derives.

In the study of mental operations one would suppose instead that in learning to *use* brushes, keys, and pencils, one has also secretly learned the procedures by which they are produced.

In the normal use of a fully possessed mother tongue, for the aims and within the limits of daily communication, what happens is that, *with their entry into new linguistic working processes* as *objects of work* and *means of production*, the words and their combinations *lose their character of products and now function only as objective factors of living work* (cf. *Das Kapital*, I: 197; awkward Engl. transl.: I, 182). In this extraordinary remark of Marx's there is enclosed, in my opinion, a substantial indication for a new approach to some of the central problems of contemporary semiotics and linguistics, like the strictly interconnected problems of language learning, deep structures, and linguistic universals. Deep structures can

be seen as stratifications of previous linguistic work, generalized results of past speech (Lévi-Strauss would call them "sedimented history"). The idealistic and individualistic LAD ("Language Acquisition Device"), who looks so pale, must give way in front of a history-fed and therefore rubicund LASSIE ("Language As Sign Stratification In Evolution") (Rossi-Landi, «LAD and LASSIE», forthcoming). From the time when we begin to learn to speak, we succeed in putting into motion remote results because the "right buttons" for doing it immediately with success are put in front of us: the buttons are the stimuli of products which are still actual, but which for the speaker have lost their product character. The speaker treats the words as means with which to speak, as objects that he elaborates in speaking, as parts of a wealth he feels to be his own. Certainly, one cannot speak without materials and instruments with which to speak; therefore when one begins to speak, the presence of these products *is* presupposed. But in this process of speech it is indifferent that the words are *products of past work*, «as it is indifferent, in the act of nutrition, that the bread is the *product* of the past work of the farmer, the miller, the baker, etc.» (*Das Kapital*, I: 197; awkward Engl. transl.: I, 182). When in the process of speech the words as means of linguistic production make themselves felt in «their character of products of past work, this happens by means of their defects» (*ibidem*). A word, a syntagm, a sentence which does not function communicatively as we wish, which for example (as one may say) "doesn't get the idea across", sends us back to the specific communicative program in which it serves as an instrument, or to the productive work from which it derives. In the first case, we are usually dealing with the performance of a single speaker, in the second with the work of society that has constructed and put together those pieces of language. We must resist the temptation of assimilating the second case to the first. The knife that doesn't cut and the thread that breaks continually (these are Marx's examples) bring another worker to the mind of the one who is using them in a new working process — a given knife-maker and a given spinner respectively. This is equivalent to the case in which a piece of language is badly used in a given text I am examining. If I were the one who had produced that knife before using it for cutting something, the "other worker", the one I would get mad at, would be myself in a previous moment; and it is easy to imagine the linguistic counterpart. But saying that a word, a syntagm, a sentence, doesn't get the idea across *in general*, saying that one is employing linguistic products which are insufficient to whomsoever may be using them and however they may be used, corresponds to saying that a given *type* of knife does not serve for that given work; then one has to use sentences or knives of different existing types, or *in extremis* invent a new type. In this second group of cases the defect in the product of past work sends us back not just to a single worker, but to society; and we may even be dealing not just with a defect, but with an insufficiency with regard to new aims.

In order to *recognize* that any linguistic element doesn't do the job, I must have learned how to use it. But in no case *must I* (and in the great majority of cases it

is irrelevant that I *might*) have learned to produce the objects which I am using either badly or well, and of which I am now recognizing either the merits or the defects.

7. LANGUAGE AS A SECTOR OF SOCIETY

> οὐ μόνον δεῖ τἀληθὲς εἰπεῖν ἀλλὰ καὶ αἴτιον τοῦ φεύδους.
>
> ARISTOTLE

> There develops a multiplicity of social relations that are spontaneous in their growth and are quite outside the control of the actors.
>
> KARL MARX

This final section is mainly dedicated to some of the problems belonging to the exploitation of sign systems and to the linguistic alienation which is connected with it. The topic has already been hinted at in a more or less occasional way when dealing with economics as a sector of semiotics in Section Four and in the course of the treatment of linguistic capital in Section Five (especially *ad finem*). Actually, it has been implicit since the beginning of this research. If (i) between material and linguistic production there obtains a homology founded on the ways in which human work is expended, and (ii) exploitation does take place in the field of material production, it follows that (iii) also linguistic production must be the object of some sort of exploitation. As alienation exists in various other fields, it must also exist in the field of language. Indeed, a very simple and preliminary way of presenting it would consist in stating that language, as a *sector of* society, must share the basic features of the totality it belongs to. Society *is* alienated; and so is language.

Before concentrating on our main topic, however, it is opportune to dedicate some attention to two additional features of linguistic production: its finite character, and the relation between work and play in language. This will help to clear the air of some possibly lingering doubts about the homology of production, and will thereby put us in a better position for beginning the examination of our subject from its root — linguistic private property.

7.1 *The Finite Character of Linguistic Production*

An objection may be raised against the homology between material production and linguistic production. In material production the number of products is finite; whereas it is typical of linguistic production that, given a particular language, an indeterminate (some *love* to say infinite) number of words and sentences can be produced with it. Whereas each material product can be used only a finite number of times, there is supposedly no limit to the usability of words and sentences. To

this objection another has been added as a corollary. Because of the two-fold indeterminateness or infinitude of language, nobody ever tries to take over linguistic capital: there is an abundance of words and sentences for all who want them. From this it would follow that in the sphere of language we find neither exploitation, nor private property, nor alienation in the sense given in these pages.

Let us concentrate in this section on the idea of indeterminateness or infinitude. It is an idea which it is better to sack on the spot. Things are actually completely different from the way in which they are usually presented by the lovers of infinitude. A given language, in the course of its historical existence, is the sum of all the linguistic signs which have progressively made it up. These clearly run into very high figures; as do the sentences produced with the code of the language. But we do not see here any substantial differences with what takes place in the field of material production (apart from the obvious phenomenal differences). All of the techniques which sustain material production in the human community in which a given language is spoken enable an also very high number *of utensils* to be produced with the materials available; and each of these sentences and utensils can be used very many times. But once the wealth of both forms of production has been recognized, it must not be forgotten that they have their historical limits; you can recognize at a glance, for example, if a sentence is Latin or English; and a Bermuda, that is, Marconi-rigged, sloop with bulb keel is certainly from the twentieth century. Both the number of objects produced and the number of times they are used is in either case finite, not infinite. Certainly no-one can be interested in establishing how many times pots of pasta were put on the fire to boil during the Kingdom of Napels; or how many times the English may have said 'tis . . .' or 'it's raining' or other variant ways of saying the same thing, from the time of the Magna Charta down to that of Queen Victoria. But since the number of citizens of those kingdoms was in both cases finite, as were the meteorological and culinary occasions, there is no reason to suppose that the use made of pots or of utterances on the rain was particularly excessive, or maniacal. Those linguists who insist so much on the usability of the language really make one think that they must have a very slight acquaintance with manual work: otherwise they should perforce be struck by the fact that the systems of material products are actually just as usable, and with just as much individual liberty (or lack of it).

There is therefore reason to ask oneself where the notion of infinitude applied to language comes from. It necessarily sends us back to something which lies outside the natural, biological, and historical delimitations which make up the everyday texture of human life. Now what can stand raised up above such delimitations? Even in the cases where the old idealistic terminology has been abandoned, the first thing that comes to mind is some sort of *category of the Spirit.* Man would have by definition a capacity which is supra-historical and precisely for this reason infinite; this capacity would find expression in the infinitude of linguistic use.

This hoary philosophical notion, which we still find living in the crannies of contemporary linguistics, is to be repudiated at the root. In any case, to start with, we should remark that this should be a question not only of the Spirit's producing words and sentences, but also of the spirit's producing objectemes and utensils made up of objectemes. This far the young Hegel had already applied himself. In a number of countries in old Europe, disdain for material production, typical of a bourgeoisie feudally placed over a rural mass immobilized in underconsumption, had instead taken a big step backwards, had sanctioned a further delimitation: the spirit invoked was only that of linguistic production (which was moreover mystified as a creative activity). But the fact is that we are now living in a neo-capitalistic *régime*: the structures of production press in on us from all sides, permeating more and more every aspect of our lives. It is no longer possible to ignore them. And now lo and behold — what a novel idea! — the "free, spontaneous, infinite activity of the Spirit", withdrawn from material production and reduced to linguistic production already, is neo-capitalistically transferred from the Producer to the Products and thus turns out to be perceivable within the *structures of the language*. The language, product and instrument, would contain itself the dimensions of infinitude. It is like saying that the liberty conceded by the capitalist exercising his dominion would manifest itself in the infinite possibilities of elaborating the production line, the factory — objectified capitalist production.

If we think of the language as capital we can catch a glimpse of just how deep the implications of such a transfer are. In fact the toiling masses are emerging; the countries subject to imperialist domination are claiming their independence. All this provokes a typical ruling-class reaction also with regard to the language: it is presented as everybody's common property. "You are free, dear linguistic workers and dear under-developed peoples. So what are you looking for? Haven't you already got the structures of the language, with which you can produce all the sentences you like?" The structural conception of the language, plus the insertion of a sort of infinitude into its structure, plus the re-affirmed separation between linguistic workers and the language (between the variable and constant portions of capital), jointly play the mystificatory role of concealing the appropriation of linguistic goods on the part of the ruling class. But of this later on.

There are meanwhile at least two other essential points to be clarified. The first is that the homological study of the two orders of production, the material and the linguistic, must be carried out adhering progressively to the *same level of elaboration* for both. For example, if you wanted to indicate a divergence in the order of magnitude of sentences on the one hand, and of, shall we say, automobiles on the other, then you would be quite right to say that the homology does not stand up. An automobile, like other artefacts more complex than the mere mechanism, belongs to a level of complexity where, on the linguistic side, we would have to name such things as speeches, essays, lessons, or books (cf. 3.2.3).

It thus happens that the argument of the indeterminateness or infinitude of lin-

guistic production can take on an appearance of validity whenever on the other side, as an example of material production, a product of a different level is given. We spoke for example of a utensil such as a pot for boiling water and of a sentence such as 'it's raining'. Billions of pots may have been produced by a certain community in the course of its historical life-time, and "innumerable" uses may have been made of them. Automobile production, on the other hand, presents itself as much more "finite" (even if we complain of its relative enormity); and the same is true of the production of speeches, essays, lessons, and books (even if we complain of their quantitative excess). As we know, the level of pots is that of simple utensils, usable because they are complete in themselves; and as such it corresponds to that of sentences. Below sentences and *simple* utensils, there are *parts* of sentences and *parts* of utensils: these parts, as a rule, are not used in isolation. It is clear that if a sentence, or even worse, a word, is placed on the same level as that of an automobile, the constructive significance of the homological scheme turns out to be completely distorted and it then becomes plausible to speak differentially of the availability and versatility of the language compared to the limited nature of material capital.

The second point concerns the differences between *models* and *tokens* and between *programs* and *executions* (cf. 2.3.3, especially *ad finem*, for the articulation of this double opposition in the field of language). We must ask ourselves what the *status* and dialectic are — of models and tokens, and of programs and executions — in *both* orders of production; and not only in one of the two. Models certainly do not exist only in linguistic production, nor tokens solely in material production, or vice-versa. The same is true of programs and executions. Of which use do so many linguists preach the numerical limitedness or unlimitedness? Of the use of models, tokens, or programs? And do they make any distinction between models and programs?[69] Whatever the number of executions of programs continuously

[69] They certainly don't, whenever the whole dialectic of models and tokens, and of programs and executions, is *not* taken into account. One could have a look here at such notions as that of archeological types (Gordon Childe's writings from 1936 to 1956 are exemplary in this respect; cf. also Sabbatini 1967-1970 for an extension to history), or at the current treatment of patterns and functions in anthropological research. — Part of what is involved can be brought out by considering the process of teaching the use of any elementary utensil. If I teach a child the use of a pot which I put into his hands, I am transmitting to him a token (the "material" pot); in another, probably overstretched sense of the phrase, I am also handing down to him at least one execution (*the* execution or *the* executions which I perform together with him and for his sake during the teaching process). Moreover, I am transmitting to him a program as something distinguished from the above execution or executions, for the child is expected to be able to use the pot even without my assistance, executing the program on his own. Indeed, teaching may be defined as "transmission of programs". In an attenuated sense, lastly, I am also handing down to the child a model, the model of that kind of pot, even if I am not expressly teaching him how to manufacture pots: because knowing the use of the pot and having learnt how to get about on this planet, at a certain point he may go back by himself from the pot to the operations which produce it. To sum up, models and tokens, programs and executions are all handed down from generation to generation; but they are handed down in different manners, at different levels, and with different implications. The bearing of all this on the transmission and acquisition of language should be obvious.

carried out by speakers, and numerous though the tokens reproduced by them may be (we have seen that it is *in any case* a finite number), the question is this: what and how many are the models and programs which the speakers in fact follow — apart from innovatory exceptions (which obviously exist in material production too)? There is a widespread impression that linguistic production is easier or comes more naturally than material production; this arises not only from systematically forgetting past work, *i.e.* the work which has gone into it (see 6.5), but also from an unsystematic approach in the use of the oppositions between models and tokens and between programs and executions — I mean an unsystematic approach on the part of those who get the above impression. If we wish to be objective with regard to both orders of production, then the minimum of which we must be assured is that when we speak of models or programs for one side we must also do the same for the other; and the same must be done for tokens and executions.[70] However it is only recently that the distinction has been made not only between models and tokens but also between programs and executions, thus also distinguishing the two oppositions the one from the other.

The question of linguistic models and programs is naturally also that of the language as a conservative institution. To study the models and programs which speakers in fact follow means taking a decisive step towards the study of linguistic alienation. The speaker can even illude himself that he is free because he produces all the tokens that he likes to produce and he executes as he pleases all the programs that he has learnt. But the programs remain for the most part what they are. It is not the speaker who invented them: he is limited to producing them with precisely his reproductive and executive activity. This illusion of freedom, which is then an illusion of naturalness, is on the whole the more deeply rooted the less able the speaker is to express himself in *other* languages, different from his mother tongue: never having thoroughly assimilated other models and programs prevents him from feeling the determinant weight of his own. You can arrive at the ridiculous and pathetic absurdity of a linguist who believes that certain reproductive and executive activities are "free" and "natural" only because he personally is not capable of doing them according to models and programs different from those in which, being born in a particular linguistic community, he in fact does them. At this point the notoriously vast and difficult problems of so-called "linguistic relativity" are reopened; these problems are closely connected

[70] Charles Sanders Peirce, of course, examined some of these problems with his usual insight; Saussure deals repeatedly with some others of them; and a good treatment of the opposition between models and tokens is to be found in Price 1953. — This is perhaps the right place to recall that within the apparently unitary opposition between material and linguistic production two complementary and overlapping distinctions are telescoped — between verbal sign production and non-verbal sign production, and between sign production *tout court* and the production of items other than signs (cf. notes 12 and 20 and Section Three in general). The dialectic of models *vs.* tokens and programs *vs.* executions would also apply to a non-telescoped treatment of production.

to those of ideology. Beyond linguistic relativity we find ourselves faced with linguistic exploitation and alienation, which we shall be discussing presently (7.3 and 7.4).

7.2 *Work and Play in Language*

Even when the homology between material production and linguistic production has been accepted, at least as a suitable hypothesis for research, it remains to be seen whether the correspondences which can be traced between the two types of production are valid for the *whole* of linguistic activity.[71] It can be maintained that the production of goods is obviously instrumental: whether they are immediately consumed, or kept in storage, or used for the production of further goods, all material goods are supposed to be of *some* use. Now there are ways of using language which are also clearly instrumental. Prayers and orders, for instance, are aimed at getting something. But can we consider *every* use of language to be instrumental? Would it not be better to distinguish between obviously instrumental uses of language ("practico-communicative", as they are sometimes called; or, to delimit the field even further, "intentionally pragmatic") and other uses, for example "cognitive" or "expressive"? Will it not then be more fitting to withdraw language from the homology with material production in all the cases where the aims of linguistic production are not instrumental or where no aim can be detected in it? There are cases, for example, where it would seem that language is more easily assimilated to play, in Schiller's sense of the word, than to work. The conceptual framework of the working process with its articulations into materials, instruments, etc., and that of capital with its opposition between constant portion and variable portion, and so forth, would then in fact be acceptable in the field of language only for some of its uses, while for others they should be abandoned.

We hold this objection to be fundamentally erroneous on account of its insufficient vision of reality. However, in contrast to certain others, it does raise important questions; and it is well worth discussing. We could of course stop at the simplest reply: the interpretation put forward in these pages is not intended to be exhaustive. Our homological study of linguistic and material *production* takes its starting point from a voluntary and expressly stated delimitation of the field. As we have said, the theoretical schema proposed *can be seen* as an application of certain categories of economic science in its classical (Ricardian-Marxian) phase to the structure of a language and to its *practico-communicative* use. Given these delimitations, it could be argued that *nothing is said about what can be done with a language once it has been produced.* Even the *production of messages* comes into the notion of practico-communicative use of the language; so that, given the

[71] Since the thesis to be examined is that not all language is work and production, we say on purpose here linguistic *activity* rather than linguistic work.

same delimitations, we do not here take up a position even on what happens to the messages once they have been put into circulation.

It is obvious that one can also use linguistic products for purposes which are not declaredly those of work, simply by consuming them. But it does not follow at all from this that other uses of language, different from the ones here examined, can be assimilated to activities basically different from productive activity, for example, to play, again in Schiller's sense of the word. To clarify this point, let us distinguish two successive levels of overall interpretation.

FIRST LEVEL. If it is true that production is to be distinguished from the other things that can be done with the objects produced, it is equally true that their foundation lies in production. *If there were no objects produced, there would be nothing that could be used in an indifferently productive or non-productive way.* As Marx says, «in order to be able to plunder, there must be something to plunder, *i.e.* there must be production» («Einleitung» of 1857: 19; McLellan's transl.: 31); in the same way there must be something already produced, with which to play. He who intends to counterpose non-productive uses to productive ones is describing two branches which have already diversified themselves from a common trunk; but he is certainly not going back to the trunk itself. In other words, non-productive uses are a species of the genus production, they are not a different genus. This was discussed already in 2.3.3 and will appear more clearly at our second level of interpretation.

SECOND LEVEL. A fundamental investigation by Marx concerns the "identity" between consumption and production («Einleitung» of 1857: 10–21; McLellan's transl.: 22–33). It is not possible to reassume Marx's analysis here. Let it suffice to recall that we are not dealing with a mere identification of an idealistic sort, something which was explicitly denounced and refuted by Marx; but rather with an articulated study of the complex internal relations which obtain between production and consumption *within the totality to which both belong.* This text of Marx's is one of the best examples which can be given on the use of totalities and on the way of identifying their structures. The position of a thing in the system of categorial propositions is *ipso jure* an explanation of its genesis. The principal conclusion of Marx's research is that you cannot even speak of consumption without at the same time finding yourself speaking about production, and vice-versa: where you find one you will find the other, and neither acquires its full meaning in isolation. In particular, «consumption provides the ideal object of production, as its image, its wants, its impulse and its purpose . . . Consumption thus appears as a factor of production» («Einleitung» of 1857: 9, 15; McLellan's transl.: 25, 27).

There is no reason why, also in the case of language, we shouldn't raise the question of whether uses which are non-productive in the narrow sense — uses describable as consumption — are or are not productive in the wider and deeper sense of the intimate relationships between production and consumption. In my opinion the reply to this question is whole-heartedly affirmative. Even if we leave

aside the fact that expression and knowledge *pre-suppose a language* which has already been produced (first level), and even if we admit that, *in a narrow sense*, using a language is not the same as producing it, something more basic remains: the dialectical relationships which obtain between production and the use of the objects produced, *i.e.* between production and consumption, impose that expression and knowledge be subsumed under the more general category of production. Not for nothing are new expressions (for example poetic) and new factual propositions (for example psychological) continually flowing back into the reservoir of the language and eventually modifying it, in this way affecting future speakers; not for nothing are various languages born, do they develop, and die; not for nothing is the presence of a language a distinguishing mark of human society just as the presence of material artefacts is; and not for nothing does the edifice of social reproduction, to which also the expressive and cognitive uses of language belong, have its foundation in the modes of production and in class struggle.

Certainly the language (*langue*) was originally formed to be used also for expression. There was therefore in the beginning a need to express oneself and to communicate. But one cannot postulate an expressive use *of the language* before the language was formed, nor can one identify a need as being linguistic when the language did not yet exist. While making these distinctions, we are already using highly evolved linguistic materials and utensils. The distinctions of which we speak present themselves at a very high level of super-structural elaboration. But the matter does not end here. It is not correct to call linguistic an expressive need which is previous to the formation of the language. Otherwise even the way my dog looks at me would be linguistic (from *lingua*): after all, I am sure he is trying to communicate with me in his own way.

We repeat that a need requiring for its satisfaction instrumental mediations develops together with the instruments capable of taking us through such mediations. At least on the philogenetic level, one cannot postulate a need which remains unsatisfied without postulating, as a long-term result, the end of the need itself. This can take place either as a renunciation of the need, *i.e.* through adaptation to the situation in which it is not satisfied; or as the disappearance, as a result of non-adaptation, of the individuals who feel the need in question; or indeed, in an extreme case, as the end of the species. The discussion here seems to pass naturally from the biological to the historico-social field: it would appear permissible to state that in a society which does not satisfy certain needs, those individuals who are not able to "renounce them" are destined to disappear. This kind of social survival of the fittest is a real phenomenon. But it cannot be generalized to the point of social Darwinism. Against every form of social Darwinism it must be proclaimed that, in a society which is incapable of satisfying certain needs, unsatisfied individuals or groups can act in a revolutionary way. This is precisely the alternative which biologism would like to cancel out: biologism, that is, the conception that in the anatomy of the ape there is a key to the anatomy of man —

exactly the contrary of the Marxian statement used as a motto to this whole investigation.

One of the greatest dangers of present-day consumer society is that the situation in which we find ourselves appears to have become colored with social Darwinism in a spontaneous and incontrovertible way. The neo-capitalist system represents itself as nature, clothed with the naturalness of a biological process (see references given in footnote 63). In a sort of ghostly pseudo-naturalness more and more artificially-induced needs serving to perpetuate the system are being satisfied: with the result that we find ourselves being turned upside-down, and are prone to believe that the *other* needs, previously (and correctly) considered of basic importance, may now be doomed to disappear. We are therefore further away than ever from expression and knowledge as something independent from production. In the claim for the independence of expression and knowledge from production there is a precise ideological bourgeois heritage, which consists in denying the founding power of work and its universality. The purpose is to subtract something from work; *there must be something which has not been produced* and which, *therefore*, cannot be modified with new working processes. To withdraw expression and knowledge from the circle of production and consumption amounts to viewing them as at least partly raised above the historical flux; to claim for them some kind of independence from historico-social circumstances leads to nothing other than to making them ultimately into something reserved for the ruling class. In front of producers, or rather *above* them, there would be people who limit themselves to using the products — for other and nobler ends.

Nonetheless there does remain the fact that with words and with discourse we can also play, amuse ourselves, without thinking in the least of their production. Play is a fundamental *animal* activity: it is that also for men insofar as they are animals. But once the division of labor has taken place and private property has been set up, play can't avoid becoming a part of consumption. This is the case for men. If play serves to reproduce the consumer, it also serves to nourish production. The matter will perhaps become clearer when we consider that we "play" not only with linguistic objects but also with material objects. We drive around in automobiles to admire the countryside and in this way consume the automobile and reproduce ourselves as consumers of automobiles. When we play we execute programs, and even when we invent something we certainly do not do so from scratch. Outside the production-consumption dialectic, play is an indeterminate abstraction.

All this is not intended to deny that in play — sometimes baptized rather pompously "ludic dimension" — there is a survival of the spontaneous contact of man with nature and with other men. We have to admit that in the classless society of the future the "ludic dimension" may get the upper hand over an essential part of what is now called work. In a certain sense this may appear as a return to something lost; but, in a more important sense, it will be a new acquisition. In

both senses one can perhaps say that contemporary Chinese are closer to the "ludic dimension" than we Europeans or Americans.

No-one can allow himself to ignore the relations which exist between play, pleasure, and art; or the impulse to play as a vehicle of social liberation, as Marcuse says, precisely when commenting on Schiller (1962 [1955]: 169–179). On the disalienating character of a *free* activity one can even reach a certain agreement, which is probably destined to cease as soon as one starts discussing what an activity properly called free should be and the political means for obtaining it. In view of the fact, however, that human nature in general, considered in the abstract, either does not exist or is reduced to the biological, and that this reduction itself presents big problems, it is (to say the least) dangerous, theoretically and ideologically dangerous, to speak of play and of "ludic dimension" outside precise historical determinations. We must therefore ask ourselves how such determinations are obtained. The answer is that first and foremost they concern production and consumption, *that is,* class division, *that is,* exploitation. Each time we pose a fundamental problem, we come back to the political dimension; and each time that is the new point of departure from which the discussion must begin.

The way in which bourgeois thinkers have recognized as fundamental a "ludic dimension" in man has above all the significance of an ideology — of a *social design* concerning the future (Rossi-Landi 1967c, 1968a). However, this social design has not expressed its real nature, and has instead taken on the naturalistic, *i.e.* pseudo-universal, appearance of a description of something which supposedly already exists. Schiller himself, far from describing a constant of human nature, was, without being aware of it, expressing a class desire. He was giving voice, in a mystified form, to a particular utopian design concerning a future society. As Lukács remarks in his *Contributions to the history of aesthetics* (Section I of the essay on Schiller, now in 1969: 17-47), Schiller's unconscious design reflected the particular political situation of the German bourgeoisie to which the poet belonged. Naturally even a utopian design can have a liberating value of its kind, or at least can propose an attitude of conflict. In the weighing up of this liberating value or attitude of conflict, the practical value of all attitudes is acknowledged. It is then legitimate to ask each one if he prefers to play about with theoretical visions of a utopian kind or if he wants to *work for* a future society founded on play. In view of the fact that a society founded upon play presupposes liberation from need, then working seriously for such a society means aiming at liberating man from need. The political consequences are immediate. There are choices to be made, and to be made at once. No one can consciously avoid them.

The appeal to play in language can be presented as an argument against the characterization of language itself as work and trade. It is however interesting to notice that this very appeal contains an oblique reference to linguistic alienation. If language is alienated and if play is a vehicle of liberation, what we find ourselves in front of is the hypothesis of a *disalienating ludic form of language.* In

other words the desire that language *be* also play cannot be dissociated from the desire that it *become disalienated*; and this means that it *is* alienated. But in order that such a desire may go beyond the folk-singer level at which it is usually expressed, and assume the character of a real and proper design, *i.e.* of a politically significant project, we must begin to describe language in such a way as to make the project have a sense. What we come back to is precisely the characterization of language as work and trade, which — as it is here maintained — is indispensable for a frontal study of linguistic alienation.

7.3 *The Exploitation of Sign Systems*

7.3.1 *Linguistic private property*

Do we have private ownership of sign systems? More in particular, can we say that there is anything like private property in the field of language and verbal communication which are our present concern? Everyone speaks a language, everyone uses it; the words are available to all and therefore all possess in common the goods of the language, whereas only a few possess economic goods (cf. Jakobson on this, 1963a: 33). So it would appear that the answer is negative. If, however, we look at the field of material production, we find that everyone consumes some goods, everyone buys or uses certain commodities, all can handle money; and yet we talk about private property — and how!

The major misunderstanding as regards linguistic private property is that the supra-individual, public, social character of the language is considered sufficient to exclude the possibility of the language itself being subject to private ownership. The two notions, that of the language and that of private property, are juxtaposed abstractly upon each other in such a way as to make them screech. But this is only the external appearance of things, favored by the logico-formal rather than dialectical mentality with which the theme is usually treated.

Going beyond appearances, the essential points seem to be two. First of all, the above operations of production and consumption — both economic and linguistic operations — are not performed "freely" except in very particular and delimited senses; secondly it is not possible to talk about "private" without at the same time talking about "public". Let us look at the two points in this order.

7.3.1.1 *The conditioning of speech.* — The use of the language is free only in appearance, or rather only at a superficial level. There isn't much difference here from the freedom of a person who goes about with some money in his pocket and "decides" to buy one object instead of another: this freedom too is only apparent and superficial. In any such case it is our task to assess just how great is the freedom of the citizen who — bombarded as he is from infancy, daily and without let-up, by both official and concealed propaganda, by both open and hidden persuasion — receives from the system a salary calculated to the last farthing for

social reproduction, including of course the reproduction of exploitation. Our citizen finds himself being able to quench his thirst with one type of drink rather than another; at the most, he can decide whether to buy, on pay-day, this or that make of refrigerator or motor-bicycle. In a homologous manner, it is a question of assessing inside just what limits of freedom and individual independence the typically social operation of speaking is performed. It should be clear that verbal communication takes place only among historically determined individuals or groups and can only be performed in a given language, *i.e.* within and by means of a determined structure. This structure itself is always, to some extent, both an ideological product and an ideological instrument *already*. Lastly, the audience is always determined as well (Perelman and Olbrechts-Tyteca, 1958, have rightly denounced the philosophical vagaries contained in the notion of a "universal audience"). It is impossible to imagine what a verbal intercourse held outside *all* historico-social situations would be like; and yet, this is precisely what one should imagine in order to postulate a basic freedom of *parole*. Even if (according to the hypothesis rejected in 5.2.1.1) the language were only an aggregate of neutral instruments for the communication of non-linguistic materials, the conditioning would exercise itself on these materials as well as on the speakers; but if we do consider the language as an aggregate or better a system not only of instruments but also of materials, themselves already linguistic, and of linguistic money too, we come to see that the conditioning of speech must be traced within each one of the parts that make up total linguistic capital. We speak, and there is verbal intercourse, only insofar as linguistic capital operates in its entirety. Even the uttering of the simplest of verbal messages already requires the whole huge machine of language to have functioned in the past and to be functioning at the moment. In a perfectly homologous manner, even the use of a simple object, of an *objecteme* which is only a part of a utensil, requires the past and contemporary existence of material production. To suppose the contrary would mean describing the historical present in the conceptual terms of the remotest past, that of the earliest forming of something human, unduly reducing the complex to the simple with a strange mechanicistic contortion.

In what sense, then, is it possible to say that words are "available to all"? I believe there to be two answers, which are in any case already implicit in what has been said on linguistic capital and on the finite character of verbal production. On the one hand, the *parole* as an individual production is not of itself immediately and rigidly constrained by the code of the language: in the same way, even though there is the non-verbal system of utensils for daily use, there is a margin of freedom, or choice, or style, or individual whim in the use of this or that utensil or group of utensils. On the other hand, each time we begin to speak, all of the language is already present: there it is, contained in our speakers' memories, in the books which describe it, in the objects and institutions which represent its meanings. Here too there is no substantial difference from material products,

which theoretically exist on the planet even *for* those who cannot use them, or not immediately, or not like other people. Shops are full of commodities even when we cannot buy them; some nations live on waste while others are plunged in misery; production continues in its motion independently from any individual intervention of ours; and the possibilities of a better world spring to our imagination, or we deem they have been started elsewhere, even when we do not know where to begin to realize them in our own country. The argument of the free use of the language is either directly conservative, or it is at most a liberal argument. It sounds like the famous (and shameful) argument of the platonically unconstrained situation of workers faced with goods which for them are *in fact* unattainable. To give an Italian example: should the Sicilian miner want to abandon the sulphur-mine and go to Trieste to see the Science Fiction Film Festival, no external constraint would prevent him — he is thus "free to do so". Actually, he remains in the sulphur-mine, and can't avoid it. He is not even informed of the Science Fiction Film Festival, and perhaps doesn't know where Trieste is. Clearly, what is being confused here is the generic availability of men to use-values with their factual possession of some of them. A proposition like "everybody *is free* to eat a steak" is unduly derived from a proposition like "everybody *can* eat a steak". The social dimension is apparently added to the biological one through the same move by which, in fact, it is wiped off.

7.3.1.2 *Public nature of private property.* — The second point to be examined is the public nature of private property. What we call private is such only insofar as it is public. If it were not and did not continue to be something public, it would not be able to become, for an instant or for a thousand years, something private. As Marx says, «man is . . . not only a social animal but an animal which can develop into an individual [*sich vereinzeln*] only in society» («Einleitung» of 1857: 2; McLellan's transl.: 17). 'Private' and 'public' are paired terms: they belong, even if in different manners, to the same totality, from which they derive all their meaning — just as do 'production' and 'consumption', 'thought' and 'language', and innumerable other pairs in which you can see instances of the one dialectically dividing into two.

Let us consider the case of private and public in the field in which it is most commonly discussed — economy proper, or, material exchange. Exchange itself, let us not forget it, is redistribution of what has already been distributed: the simultaneous passing over of two goods between two individuals according to their personal needs takes place insofar as the two goods have already been distributed according to supra-individual social laws (cf. 2.4.1). Capital and market certainly do not develop from the beginning by using private or individual items as their building stones. In order to isolate capital as private we must be able to have wealth available as a public thing — as are materials, instruments, and money, and as workers themselves are. One can act individually on a market, for instance by cornering it, precisely because the market is a social fact. The idea of an eco-

nomic capital and market originally and constitutively private and individual not only would not explain anything: it would be inexplicable itself. Dialectically, material property itself is private *because it is* public. If it were not public, it would not be private either: the property of an isolated man would not be private because it would not be public either; indeed, it would not even be *property*. What is private is considered as such because it displaces something else which is private, breaking up internally a totality which is public but which even though broken up in this way continues to extend itself over the whole of its field. You are the private owner of *your* car insofar as the other members of the community you belong to are *not*. One certainly could not say that all the members of the community are private proprietors of the same car (whereas, it should be noted, one can indeed imagine a community in which each member enjoys the use of an object of public property). But this is not all. You are the private owner of *your* own car because your car is a public fact: it exists before the eyes of all, it is a collective product with the whole of history behind it, anyone who has learnt how to drive can use it, as indeed, in a different sense, can a non-driver. Without all these public dimensions, your car couldn't even be the object of a sale or a gift, that is, it couldn't become somebody else's private property.

There are two decisive passages in the *Grundrisse* on this dialectical inter-play, which are worth repeating not only because they reaffirm the "public" character of the "private", but because they also do this precisely with regard to language. Marx says:

> The individual is related to a language as *his own* only as the natural member of a human community. Language as the product of an individual is nonsense. But so also is property.
>
> Language itself is just as much the product of a community, as in another aspect it is the existence of the community – it is, as it were, the communal being speaking for itself (p. 390).

And again:

> An isolated individual could no more possess property in land than he could speak. At the most he could live off it as a source of supply, as animals do (p. 385; Cohen's translation retouched, pp. 88 and 81 resp.).

Thus the building up of linguistic private property does not contradict the essentially public nature of the language, any more than the building up of private property in the economic sense, within material production, contradicts the public nature of wealth. Since a language as constant linguistic capital is something public and social, and since the linguistic market presupposes individuals united by the language, it is possible to isolate a linguistic private property and a personal or group linguistic use in it.

One may well ask what relationship there is between this notion of private prop-

erty of the language and the notion of a *private language*, which has been so much debated in Wittgensteinian circles (cf., for instance, Ayer 1954b, Cook 1965, Cornman 1968, Funke 1968, Hintikka 1958, Hunter 1967, Morick ed. 1967, Thomson [Jarvis] 1964). Quite simply, one must be careful not to confuse the two notions. Linguistic private property is the successful seizure, by a privileged social group, of part of a public and social good. As we are going to say in 7.3.2, such a seizure takes place above all as control exercised on the formation, transmission, and reception of messages. The notion of a private language is counterposed instead to the notion of a public language, it wants to subtract something from the latter. To assert that there is something like a private language is one of the multifarious devices for evading reality or for asserting class privilege in a mystified manner. Individualism and personalism play here their reductionist role. Indeed, long before Wittgenstein, Marx and Engels had already brutally attacked the notion of a private language in the *German Ideology*, and Marx had come back to it in *Grundrisse*. To sum up: the language is public; the language *cannot be* private; but *precisely because* the language *is* public, there *can be* and usually is private property *of* the language.

7.3.2 *Communicative domination*

In 1.3 we dealt with the reasons why a priority is usually attributed to verbal sign systems, and in 1.4 with the tardy discovery of non-verbal sign systems. How is it that the programs of communication, especially of non-verbal communication, had hitherto escaped the attention of researchers, or had been gravely underestimated, or managed to emerge only in the sphere of declaredly non-scientific discussions? Western cultures within which intellectual techniques aimed at the conscious study of verbal, and later of non-verbal, messages and codes were formed — we said — are cultures which set great store on individuality and nonconformity. This happened precisely in the periods of the early formation and modern rebirth of those techniques. The doctrine of the independence, freedom, and responsibility (albeit relative) of the individual soul, which is at the basis of Christian civilization, and the bourgeois doctrine of the conscious psyche of the individual as an ideology of private property, could certainly not be conducive to a study of individual behavior as something programmed in advance. The fact that those two doctrines themselves were handed down through very careful programming made it more difficult, and not easier, to become aware of the models and programs involved (we shall take up again the general notion of "programming" in 7.5). This happens continually on the individual level too: the better engineered an unconsciously learnt program is, the less the subject is aware of executing it in his own behavior; indeed, he thinks he is acting independently from any program. Here too perfect socialization is presented as naturalness, the work done in the past is forgotten, previous products are assumed in their new immediacy; and it is only when hitches or defects emerge, that people begin to suspect

something (cf. 6.5). But there is more to it than this. If a person knows that his own individual action is the execution of a program, this means that he sees it as a social fact, since a behavioral program *is* eminently social. On the other hand, if he ignores that his own individual action is performed according to programs, then he is cutting the action itself out of its background and makes it live as if it were exempt from social conditionings. In this latter case both his belief in individuality and his unawareness of models and programs are fortified.

It is certainly not fortuitous that the observation of non-verbal behavioral forms has for a long time been limited to societies other than our own. Here we are speaking of generalizing observation of a scientific kind; not of individualizing observation of a literary sort, typical of story-tellers and travellers. Bourgeois society allowed itself the exquisite torment of describing itself in bits in the form of individual stories of characters, who were certainly also investigated in their non-verbal behavior and in all their conditionings; but who, insofar as they were characters, remained bourgeois heroes, individuals not subject to generalizations of a scientific kind (Goldmann, especially 1963 and 1964). The generalizations were reserved for the others. We were informed with an ever greater wealth of detail about the traceable patterns in the behavior of so-called primitives long before attention was turned to the patterns which determine our own behavior. The techniques were too delicate for it to be possible to apply them to ourselves before having practiced them elsewhere; and "primitive" peoples were supposedly "less complex", therefore easier to study. And so, as a necessary premise to becoming aware of communicative programs, a typical dialectical procedure took place. As a result of previous codifying work, our society *in itself* enjoyed and suffered its lot without ever going back to that work. It ignored its existence and therefore couldn't certainly relativize its own codes. In a second moment, antithetically, we "came out" to see what the others were doing: in this way our society, *outside of itself*, learnt of the relativity of other people's codes. The very fact that there *is* a question of codes thus began to emerge. It was only in a third moment, however, that the new awareness of codes and programs returned to ourselves: this is the synthetic moment in which our society, now *in itself and for itself*, realizes both that it is living through the final moment of a dialectical procedure and that it is posing itself as a new thesis, that is, as the first moment of a new procedure. We have spoken of *moments* rather than of *phases* or *eras* in order to avoid the necessity of a reference to the temporal dimension; since, however, the process described is *also* historical, substitution of any of these words is feasible.

The discussion could be deepened if we were to study the way in which the change-over from capitalism to neo-capitalism has influenced the formation of a point of view capable of bringing out the structure of models and programs and of all sorts of behavioral programming. This however would go beyond the limits of the present research, and we have to content ourselves here with a few words. The organic structure of capital is the relationship between its constant and va-

riable portions. With the progressive alteration of the organic structure in favor of the constant portion, the "value" of the workers has diminished. Any modification in the productive processes has become more and more expensive. It has been more and more the structure of non-human things which has emerged — which is just a way of hinting at one aspect of the technological development of the twentieth century. Due to the elephantiasis of the constant part of capital, neo-capitalistic man is completely instrumentalized in production. So one had to get to the point of seeing man himself in terms of the supra-personal structures of which he is a part in order to see him also in terms of his own internal programming. Just as the demystification of bourgeois economy was possible for Marx and Engels insofar as capitalism had been fully formed, so the study of the unconscious programs which determine non-verbal as well as verbal behavior would not have been possible before the consolidation of neo-capitalism. Previously also, the complex techniques of sound and vision recording which are necessary to bring out the programs were not available; and so the idea itself could not be formed. As Marx says, «the problem and the means of solution arise simultaneously» (*Kapital*, I, 1: 103; English transl.: 65). Man acts according to programs in any socio-economic situation, and certainly not only in the neo-capitalistic one. If the emergence of behavioral programming has been made possible or encouraged by the neo-capitalistic alteration of the organic structure of capital, the fact of becoming aware of it could contribute to the formulation of new and more human programmings. In order that the design for their use may have a liberating nature and not one of more refined forms of oppression, we must turn to a general theory of man and society; and for the design to be realized, to revolutionary praxis. The foundation of things is political.

All this brings us to face what is undoubtedly the most radical aspect of behavioral programming. No program exists in isolation — this would be meaningless. Each program, on the contrary, must be integrated with all the others within a society: all of the programs, together, must serve to preserve the cohesion of vaster social groups and the values of the culture. For this reason each program turns out to be controlled from a higher social level. Each totality in development is certainly not isolated; on the contrary, it develops together with other totalities of the same level. All these totalities are in their turn parts of vaster or more complex totalities. It follows that the development of a given totality is not determined only by the interplay of its parts, but also by the action of the totality itself as a part.

We must now ask ourselves who controls the programs from a higher level, and why he controls them. What are the vaster "social groups", what are the "values of the culture" which must be preserved? and why is this imperative posed? As Ivanov explains (from the Italian transl., 1969: 49, 53; see also the passage by him quoted in 1.4):

Sign systems serve the collectivity (just as they do the single individual) not only as means of communication, but also as means of control; this defines the role of semiotics in a cybernetic analysis of the collectivity. Given the presence, within a given collectivity C, of a sub-collectivity C_1, which constitutes the sub-whole C_1 and has the role of control-system over C, it is essential to clarify: what sign systems does C_1 make use of which C does not (problems of social cryptography)?; and what sign systems are common to C and C_1 (the problem, for example, of particular jargons used by the higher castes in India etc.)? what are the specific means available to C_1 for controlling C (mass communications)? . . . .

The model of the world which is constructed in a given sign system is generally common to the whole of a given collectivity and is introduced into each individual, who in this way becomes a member of the said collectivity.

At this point, however, semiotic discussion usually gets bogged down, not only when some social sign systems are investigated one by one, but also when the notion of all social sign systems is examined in general terms. Take the case of Émile Benveniste, who arrived at the following statement:

[There is] an appropriation by groups or classes of the apparatus of denotation which is common to all. Each social class appropriates general terms, attributes to these specific references and thus adopts them for its own sphere of interest and often constitutes them as a basis for new derivation. In their turn these terms, loaded with new values, come into the common language into which they introduce the lexical differentiations (1970: 26).[72]

What happens in reality is that there is a sole class which "appropriates general terms", and that is the ruling class. Benveniste seems almost to have arrived at the threshold of a theory of linguistic exploitation, linguistic private property, and linguistic alienation; a threshold which, however, he cannot cross because he lacks an appropriate political theory of society.

It is precisely when it gets to its own foundation that semiotics lends itself to being immediately wed to the doctrine of ideologies: more specifically, to the interpretation, in terms of communication, of the ideological role exercised by the ruling class. If one does not go back as far as this, and look for the foundation of semiotics outside of semiotics, or at least outside of what is usually called semiotics, then the very possibility of an all-embracing enquiry into social sign systems disappears.

The ruling class arrogates to itself the control of programs "from a higher social level". It becomes plausible to define 'ruling class' as *the class which possesses*

[72] «. . . une appropriation par des groupes ou des classes de l'appareil de dénotation qui est commun à tous. Chaque classe sociale s'approprie des termes généraux, leur attribue des références spécifiques et les adapte ainsi à sa propre sphère d'intérêt et souvent les constitue en base de dérivation nouvelle. A leur tour ces termes, chargés de valeurs nouvelles, entrent dans la langue commune dans laquelle ils introduisent les différenciations lexicales». Benveniste goes on to examine Saussure's comparison between economics and language and concludes in favor of studying «deep-seated analogies underneath superficial discrepancies» (28).

control over the emission and circulation of the verbal and non-verbal messages which are constitutive of a given community (Rossi-Landi 1967b). Ideology is a social design; the dominant design is precisely that of the class in power. All behavioral programs are submitted, on the part of those who hold power in a given historical moment, to a vaster and more fundamental programming which consists in preserving society just as it is, or in reducing change and absorbing it into the existing system as much as possible. *This is the foundation program beyond which one can go no further.* We call it a social design because it is the whole of society which is programmed in a unitary manner. To suppose an anterior or external program would only mean attributing an even deeper control to some other social group, that is, shifting the localization of the ruling class. The deepest control is by definition identified with ultimate possession of power. This is one of the senses in which the foundation of things is political. It thus happens that, in each sign- and communicative-market, the ruling class enjoys a private possession of the various sign systems in the following three dimensions: (i) control (or domination) of the code or codes and of the modalities of codification; (ii) control of the channels through which the transmitted messages run, *i.e.* of the modalities of the circulation of messages; (iii) control of the modalities of decodification and interpretation of the messages received. That here we are dealing with a form of "possession" phenomenologically different from material possession is only too obvious; but it doesn't follow at all that its substance is any different, or any less real.

Situations which merit the description of linguistic exploitation, linguistic private property, and so forth, are under the eyes of all. The press, radio and television belong to the dominant classes or groups. Whole cultural and artistic movements arise, develop, and die in function of the controls to which they are subjected. The "common people's" way of thinking is an aggregate of ever-repeated stereotypes. On a more radical level, ownership of communication begins with education and formation in all their gradations, right down to primary schools and above all to the determining, irreparable influence exercised on *speakers still being formed* long before they learn to read and write. As we have observed a number of times, right from birth the infant finds himself immersed in the sign systems governing the community to which he belongs. It is impossible not to notice in all this the dimensions of linguistic and communicative exploitation as an integral and indispensable part of exploitation in general.

The possession of modalities of codification is in the first place possession of codes. In this is reflected the fact that codes are products of previous codifications, which leads back to a previous possession of the pertinent modalities. In this early phase possession is furthermore exercised through explicit or implicit education: as control of the operations performed or undergone by the codifiers. Here the relationships between models and tokens, as well as between programs and executions, come out again quite clearly. We are always dealing with the possession

of models and programs, concealed by the freedom, which is conceded, to produce tokens of those models and to execute those programs. Occasionally, however, even this freedom is denied. We then have cases of *direct* political repression: "You cannot even say such-and-such". Much more subtle precisely because it is concealed, much more serious because it refers to models and programs, and much more dangerous because it is imposed and accepted at a lower level of awareness, is the implicit order: "You may produce tokens only of these models (and you are inhibited from producing them of other models)", or, "you may execute only these programs (and you are inhibited from executing other programs)". Consider for example the social groups in which all sentences containing references to Communism *must* be used in determinate ways only, *e.g.* with horror, despisal, or detachment. Communism is then considered as a sort of social leprosy which must be immediately and energetically avoided. Furthermore other models of sentences have been linked to those centered on the idea of Communism as a social leprosy, and this is done in such a way as to arouse automatically negative reactions, or as a minimum, grave suspicion. Someone once asked a black American sailor in an Italian port if he felt *exploited.* The reaction was immediate: "You Communist?", asked the American, and hearing an affirmative reply, he immediately went away. The sole idea of exploitation, even if uttered on behalf of someone who was really exploited, and perhaps aware of the fact, immediately evoked the idea that the speaker was a Communist, *i.e.* someone to avoid.[73]

The system has taught or rather forced on the exploited class mental-verbal techniques whereby the modes of rebellion against exploitation are immediately rejected; indeed these techniques make even the first steps towards awareness impossible. We are clearly dealing with the *use* of the language: with the ways in which the language is used on a communitary level to produce and interpret messages. We are dealing in other words with the way in which linguistic constant capital is or is not used by linguistic workers, that is, by linguistic variable capital. The seriousness of this process is to be found in the fact that, as we know (5.2.2-3), the two portions of linguistic capital stand together, are not separable in reality. It is the *organic* structure of linguistic capital which changes over time. It is always total linguistic capital which moves; and it is its overall movement, therefore, which is dominated or conditioned by those who hold power.

The second phase, that is, the possession of the channels through which the messages run, is perhaps the most obvious aspect of communicative domination, at least in these days of mass media. But if this domination is so stridently obvious today, we must not forget that the channels have always been controlled by the

[73] Notice in the black American's question the absence of the verb; it is a traditional usage of the white North-American when addressing a red-skin. What we have here then, is a black North-American who derives from the white a linguistic usage felt to be appropriate when the addressee was a red-skin, and does so in addressing himself to a white whom he considers alien. The conditioning of thought-and-language is apparent down to the level of a precise stylistic device — a verbal omission.

ruling class. Today it is more conspicuous because its dimensions have grown so enormously. In the days of endemic illiteracy and before the invention of the printing-press, the control over the channels was perhaps less heavy-handed and pervasive; but it was more absolute and cruel than it is today. The same can be said of those regions which find themselves still in pre-industrial conditions (this usually means that they are the object of imperialistic exploitation). However, these are differences open to historical investigation — an investigation for which we are here tentatively offering the subject.

Passing now to the third phase, that of the control of the modalities of decodification and interpretation of the messages received, one can say that, with due modifications, it is counterposed symmetrically to the first: once the first has been understood, the third also should become comprehensible. The point is that just as codification is conditioned, so is decodification: *only certain models* of messages are realized and transmitted, only certain communicative programs are executed. The linguistic workers who confection messages are the same as those who receive and interpret them. The planning consists not only in the imposition of certain models and programs, but also in the exclusion of others.

In terms of information theory, the control exercised by the ruling class over messages assumes fairly precise modalities. The ruling class increases the redundancy of messages which confirm its own position, and covers with noise or if necessary with real and proper disturbance or "jamming" the codification and circulation of messages which might instead weaken its position. The subordinate class is placed in the condition of being able to decodify with particular ease, and therefore of considering "real" or "natural", those messages which are sufficiently redundant to overcome the noise or disturbance which might distort their reception, or those messages which they receive with codifying modalities or through channels which are particularly free from noise or disturbance. For those messages, the operation of subtracting spurious from total information is either unnecessary or reduced to the minimum. It may be objected that redundancy is not due to the free choice of the transmitter, but rather to the statistical rules which govern the use of the signs in question, in our case, of words. But this does not change anything. The ruling class finds itself in the position of transmitter, and imposes on both its own members and on the members of the other classes the acceptance of certain sub-systems of signs rather than of others; alternatively, you have subaltern transmitters, who, overpowered by the ruling class, limit themselves to using its codes *or else keep quiet.*

What now happens in terms of linguistic production is that the single speaker comes to find himself in a position homologous to that of the single non-linguistic worker: the processes of linguistic production and circulation have become alien to him, are controlled from the outside, no longer serve to express his personality as a man insofar as they serve instead to reproduce the system. It is as if the speaker had been "hired by the society in which he is born". What is asked of

him, is that he expend his linguistic labor-power according to obligatory modalities. We shall come back to this in 7.4.

In advanced capitalist societies, it is typical for the most dangerous messages to be absorbed with the aim of neutralizing them. This procedure comes into a widened notion of the *noise* with which the dominant class or group covers dangerous messages. Being left free to emit such messages means "being hired" in a yet more intimate and compromising manner. Thus, for example, the ruling class (the system, capital) may take pleasure in receiving even ferocious criticisms, which are directed against them "freely". The *noise* here consists in the cancellation of the fact that *even* such criticisms are programmed by those who hold power. This phenomenon of "absorption" would certainly merit a much deeper examination. Here we are referring to the simpler situation, which lies inside the more complex situation. The expenditure of linguistic labor-power according to obligatory modalities does not, however, undergo any substantial modifications. The fundamental fact remains always this: that if there were no speakers, there would be no ruling class either; indeed, every form of *human* deception and exploitation would cease. Those destined for exploitation must at least learn to speak. They are taught to speak so as to make them into machines which are more perfect and complex than any computer hitherto realized. The famous "machine of slavery" on which the charming Greek civilization stood was a *talking machine*. And so we have come back, in a circle, to face the problem of the programming which governs the whole of verbal as of non-verbal communication, *that is*, the whole of human behavior in all its aspects. We shall add to these some further remarks in conclusion (7.5), after briefly touching on linguistic alienation.

7.4 *A Hint at Linguistic Alienation*

In the dialectic between use-value and (exchange-)value of words, syntagms and messages, and between the two types of linguistic work corresponding to the two different basic forms of value (2.3.4; 6.1-4), is to be found the root of the type of alienation which can well be defined as linguistic. The root lies in the different types of work and in the values which derive from them. The developments concern language in its entirety — they concern it as an object of study, as an aggregate of linguistic materials, instruments, and money, which we use, and as a system which conditions the speakers. This conditioning reaches a point where it makes sense to say it is language that makes use of us.

The least one can say about linguistic alienation is that it is a particularly important sector of the general alienation of sign systems. Under various names, and in various of its aspects, it has been the object of study in many currents of contemporary thought. However, it does not appear to have ever been submitted to a

frontal and unitary investigation on the basis of a theoretical system capable of comprehending it.[74]

Once the idea has been grasped that sign systems too are submitted to instrumentalization, distortion, mystification, estrangement, one can see no apparent reason why this alienation of theirs should not be taken into consideration alongside the various other kinds of alienation which have already been observed and

[74] The most telling insights into the nature of linguistic alienation are to be found *in nuce* in the founders of historical materialism. I am not referring only to the view that no criticism of alienation can make sense today without resorting to the Marxian demystification of bourgeois economy. I am referring also to something more specific. In *Die deutsche Ideologie* one can read incredibly modern pages on the ways in which a linguistic question can take the place of a real question, on the mystificatory linguistic techniques used by bourgeois ideologists, and on ways of combating such mystifications. That these analyses have been overlooked up to now by philosophers of language and by students of social communication is something either surprising or deeply significant. To the above *loci* one should add the references made to language and communication by Marx in his major work, particularly throughout the analysis of commodities, as well as the brilliant insights into the relationships between economic production and linguistic production which emerge here and there in *Grundrisse der Kritik der politischen Ökonomie* of 1857-1858.

After Marx, various branches of research have developed. We have in the first place the Lukács of *Geschichte und Klassenbewusstsein* and his direct or indirect followers — above all in Germany and in France, but also in Italy (and the vast production, part of which was antecedent to Lukács, of Karl Kraus, a mine of astute ideas: particularly *Die Sprache* and *Literatur und Lüge*). The Lukácsian concept of reification takes up and enlarges the Marxian concept of the fetish-character of commodities; the criticism that Lukács made of this concept offers a theoretical framework of which one might readily make use in the study of linguistic reification. The followers of Lukács have come still closer to such a study, but no one, as far as I know, has ever tried to construct a general theory of linguistic alienation. Let us give a few examples, choosing here and there from an already rather vast literature. The relationship between commodities, thought and language is doubtlessly present in *Dialektik der Aufklärung* by Horkheimer and Adorno, who see in language an extension of the division of labor, and whose treatment of the "cultural industry" necessarily involves the idea of an "industrialization" of language. Adorno's essay on «The fetish character of music and the regression of listening» (in *Dissonanzen*, 1963), can easily be transposed as a study of the fetish character of language and the regression of reading. Also to be kept in mind are the pages dedicated to the work of art as a commodity by Walter Benjamin and many clarifying points in his essay «On language in general and on the language of men» (in *Angelus Novus*, now 1955). One of the most convincing chapters of Marcuse's *One dimensional man* concerns the closing of the universe of discourse and studies such subjects as the "language of total administration", the anti-historical nature of "functional language", the "ritual-authoritarian language". Here we have problems which require *a theory* of linguistic alienation for their further clarification.

Many French Marxists are linked to these German scholars. Here too we will give a few scattered examples. Sartre touches on questions which can be referred to linguistic alienation in his monograph on literature, in *Critique de la raison dialectique* (1960) and elsewhere. The essay by Lucien Goldmann on reification (1958, in 1959) contains the beginning of a study of the "psychic mechanism" through which reification takes place. The distortion that makes man a spectator also expresses itself linguistically, says Goldmann; we can immediately add that the severing, due to reification, of the unity of subject and object and of producer and product cannot but directly regard language as well. If the ruling classes use the means of ideological influence in their possession to hinder the development of the consciousness of the working classes, the tendency of reification to take possession of the workers' minds is, *ipso facto*, a tendency to take possession of them *as speakers*. As we have seen in footnote 51, Henri Lefebvre (1966) has put forward, even if in an approximative and sometimes mis-

studied: religious, philosophical, political, social, economic alienation; and — as a specification of each of them referred to individuals — the alienation of the so-called alienated, who are the object of concern for psychopathologists.[75] The alienation of language cannot but penetrate right from the start all other kinds of alienation: for these in fact concern men, that is, definitionally talking beings. On the so-called "defects of language" various currents of contemporary research have done, separately, a large amount of analytical work; but they have not done so on the ground of, and fortified by, a theory of neo-capitalistic society and, through the study of this, of society in general. It can be maintained that linguistic alienation constitutes the common element at which, potentially, were aiming many attempts to discern in the malfunctioning of language one basic root of evil. However it is certainly not enough to state that language, as Wittgenstein said, «goes on holiday» and «is like an engine idling» (*leerfäuft*) rather than «working» (1953:

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leading manner, some elements for a parallel between economics and communication, and has attempted an interpretation of language as subject to transformation-into-commodity. The importance of this approach did not escape George Steiner. Something similar, at least as far as "economic communication" is concerned, was indicated by George Herbert Mead (1934) whose work would be well worth returning to.

Among Italian authors, besides everything that is still to be learned from Vailati and Gramsci about the technical and social malfunctioning of language and, as direct examples of these malfunctions, from the philosophical mistiness of Croce and Gentile, let us recall some works of recent years. In his essay on the new avant-garde, Gianni Scalia (1966) deals with the "poverty of poetry" and the "transformation-into-commodity of words"; his argument is still confused but some of his intuitions are profound. Edoardo Sanguineti called a short book of his *Ideologia e linguaggio* (1965) in which he examines, though in passing, the plight of artistic products between the market and the museum. Lastly, it is remarkable that even a linguist of the classical school like Giacomo Devoto makes reference, in the preface to one of his collections of articles (1965) to «the alienation most characteristic of our time, linguistic alienation».

A second line of research is that of the analytic or linguistic philosophers, George E. Moore and Ludwig Wittgenstein and some of their followers, particularly in Great Britain. As I attempted to show in «Per un uso marxiano di Wittgenstein» (1966b, now in 1968c), there is a strong potential of linguistic demystification in the works of the Viennese philosopher as well as in those of Moore, John Wisdom, and Gilbert Ryle. This demystification, however, is rarely, if ever, presented as such; to the contrary, it is customary to limit whatever demystificatory analytical activity there may be to speech considered by itself, or worse, to some aspects of the "natural" language one happens to speak (cf. note 39). We must *bring to light* this potential demystification: then we see that it falls perfectly in line, and indeed, acquires force and meaning, within the framework of a general criticism of ideologies. This amounts to saying that what these philosophers actually concerned themselves with in the most worth-while part of their research was alienated language, linguistic ideology.

[75] Alienated language has been at the center of attention of psychologists and psychiatrists starting with Freud himself. One might rightly maintain that psychoanalysis grew up precisely as a research into alienated language. Lacan (1966) and Ricoeur (1965) are of course two scholars who must be mentioned at this point. Among the more recent contributions, we recall: *Insight and responsibility* (1964) by Erik H. Erikson; the trilogy dedicated by Jurgen Ruesch to communication as the social matrix of psychiatry (together with the anthropologist Gregory Bateson), to "disturbed" communication, and to therapeutic communication (1951, 1957, 1961); Julius Laffal's investigation of normal and pathological language (1965), and Sergio Piro's of schizophrenic language (1967).

38° and 132°); one has also to *ask oneself why this is so*. This apparently simple question opens up a boundless field of new research the existence of which the analysts of language have not even suspected. It is certainly not just a question of denouncing certain deviations from paradigms previously ascertained (or proposed) within the sphere of this or that language — a language, considered as a self-sufficient system independent of both other linguistic systems and non-verbal sign systems. Even less adequate would be any attempt to face linguistic alienation with the instrument of some presumptuous model of how language *ought to be*: by measuring reality with a subjective model only subjective changes can be proposed. Rather than combating ideology, these are themselves, in an unconscious way, loud ideological forms which withdraw from the task of becoming aware of socially real processes. In order to begin to reply to questions concerning the malfunctioning of language, one must consider verbal sign systems alongside non-verbal ones and social sign systems alongside natural ones. The first demand to be satisfied is an anti-separatistic demand. What is linguistic must be examined in its relationship with what is not linguistic. Language without society, in fact, does not exist, and vice-versa; and the first is a form and expression of the second; it is in language, or more broadly in sign systems, that society *manifests* itself. Perhaps these are commonplaces. It is not apparent, however, that students of language always extract the right consequences from them; while students of society do not always appear to take into account the fact that society, with the qualifications advanced in 1.3, *is* the functioning of sign systems. Precisely that upon which attention should be concentrated is often taken for granted, because it is too obvious, or too uncomfortable.

One of the hypotheses for research, to which I think we should turn for the study of linguistic alienation, is the hypothesis (already alluded to in 5.2.2, 5.2.3, and 7.3) that the individual speaker, who has no control over the codes and the channels, finds himself in a position analogous to that of the individual non-linguistic worker. As a worker, he no longer shares in the process of work and production to which he nevertheless belongs. The phases of a given working process, which once made up the personal task of the craftsman, are distributed in an equal number of phases external to the person: so that first the factory, and then the whole of capitalist production, become on an ever broader scale a sort of inhuman reproduction of man as a worker. Man with his productive processes has come badly out of himself, has objectivized himself in wrong ways; he now finds himself disarmed when faced with the organization of his very own products; his body is as it were distended outside himself, and the processes which govern it seem to proceed on their own like something alien. We can say similarly that the linguistic working process and, all the more, the entire process of linguistic production and circulation become external to the individual speaker precisely with the taking on of the institutionalized form of a linguistic capital and a linguistic market which no speaker can change at will. The speaker is, as we just said, "hired by the society in which he

is born"; he is asked — or better compelled — to expend his linguistic labor-power in pre-established modalities which he is forced to accept and learn. The speaker works, but not for himself. We have seen in 6.5 and then again in 7.3.2 how a large part of linguistic behavior consists in using *already existing products*, in consuming them, unconsciously reproducing them according to models and programs which as a result are confirmed and perpetuated. The speaker must transmit certain messages and not others; he is able to understand only certain messages and not others. His freedom is limited to the use of everyday objects in both kinds of production, since in both kinds the behavioral programs woven into the social sign systems are immeasurably stronger than any single individual and thus also than any social group which has not yet been quickened by an appropriate revolutionary theory. Even if the individual speaker succeeds in refusing the models and programs imposed on him, by operating within himself a sort of linguistic-communicative inversion, the penalty he must pay is his expulsion or marginalization from the linguistic community, and thus, since society without language does not exist, from society itself. Anyone who does not learn to speak like the others or who starts out to speak a language personally deviated from the models, anyone who withdraws from the programs of communication which are considered normal by the society in which he lives, is no longer understood, and he is no longer capable of making himself understood even if he so wishes. Paraphrasing Shakespeare, he will lose his life for want of language. It is a situation which we can call *linguistic death*, or *communicative death*, and is just as serious as death from starvation or the civil death of forced labor. To such a death are condemned not only schizophrenics, chronic sufferers from aphasia, and all the so-called abnormal or demented: it manifests itself as at least a possibility to anyone who attempts radically new linguistic, or otherwise communicative, paths, just as it does to anyone who tries to recuperate the real social dimensions of language.

The linguistic worker, as an executor of programs and repeater of obligatory and suprapersonal models, comes to find himself in the situation of not knowing *what he is doing* when he speaks nor of *knowing why* he speaks as he does. He *belongs to* processes of linguistic production which condition him right from the start, which oblige him to see the world in determined ways and which make it difficult for him to perform any work which is original or just simply different.

Production as the mere use of products: this is what the system wants to have handed down. The materials upon which linguistic production is continuously renewed are linguistic materials handed down just as they are, without reverting again to the working processes, of which they were the products. In this way they are represented also as non-linguistic. The use of linguistic instruments is taught as if it were a set of equipment which anyone acquires once and for all, and this after having separated the instruments from the materials and the money (5.2.1.1). Linguistic money, which is continually made use of, is indeed ignored (apart from generic references to the "wealth of language": 5.2.1.2). The constant and variable

portions of linguistic capital stand there face to face, without anyone's becoming aware of their dialectical opposition, and the problem of their reciprocal influence is grossly underrated. Above all, the programs which govern communication are ignored precisely in the act of their being most thoroughly exploited for the conditioning of individual behavior. Through all these omissions, distortions, reductions, and pseudo-naturalizations, the detachment of man from nature and of man from man fulfills and perfects itself, hands itself down, institutionalizes itself, and takes on a character of definitiveness and irreversibility.

What alienated society has programmed so successfully is precisely this: a way of barring the road along which one could try to go back to that very relationship for which a separation has been substituted. And it is a perfect road-block because it is itself dynamic. It is an expenditure of the type which seems to take place before the eyes of someone going along the aisles of a supermarket, even if it is obviously immensely more radical and vast. In fact precisely the products of the relationship between man and man and between man and nature have made themselves available — immediately and easily available; however, *no longer as products*, but instead as something natural upon which man no longer intervenes. It is the myth of the artificial pseudo-paradise immediately turning into its opposite, that is, the hell of consumer societies. That man *has* intervened in the production of himself — so that without such an intervention not one of those products would ever have emerged — is precisely what is ignored. The basic programming of alienated society consists in a de-totalized aggregate of piecemeal programs whose execution allows people to use all products as if they were not products; and this amounts to living in a fragmented way even on the level of fundamental relationships.

Now since the intervention we are discussing here is that of language, and of sign systems in general, in the division of labor — since it is, in other words, an intervention which presides over man's formation —, the overturning of the real situation causes man to deny himself as man. Within the pseudo-totality in which this negation takes place, this means that man establishes himself then as a mere cog-wheel: as a spokesman, repeater, and victim of the social process of linguistic reproduction. Since his own products have organized themselves in a system above and against him, his thrashing about under their weight pushes him further and further down, towards a situation which, no longer capable of being fully linguistic, necessarily becomes subhuman. In this way man is protagonist of a sort of grotesque "return to nature" in a completely false atmosphere. It is at this stage that exchange-values come back to the foreground as false use-values (cf. 5.2.2). We are doubly distant from a spontaneous relationship with nature.

The road for really going back to nature, for re-awakening it in ourselves, would be instead the diametrically opposite one of first giving man back to man. This can be done only through radically new social designs, that is — as we were saying — by consciously going through again some essential phases of homination. The basic choice, once again, is eminently political. Theories are not enough.

7.5 *Conclusive Remarks on the Social Programming of All Behavior*

We have maintained that everything that human individuals do and have done to them is programmed by the society to which they belong. The portions of behavior which can be considered casual, spontaneous, free, *purely* individual — that is, in one sense or another, *not* socially programmed — are much more limited than is commonly believed, at least in our Western societies. Even types of behavior which can be made to come under this heading are performed on the background or under the influence of existing social programmings[76] or may even use them: and in any case they themselves would not be comprehensible — indeed, not even identifiable as casual, spontaneous, free, or individual — if there did not exist other social programmings against which they can be measured.

The social programmings themselves can be conscious or unconscious, deliberate or simply assumed, long-term or transitional, unitary or differential. They can furthermore be more or less extended: they may concern all the members of a community or of various communities, or, alternatively, only one or more groups of members of one or more communities. The presence of similar programmings makes social groups homogeneous independently from their belonging to the same or to different communities. The most important instance of this supra-national homogeneity is obviously that of class division. The programmings vary continually according to the types of behavior being programmed, the structure of the society in which they are taking place, the historical moment, and so forth; they leave widely differing margins or illusions of fortuity, spontaneity, and freedom which in their turn are for the most part programmed; often they permit or rather foresee that the individual may *feel* himself to be an actor. The programmings hand themselves down from generation to generation with usually small changes, the amount of change depending upon the type of program involved. These changes create quantitative accumulations destined to give birth to qualitative leaps. A social action must be called revolutionary if it succeeds in changing in a more or less radical, but in any case general and long-term manner, a significant portion of the social programmings which were previously dominant.

Against the idea that *all* human behavior is *socially* programmed it is correct to raise the objection that men do, and have done to them, actions also on account of *natural* factors. This objection does not claim freedom or fortuity for certain types of behavior, but instead introduces conditioning factors of a different kind. All the same, in its obviousness, it proves much less than it may appear to prove. The dialectical criss-crossing of the two kinds of evolution — natural or biological,

[76] Our main concern so far has been with models and programs with regard to sign systems. In this final sub-section communicative models and programs are related to wider forms of social programming (Mead 1968 may be consulted at this point as a partially similar outline of the subject). The word 'programming' has been introduced in a tentative manner as a comprehensive description not only of both models and programs, but also of all sorts of programming which may not be immediately reducible to the models and programs of sign systems.

and properly social evolution, which first began to overlap as soon as what could be called human aggregates emerged — makes it now almost impossible to isolate purely-natural factors within society. Even where it would seem most obvious to trace them, and that is in man's body itself, the natural factors always present themselves through social dimensions, by which they are in fact conditioned. A natural disaster like the Yellow River floods, or a disease like cancer, or a road accident, naturally, do *not present themselves* as being socially programmed. And this, not only in the sense that there are not individuals or groups who sit down round a table to study the actions necessary for the realization of a flood, a disease, or an accident (although, in determined circumstances, even this may happen); but also in the sense that it is not the custom even to suppose the existence of unconscious programmings on behalf of floods, diseases, and accidents. All the same, even the "natural" factors and events, which seem to condition human behavior independently from the social dimension, are, on the contrary, when examined more closely, inextricably entwined with the controllable consequences of social programmings. The Yellow River floods have been finally tamed; it was to the extent that Chinese society found itself in semi-feudal and semi-colonial conditions, that the human forces necessary for taming the floods could not be gathered together; this happened instead, after the revolutionary introduction of new social designs, *i.e.* of radically different programmings. Various diseases, including the scourge of cancer, are more widespread in certain societies and in certain historical epochs than in others; it will be possible to cure them much more completely and gradually to eliminate them when waste and exploitation have been abolished, and when the effort and expense today invested in armaments and in enterprises which are really mainly for prestige (like space exploration) are concentrated to that end. Road accidents also depend, more than on biological factors and on so-called "luck", on controllable factors such as the unrestrained planning of consumption for the benefit of the car-industry, the objective conditions of the traffic and of the road network, as well as on the courtesy, prudence, and psycho-physical conditions of the drivers. An "automobile civilization" without any accidents is perfectly conceivable.

The obviousness, and at the same time the inconclusive character of the appeal to natural factors, are further confirmed by the following fact. Not only social kinds of behavior, whether animal or human, nor only human kinds of behavior, whether social or individual, are programmed. Also programmed are kinds of behavior identifiable as biological. The programming of the living being begins with the genetic code and expresses itself in ecological programs which concern both men and non-human animals. It extends uninterruptedly from the most elementary levels of matter to the most complex — those which are called "social". There is therefore no sense in counterposing the realm of the biological to the realm of the social in function of programmings which are supposed to be present in the one but not in the other, or vice-versa: as if at a certain point there were an *onto-*

logical leap between the two realms. *All* behavior is programmed. The question is one of seeing how, why, and within what limits.

In order to clarify the general notion of the social programming of behavior with the aim of throwing the same amount of light on all its several areas, whether or not hitherto neglected, we must keep in mind the variety of the programmings and of the conditioning factors which they set in motion. In our opinion the following should be distinguished:

1) *modes of production* (the sum of productive forces and relations of production);
2) *ideologies* (social designs of a general type, over the long term);
3) *programs of communication* (both of non-verbal and of verbal communication).

Social programming takes place fundamentally according to the three dimensions indicated here. In reality the three dimensions are always present together and it can be difficult to disentangle them from each other. Each single instance of behavior is performed as a totality determined by multiple conditioning factors. From the point of view of the totality constituted by each given instance of behavior — if the purpose is that of understanding it in all its aspects — the various factors, and the programmings to which they belong, can be distinguished only in a provisional and artificial way. Even when it appears to be clear that an instance of behavior belongs to only one of the three programming dimensions, it can be grasped in its reality only on a background where the other two are also necessarily operating. Thus for example one's way of behaving at table, which in each community is programmed in the dimension of non-verbal communication, certainly does not take place *in the absence of* other communicative programs of the same community; and all the communicative programming certainly does not operate outside a situation which is also programmed by dominant modes of production and ruling ideologies. But, once this warning note has been struck and the anti-separatistic stance reaffirmed, the fact remains that the various programmings do lend themselves to being studied also on their own, and each one by itself, as matrices of conditioning factors and therefore as generators of behavior. The most important thing is to establish on each occasion the level of abstraction on which one is moving.

The study of the first dimension, that is of the modes of production, belongs to the demystification of bourgeois economy, and, after the proletariat's seizure of power, to the planning of socialist production; the study of the second belongs to the doctrine of ideologies understood as social designs which depend on the modes of production and vary accordingly, but at the same time get detached from them through numerous mediations, and furthermore retro-act on the modes of production themselves. With the arise of industrial capitalism in the late eighteenth and early nineteenth centuries, there emerged also the means for studying the capitalist mode of production and its relative ideologies, and lastly for projecting scienti-

fically a better society, that is, new programmings destined to substitute the capitalistic ones. This also allowed for the emergence of a general doctrine of man in which the importance of modes of production and of ideologies was for the first time placed in a proper light. All the same, neither the first nor the second dimension, even if added together, gives us a *complete description* of the social programming of human behavior, if we do not add to them the dimension of those programmings which govern both verbal and non-verbal communication. This third dimension, which mediates between the first two, making possible, amongst other things, their reciprocal influence, had also been glimpsed by Marx's genius. It is, however, only with the arise of neo-capitalism that the means have emerged for a frontal study of the models and programs of communication. And since there is no communication without sign system, this study belongs to semiotics, the general doctrine and science of signs and of their systems. Semiotics finds its proper place, its significance, and its foundation alongside the study of modes of production and of ideologies, within the sphere of the social programming of all behavior.

(*Rome, July* 1971)

8. REFERENCES

While in the text and notes of this essay, references mainly follow the usual style adopted by *Current Trends* (e.g. Godelier 1969 : 101-110), in this Bibliography a more traditional style is adopted. This especially because a Bibliography like this one, which has historical, intercultural, and interdisciplinary dimensions, is necessarily different from one confined to publications belonging to a single field of enquiry and/or appearing in the last few years. Here entries are arranged alphabetically, and for each individual author chronologically; and the chronological order usually refers to the *date of publication.* Classics and many important contemporaries, however, are listed according to the *dates of writing.* This is for instance the case of Hegel and Husserl, where a chronological index of mere publication dates would have been unreasonable and misleading. In Husserl's case, however, the continuous realaboration of the various manuscripts and the fact that many of them were withheld from publication cause some overlapping of dates.

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