The Phase Structure of the Speech Act and the Nature of Plans


The notion of the phase structure of the speech act—or to be more precise—the special structure of the “inner speech” stage in utterance production, belongs to L.S. Vygotsky. Vygotsky conceptualized the process of speech production, the progress from thought to word to external speech, as follows: “. . . from the motive that engenders a thought, to the formulation of that thought, its mediation by the inner word, and then by the meanings of external words, and finally, by words themselves” [Elsewhere he said, “Thought is an internally mediated process. It moves from a vague desire to the mediated by meaning formulation, or rather, not the formulation, but the fulfilment of the thought in the word.” And finally, “Thought is not something readymade that needs to be expressed. Thought strives to fulfill some function or goal. This is achieved by moving from the sensation of a task—through construction of meaning—to the elaboration of the thought itself.”]

These ideas of Vygotsky may be used to derive the following sequence of stages, (phases) in speech production: The process starts with (a) the motive. We have only slightly expanded Vygotsky’s concept when we speak of the motive not as an isolated factor but as the set of extralinguistic factors that give rise to the motivation for a speech act (in the broadest sense of the term)\(^3\). This motivation gives rise to the (b) speech intention. This stage corresponds to a “vague desire” or “a sensation of a task.” (Cf. the category of the “imagined situation” in D.N. Uznadze.) At this phase, the speaker has “an Image of the result.” (Miller et al.), but does not yet have a Plan of Action that must be performed to achieve this result. (Here we should probably provide some separate discussion of the dynamics of motivation. According to A.N. Leontiev, we should distinguish between motive and need. The need is objectified in the motive, and a motive is “the object that satisfies a particular need and that, being reflected in one form or another, controls his behavior”\(^4\). During the “motive” stage we are dealing with a need but not a motive per se. The shift from need to motive is associated with the concept of speech intention.)

Vygotsky calls this the phase of “thought.” We have called it the stage of “speech intention” because the use of the term “thought” to mean a particular stage in the speech-thinking process requires special discussion. First of all, we have to ask about the meaning of “thought” in analysis of the system of concepts. It is clear that Vygotsky uses this word in two senses. First, it is a process, and second, it is a particular stage in that process. But, does speech production include an independent stage in which thought exists separately and independently of all other stages in the speech act?

Let us point out, first of all, that thought, clearly does not necessarily entail verbalization of this thought (cf. the work of A.N. Leontiev and E.V. Il’enkov). Next, there are a number of
possible different ways in which the thinking process is realized in different psychological situations, even given that the thinking is verbal. (Cf. the concept of “vicarious perceptual acts” of V.P. Zinchenko, corresponding to the thinking component of perception.) Vygotsky supposes that “today I saw a barefoot boy in a blue shirt run down the street” is a “thought.” (“I see all of this together in a single act of thought, but in speech I segment it into individual words.”) Evidently, there is some terminological inaccuracy here: “I” the speaker do not simply “see” a boy, I see him in a form that is already mediated. “Boy” is already a secondary image that carries a number of attributive (= predicative) characteristics that are still not verbalized in an objective language code: The boy I saw today; the boy ran along the street; the boy was in a blue shirt; the boy was barefoot. At the start of the process, there might also exist, in addition to the visual image (“communication of events”), a secondary image that is already verbally represented, or a verbally represented concept (“communication of relationships”). Finally, at the start of the process, there also may be an indistinct emotion that is not directly verbalized, and so on. It is important to emphasize that all these cases, as do all others that are not discussed here, differ psychologically. In each, thought takes different psychological forms.

Thus, we have considered two stages of the speech act that are pre-speech in the strict sense of the term. During these stages consideration of the future and planning occur in two forms: (1) that of stochastic (probabilistic) prediction (cf. the work of R.M. Frumkina) and (2) that of the “image of the result,” which is a function of the structure of the action as a whole, that is, the goal of the action.

The next stage, and, in our opinion, a theoretically very important stage is (c) the inner program of the speech act. This corresponds to Vygotsky’s “thought mediated by inner speech.” Obviously, it also corresponds to the category of Miller et al., the “grammatical plan” and the N.I. Zhinkin’s category, “plan.” Representation of the speech intention in the code of personal “senses” (to use Leontiev’s terminology developing Vygotsky’s understanding) occurs during this stage. These “senses” are represented by some subjective code units (resulting from internalization of objective external actions); it could be N.I. Zhinkin’s “code of images and schemata.” (We distinguish among the inner program, inner speech, and inner pronunciation, talking to oneself.5)

Thus, what is usually called (by Vygotsky among others) inner speech, and what we call here inner programming, is precisely the tool that fulfills thought, the connecting link between the intention that gives rise to thought and the elaboration of the thought in an objective linguistic code. The transition to this code itself is a two-step process: first there is the transition from “senses” embodied in a subjective code to meanings of the “external” words of an actual language (i.e., a “translation” from a subjective code of “senses” to the objective code of language meanings, representation of the speech intention by the “meanings of external words”), and next: “the transformation of the grammar of thoughts into the grammar of words” (since “thought has a different structure from that of its verbal expression.”) Thus, we have stage (d): implementation of the inner program, which entails two relatively independent processes—semantic implementation and grammatical realization implementation. (See Leontiev’s Psycholinguistic Units, with respect to the possible interactions and inner structure of these processes.)6

In addition to the two processes in stage (d) that have been described, we can identify one more—the process of the acoustic-articulatory and morphological implementation of the program (representation of thought in “external words” to use Vygotsky’s terms). This process must follow the selection of the utterance’s syntactic structure and directly precede the next
stage, that is, stage (c)—the acoustic implementation of the utterance, or phonation. Strictly speaking, this last stage entails a process of motor programming (“motor Plan”), which is superimposed on the processes of semantic and grammatical implementation and depends on them. It is only through this motor programming and through the next process of acoustic and articulatory implementation that phonation per se occurs.

During stages (c)–(e) of speech production, there are three processes that involve consideration of the future: (1) probabilistic prediction in the selection of grammatical constructions, and the semantic and phonetic features of words; (2) constructive prediction (when I select and start to implement, let us say, a particular syntactic construction, I am predicting the future continuation of this construction; when I select an element I am not only selecting it but also predetermining quite a number of subsequent elements and the nature of their interactions; the same is true with regard to “grammatical obligations,” that is, the selection of morphemes; (3) programming, that is, the creation of a system of “key elements” that predetermines selection and decision making during subsequent stages of speech production.

In analyzing these stages of speech production from the standpoint of the role of simultaneity and succession, we can see that the processes of inner programming (both grammatical and motor) and grammatical structuring (grammatical or syntactic actualization of the utterance) are processes that occur through successive synthesis involving combination of elements. (Compare the data on the “natural” order of the components of an utterance in children’s agrammatical speech, the speech of the deaf, spontaneous mimic and hand speech, autonomous speech and certain other cases, where the order “agent-attribute-patient-attribute-predicate-circumstance” (as in the sentence “The cat his black ear licks lazily”) is clearly fixed.

Semantic elaboration (semantic realization), the translation of units in subjective code into units in the code of an external language, and acoustic-articulatory implementation are based on simultaneous synthesis and entail selecting elements from a paradigm. This interpretation is confirmed by data on the impairments in various forms of aphasia.

In conclusion, we would like to relate the model presented in this report to statements by A.R. Luria and L.S. Tsvetkova. They identify all the basic stages in speech production that we have described, but they do not separate the stage of inner programming and the process of grammatical realization of the program, merging them in the concept of the “inner schema of the utterance,” or the “dynamic schema of the sentence.”

References

6 See ibid, with respect to the possible interactions and inner structure of these processes.