

SAUSSURE AND VYGOTSKY VIA MARX
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If de Saussure was right to compare linguistic with economic value, the interpretation of economic value itself becomes of first importance for a theory of language. The influence of the marginalist school of Lausanne on de Saussure was noted by Piaget some years ago (1968, p. 77) and has been more fully explored recently in an article by Augusto Ponzio (1977).

This author suggests that the distinction diachrony/synchrony and that of *langue/parole* are directly comparable to similar distinctions made by the marginalists in the economic field. Most interesting perhaps is the parallel drawn by Ponzio between the *langue* as a system of values in a momentary state of equilibrium and the market seen in its static aspect by Pareto as a system of mutually dependent relations. In the present paper we will attempt to find out what kinds of consequences a Marxist theory of economic value would have for Saussure's theory of linguistic value.

For Saussure value in the *langue* appears as the position of items within a system of similar but qualitatively distinguishable units. As such language "looks like" a market in which money functions as the expression of the exchange value of commodities, and also as a system of both qualitatively and quantitatively distinguishable units. What is presented in Saussure's system is a vast array of qualitatively different values having varying reciprocal effects as to their position in regard to each other and to the totality.

For Marx, the conglomerate of qualitatively different use values has one common quality, which allows its measurement by money, itself containing this quality: abstract labor value. The relation between money and commodities permits the comparison of different quantities as expressed in the qualitatively similar but quantitatively distinguishable units of the money material. The position of the commodities, their relation to one another as mediated by money, is basically determined by the socially necessary labor time spent upon them within the branch of production to which they belong, and this in turn is determined by the degree of development of the means of production as well as by the average productivity of labor, within one branch with respect to the others in the totality of social production. Changes in these produce changes in the reciprocal position of the exchange values of commodities as expressed in money.

The system of linguistic value as conceived by Saussure and Marx's conception of economic value are asymmetrical. For Marx, we have one kind of value, quantitatively divided, whereas for Saussure we have a large number of qualitatively diverse values. For Marx, value is motivated; for Saussure and the marginalists, it is not. In order to get at the root of their divergence, let us begin by looking at Saussure's idea of exchange and then see what Marx would say about it. In the famous passage from the *Course*, Saussure tells us that:

. . . even outside language all values are apparently governed by the same paradoxical principle. They are always composed:

1) of a dissimilar thing that can be exchanged for the thing of which the value is to be determined; and

2) of similar things that can be compared with the thing of which the value is to be determined.

Both factors are necessary for the existence of a value.

To determine what a five-franc piece is worth one must therefore know: 1) that it can be exchanged for a fixed quantity of a different thing, e.g. bread; and 2) that it can be compared with a similar value of the same system, e.g. a one-franc piece, or with coins of another system (a dollar, etc.) In the same way a word can be exchanged for something dissimilar, an idea; besides, it can be compared with something of the same nature, another word. Its value is therefore not fixed so long as one simply states that it can be "exchanged" for a given concept, i.e. that it has this or that signification: one must also compare it with similar values, with other words that stand in opposition to it. Its content 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. (p. 115)

Now let us see what Marxist theory has to object to Saussure's description of exchange, beginning from the first Saussurian statement. Marx finds in the first book of *Capital* (p. 19-20) that dissimilar things can be equated and "quantitatively compared" only when they are "expressed in terms of the same unit". They must be "things of the same kind", although this is a hidden likeness; their value is a purely "social unit, namely, human labor" (p. 17).

Thus in Marx's terms, since money and commodities have something in common, Saussure's comparison of exchange with words and ideas would not function unless words and ideas too had something in common. As to the second point, that similar things can be compared with the thing of which the value is to be determined, analogously to coins of the same system, let us see what Marx says about money. Calling it the "material in which the values of commodities express themselves socially", Marx says that

"nothing but a substance whose every specimen has identical and uniform qualities can serve as an adequate phenomenal form of value or as the embodiment of abstract and therefore uniform human labour. On the other hand, since the difference between magni-

tudes of value is purely quantitative, the commodity which is to function as money must be susceptible of purely quantitative differentiations, this meaning that it must be freely divisible at will, and yet capable of being reassembled out of the parts into which it has been divided. (p. 65)

Here, the qualitative identity of gold with itself is emphasized. Had Saussure followed this indication he might have first compared, as similar to similar, coins of the same denomination and different instances of the same word. This would have strained his analogy, however, as he would have had to make the instances of the same word correspond to various instances of the five franc piece, where he would have found that five francs were in one instance exchangeable for bread, and in another for sugar, thus corresponding to very different “ideas”. In this case Saussure’s second consideration would undermine his first.

In order to find out what the five-franc piece is worth, Saussure looks for some one thing for which it can be exchanged. He sees the general equivalent, money being exchanged for the relative commodity. Marx, instead, says that if we wanted to find out the value of money, we would need a price list of all commodities (p. 71). The “general equivalent has no relative form of value which it shares with other commodities; its value expresses itself relatively in the endless series of other commodities” (p. 42). Thus, by asking himself what the value of a five-franc piece was, Saussure got off on the wrong foot at the beginning. From Marx’s viewpoint the question could only have been answered by a list of all the commodities which could have been bought at the time by any five-franc piece. By not taking this path Saussure missed the character of generality which money has, and thus, correspondingly the general character of the word. And he made things worse by responding to the question with “a given quantity” of a single commodity, thus leaving aside the whole economic problem of why such a quantity was “given” and consequently the important epistemological problem of why a concept is “given”.

Marx’s treatment of money is dialectical and deals explicitly with the question of the relation between the general and the particular. Although this question would seem to be especially pertinent in any characterization of language, and the more so in one which is formed under the auspices of a comparison between money and words, Saussure does not touch upon it. Marx discusses what he calls the “polar” character of the equation of commodities and money. Here, the general equivalent has acquired “the character of being directly exchangeable for all other commodities ... because and insofar as other commodities have not acquired that character ... (p. 41). While we express the relative value of a commodity in the general equivalent, we cannot express the value of the general equivalent in a single commodity, because the general equivalent has, in fact, the social characteristic of being general and of being the equivalent, the directly exchangeable commodity. If a word is comparable to money and thus is a general equivalent for something, or some class of things, then the same polarity could apply.

The word is general while everything relative to it (what the word stands for) is to some degree particular. Consequently if one turns the equation around as Saussure seems to do, making the word relative and the “idea” equivalent, one may either lose the character of generality of the word, or improperly augment the generality of the “idea”. Thus one must always bear in mind uses of other instances of the same word, that is, the word must maintain its generality-even in such borderline cases as in ostensive definition. In fact, words are used to express ideas, not ideas to express words: just as money is used to express the value of commodities, not viceversa. ‘Horse’ for example can be used to refer to a particular horse only by virtue of its capacity to refer to other horses in other instances of itself as well as to the same horse in different moments.

V. N. Volosinov makes a telling comparison between the “abstract objectivist” way of studying language and the interpretation of dead or foreign languages. “The first philologists and the first linguists were always and everywhere priests. History does not know of a nation whose sacred scripture or whose oral tradition was not in a certain measure a foreign language, incomprehensible to the profane. Deciphering the mystery of the sacred words was the task the priest-philologists had to do” (p. 142). Volosinov distinguishes between recognition of normatively identical units and comprehension, and says that even in the learning of a foreign language “a form should be assimilated not in its relation to the abstract system of a language, that is, as a form identical to itself, but in the concrete structure of the expression, that is, as a mutable and malleable sign” (p. 273).

Thus, it is perhaps the practice of extracting the word from the context of its use and seeing it in “its relation to the abstract system of a language” which gives it the similarity to the general equivalent with regard to the things for which it stands. The signifier can be detached from its various signifieds and be treated by itself as a physical object in coordination with other physical objects (other signifiers) or substituted by a signifier from the same or from another language while the things for which it stands remain unaltered. This takes place also in the study of language and within any single language in the definition.

In *Grundrisse*, Marx says: “To compare money with language is ... erroneous. Language does not transform ideas, so that the peculiarity of ideas is dissolved and their social character runs alongside them as a separate entity, like prices alongside commodities. Ideas do not exist separately from language. Ideas which have first to be translated out of their mother tongue in order to circulate, in order to become exchangeable, offer a somewhat better analogy; but the analogy then lies not in the language, but in the foreignness of language” (p. 163).

Commenting this passage, Jean-Joseph Goux says that “the linguistic sign is always-already in the posture of translation” (p. 198), and goes on to say

that “the distinction between ‘intra-lingual’ translation and ‘inter-lingual’ translation is not pertinent” (*ibid.*). We would disagree with Goux that the linguistic sign is *always-already* in such a posture, and would see this appearance as occasional and a consequence of some uses of language and the study of language. “Linguistics studies a living language as if it were a dead language, and the mother tongue as if it were a foreign language” (Volosinov, p. 274). We can, in this regard, re-formulate Goux’s second statement by saying that the similarity between intra-lingual and inter-lingual translation is pertinent, locating an especially sensitive zone within language, that of the definition, of taking a word out of context.

Priests, as interpreters and depositories of the foreign language of the gods within the community, were the first “mental” as opposed to “manual” laborers in the division of labor. Without going into the differences between the word of the gods and the language of the community, we can say that, when priests isolated words from their contexts, trying to divine or interpret their meanings to others, they were doing something similar to what is still being done at present, by linguists, in dictionaries, and even in the definition itself. We can see this activity as a harbinger, in linguistic communication, of what Sohn-Rethel calls “the exchange abstraction” in economic communication (1970).

We have tried to show in another place how money can be seen as the only “word” (bearing in mind that it is a *material* word with a social function) people have in the situation of the exchange of private property, which is itself a kind of alienated communication, existing on the background of linguistic communication proper. The communities along whose borderline the new attitude of translation arises could thus be seen as those of the “community” of exchangers and the community of speakers.

Sohn-Rethel has described the effect of the “exchange abstraction” on natural science, seeing the quantification of nature as a result of the reflection in people’s consciousness of what they do in their economic life, turning use values into static entities on the market, separating them from their “social nexus”. At the risk of over-simplification, one might apply the same sort of criteria to social sciences such as economics and linguistics. The static state of the market and the static state of the *langue* are both ideal constructions made to allow the investigation of the laws of “mutual dependence” among economic or linguistic phenomena. It is interesting that the marginalist economist Walras uses the conception of numerary. “This is a good used as a counting unit. It is not however money in the ordinary sense of the word, since Walras assumes the numerary simply as a counting unit and assumes that there is no demand for it except for that which is relative to its non monetary qualities” (Roll, p. 399). One can see how Walras reduces money to the level of other commodities in order to have a homogeneous system. Saussure does much the same thing, though in the opposite direction. With his distinction between *langue* and parole, he raises the whole of *langue* to

the level of a single word taken out of context. The synchrony-diachrony distinction subtracts the historical context, the langue-parole subtracts the context of speakers, dividing the social from the individual. In Sohn-Rethel's manner one might say that Saussure considers *langue* as similar to a market where all commodities wait statically for their change of status from commodities to use values, from the property of those for whom they have no use value (and whose only importance to them lies in their capacity to be exchanged) to the property of those for whom they have use value. We have seen, however, above that words taken out of context already have the character of general equivalent. Money, in fact, in its "normative identity", is the material correspondent of the exchange abstraction.

What happens, then, is that Saussure's distinctions put *langue* as a whole not in the position of commodities on the market, but in the position of money. "Money", Marx says, "is the alienated ability of mankind" (Manuscripts, p. 168). This is perhaps why Goux is led to describe language as a whole as the general equivalent of other signs (1973). The whole *langue* has taken on the "posture" of translation.

Marx tells us in *Capital* that

"Money fulfills two entirely distinct functions, as the measure of value, and as the standard of price. It is the measure of value, because it is the social incarnation of human labor; it is the standard of price insofar as it exists in the form of a fixed weight of metal. As the measure of value, it serves to transform the values of the manifold commodities into prices, into imaginary quantities of gold; as the standard of prices, it measures these quantities of gold" (p. 74)

Prices are possible because gold is a qualitatively homogeneous material, internally divisible into reciprocally comparable units. These units are measured quantitatively with regard to weight, and are organized in a quantitative progression, since what they serve to measure is quantities of labor value. Bearing in mind the differences in the kinds of materiality which may be ascribed to money and to language, the differences in their functions - the one mediates the exchange of private property while the other mediates the extension of ideal common "property" in communication, we can nonetheless compare the *langue* to money. In this vein the *langue* can be seen as a system of qualitatively similar units (composed of a given group of phonemes for each language), which differ, again qualitatively.

Money, on the other hand, is a system of qualitatively similar units, which differ not qualitatively again but quantitatively. According to Marx, money measures one kind of value, abstract labor value. Language, to continue the comparison, measures not a single kind of value but a very large range of qualitatively different values. Here we come upon a crucial point in our comparison. For Saussure and the marginalists the value of money is not motivated. In the same way, linguistic values are not motivated. For Marx the value of money is motivated in that it is the expression of abstract labor

(which it also contains) existing in another commodity. Therefore if a theory of language based on Marx's analysis of the commodity and money is to be consistent, it must also see linguistic values as motivated, at least upon the occasions in which language or some of its elements function as general equivalents. This is not the place to go into the question in depth but we may suggest that words and the cultural elements they express have a relevance to the community and to communication, which may be seen as a value underlying both the *langue* as a whole and words when they are in the position of translation or definition. Relevance to the community and to communication would thus be a value category broad enough to comprehend both linguistic and economic value. The aspect of language corresponding to quantification of value in economics can be seen simply as the achievement of semiotization. That is, a cultural element becomes relevant enough to be related to a word which is itself a value among other values.

Having taken this step we can reverse our comparison again and look at money as a language of only one word, always in the position of translation in a community in which, because of the exchange of private property, there is a single relevant cultural element, abstract labor. This cultural element, due to its singularity, is relevant in different quantities rather than different qualities. There is nothing within the community that has the importance, or the same kind of importance as labor value and money. Thus there is nothing with which money stands to form a system of values at the same level (although of course it stands together with other monies outside national boundaries). As such it is like a word which is, so to say, inflated to contain within itself an oppositional structure similar to *langue*. The system and array of qualitative values which language presents are compressed into a quantitative system in money, using quantitative determinations, numbers, which function like the words in Saussure's *langue*, on the principle of the mutual exclusion of units.

One price is what it is in so far as it is not other prices, just as one word is what it is in opposition to other words. Marx calls prices the "money name of the value embodied" in a commodity. He conceives of prices as proper names, and says: "I know nothing about a man simply because I know that he is called James" (*Capital*, p. 77). Like proper names, prices are distinguished from each other insofar as one of them is none of the others. However, just as we can say that 6 is not 5 in a different way than that in which 100 or 25 are not 5, so we can say that some prices are closer to each other, so we can say that a price of 5 is closer to a price of 6, and is more likely to become 6 than 100. Moreover, a price of 25 is related to a price of 5 because it indicates a quantity 5 times as large, etc. In the same way, in *langue* there are different ways in which "related" words are not a particular word. Saussure gives us an example of an associative series of *enseignement-enseigner, enseignons, etc.; apprentissage, éducation, etc.; changement, armement, etc.; élément, justement, etc.* All of these can be viewed of course as associated, but they can also be seen as differences in the ways in which

they are not enseignement. Saussure locates such associative chains in the brain saying that “the associative relation unites terms in absentia in a potential mnemonic series” (*Course*, p. 123).

Such relations are similar to those of prices as “imaginary gold” when money is functioning as “standard of price”.

Since the *langue* is the compendium of words taken out of context, general equivalents in the position of translation as we said above, and since, on the other hand, as we tried to show elsewhere, money can be seen as a single word, we can turn this around and say that in *langue* it is as if each word were a different kind of money. One kind of money would thus be identifiable insofar as it was not all the others, and it would be difficult to find similarities other than merely physical ones. In this case one kind of money would be seen as “related” to another because both were long and thin, while the differences between the two would seem more important for fixing the relative position of one of them than the differences between it and round, square or spherical money. If one ignored the theory of labor value, one could try to determine their positive character by looking for some commodity for which they could be exchanged as well as for the other kinds of money with which they could be exchanged or into which they could be “translated”. If one abstracted from history, from the practice of exchange, and from commodities, like Saussure one would be left with a merely differential system.

For Saussure “in language there are only differences without positive terms” but this “is true only if the signified and the signifier are considered separately; when we consider the sign in its totality, we have something that is positive in its own class” (*Course*, p. 120). As a system of differences, *langue* is like such a collection of different kinds of money, separated from commodities and labor. All the money has value, because it is also created by human labor, and has the specific use value of serving socially to express the values of commodities.

What Saussure is looking for is the value or price of money in terms of other money. When he turns to consider thought he says that without “language, thought is a vague, uncharted whole” (p. 112) and “initially the concept is nothing, it is only a value determined by its relations with other similar values” (p. 117). The comparison that can be made here is one between labor value, disembodied from its products, and commodities seen as reciprocally related without a fixed unit in which to measure them.

Saussure’s operation consists in turning the equation of the general equivalent around, as we said above, giving the “idea” more generality than is warranted by making it equivalent, and then saying that it depends for its existence as a value on the value of the word. The fact is that neither the word nor the idea is general unless the operation of taking it out of context is performed. And the idea does not become general unless it is taken as the

equivalent of the word. No doubt the constant possibility of this priestly activity influences the use of language, standing beside the flow of speech like a guardian angel.

In the same way that the oppositional system of prices would not exist without money as measure of values so the system of opposition of physical words to one another would not exist without the totality of signifieds which justify it. And just as when one considers price as an abstract system, one is brought to see its ground in physical quantities of money as the standard of price - and one may thus be brought to ignore the first step of money as measure of value - so in considering words as a system, one looks at their physical qualities and may be brought to set aside the reasons for their existence.

Marx's analysis of commodities and money shows the means of economic communication, money, as having a "meaning" in abstract labor. So also the *langue* of Saussure taken as a whole can be seen as having a meaning, expressing a common quality, that of relevance to the community. At the same time each word may be seen as expressing the value of some cultural element containing the quality of relevance. The fact that a cultural element is related to a word as its name, that is, its semiotization, is not arbitrary but depends on the general importance or relevance of the cultural element. It is only the specific phonetic pattern to which the cultural element becomes related which is arbitrary and functions on the principle of mutual opposition.

II

An experiment by Lev Vygotsky on the development of concepts (1962) gives us the possibility to view Saussure's distinctions between *langue* and *parole* and between signifier and signified from another perspective. The experiment may be seen as using a *langue* of four mutually exclusive signifiers (nonsense words which are all names) taken out of verbal context. The signifiers are separated from their signifieds insofar as these are unknown to the subjects of the experiment. Using the signifiers as a guide to the relevant and nonrelevant characteristics of a number of blocks the subjects have the task of grouping the blocks according to concepts pre-determined by the experimenters. After the task has been completed the subjects are asked to use the words they have just learned to describe objects other than those in the experiment, that is they are asked to operate with them as they do in their usual use of language. Here, then, there is a dynamic relation between the signifiers and the signified as well as between *langue* and *parole*. Moreover, in the course of the experiment, one can see how the mutual exclusion of the signifiers in the *langue* aids in "cutting out" the signifieds, though we must add that this metaphor of cutting out applies more readily in the experiment to the blocks as referents having or not having certain characteristics, than it does to the concepts themselves, which Vygotsky sees as some-

thing which is developed, new mental organization. Also in contrast to Saussure, the concepts in this experiment pre-exist to the *langue* in that there is a proper way of grouping the blocks, which have themselves been made by the experimenters with characteristics, which are similar but not immediately obvious. Thus while it is true that for each individual subject, the signifier is separated from the signified, it is also true that the signified already exists as the goal defined by the experimenters.

Vygotsky's experiment is a modification of Ach's experiments in concept development and was worked out by L. S. Sakharov. Vygotsky calls it the "method of double stimulation" in that it includes both objects and signs. In order to make the rest of our discussion clear, we will quote in full the description of the experiment added by Vygotsky's editor from *Conceptual Thinking in Schizophrenia* by E. Hanfmann and J. Kasamin (1942), since Vygotsky himself did not supply such a description.

"The material used in the concept formation tests consists of 22 wooden blocks varying in color, shape, height, and size. There are 5 different colors, 6 different shapes, 2 heights (the tall blocks and the flat blocks), and 2 sizes of the horizontal surface (large and small). On the underside of each figure, which is not seen by the subject, is written one of the four nonsense words: 'lag', 'bik', 'mur', 'cev'. Regardless of color or shape, 'lag' is written on all tall large figures, 'bik' on all flat large figures, 'mur' on the tall small ones, and 'cev' on the flat small ones. At the beginning of the experiment all blocks, well mixed as to color, size and shape, are scattered on a table in front of the subject... The examiner turns up one of the blocks (the "sample"), shows and reads its name to the subject, and asks him to pick out all the blocks which he thinks might belong to the same kind. After the subject has done so . . . the examiner turns up one of the "wrongly" selected blocks, shows that this is a block of a different kind, and encourages the subject to continue trying. After each new attempt another of the wrongly placed blocks is turned up. As the number of the turned blocks increases, the subject by degrees obtains a basis for discovering to which characteristic of the blocks the nonsense words refer. As soon as he makes this discovery the . . . words . . . come to stand for definite kinds of objects (e.g. 'lag' for large tall blocks, 'bik' for large flat ones), and new concepts for which the language provides no names are thus built up. The subject is then able to complete the task of separating the four kinds of blocks indicated by the nonsense words. Thus the use of concepts has a definite functional value for the performance required by the test. Whether the subject actually uses conceptual thinking in trying to solve the problem... can be inferred from the nature of the groups he builds and from his procedure in building them. Nearly every step in his reasoning is reflected in his manipulations of the blocks. The first attack on the problem; the handling of the sample; the response to correction; the finding of the solution - all these stages of the experiment provide data that can serve as indicators of the subjects level of thinking".

Vygotsky describes various stages in the grouping of the objects, culminating in the stage of grouping according to the concept. He says that “when the process of the formation of concepts is seen in all its complexity, it appears as a movement of thought within the pyramid of concepts, constantly alternating between two directions, from the particular to the general, and from the general to the particular”. (p. 80) We saw above, in the first part of this article that for Marx, money is the “excluded commodity”, having the same quality (abstract labor value) which other commodities have and capable of expressing this by its direct exchangeability for them. There is a polarity between the excluded commodity and all the others, between the equivalent and the relative side of the equation. The character of being generally and directly exchangeable is, so to say, a polar one, and is as inseparable from its polar opposite, the character of not being directly exchangeable, as the positive pole of a magnet is from the negative” (Capital, p. 41). We believe that Vygotsky’s experiment shows us stages in the development of a similar polar relation between the sample object and the objects, which are to be related to it, together with a relation between the word and all the objects belonging to a conceptual group or class.

Actually, two processes of polarization are necessary for the formation of the concept, that between the sample as equivalent and the other objects as relative, and that between the relevant and the non relevant characteristics of the sample as well as of the other objects. The latter is aided by the mutual exclusion among the names of the objects, since some are discarded, their characteristics being seen as non-relevant by virtue of their having different names. Money, at least within the boundaries of a single country, does not exist within a *langue* of other monies. It stands alone, expressing in exchange a single, all-important common quality, labor value. In the act of exchange, however, people do exclude objects not having this quality, as well as those not having use value (the labor time spent on these would not have been socially necessary). The polarity between the general equivalent and the relative commodities thus also implies a polarity between these and all objects not having the common quality. In exchange we may find the factors of equivalence and substitutability; these are double, in fact exchange may be described as a double substitution in the sense that at least two persons are involved and in the sense that the exchange takes place for each at least twice, once in selling and once in buying. It is the mutually exclusive relation of private property, which imposes this doubling. Marx tells us, however, that it was in response to a common need that people performed the common action of excluding one commodity by which to measure their various private commodities (Capital, p. 61). Thus, both in the linguistic and in the economic context, one can see the factors of exchange as equivalence and substitution, if viewed from a broad enough perspective.

In Vygotsky’s experiment, the first stage on the way towards the formation of the concept is that of “unorganized congeries” or “heaps”. “The heap, consisting of disparate objects grouped together without any basis reveals a

diffuse, undirected extension of the meaning of the sign (artificial word) to inherently unrelated objects linked by chance in the child's perception" (p. 59). The child operates on the basis of subjective connections among the objects rather than objective ones. The first level of this stage is that of simple trial and error. Here the child discards the objects which are shown to him to have a different name, but this does not indicate to him anything having to do with the relevance or non relevance or the characteristics of that kind of object for the class he is constructing. Of the next two levels, one is formed with regard to the "organization of the child's visual field" and the other of "elements taken from different groups or heaps that have already been formed by the child. . . ." (p. 60-61). At this earliest "congerie" stage it seems that there is no polarity between the sample and the other objects, nor is there one between kinds of characteristics. One might call it simple nominalism if it is the case that the heaps of objects, which are constructed by the child, are related by h/er to the word as their name. This would seem to be borne out by the fact of h/er discarding objects having a different name. One might say here that h/er reasoning is of the type that objects are the same because they have the same name.

The second stage in concept development is that of the associative or sur-name complex. Here a polarity has already developed between the sample and the other objects but this does not imply a polarity between the relevant and non-relevant characteristics. Moreover, while the sample becomes repeatedly the equivalent of the other objects, this is not carried through into a relation of reciprocal equivalence among the objects themselves, except perhaps, a nominal relation similar to that above. At this stage "factual bonds" are seen among the objects. "In building an associative complex, the child may add one block to the nuclear object because it is of the same color, another because it is similar to the nucleus in shape or in size, or in any other attribute that happens to strike him. Any bond between the nucleus and another object suffices to make the child include that object in the group and to designate it by the common "family name" (p. 62). Interestingly enough, this complex is very similar to the "associative series" of Saussure cited above, where "enseignement" would function as the sample object and the various other members of the series as relative objects. It is not clear whether Saussure is looking at the associated words as whole signs, that is, including their signifieds. He does seem to shift levels when he sees words as associated by similarity of prefix or suffix and then includes also those having similar signifieds without any similarity of the signifier. Though one might try to make a case here for the signifieds having a common quality (considering the signifieds connected with the prefixes and suffixes or the roots as similar) there does not seem to be any reason to try to arrive at such an abstract level. In the first place, "enseignement" is really only partially substitutable for the various different words which are associated with it; it is not their name. In the second place Vygotsky finds thinking by means of complexes very widespread, not only among children but also among adults, and he gives examples of this also with regard to language, especially in the

derivation of words. Nevertheless, linguists and philosophers do stand in front of language in much the same way as the subjects of such an experiment as Vygotsky's stand in front of the blocks of different colors, forms and sizes. This happens both in regard to words and to ideas. Wittgenstein for instance took a step backwards from the formation of concepts at any cost. The relation, which he describes as "family relation" and that of fibres in a thread can be seen as similar to those in the complexes found in Vygotsky's experiment, especially in the "chain complex" described below.

The next complex mentioned by Vygotsky, the collection, is an alternative to the concept, in that though one aspect of the sample is taken as most important, and thus there is a polarity between the relevant and non relevant aspects of the sample, no relation of equivalence or substitutability is established between the sample and the other objects. They do not become relative to it as an equivalent with regard to the same aspect, and thus do not become related to each other as equals. Still, the grouping here has its own kind of coherence. The child forms a collection of objects which contrast and complement each other with regard to the attribute he has chosen such as a collection of blocks of different colors. This is however sometimes mixed with the associative complex, the child choosing more than one aspect of the sample as that with regard to which he forms his collection. Vygotsky calls this kind of complex that of "functional grouping" as in such sets as cup, saucer and spoon. He says "We might say that the collection complex is a *grouping of objects on the basis of their participation in the same practical operation of their functional cooperation*" (p. 63 Vygotsky's italics). This too reminds us of Wittgenstein: "Think of the tools in a tool-box: there is a hammer, pliers, a saw, a screwdriver, a rule, a glue-pot, glue, nails and screws. - The functions of words are as diverse as the functions of these objects. (And in both cases there are similarities)". (*Philosophical Investigations*, n. 11)

In the following complex, the "chain" complex, the sample object remains particular rather than general as substitutable and equivalent for the other objects, in that it is itself substituted as a sample. "For instance, if the experimental sample is a yellow triangle, the child might pick out a few triangular blocks until his attention is caught by, let us say, the blue color of a block he has just added; he switches to selecting blue blocks of any shape-angular, circular, semicircular. This in turn is sufficient to change the criterion again; oblivious of color, the child begins to choose rounded blocks... The original sample has no central significance. Each link, once included in a chain complex, is as important as the first and may become the magnet for a series of other objects" (Vygotsky p.64). The organization of the material, which results from this kind of operation is comparable to the kind of organization Wittgenstein sees in different sorts of games. Not finding anything common to them all, but only similarities among individual kinds of games which have other similarities to other kinds of games, Wittgenstein says "I can think of no better expression to characterize these similarities than 'family resemblances'; for the various resemblances between members of a family:

build, features, colour of eyes, gait, temperament, etc., overlap and criss-cross in the same way. -And I shall say: 'games' form a family. " (*Philosophical Investigations*, n. 67)

These comparisons do not mean to suggest that Wittgenstein was influenced by Vygotsky. Rather what Vygotsky saw in his experiments and applied to language itself in the derivation of words, Wittgenstein saw in the relations among "sub-concepts". Wittgenstein raises the status of the complex as an explanatory device, and thus lowers that of the concept, which no longer stands alone as the only proper standard of linguistic organization. Here we can see a process somewhat similar to those we saw above regarding Walras, who reduced the status of money the general equivalent to that of numerary, similar to all other commodities, and Saussure who raised all words to the level of a word taken singly as a general equivalent. Wittgenstein now places the concept in a context of complexes, robbing it of its position of privilege in the investigation of language.

Differently from Wittgenstein, Vygotsky maintains the traditional hierarchy considering complexes more primitive forms of thought than concepts. The abstract relations which are seen in the formation of concepts contrast with the concrete relations among objects which are the basis of the complex. In complexes it is as if the word in its "guiding function" were followed only partially whereas in the concept this function is fully realized. So far we have seen the heap complex where the word functions as a guide neither with regard to the polarity of the sample nor with regard to the attributes. Second, the associative complex where a polarity is established between the sample and the other objects, (by virtue of the fact that it is the only object which has a name in evidence) but no polarity is set up among its attributes—each of these being seen successively as equivalent for those of the various other objects. Though Vygotsky does not say so explicitly, we may presume that this happens in spite of the fact that some of the wrongly chosen blocks are shown to have a different name. In this case we would say that while the guiding function of the word as a name is in operation, the guiding function of the words in the "*langue*" as mutually exclusive is not. We then saw an alternative to the concept, the "collection" complex also described as functional grouping. Here one might hypothesize that the name of the object is taken as a higher order word, having to do with the attribute itself, such as "color" for a collection of colors. The sample would thus be seen as only one of a group having color. This may change, however, and the subject go back to the sample in order to choose another attribute with regard to which to form another collection, so that the polarity between the sample and the other objects is not entirely lost. In the chain complex, the sample itself was substituted, each new object becoming a new sample, as if the name had been transferred to each one successively. One might say that a new, particular polarity was established each time. The attribute is common only to two, or a few blocks.

The next complex described by Vygotsky is the “diffuse” complex, which is “marked by the fluidity of the very attribute that unites its single elements” (p. 65). Here, as in the congerie stage, the relation appears to be purely nominal. Vygostky gives much importance to the complex which follows, which he calls the “pseudo-concept”. Here although the child picks out one attribute of the sample object, selects only other objects having that attribute “in reality the child is guided by the concrete, visible likeness and has formed only an associative complex limited to a certain kind of perceptual bond” (p. 66). An example of the pseudo concept is given by the editor, in which the turning over of a block having the supposed common characteristic but a different name does not indicate to the subject that the characteristic is the wrong one. Again it is the mutual exclusion of words, which is not functioning. Or, one might say that only the word written on the sample block has functioned to install a polarity, and blocks which are turned over and shown to have other names are not themselves considered as samples with regard to still other blocks with other characteristics. There is, so to say, a lack of a linguistic plenum. Only one signifier is seen together with its signified and this is not itself fully developed. There has not been sufficient abstraction.

We would like to suggest that the higher level of abstraction can be viewed as being reached by a reversal of the general polar equation. The sample object with its name has become general through the repeated comparison of the other objects to the sample. The sample has acquired the character of general equivalence, and is also substitutable for each relative object in turn, with regard to some quality. The relation of each relative object to the equivalent implies a relation among the relative objects themselves. The abstraction of this relation may be achieved by turning the equation around, thus changing its character, as Marx says. Now there is only one relative object, and various equivalent objects, seen as repeatedly equivalent to it. But the relative object has a characteristic which it did not have before the operation began. This characteristic is its generality, which is shared by the word, its name (which has been applied to the other objects when they were seen as relative). The sample is thus something, which is both general and particular. In its relation to the objects it finds its equivalents not only in regard to its physical quality, but also in regard to its generality and particularity. The mutual relation of the objects to each other which had been developed by the relation of each to the same equivalent now develops, as equivalents themselves for the sample, into a relation of identity under the common quality. When this has been done, the concept has been abstracted, and any of the objects can be seen as “containing” the common quality. At this point the sample object may be seen as related to the word as its name because it contains the common quality, and in this being no different from any other object containing that quality. It is no longer necessary as a sample. The word itself is sufficient to maintain the relations among the objects. It substitutes the sample as that with regard to which all are related, since it is the name of each of the objects. In its generality it is the corre-

spondent of the common quality, which has been abstracted from them. Moreover, like the sample, it is also particular, though for different reasons. The sample is particular from sense perception, while the word maintains its particularity in spite of the existence of various instances of the same word, by virtue of the relation of mutual exclusion with other words. If the word is not seen as “normatively identical” and as standing in such a relation of mutual exclusion, it cannot be seen as the equivalent of an abstracted common quality or concept (This is in fact what both Volosinov and Wittgenstein insisted upon, one with regard to words in context, and their ideological “themes”, the other with regard to the varied uses of language). In Vygostky’s experiment, which may be considered as a “language game” of denomination we do have the conditions for the formation of concepts. Especially interesting here is the role of the sample in its evolution from particular to general, while remaining a single object, as well as its final disappearance into the class or series of all the objects having the common quality when this has been abstracted. When the sample is no longer necessary, the word takes over its function as general equivalent for the objects having the common quality, since each of these objects is now related to the word as its name, that is, its equivalent and substitute in the realm of human communication. Thus we have come full circle from the nominalist relation of the “heap” congeries where things were seen as the same because they had the same name. This relation now, so to say, contains the relation that things have the same name because they are the same. In other words the nominal relation expresses a factual relation of the objects to each other. This is done by the substitutability of the word for each of the objects of the class, just as, for Marx, it is the direct exchangeability of money for commodities which is so to say the mechanism of the expression of their value. Money can itself be seen as like the word in that it is the equivalent and substitute for commodities in that specific sector of the realm of human communication, which is economic exchange.

The word takes over the function of the sample object after the common quality has been abstracted through the latter’s use. The word has all along been a “guide” to this process, as Vygotsky says, beginning with the fact that the sample is identified as a sample by virtue of its being the only object with its name in evidence. When the concept has been developed the word takes the place of the sample as general equivalent. One might see “mental images” related to words as phantom samples which are useful when one is unsure of what a word means, that is, when one asks: for what things having a relation to each other as things having a common quality or qualities, is this word the equivalent and substitute? When the concept has been developed any of the objects having that quality can be taken as a representative or example of that class, and if necessary can be used as a sample, instituting the polarity by which it becomes general. The mental image, being the image of one of these objects, can take on this function.

Here we can draw a parallel with gold and paper money. Gold can be seen as

the sample object, containing the common quality of labor value, and equivalent and substitute for commodities in this regard. Moreover in its normatively identical units it presents the *langue* of different quantities. However, when money functions “as a sign of itself” (for instance as the circulating medium) it can be “replaced with a simple sign” (*Capital* p. 110), thus paper money. When gold is taken out of circulation altogether and becomes a country’s gold reserve, stashed away in such a place as Fort Knox, it is similar to the sample object stored in the memory but no longer necessary as a means of communication. Ideally either could be called upon, or actually put into the act of exchange or communication as the general equivalent. In practice this is not done also because paper money, like words, suffices to maintain the polarity, permitting the abstraction of the common quality of the relative objects, which in this case are commodities. Like gold, paper money is ordered according to the quantitative *langue*, thus making quantitative measurement possible. We can now see paper money as similar to the word, the equivalent and substitute for the general equivalent within that specific zone of communication, which is exchange. As normatively identical units both paper money and words can be seen themselves as general equivalents, which by their substitutability-for money, exchangeability-and equivalence repeatedly for particular things or commodities, maintain and give expression to a relation among these things or commodities. On the other hand, paper money may be exchanged for commodities and words may be used as the communicative substitutes for things or groups of things in a nominalistic way, without abstracting any common qualities. Vygotsky found that concepts developed only in adolescence, but that practically children were able to use language much earlier in a way which correspond to adults’ use. Similarly, money is used without referring to the common quality of abstract labor. When one moves into the stage of concepts and abstraction, one is entering the zone of “priestly” activity or of translation, as Volosinov would say. On the other hand, Marx says that in equating the “values of their exchanged products” people “equate the different kinds of labour expended in production, treating them as homogeneous human labour. They do not know they are doing this, but they do it” (*Capital*, p. 47).

In much the same way the use of the word as a guideline may show that we are actually following words along the lines of socially developed concepts while not knowing we are doing so.

In our comparison between language and money, two paths are open to us, which are not purely those of analogy, though they require it. First, we might take advantage of the position of translation in which money and *langue* are found, intentionally take on the priestly function, and try to translate the one into the other (an ideal alchemy which unfortunately does not have any effect upon the bank account). Second, considering *langue* as a collection of communicative phenomena (alienated from their signifieds, from *parole*, and from diachrony) and money as the communicative means in the alienated

zone of communication which is exchange, we could try along the lines of Vygotsky's experiment to develop a concept under which both money and *langue* would fall, using money as the sample object with regard to those other objects which are the words in the *langue*. This would have two advantages. The first is that although money, like words in the *langue*, is separated from its signified, only coming into contact with it in the act of exchange in which it expresses the value of another commodity, when it is seen as the excluded commodity, as gold, it contains the common quality, abstract labor within it. On the other hand, as a sample object for the *langue*, money has the advantage of being already general. If it were not it could not be an equivalent for words, which, in this position, out of the context of parole, are also general. Thus we will have to consider the relations between money and commodities, and between signifiers and signifieds, and at least some of what they have in common will be found in these relations, since it is by virtue of these that money and words become general. The two possibilities of translation and of the use of Vygotsky's experimental procedure in another context, to some extent coincide. For the latter common qualities must be found but these can be seen especially in structures of relations. For the translation a common "idea" would be necessary, and we will leave this till later.

In order to see if words and money have structures in common, we must look to see if words and things have anything in common in correspondence to something money and commodities have in common. Here we can hazard that, when we take a word out of context and investigate its concept, the relation between this word and its referents reflects or repeats a relation, which may exist between these referents and one of their number, which may be excluded as equivalent in the process of the development of the concept. The relation, which it already had to its referents nominalistically is now, so to say, doubled, through its substitution for a possible sample object, by which their relation to each other is brought forward. When the common quality has been abstracted the word maintains the relation of the referents to each other. Thus we can say that though words do not have anything formal in common with things in the early stages of the ontogenesis of language, they can come to have something at a certain period and in a certain use of language, when a relation among the referents is developed which is similar to that already existing between the word and the referents on a nominalistic basis, that is, when the stages of complexes have been overcome. The word would thus stand as the equivalent of the equivalent, and the referents have a relation of equivalence to each other, first, by virtue of their having the same name, and later by their relation to an equivalent by which their common quality was abstracted. Such a series of equivalent relations each of which may then be seen as equivalent to the other may remind one of Plato's "Third Man" paradox. On the other hand it might be seen as "reflection" in the sense of the German *Widerspiegelung*, since the relations of equivalence repeatedly mirror each other, having a "real" content only at one stage.

Marx sees the development of money as a resolution of the contradiction between private and social within the mutually exclusive situation of private property. In this situation “for every owner of a commodity, every commodity owned by another person counts as a particular equivalent for his own commodity and ... therefore, his own commodity counts as a general equivalent of all other commodities. “ Such a private process is inadequate to the function of general equivalent socially, in which commodities “can be equated as values and have the magnitude of their values compared”. Since value is a social quality, it requires a social means of expression. The owner of a “private general equivalent” is thus so to say at the nominalistic stage. There is, in fact, no common quality, which can be abstracted until commodities acquire a relation to each other and to a general equivalent on a social plane. “In this quandary, our owners of commodities think after the manner of Faust: ‘In the beginning was the deed’-action comes first. They have therefore acted before they have thought ... But the only way a particular commodity can become a general equivalent is by a social act. The social act performed by all other commodities therefore sets apart a particular commodity in which they all express their values. Thereby the bodily form of this commodity becomes the form of the socially recognized general equivalent” (*Capital*, p. 61). Interestingly enough, the “deed” of which Faust speaks (in opposition to St. John’s “Word”) is here the kind of deed which we have seen as underlying the formation of concepts, the “creation of a sample object”.

Money, not just paper money, but money as the excluded commodity has many of the characteristics of a word. One must always remember of course that it is material in a different sense than is language, as is the labor which produces both money and commodities. However, in its mediation between the private and the social, it functions, as we just saw, as the social equivalent of private equivalents. In much the same way the word functions as the equivalent not only for the referents but also for the “samples” with which they are in a polar relation for various individuals. Marx tells us that “Language is practical consciousness as it exists for others and therefore really for me as well” (*German Ideology*). As we have tried to show elsewhere (Vaughan 1980) money is the aspect “for others” of commodities, and functions as the single word, expressing a single relevant quality, labor value, in the mutually exclusive situation of private property. Words, on the other hand, may be seen as the aspect “for others” of their referents, of the sample, of the relation between them, or of the relation among the referents that is the common quality, this depending on the stage of development of these relations for the individual. The type and context of the reception of words, their actual being for others, modifies what they also for the sender and it may be that this is the process whereby the adult’s and the child’s use of words coincide as well as one of the reasons why words function as the “guidelines” to concept formation. As the excluded commodity, money has both the characteristic of the word (it is as it were, a one word language

containing within itself the “*langue*” of prices) and those of the sample object. With paper money, as we saw above, the linguistic, or as Marx says, symbolic, aspect, becomes separated from the object which actually contains the common quality.

Money serves for the identification and expression of the commodity as a value, and this is functional to and directed towards the process of exchange. Words, taken out of context, in investigation of their concepts in definitions and in inter-or intra-lingual translation, serve for the identification and expression of their referents as having common qualities, and this is directed towards communication of various types. (This communication might be described as linguistic exchange, since the air of objectivity coming with the conceptual definition lends itself particularly to ideological use.) It is the moment in language, which is similar to the “exchange abstraction” of Sohn-Rethel in economics. The fact is, that aligning money and words for “translation” would give us the possibility of putting money, which heretofore stood alone into a context of words, a *langue*, while it gives to words the possibility of comparison with money as a sample object, something which was lacking before. This possibility is due to the double character of money as a material word in that it functions both as a sample and as a word. We can say that such reciprocal positioning is the first step in confronting money and language as an intralingual translation, or definition. On the other hand, money is also a foreign language which expresses by a qualitatively single word a single common quality of everything on the market. As such, it is foreign to any verbal language, which in its qualitative variety even when considered as *langue*, expresses a multitude of common qualities, relation, ideas.

Strangely enough, we know what the material word means in the foreign language of money, but not what language itself means in our own, verbal language.

Thus, if we want at least to indicate the direction a “translation” would take, we must begin with the signified of the foreign language and try to conduct it to something which we may not have noticed in our own. Marx discovers labor value by beginning with commodities, not with money. This gives us a clue as to where to start looking for some quality, which may be similar for language. That is we should begin with things, relations, ideas, rather than with words. Volosinov again comes to our aid: “Every stage in the development of a society has its own special and restricted circle of items which alone have access to that society’s attention and which can be endowed with evaluative accentuation by that attention. Only items within that circle will achieve sign formation and become objects in semiotic communication”. In order for this to come about, any such item “...must be associated with the vital socioeconomic prerequisites of the particular group’s existence; it must somehow, even if only obliquely, make contact with the bases of the group’s material life” (V.N. Volosinov, *Marxism and the Philosophy of Language*, pp. 21-22).

One may call such items socially relevant items. It is because they are relevant to, or have a value in, the life process of the community, that they are also relevant to communication. In turn, the means of communication have value in communication and both communication and its means can be seen as items, which are directed towards the life process of a community. When they reach a certain level of importance they also “achieve sign formation”. Above, we described economic exchange as a section or zone of human communication.

We can thus look at the items for which money is exchanged, commodities, as socially relevant items, which have value in that kind of communication which is exchange. The means for that communication is money, which in its exchangeability for them expresses their common quality. The fact is that abstract labor is labor directed towards exchange. It follows the linguistic dialectic as labor “as it exists for others and therefore really for me as well”. In order to become “for others” it must pass through the act of alienated, material communication, commodity exchange. Thus abstract labor is labor which is relevant to communication, the means of communication, and the life process of the community. Money, when it is the excluded commodity, also contains labor, and is thus relevant in the same way to communication. The substitution of paper money for the excluded commodity gives us a clue as to the abstract motivation of the sign, which remains. Now, though paper money no longer itself contains labor, it is still relevant to the communicative act of exchange. Abstract labor is relevant to this act. Thus, what the two have in common is relevance to a particular kind of communicative act, and this, in turn, has a value for certain of the life processes of the community.

As with money and commodities, we can say that the communicative means, the word, its referents, and whatever common quality or idea may have developed from their relation, have in common the quality of relevance to communication. Moreover, the acts of communication in which they are evident are themselves directed towards the same life processes where these referents, ideas, etc. have, by their importance, gained access to the society’s attention. We suggest that the relation of the items in the “circle” to words causes the “value” of those words, as does the use of the words in communicative acts relevant to the community’s life. No quantitative differences pertain to such values, their only transformation being their expression in a word. On the other hand, commodities are also items striving to prove themselves relevant, that is, to achieve sign formation, in a relation with money in which this quality of relevance is expressed, relatively to all other commodities.

In exchange, in fact, we see happening so to say in slow motion and on a material plane what happens effortlessly as a social process with language. Here values are not quantitatively divided, although it may happen that an item becomes related to a word more than once, since it has been relevant to

communication and to the community's life in more than one way. This is the case for instance for Saussure's 'sheep' and 'mutton' example. These divide the field covered by '*mouton*' in French because sheep were relevant to the English peasant and to the French aristocracy in England in different ways. That an item is related to a word at all shows that it has a value in communication, just as the relation of a commodity to a sum of money shows that it has a value in exchange.

By viewing economic exchange as an alienated zone of communication proper, finding in language a corresponding zone in the isolation of words for the investigation of their concepts, translation and definition, and especially such philological creations as Saussure's *langue*, we have hoped to find a moment in the two languages, that of money and that of words, where the communicators are "saying the same thing". What they are talking about might be called 'value' but by including economic value in the wider notion of relevance to communication, we can see a signified, which is the same for both "languages". The parallel functions predominately with regard to words which express items, which are themselves relevant. In addition to this we have seen that by using money as the "sample object" with regard to language, as samples were used in Vygotsky's experiment regarding objects, a common structure can be seen between words and money as general equivalents.

We may now return to the questions we posed with regard to Saussure at the beginning of this article. In his comparison of money and language Saussure did, after all, begin with seeing words as comparable to money, and ideas to commodities. What was lacking to bring it into focus from the point of view of the Marxist analysis of commodities and money, was a conception of some thing that becomes general through a repeated relation to the particular, as well as a consequent relation of particulars to each other which can itself acquire generality. This was shown in Vygotsky's experiment, where what Saussure would call the "signified" undergoes a number of changes, only at the last stage becoming an "idea" for which a word can be "exchanged". Thus Saussure's analogy between economic exchange and language, when seen in the light of Marx's analysis of commodities and money, indicates a view of language, which contradicts some of Saussure's basic tenets.

NOTES

1) Speaking of coins, a particular case of money, Sohn-Rethel says: "A coin is therefore something that corresponds to the postulates of the exchange abstraction, an abstract thing, an abstract form made sensible" (1965 p. 120).

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NOTE: This is a revised edition of an article first published in *Ars Semeiotica* IV: 1. 57-83 (1981). © John Benjamins B.V., Amsterdam.