2. The Model of Language as Organon (A)

2.0 Manners of appearance of the concrete speech event

The speech event has many causes (or motives) and locations in human life. Neither in the solitude of the desert nor in the dreams of sleep does it abandon one completely, but now and then it does fall silent, both at unimportant and at decisive moments. It does this not only when one is engaged in solitary reflection or wordless activity, but sometimes in the midst of communicative contact between two people, between Me and Thee, or when several congregate and say "we", occasions when it is otherwise encountered quite regularly. There are sages who offer summary observations on the changeable, fickle way in which human language makes its appearance, and all of these observations are equally far removed from the sort of truth a strict law would have. "The soul speaks, and then, alas, the soul speaks no more," says Schiller. It is also said: the profoundest answer of a conscience interrogated is silence. Against this, others bring to bear the claim that speaking and being human amount to the same thing, or that it is within the medium, the setting of language alone (more precisely, the native language) that the inner world and the external world are given and accessible to us; at least thought and language are supposed to be the same, namely logos, and silent thought only inaudible speaking.

At the beginning we are not looking for conflict with the sages, but rather for a model of the fully blown concrete speech event, including the circumstances in life in which it more or less regularly occurs. I think it was a good idea of Plato's when he claims in Cratylus that language is an organum for the one to inform the other of something about the things. There is no question that such information takes place, and the advantage of taking it as the starting point lies in the fact that all or most other cases can be derived from this one typical case by reduction; for as far as fundamental relationships are concerned, informing by means of language is the richest of the manifestations of the concrete speech event. The list the one

— to the other — about the things names no fewer than three relational foundations. Let us sketch a diagram on a piece of paper, three points in triangular formation, a fourth point in the middle, and begin to reflect on what this diagram can symbolize. The fourth point in the middle symbolizes the phenomenon susceptible of sense perception, normally an acoustic phenomenon, which clearly must stand in some relation or other to the three foundations at the corners, whether it be a direct or a mediated relation. Let us draw broken lines from the centre to the corner points of our diagram and consider what these broken lines symbolize.

2.1 Inadequacy of the causal view of substance-oriented thought

The first thing that will occur nowadays to any impartial interpreter of this figure consisting of points and lines is a direct causal view. The "one" produces the sound phenomenon, and it affects the "other" as a stimulus; the sound is thus both effectus and efficiens. There are various ways of making sense of the third line. The simplest possibility is to interpret it as a complex causal relationship between events going on around the speech event, complex by reason of being a relationship that is mediated by intermediate foundations. Assume the production of the acoustic phenomenon is prompted in the speaker by a temporally prior sensory stimulus coming from a thing in the perceptual field, and hearing the acoustic language phenomenon stimulates the hearer to turn his eyes to the same thing. Thus for example: two people in a room — the one notices a drumming, looks to the window and says, "it's raining" — the other, too, looks to the window, whether directly on hearing the expression or because his gaze is directed to it by
looking at the speaker.\(^1\) That can happen, and then the process elegantly makes a full circle. If one wishes, the process can be repeated in this closed circle as on an endless screw. If the thing or event is rich enough to furnish continually new stimulations that are taken up by the one or the other partner in turn, if the incident has ample 'appeal' to them (as a very apt expression has it), then they will indulge in observant probing and discussion of the affair in dialogue form.

\[\text{Figure 2}\]

If we set the illustration aside and return to the model, the causal chain in the primary auditory message, which is still based on perception, can be captured by the diagram in Figure 2. What does the theory of language have to say about this? A causal view, some causal view or other is just as unavoidable in the total framework of the linguistic analysis of concrete speech processes as it is, for example, in the reconstruction of a crime. In this example with rain is discussed in Alan Gardiner's impressive book \textit{The Theory of Speech and Language} (Gardiner 1932). I am glad to confirm that when I went over the example with the diagram illustrating the three foundations on the blackboard in London in 1931, I did not know that the esteemed author had already written about it ten years previously. Perhaps the climate in London accounts for the similarity in the choice of examples. The pattern with three foundations itself was first conceived by neither of us; there are enough indications in Plato for a logician to infer it from his approach. When I elaborated it in the essay "Kritische Musterung der neueren Theorien des Satzes" [Critical survey of newer theories of the sentence] (Bühler 1918), I was thinking not of Plato, but, like Gardiner, of the problem itself, and could visualize the model. The titles of my two lectures at University College in London were "Structure of Language" and "Psychology of Speech". After holding them I had the detailed discussions with Gardiner that he mentions [in \textit{The Theory of Speech and Language}, page x; cf. page 7], which revealed to us both that we agreed in our judgements of "the" language of man, his judgement being based on Egyptian, mine on German.

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The research programme that behaviourism ruggedly began to carry out with youthful zeal, staring with animals and human infants, still contained this old formula and tried to reduce the entire process to reflexes; but today a reversal is being carried out all down the line. I shall make just one comment on the matter here, one that on this ground will be quite enough to justify our demand that the things should be seen in their proper form. Regardless of whether one looks into the seminal works by Jennings and Thorndike, in my view the best early works of American behaviourism, or the most modern survey by Ichlonski on the success of the Russians working with Pavlov and Bechterev, or the behaviouristic theory of language developed by the philosopher Grace A. De Laguna, anyone who has not lost his sense for the real problem here will immediately notice that from the very beginning the nature of the issue itself forced the researchers to make a decisive departure from their proclaimed programme.

They were not and are still not able to make headway without using a basic sematological concept, in their calculation, the concept of signal. Jennings introduced it with little theoretical discussion in the form of "representative stimuli" (for which we say: \textit{aliquid stat pro aliquo}, something stands for something else, about which more will be said in axiom B); Ichlonski has it in the guise of an as-if observation, and De Laguna's conception contains it from the outset without derivation. In the logic of the behaviourists' programme this genuine sign concept is not situated somewhere on the periphery of the object of study, but at the very centre, so that it is or should be part of the equipment of every theorist who wants to make sense of the facts of animal learning. Wherever it is not encountered, a gap or a crack will be perceived at the place where it should be. On the basis of a circumspect sematology it might have been possible to predict the fact that behaviourist theory would stagnate, that the problem of the process of learning would split behaviourism up into more than the seven colours of the rainbow; the books and journals of the American psychologists are full of discussions of the problem of learning. At any rate, an even more convenient prediction after the fact is possible on this basis; and more still, it is possible to put the differences of opinion on the process of
learning into a clear logical order. What I say here must stand alone for the moment without detailed evidence; the theory of language must contain a special chapter on the signal function of language, where details can be treated. It must be shown there that within biology itself Jakob von Uexküll's approach arose as a sort of Hegelian antithesis to mechanistic behaviourism, and that this approach is sematologically oriented from the very beginning, with "perceptual signs" (Merkzeichen) and "effector" or "operative signs" (Wirkzeichen) as basic concepts. The reform I am talking about is carried out in exemplary fashion in Edward C. Tolman's excellent work Purposive Behavior (1932).

As it stands here, what is said in small print is not of current interest for European language researchers and could have been left out; the point was to mention the most consistent advance of the modern form of substance-oriented thought and to take note of the difficulties it has got bogged down in. Its predecessor in psychology and language research at the end of the nineteenth century is only an inconsistent and stammering baby in comparison with the programme of physicalist behaviourism, which has renewed the flatus vocis nominalism of the early middle ages in modern form. The most simple and truly conclusive argument a language researcher can adduce against it is provided, for example, by the constitutive facts of phonology. In fact the psychological systems of the interlocutors produce and process the flatus vocis in a manner quite different from that presupposed by the simplistic old formula. In receiving, the psychophysical systems are selectors and work according to the principle of abstractive relevance, which axiom B will elucidate; and in sending, the psychophysical systems are forming stations. Both belong to the equipment of signal communication.

2.2 The new model: the three semantic functions of language

With due respect for these facts we sketch the organon model of language a second time in Figure 3. The circle in the middle symbolizes the concrete acoustic phenomenon. Three variable factors in it go to give it the rank of a sign in three different manners. The sides of the inscribed triangle symbolize these three factors. In one way the triangle encloses less than the circle (thus illustrating the principle of abstractive relevance). In another way it goes beyond the circle to indicate that what is given to the senses always receives an apperceptive complement. The parallel lines symbolize the semantic functions of the (complex) language sign. It is a symbol by virtue of its coordination to objects and states of affairs, a symptom (Anzeichen, indicium, index) by virtue of its dependence on the sender, whose inner states it expresses, and a signal by virtue of its appeal to the hearer, whose inner or outer behaviour it directs as do other communicative signs.

This organon model, with its three largely independently variable semantic relations, was first expounded completely in my paper on the sentence (Bühler 1918), which begins with the words: "What human language does is threefold: profession, triggering and representation." Today I prefer the terms expression (Ausdruck), appeal (Appell) and representation, because among language theorists 'expression' is increasingly taking on the precise meaning demanded here, and because the Latin word 'appellare' (English: appeal, German: more or less 'ansprechen') is apt for the second; as everyone knows today there is sex appeal, and in addition to that speech appeal seems to me to be just as palpable a fact.

At any rate, whoever has realized that language has a significative nature must take care that his concepts are homogeneous; all three basic concepts must be semantic concepts. How and why a conceptual cocktail

2. [Merkzeichen and Wirkzeichen are translated in accordance with Thure von Uexküll's suggestions (Uexküll 1982: 84, 86).]
must be avoided can be instructively illustrated by sound theory. After the progress that phonology has brought about, the context or an adjective must in future always tell whether what is meant by the simple term "sound of language" is a sound sign, a sound feature, that is, a certain unit from the system of phonemes of a certain language, or whether it is one of the facts of phonetics. For we now know that a phoneme (in the singular) can have two different phonetic "realizations" at two positions in the one language in which it occurs, and that acoustic material (in the singular) that occurs in two different languages can have different phonological "values"; to repeat the point, the former is a difference within one language, the latter among various languages. A mixture of concepts that in part belong to the (physical) causal view and in part to the significative view would result in such a thorough confusion of the symbolic interpretation of our three-foundation diagram that no one could find his way and pseudo-problems would arise. The slogan "march separately" is one of the most natural presuppositions for the homogeneity of concepts that are to be treated synoptically in a relational model. The complementary slogan "and fight together" is a requirement that has to be fulfilled within science in another way, according to clear, statable logical rules, for which the example of the relationship between phonetics and phonology can serve as an initial illustration.

What, then, do the parallel lines of the organon model symbolize? Plato tried to interpret only one of them, the relationship between sound and thing, and in Cratylus he tended to prefer to answer his disjunctive question with "vou,q" (by custom) or "-Oeaei" (by (arbitrary) determination), although the dialogue gives rise to new doubt about this. Thus, at this place in the diagram, there is, to put it in terms of modern mathematics, a coordination of sound signs to objects and states of affairs. The contemporary speaker does not know about the historical preamble of this coordination. In many cases language research can trace the coordination remarkably far back into the past and reconstruct it; but in every case the thread ultimately breaks off somewhere. Both speaker and language researcher confess that if we compare the sound and the thing with each other "today", we find no "similarity" between the two; and in most cases we also do not know whether there ever was any similarity and whether the coordination was originally established because of the similarity. That is everything we need to know for the time being, indeed more than we need. For if our ultimate aim is conceptual clarity, coordinations, however they may be motivated, always "exist" only by virtue of a contract (a convention in the purely logical sense of the term) and for the parties to the contract. In short, the Cratylus decision can stand: the phonetic images of a language are coordinated to the things, and the lexicon of a language that has been scientifically studied fulfills the first task to arise from Cratylus's answer: the scientific lexicon presents the names (as they are called there) of language systematically with their relationship of coordination to the "things". The fact that in a two-class system of representational resources of the type language, syntactic conventions are also accommodated along with the lexical coordinations only expands the domain of coordination relationships that we find in language. To do justice to this fact, we wrote the double designation "objects and states of affairs" at that place in the diagram where previously only "the things" were mentioned.

2.3 Expression and appeal as independent variables in addition to representation — the three books on language

Though we do not dispute the dominance of the representational function of language, what now follows is suited and intended to delimit it. The concept "things" or the more adequate conceptual pair "objects and states of affairs" does not capture everything for which the sound is a mediating phenomenon, a mediator between the speaker and the hearer. Rather, each of the two participants has his own position in the make-up of the j [31] speech situation, namely the sender as the agent of the act of speaking, as the subject of the speech action on the one hand, and the receiver as the one spoken to, as the addressee of the speech action on the other hand. They are not simply a part of what the message is about, rather they are the partners in an exchange, and ultimately this is the reason why it is possible

4. The German name Kuckuck (cuckoo) may be more or less "similar" to the well-known cry that we hear in the woods, but this similarity is no more than the motive for the coordination of sound and thing; and it is the coordination that makes the name a name: the name not of the cry but of the bird (and note that only few of the parties to the contract have ever perceived the bird alive in the woods and along with the bird the cry). If the equation similarity = coordination were to be valid, the situation would have to be completely different. Only one thing is certain: if and when it is agreed that similarity in general, some similarity or other should be the motive of coordination, every member of the language community would have an easier time of participating in the creation of new names, but everyone would do it differently; which is exactly what in fact does happen in such cases. But regardless of what exactly is to be made of this point, coordination on the one hand and the motive of coordination on the other must be logically distinguished.
Thus, we interpret the specific relationship of the perceptible sound to
the speaker in the same terms that are familiar to us for other expressive
phenomena. What are we to make of the third relationship, appeal? It is
only our list that makes it the third, whereas in natura rerum, in human and
animal communication with signs it is the appeal that first and most exactly
becomes evident to the analyst, namely in the behaviour of the receiver. If,
instead of human beings, one looks at bees, ants, termites, and studies their
means of communication, the researcher’s attention will be directed first
and foremost to the reactions of the receiver. As an animal psychologist I
speak of signals and grasp their communicative valence from the behaviour
of those who receive them and process them psychophysically. As theorists
of human language we will also not neglect this side of the matter. The
analysis of deictic signs, for example, will make it clear to us that men such
as Wegener and Brugmann were on the right track when they used the
essential sense of the superordinate concept 'signal' to describe the function
of the demonstratives, though they did not use the word itself. There is a
borderline case of the demonstratives (the pure demonstratives) that
abruptly turn up like any other signals used in human or animal inter-
course; I mean the sort of demonstratives that are encountered as unde-
clined particles not only in Proto-Indo-European but also to this very day in
our own language; the clearest cases are the sympactical use of such unde-
clined demonstratives. The theoretician of language should take the purest
examples as his starting point when defining the concept of the auditory sig-
nals of language. With this definition of the concept in mind he will then
scan the entire language and discover that not only a few isolated things in
it, but rather everything can be regarded under a new aspect.

Let me make one point at the outset: the same holds true of each of the
three ways of seeing language. Thus, a selection of concrete speech events
could be made from real life situations, events that make it evident at first
sight that practically everything can be exclusively directed at and tailored
to the representational function of language signs; that is certainly most
pronouncedly the case in scientific language, and it reaches its zenith in the
representational system of modern symbolic logic. Do the expressive val-
ences of the signs he draws on the blackboard with his chalk concern the
pure logician? They are not supposed to be any concern of his; and still, an
experienced graphologist might well delight in this or that chalk mark or the
overall style, and be able to exercise the art of interpretation to good effect.

The chalk marks drawn by mathematicians and logicians on the blackboard
still contain an expressive residue. Hence, there is no need to go to the lyric
poet to discover the expressive function as such; it is just that the lyric poet
will offer a richer yield. And if he is a high-handed poet, he will sometimes
write over his portal that the logician shall remain outside. That is just one
of those exaggerations that need not be taken all too seriously. Everything
is tailored to the third, to an appeal function in the strict sense in the lan-
guage of commands, for example, and tailored to appeal and expression in
balance with each other in words of endearment and abuse. Though it is
ture that words for charming or nasty things are often used for endearment
and abuse respectively, at least the most intimate terms of endearment
often obviously reach into the other pot; and the address "you gentleman"
can also be an insult. It is rumoured that a student in Bonn once reduced his
competitor, the most foul-mouthed market woman, to silence and to tears
only by using the names of the Greek and the Hebrew alphabets ('you alpha, you beta!). A psychologically plausible story, because in swearing,
as in music, everything depends on the tone.

Let me stress the point once again: these are only phenomena of domi-
nance, in which one of the three fundamental relationships of the language
sounds is in the foreground. The decisive scientific verification of our con-
stitutional formula, the organon model of language, has been given if it
turns out that each of the three relationships, each of the three semantic
functions of language signs discloses and identifies a specific realm of lin-
guistic phenomena and facts. That is indeed the case. "Expression in lan-
guage" and "appeal in language" are partial objects for all of language
research, and thus display their own specific structures in comparison with
representation in language. To put it briefly, lyric poetry and rhetoric have
something specific to themselves that distinguishes them from each other,
and also (remaining in the literary realm) something that distinguishes them
from epic poetry and drama; and their structural laws are even more obvi-
ously different from the structural law of scientific representation. This is
the thesis of the three functions of language in simplest terms. It will be veri-
yed as a whole when all three books that the organon model requires have
been written.