

FROM THE NOTEBOOKS  
OF L. S. VYGOTSKY

The present selection contains extracts from the notebooks of the eminent Soviet psychologist L. S. Vygotsky (1896-1934). It continues a publication of 1977 (see Vestn. Mosk. Univ., Ser. 14, Psikhologiya, 1977, No. 2, pp. 89-95).

These notes date from the early '30s. They are grouped around two principal themes: the problem of speech, and the mind-body problem.

As in the first publication, those headings that are not Vygotsky's are given in brackets.

The manuscripts of Vygotsky's notebooks were supplied by his wife, R. N. Vygotsky. They are stored in the family archives, and are being published with the kind permission of Vygotsky's family.

A. A. Puzyrei

On Written Language

Why is written language difficult for the schoolchild and the less developed, [when] the vocabulary of written language is no

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poorer than that of spoken language, and the syntax and grammatical forms are the same? What is the root of the underdevelopment? In my opinion it is that:

1. Written language is more abstract than spoken language. (It does not have the musical, intonational, and expressive aspects of language; it has no interlocutor — compare Hochheimer's disease, in which the patient cannot speak without having been asked a question, or when there is no conversational situation — it is without actual intonation, but has the symbolization of phonetic symbols, i.e., symbolization of a certain order: written language is the algebra of language.)

2. The motives of written language are inaccessible to the child, but the motivation of speech stands at the beginning of the development of speech (the need for language; its underdevelopment means a retardation in the development of speech) when considering the developmental plane. In conversation each utterance is preceded by motivation (for which reason I use Lewin's term Energiequelle [source of energy]). The situation of oral speech at each point in time constitutes the motivation of each new turn in speech and conversation (dialogue, the need for something, a request, etc.); in oral speech it is not necessary to create a motivation; oral speech in this sense is regulated in its flow by the dynamic situation. In written language we are ourselves constrained to create a situation, to stand above the situation. In a certain sense, we must (a) act voluntarily, i.e., written language is more voluntary than oral; (b) act more intellectually, i.e., create motivation and follow its development in meanings, i.e., written language is more abstract (one must speak with a blank piece of paper, an empty field, which symbolizes the motivation, external to the situation, of written language); (c) act with greater consciousness of the actual process of speaking, i.e., written language moves at the level of self-awareness. The very motives of written language are more abstract, intellectual, voluntarist, and more distant from need. Hence, it is easier for me to speak in an auditorium than to write; it is not necessary to burden the will (one must speak) and abstract oneself from the entire intonational living

structure of language. Written language is the shadow of language, the most abstract language.

3. Written language stands in a different relationship to internal speech: whereas external speech developmentally precedes internal speech, written language comes after internal speech and even presupposes its existence. Written language, according to Head, is the key to internal speech, since written language is situationally nonmotivated language. It is determined in its flow by:

(a) Internal motivation — for memory, for communication, for oneself (diary, etc.); it is an absolutely different functional system of motivation and set of language.

(b) The internal structure of the semantic field — it is necessary to create a field in order write; hence, written language requires tremendous internal work.

(c) The syntax of internal speech, which is completely different from the syntax of oral language. The influence of meanings — internal speech is maximally compact speech, whereas written speech is maximally discursive and is formally more complete than verbal language (it contains no ellipses, whereas internal speech is full of them). It is a translation of internal speech, which is incomprehensible to an interlocutor since he does not know the mental field in which it is taking place. For just this reason, written language is more diffuse than oral language: it is more difficult to understand on the field of a blank page than in a graphic situation or a live conversation; all must be said.

(d) The motivational proximity of written language is expressed in diaries and in all I have written for myself. In sum, written language is a completely different (from the standpoint of the psychological nature of the processes constituting it) process from that of oral speech.... The principal difference: written language is the algebra of language and the most difficult form of complex voluntary activity. This is why we find such a discrepancy between oral and written language in the schoolchild — though not in the number of adjectives and nouns.

"On written language." The content and the nature of other manuscripts in the same notebook date this extract from 1932. In the same notebook we find: "On the problem of arithmetic," "Notes from six observations," "Sign and meaning," "Poetic meaning," "Observations in a cafe (23 May 1932)," "Asya," "Arithmetic." See Vygotsky's paper "The prehistory of written language" (1929), published in a collection of his papers entitled The intellectual development of the child in the learning process (Moscow, 1935 [see also Mind and society]) and relevant passages in the last and seventh chapter of Vygotsky's book Thought and language (Selected psychological works). Moscow, 1956. Pp. 359 ff.).

[The Problem of Grammar]

The most important thing that emerges from study of psychological and grammatical structures is elucidation of the problem of grammar and its role in the development of written language. The chief aspect that distinguishes the study of grammar from the study of other subjects is this: Arithmetic studies something new, new operations, habits, and knowledge: earlier the child could not count, could not multiply, etc., but now he can do these things. In grammar, the child does not acquire new knowledge, habits, and operations. He declines, conjugates, matches, determines word order, constructs complex and subordinate sentences, etc., before studying grammar, but he knows neither how he does this, nor in general that he is doing this. He does it unconsciously, automatically; he does not know that he is "speaking prose." In itself this is an extremely noteworthy event: unconscious mastery of a series of skills. The child is able, but does not know that he is able. The child knows, but does not know that he knows. Contra and pro Spinoza at one and the same time: he who knows, knows that he knows, etc. ad infinitum.

Both psychopathology and neuropathology have long been cognizant of the fact that a patient can automatically perform a

function but be unable to do it voluntarily, consciously: he does not know that he can, and hence cannot voluntarily and freely control his own ability (knowledge and freedom). See Head: I cannot say nothing.

In the child's development, and also in primitive psychology, it is well known (especially the memory of a child, for example) that an operation may be possible at one level, but impossible at another (repetition of nonsense phrases, etc.).

We observe the same thing, but in incommensurably more grandiose forms, in the transition from oral speech to written speech: the essence of the development from oral language to written language consists in the transition from the automatic, unconscious function of language, through becoming aware of it, to the voluntary and free production of speech.

In written language, which is more abstract, more voluntary, and more linked with consciousness and intention from the very beginning (Wundt), the role of grammar consists in the fact that the child studies himself and becomes scientifically aware that he is doing this or not. It has been asked whether grammar is necessary at all. Arithmetic studies something new, but grammar studies something the child knows even without it: Why learn how to decline, when the child can decline already? Hence the grammatical scholasticism of the old school. But grammar is necessary: it develops new abilities, just as arithmetic does. For oral language it would truly be unnecessary, but for written language, it is necessary. Because in written language the child must voluntarily construct that which without a conscious awareness and specific intention he does in oral language.

Therefore, the deterioration of the grammatical and syntactical structure of written language may be explained primarily by the fact that the child is unable voluntarily to build those structures he already builds automatically, i.e., in oral language (the automatic function) the child constructs subordinate clauses, but in written language he constructs sentences of two words. This is a sign of the gap in the development of the function of language at the unconscious and at the voluntary levels. The transition from the automatic to the voluntary function is development.

Hence, the development of written language is closely associated with the child's becoming aware of what he previously did unconsciously. Previously he spoke; now he knows (is aware of) how he speaks: this gives him the voluntariness and freedom in the construction of speech that are necessary for written language.

Thus, the "windowpane theory"\* applied to written language is absolutely wrong: In oral language, speech is like a windowpane (not noticed); at the center of attention is what is viewed through speech (through the windowpane). But in written language, attention is divided: one must create, voluntarily construct, and become aware of speech itself (i.e., the windowpane).

Hence, what new [element] is supplied by grammar (through an awareness of its function, toward a free and voluntary use of it, its mastery)? It gives us the possibility of moving from an unconscious, automatic function of language to a voluntary, conscious function, i.e., in essence it provides us with a new function (written speech being the new function) and thus raises oral speech to a new level. [It gives the child] new abilities he did not possess before (in written speech he was unable to construct syntactical structures).

Hegel on abstract written language: from an organic life process (unconscious, in itself) to a conscious process (for itself).

Conclusion: We began by describing grammar and arithmetic and contrasting them as, on the one hand, a subject that studies what the child has known and has been able to do before he stud-

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\*"The windowpane theory": The reference here is to a theory by the German psychologist W. Stern (1871-1938) that a child's speech is like a neutral medium (windowpane) that enables one to examine different psychological functions through it (for example, the function of perception) without changing anything in them (see C. Stern and W. Stern, Die Kindersprache. Leipzig, 1928). See L. S. Vygotsky in the note "A. N. Leont'ev's talk," No. 9, and also in Thought and language (Selected psychological works. Moscow, 1956. Chap. 4).

ies grammar (declines, etc.) and, on the other hand, a subject that studies new skills (addition, subtraction), and we now end with the observation that this contrast is essentially superficial and incorrect: it is true that grammar outwardly and superficially does not develop new abilities (the child can decline even before he learns grammar), but it is not true that grammar does not develop new abilities. Before [studying] grammar the child is able to decline and use syntactical structures, but he cannot correctly construct them voluntarily, which has an impact on written language and its underdevelopment at school age. It is precisely this new ability (voluntariness, intention, awareness, for the first time connected with written language) that grammar develops: in this respect it is completely identical with arithmetic.

N. B.: The main idea, which I expressed poorly in my talk,\*\* although I began with it, is that study creates zones of proximal development.\*\*\*

(Over) [on the back of the last page is written]: Grammar is introspection.

In studying grammar the child becomes aware of the logical meaning (logical function) of grammatical forms.

N. B.: But this is not all — there is an awareness of the phasic stage of speech, and then there is also a becoming aware of meaning, i.e., there are two intrinsic stages to meaning: unconscious and conscious meanings (compare: a person may use the same word to mean different things). A concept is meaning at the level of self-awareness. Consciousness has a multi-mirror structure (it reflects reflections).

["The problem of grammar"] consists of notes on the backs of four different sheets of paper — the protocols of

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\*\*"The main idea, which I expressed poorly in my talk . . ." The reference here is perhaps to Vygotsky's talk "The problem of consciousness" (see above).

\*\*\*" . . . zones of proximal development" — see Chap. 6 in Vygotsky's Thought and language, Chap. 7 in Mind in society.

experiments carried out in 1928. In content they directly link up with the preceding notes "On written language" and others in the same notebook ("On the problem of arithmetic," "Arithmetic") and transcriptions from books dated October 1932 ("The talk by A. N. Leont'ev," etc.), which develop earlier ideas.

This and the reference to Vygotsky's talk at the end of the notes (possibly a talk given in 1933 on the problem of consciousness — see "The problem of consciousness" in The psychology of grammar. Moscow, 1968. Pp. 178–96), place these notes in 1933.

[Asya]

N. B. 1. Asya:

(a) pu-fu = example of a complex = bottle, iodine, wound, cigarette, match, extinguish, give.

(b) In her one-word sentence, the meaning of pu-fu also changes in its objective reference (an empty bottle is of no use in the case of a wound; it is of use for whistling, i.e., the first time, iodine; the second time, a container) and in its general sense; this is the general law for the word and one-word sentence in early childhood: meaning is variable not only in the sense of a range of meanings but also in the sense of its functioning. The first time: pu-fu = give me the bottle and blow in it; second time: pu-fu = the doll was hurt — put some iodine on it.

(c) In Asya's one-word sentence, the semantic differentiation of speech clearly predominates over the phasic nondifferentiation. Hence the gap: meanings are more than words. Difficulty is encountered in communication: people don't understand her, and she happily finds the right question: daaa... = aha! Compare: pu-fu — Give me the pu-fu? Blow? — No. She gets angry. Apply the iodine to the doll's head (bo-bo, apply)? — Daaa (= aha!). From this (and from the questions hinted by adults, pu-fu! — give?) arises a two-word sentence with the following scheme:



1. Pu-fu! — Give? — Daaa . . . (Here a two-word sentence is shared between her and myself, but actually, in the course of the thought, is already fully experienced psychologically by her.)

2. Give pu-fu.

Hence her explanatory words: Asya, knee, write, etc.

(d) Asya names all the parts of her body before the mirror and points with her finger. Here three points are noteworthy:

1. The objective reference, the meaning of a word is realized in the literal sense by the reference of the sound to an object — indicatively, meaning is conveyed by the finger [pointing] to the parts of the body.

2. Speech dissects perception, pushes it along the way of analysis; it does not see ears plus eyes, etc., but enumerates like this. At first there is a verbal enumeration (analytical), which was taken for the atomistic character of perception itself (from the part to the whole); now it becomes clear (Gestalt theory) that this is not the case, that perception goes from the whole to the parts. Our problem: Why does Asya, after perceiving the whole, enumerate just the parts in speech? Her thinking encompasses the entire bedroom. (It is the topic of conversation, her speech intention; this is not a serial reflex: it requires that the bedroom be visible to her in the table and foresees the entire activity as a whole — compare: Thought is the cloud, and the words are rain.)

3. The nondifferentiatedness of this speech — egocentric and social speech: she speaks both for others and for herself: this is the primordial we.

"Asya" is a note in the same notebook as "On written speech." It dates from 1932.

Asya is Asya Lvovna Vygotskaya (born 1930), Vygotsky's young daughter.

The note is interesting especially because, on the basis of daily observations of his child, Vygotsky gives a clear illustration of one of the basic positions of his cultural-historical theory: that the entire higher psychological function (in this case, speech) is originally constituted as

a form of communication between people (in this case, a two-word sentence of the child originally has an inter-psychological function, and is "distributed" between the child and an adult) and only afterward, as a result of "internalization," becomes the acquisition of a particular individual and assumes an intrapsychological function.

### The Mind-Body Problem

1. Its latent development and its key significance in all psychological systems. Our hypothesis.
2. The beginning of the crisis: the breakdown of parallelism. Parallelism is the product of scientific conceptualization; it is against interaction; it is a compromise between the religious and the scientific primitive point of view. Delimitation of the gnoseological problem.
3. Two forms of parallelism. Phenomenology. Why parallelism proved to be inconsistent: (here there is a break in the manuscript) . . . concretization in the problem of development, localization and psychophysiology.
4. Revival of the hypothesis of interaction fatally degenerates into parallelism. Stumpf, catalyzation.
5. New theories: Psychoid, Emergentia, Gestalt theory. The main error in Gestalt theory, Mnemism, Goldstein: the equivalence of structures. Pavlov — generalization: the function of the frontal lobes.
6. Our point of view: against parallelism, against interaction, unity and supremacy. The principal point: the possibility of new movements, new change in psychophysiological processes, new connections, a new type of development, in particular, historical. For example, the word and its meaning.  
Hence — change of systems. Lashley.  
Other paths: Bergson, Binet, Psychoid, Emergentia, Gestalt theory, Head, dynamic comprehension, and structural comprehension.

### Outline

1. Prescientific viewpoint — interaction.

2. Parallelism — a compromise between mathematical and physical thought introduced from the natural sciences into psychology, and prescientific ecclesiastical religious understanding. From Descartes, not from Spinoza\* (Stumpf).

3. The breakdown of parallelism: (1) in place of a hypothetical brain, neurology has given us the real brain; (2) the psychology of animals and evolutionary thinking posed the question of the development, not the primacy, of the mind, and of the biological function of consciousness in place of a simple coincidence in time; (3) the impossibility de facto of bringing the parallelistic point of view to a culmination because of its meaninglessness (Wundt on creative syntheses). The death of parallelism. The role of the law of conservation of energy.

4. Revival of the hypothesis of interaction and its retrogression to parallelism: the assumption of a special kind of mental energy; the theory of dual effects and dual causes (Stumpf); the theory of catalyzation is a return to spiritualism plus parallelism.

5. New paths — the nonrevival of the theory of interaction. Three groups of theories:

A. The Bergson-Binet controversy (dysjunction and merger of the gnoseological and the ontological problems). In Bergson — the brain is a motor organ, but perception is pure spirit; in Binet — the brain is a sensory organ, and perception is material.

B. Theory of development: Psychoid (Drisch, Bleuler) Mnemism (Simon, Bleuler), Emergence (Macdougall, Koffka, Chelpanov).

C. Mind-body neutral theories: the unity of the structural and dynamic features of psychophysiological processes (Wertheimer), qualities neutral in the mind-body respect (Stern, Köhler), the unity and identity of physical, physiological, and mental structures.

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\*"From Descartes, not from Spinoza . . .," see one of the chief themes in the unfinished work of L. S. Vygotsky entitled "Essays in psychology. The problem of the emotions" (manuscript, 1933).

6. The principal error of these theories:

A. A theory of development without development, in particular, without historical development.

B. Gestalt theory — returns to the Spinoza parallelism (not the Cartesian),\*\* i.e., a parallelism based on the unity and identity of a structure (ordo et connectio) during the course of thought as well. Spinoza contains a contradiction in parallelism: he himself actually did not make it (see Nec anima, etc.), but reason alters affect, it changes the ordo and connectio of them. The same contradiction in Gestalt psychologists' (Bühler's) reproaches to parallelism is correct. On the one hand, they fall into parallelism: either the structures are identical and the mental structure alters nothing in the physiological process — What is the purpose of the mind? Isn't it a shadow theory? But do both coincide in time? Finally, Gestalt theory creates a hypothetical brain, sees the physiological basic function of the brain (Goldstein) as a functional structure, identical to categorical, conceptual thinking. See in Pavlov — generalization = functions of the frontal lobes.

7. The chief shortcoming of these theories of development is that they contain no key to the historical development of consciousness, and it is not surprising that there is no idea of historical development of consciousness in these psychological currents.

8. Our point of view: The unity of mind-body processes and the supremacy of the psychological aspects; a

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\*\*Gestalt theory — returns to the Spinoza parallelism (not the Cartesian...). See Vygotsky's notes on Gestalt psychology in ["On K. Koffka's essay on self-observation"]. (In [Problems of contemporary psychology]. Moscow-Leningrad, 1926. Pp. 176-78; ["Structural psychology"]. In [Main currents in modern psychology]. Moscow-Leningrad, 1930; ["The problem of development in structural psychology"]. In K. Koffka, [Foundations of mental development]. Moscow-Leningrad, 1934).

study of psychological processes, the supreme point of view in the mind-body problem.\*\*\*

The chief point: The possibility created by consciousness of new movement, a new change in mind-body processes, new relationships, a new type of development of function, in particular, a historical development with change in interfunctional relations, something that is impossible at the level of organic development: psychological systems. Example: the word and its meaning. The inadequacy of physiological and psychological structures — see the inadequacy of chemical and physiological structures. The possibility of social, conscious experience, and hence the primacy of conscious structures built up from without, through communication, which is impossible for one, but possible for two. In the problem of psychological development and localization, the concretization of this point of view: see extracerebral connections. The idea of psychological physiology.

"The mind-body problem" — notes in a book marked October 1932.

#### On Localization

The key point dividing Goldstein and us is the recognition (or the nonrecognition) of Wernicke's basic premise that there is a fundamental identity in the localization of higher psychological functions and lower physiological functions. Goldstein assumes that Wernicke's error is not in the fact that he regarded nonmental and mental functions identically in terms of their localization (Goldstein, Über Aphasie. Zurich, 1927. P. 20). Goldstein himself accepted the principle of a background figure for any action in general of the central nervous system — identical for a patellar reflex, nonmental functions, and categorical thinking.

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\*\*\*" . . . the supreme point of view in the mind-body problem." See Vygotsky's thoughts in the first publication of the notebooks (Vestn. Mosk. Univ., Ser. 14, Psikhologiya, 1977, No. 2, pp. 94-95).

"Indeed, an analysis of mental processes leads to a completely analogous understanding of cerebral processes, to the same thing that was established by an analysis of nonmental processes" (P. 25). As a consequence, Goldstein sees disorders accompanying brain injuries as disorders in structuring. Here, in the problem of localization, Goldstein makes the same mistake that structural psychology in general makes: that the structural perception of a chicken and the thinking of a human being are the same. There is only a difference of degree. The localization is the same for a reflex and for categorical thinking. For just this reason Goldstein accepts the most general and broadest principle of localization suitable for nonmental and mental processes to an equal degree. He says nothing specific about the localization of specifically human functions. The point in dispute is simple: Is there, or is there not, a specific localization? The principle for higher mental functions in comparison with a reflex — Are the relationships between structural and the functional units the same in both cases, or not? We are for the specificity of localization, and Goldstein is against it. Hence, he sees only differences in degree: "more or fewer" elements, the material is broader or narrower, the structure the same, but poor (P. 24). However, there is reason to assume that, just as with respect to structure, the primitive dependence on the whole is greater than in the higher regions. The dependence of the reflex on the position of the body is greater than in higher mental functions. Are the absence of a dependence on the whole and its breakdown into parts not, perhaps, a characteristic feature of the human brain, with its generalized reflection of reality and consciousness?

On the same point: Goldstein indicates that all functions of the schizophrenic seem to suffer in the same way (the simultaneous is replaced by the successive). This is not true: they do not all suffer the same. Thus, the background is a differentiated hierarchy of centers, not one center.

"On localization" is a note on several pages. In content it fits in with such works by Vygotsky as "The prob-

lem of the development and breakdown of higher mental functions" (1934) and "The psychology and theory of localization" (1934) (see L. S. Vygotsky, [The development of higher mental functions]. Moscow, 1960. Pp. 364-83, 384-96). We can thus date the note as belonging to the last period of Vygotsky's creativity, approximately 1933-1934.