

Appendix

From the notes of I.S. Vygotsky for lectures on the psychology of preschool children [see additional notes at the end of this appendix]

11. Formula for the preschool period.*

On the one hand, a number of unfulfillable inclinations occur (a new development) +, on the other hand, desire for immediate fulfillment of inclinations is retained (old principle)—thus, play, that is, illusory attainment of desires (function of the imagination).

12. Separation of the visual and the sense field is new in the preschool period. This is the basis for play—the creation of make-believe situations. This marks a new level of abstraction, voluntary behavior, and freedom. Thus imagination, which becomes possible only on the basis of generalization, that is, the creation of ideal things. Dream processing of impressions is based on continuous speech flow through free association of the sense with the object (hot water bottle-volcano) + visual realization of significance. Central and peripheral aspects of perception. Centripetal and centrifugal paths. In dreams what is given is perception: and, on the contrary—the meaning of a word is seen instead: the appearance of objects is interpreted on the basis of their significance. The fairy tale is possible in childhood: emotionally and intellectually. The preschooler lives in the past and the future—time and space appear spatially.

13. Play—dominant or leading type of activity? Perhaps it is only the mirror of processes occurring in other areas? We must not take the mirror reflection to be the object reflected, although we may study the object through the

mirror image. The relationship of play to development is the relationship of teaching to development. Underlying play we find changes in needs and changes in consciousness of a more general nature. Play is the source of development and creates zones of proximal development.

14. We need to lay bare the subsoil—x-rays are necessary, as in the problem of instruction—to turn to a microscopic analysis of development: change within the cellular structure of the tissue basically reduces to effective and semasiological aspects, from which come abstractions and voluntary control = freedom.

15. Within play the child learns to act in a cognitive and not visual situation (cf. Spinoza's Buridan's ass), determined by internal inclinations and motives. Paradox of play: the child takes the course of least resistance (receives pleasure), but learns to take the course of most resistance. A school of will and ethics.

Paradox of play: typically the child is subjugated to rules and denied what he wants, and here, the subjugation to rules and prevention of acting on immediate impulses is the route to the maximum pleasure (how many conflicts there are between two pleasures, how many fights occur during play). In short, play gives the child a new form of desire, that is, teaches him to want, relating the desire to the fictional ego (i.e., to his role in play and its rules), that is, in play there is the opportunity for the child's highest achievements, ethics—cf. Piaget, but not in moral judgment, but moral action. Ideas, becoming affect, concept, turning into passion: the prototype of this Spinozan ideal in play, which is the realm of will and freedom. Extend the issue of play in depth (what is under and behind it—the subsoil) and in height (the highest attainments, which tomorrow will become ordinary: development from above).

In this sense play is a new development of the preschool period, which in a condensed form contains and gathers to itself as to a focus all the deepest trends in development (submarine, subterranean) and bears them aloft, that is, attempts to leap—*salto vitale*—into the developed world of higher forms of specifically human activity, contained in the environment as the source of development.

16. The substitute situation in play (Elkonin was right here) is the prototype of every cognitive process (algebra). His idea attacks the theory of the priority of autistic thinking. But there is a danger of intellectualism.

17. The double nature of the effective flow in play: liberation from what is known and affect: the child cries in his role as patient, in play (to show someone how to cry is difficult) and is happy as a player. The higher types of will as play (substitution of affect and motive): it is easy to be a hero in play—this is a form of child heroism that is accessible to the child. Here, the consciousness is sufficient. Our heroism contains something from play. Not pleasures from candy, but the specific pleasure of play.

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Translated by Lydia Razran Stone.

*This material is not written in formal Russian sentences, and the English reflects this; non-Russian words appearing in the original have been translated into English.—Ed.

18. In play the child learns about the possibility of being a captain, a policeman, and so on.
19. New categories of relations to reality arise in play (Elkonin)—this is true.
20. Syncretism is not from play (despite what Elkonin says). There are various levels of development (the complex structure of development) and the currents of this process have different depths. What determines things are not the deep currents (drives) but the top ones (not superficial!!! despite leveling psychology). Play is the highest level of development of a preschooler, above the water.
21. Despite what Koffka says: two worlds. A piece of wood in two structures. Pleasure accompanying activity that meets with success, when things go the way I want. Cognition is inseparable from action. It is not possible to take the happiness and freedom out of play.
22. Action in the imagined field, in the make-believe situation, creation of voluntary intention, formation of life plan, motives associated with the will—all these arise in play and put it at the highest level of development, carry it to the crest of the wave, make it the ninth wave of development in the preschool period, which raises the level of all the water, but is relatively calm. This is the main thing. We find the human being in play. Associate this with the fulfillment of unattainable desires.
23. Play is a new aspect in the development of speech: speech in its aspects, directed at the development of the world instead of the environment and conscious will.
- Language makes man free. In play the child is free. But this is illusory freedom. Play does not die, but penetrates the relationship to reality. It has its internal continuation in education at school and work (compulsory activity with rules) and its correlates in the preschool age (freedom of perception, manifestation of will, etc.), but it does not overpower the freedom of play: not everything can be anything.
- Wundt on the poverty of children's fantasy. Experiments by Morozova, Piaget. The rule is untouchable.
24. Stages: infant—clean field (no play).
 Early childhood—merger of the visual and sense fields (serious play). Before age three, the child does not understand that the sun only seems small, Aristotle's illusion.
- The preschooler—separation of the external sense field and the visual field (play).
 School child—development of internal sense field, independent; not given from above, but coordinated with the external (athletic play).
 Adolescent—serious play develops in consciousness.
25. In Elkonin's theory we do not move away from the environment, but proceed from the child himself (one stage of development gives rise to the next)—this is correct.
26. General conclusion. In play we have the movement of the child at the pure level of signification and thus freedom, imagination, fulfillment of desires, and so on. This is the main thing. But we have this in actual perception: the merger of the seen with the significance = perception of an object. Toward a theory of perception, which is intimately related to the theory of play, so that one, without the other, is incomprehensible (centripetal and centrifugal routes, olfaction, constancy, object-ness, manifestation of the will, system). In perception the merger of visual image A and significance A, and here, we have the merger of visual image A and significance B.
- We: my kingdom for a horse!
27. On play: (1) Not the dominant but a leading function, but might also be a misleading one because it may lead to a diversion from normal development; (2) affective aspect—not pleasure but it cannot be eliminated; (3) the first foundations of occupational activity—a child younger than three does not understand what it means to be a doctor or captain (i.e., their functions), but only the functions of the things in his immediate environment: in play the child learns adult activity and about work in general; (4) all play is rule governed: this is the essence of the make-believe situation from the standpoint of behavior; (5) the child learns about himself in play, by creating fictitious points of identification—ego centers; thus the social nature of his ego. Cf. Role playing. (6) the child already has an ego, but is not conscious of it; he has internal processes, but is not aware of them—in play he becomes conscious of himself and of his consciousness: previously, thought and things were merged, undifferentiated. Here, because of the separation between the sense field and the visual field with the semantic predominating; through action, things and the ideas of things become differentiated and the child begins to act on the basis of the idea of the thing, rather than the thing. This is the foundation of freedom. The first step is speech. Before this, only through other people (also freedom; through oneself, as through others—the completion of this development). After speech—play. It is remarkable that when the mentally ill lose freedom of and manifestations of will they also lose the capacity for arbitrary play. If the center is in the rule, then the conclusions: there is an external rule (sit quietly at your desk and do not touch other people's things), but in play there is one's own internal rule [difference in principle between the two types of ethical rules for children, according to Piaget—from unilateral and mutual collaboration]: internal self-limitations and self-definition. Conscious of ego in play, consciousness of thoughts, "I want" in play—cf. grammar in language. It follows that:

(a) the paradox of the ego: in play, happiness comes from what I want, ego-centric activity, but here, there are internal limitations from the momentary ego;

(b) the rule, having become affect: main difference—its positive effect conquers the strongest impulse. Cf. Spinoza: the effect may be conquered by the strongest affect. This cannot be in play. Thus play is not the predominant form of activity for the child. The way he is twenty-four hours a day is below the way he is in play. He cannot conquer real affects;

(c) consequently: the meaning of a word transformed into an action through the make-believe situation and rule. Here, there is a new relation between word and action. Previously, the word inhered in the situation (indicative function—voluntary attention—changes the structure of the field—cf. Kohler—slaves of the sensory field)—and, through the word, the situation determined actions.

Here, actions come from the meaning of things, not the things themselves. The attraction is transferred to the meaning of the word;

(d) this is possible only because of the microscopic molecular change in the nature of perception (molecular movements determine the most important properties of external things): previously the main thing in perception was the figure, that is, the perception of objects = figure/meaning. Here, it is the reverse: the main thing is the meaning, that is, the perception of the object = meaning/figure. This is the transition to play. The word is oriented in a bipolar way, embodying significance in thoughts and meaning in things: internalization of meaning—transfer to the child's own processes and action. Centrifugal movements are myelinated later + intercentral processes alter centrifugal ones;

(e) all play with rules is a make-believe situation (the inverse of the first paragraph that every make-believe situation is rule-governed play): for example, chess, given the rule, the queen and knight must behave differently than pieces of shaped wood. But at first, the rule in play is not conscious, it has to be discovered (it is hidden) in play with dolls and is unstable (depends on whim)—but later it is conscious, given directly in so-called rule-based games (here, what needs to be discovered is the make-believe situations).

The central route along which play develops is from the explicit make-believe situation with hidden rules, a hidden objective, and a changeable situation, rules and objective to a hidden make-believe situation with explicit rules and goal and constant situation. From play with dolls (which can exist in a pre-play situation) to playing chess—these are the developmental poles), that is, the essence of play has been extracted;

(f) the relationship to symbolism: play is not symbolism: a symbol is a sign, but a doll is not a sign to a child, and the result of remote symbolism: meaning separated from the thing—the route to thinking in meanings, isolated from things (ideates)—instead of images—ideals (concepts). Purely symbolic

thought is not possible for the child. Thus, Koffka's example: two ways to behave toward a piece of wood are not based on symbol (one way) + thing, but from the meaning and the thing, that is, a thing with two meanings—a doll and a twig: this is an exact and appropriate description of play: thus not two worlds and two structures, but one world;

(g) passing through experience: thus, the child does not symbolize while playing, but desires and fulfills his desire, passes the main categories of reality through his experience—compare time—days and half-hours are represented differently in play: space—in play 5 steps and 100 versts, and so on. The child wants and fulfills, thinks and acts. The internal action is inseparable from the external: imagination and interpretation and will, that is, internal processes in external actions;

(h) play as a type of activity and development of higher psychological functions (which is also sociogenesis)—the coming together of opposites. Contradiction of play: freedom of activity, that is, based on the child's will, everything is in the power of affect, so that it was considered instinct, that is, in an involuntary and unconscious mode, the internal in the external, that is, a contradiction between psychological functions (elementary and immediate) and their system and type of activity (free, based on the will)—this is resolved in the transition to internal speech and higher psychological functions: the reason for the development of these new structures in the play of school age children. Martha has finished her work, Martha may leave.

Addendum to point "e": the relationship between functions and play. The route from play to internal processes during the school years—internal speech, internalization, logical memory, abstract thinking (without things, but with concepts)—this is the main developmental route. Whoever understands this connection, understands the main thing in the progress from the preschool to the school years.

In play the child operates with meanings that are separated from the corresponding things, but not from real actions with real objects: this is the contradiction, but the separation of the meaning of horse from the real horse and its transfer to a stick (the material point of support, otherwise the meaning would fly away, evaporate) and the real action with the stick, such as would be performed with a horse (i.e., the child first acts with meanings the way he would with things, and then becomes conscious of them and begins to think; that is, just as before grammatical and written speech the child has abilities but does not know he has them, that is, is not aware and does not have them under voluntary control, in the same way the child has meanings and operates with them, but does not know this and does not have them under voluntary control; in play, the child does not consciously and under voluntary control separate

the meaning of horse from the horse, but he wants to ride a horse and involuntarily uses the fact that he can separate the meaning from the thing; that is, he does not know what he is doing; he does not know that he is speaking in prose = cf. Luria: theory of glass, thus—functional definition of concepts, that is, things, thus the word is a part of the thing; the same with meanings; at school age the consciousness of glass—speech—and the consciousness of meanings are in a transitional state is the required step for operating with meanings.

While at a year and a half, the child makes a discovery—everything has a name—later, in play, the child discovers that each thing has its meaning, each word has its meaning, which can replace the thing. Internalization is based on emancipation of the word from the thing in play (the behaviorist would describe play and its characteristic features: the child calls ordinary things by extraordinary names/words, and gives his ordinary actions extraordinary designations, despite the fact that he knows their true names) and emancipation of meanings from words in internal speech. But just as the separation of the world from the thing requires a point of support in the sight of another thing, the physical structure of the word is retained in internal speech.

But the most remarkable thing is:

At the moment when a stick, that is, a thing, becomes the support point for separating the meaning "horse" from the actual horse, the child cannot divorce the meaning of the thing or the word from the thing in any other way than finding a point of support in another thing, that is, by one thing stealing the name from another: the transfer of meaning is an expression of this weakness in the child—it makes one thing act for another in the sense field. This transfer is made easier by the fact that the child takes the word for a property of the thing, he does not see words (glass theory) but only sees the designated thing behind them. For the child, with regard to the object reference and indicative function, the word "horse" that has been transferred to a stick, means "this is a horse," that is, he mentally sees the thing behind the word.

The same relationship holds for the child's own actions: the child, who, standing in one place, jiggles up and down, and imagines that he is riding a horse—is in the same way using an inversion of the structure of the action/meaning as his critical point.

Again, in order to divorce the meaning of an action from the real action (to ride a horse, without actually being able to do so) requires a point of support in the form of an action replacing the real action. But again, while previously the action was the definitive thing about the action/meaning structure, now the structure is inverted and becomes meaning/action, and action is pushed into the background and becomes the point of support (again the meaning is divorced from the action with the help of another action)—no more. This again

is the critical point on the way to pure operations with the meaning of actions, that is, to voluntary choice, decisions, conflicting motives, and other processes that are markedly separate from implementation. In other words, the route to will, as was the case for the thing and the meaning—is the route to thinking. After all in a voluntary decision—implementation is not assured; cf. my experiments on choice and random action from a new point of view. Random performance is more difficult (because it is blind) than conscious choice.

Thus, in naive psychology the understanding of one's own operations matters, that is, the meaning of memory, and progresses to higher psychological processes, that is, the sign comes after the word in ontogeny, as a sign for oneself, in phylogeny a word node (?).

The action first acquires meaning in play: that is, becomes conscious. An action replaces another action as a thing replaces another thing. How does the child transform one thing into another, one action into another? Through movement in the sense field not connected to visual, real things, which subordinates to itself all the real things and real actions. This movement in the sense field is the main thing in play: on the one hand, it is movement in an abstract field (the field of meanings arises earlier than voluntary operations with meanings), but the method of movement in the sense field is situational, concrete (i.e., not logical, but effective movement). The development of the sense field, but with movement taking place in it as if it were real, is the main genetic contradiction of play.

Notes [Elkonin's unnumbered notes to the appendix]

Vygotsky gave the working notes that he used when he was lecturing on the psychology of preschool children to the present author. The first ten points are devoted to general issues of psychological development, and, because they are not directly related to the psychology of play, they have been omitted.

The mention of the name of D.B. Elkonin in certain places is associated with criticism or positive evaluation of his paper on play, which directly preceded Vygotsky's lectures.

The references to Spinoza are associated with the fact that Vygotsky was very involved in work in the relationship between affect and intellect at this time.

Some of Vygotsky's points in these notes, were presented in detail in a published transcript of his lecture on the psychology of play (see *Voprosy psikhologii*, 1966, no. 6).