

Perspectives in Cultural-Historical Research 12

L. S. Vygotsky

L. S. Vygotsky's Pedological Works, Volume 4

Pedology of the Adolescent II:
Pedology of the Transitional Age as a
Psychological and Social Problem

 Springer

Perspectives in Cultural-Historical Research

Founding Editor

Fernando González Rey

Volume 12

Series Editors

Marilyn Fleer , Peninsula Campus, Monash University, Frankston, Australia

Mariane Hedegaard, University of Copenhagen, Copenhagen, Denmark

Nikolai Veresov, Faculty of Education, Monash University, Frankston, Australia

There is growing interest in the work of LS Vygotsky internationally, but also in finding new ways and perspectives for advancing cultural-historical theory for solving contemporary problems. Although Vygotsky has become one of the most influential scholars in education and psychology today, there is still a need for serious studies of his work because so much remains unexamined.

The books in this series draw on the collected works of Vygotsky as a primary source of authority. They go beyond secondary sources and discuss Vygotsky's original ideas in the context of a system of concepts or through the elaboration and theorisation of research findings so that contemporary problems can be addressed in new ways.

This series collectively brings together under one umbrella a more equal representation of works from scholars across both the Northern and Southern continents. In the context of a large volume of contributions to cultural-historical theorisation and the empirical work from North America, there is an urgent need for making visible the works of scholars from countries who reside in countries other than North America.

L. S. Vygotsky

L. S. Vygotsky's Pedological Works, Volume 4

Pedology of the Adolescent II: Pedology of the Transitional Age as a Psychological and Social Problem

Translated with notes by David Kellogg and Nikolai Veresov

 Springer

L. S. Vygotsky
Moscow, Russia

Translated by
David Kellogg
Sangmyung University
Seoul, Korea (Republic of)

Nikolai Veresov
Monash University
Frankston, VIC, Australia

ISSN 2520-1530 ISSN 2520-1549 (electronic)
Perspectives in Cultural-Historical Research
ISBN 978-981-97-1536-7 ISBN 978-981-97-1537-4 (eBook)
<https://doi.org/10.1007/978-981-97-1537-4>

© The Editor(s) (if applicable) and The Author(s), under exclusive license to Springer Nature Singapore Pte Ltd. 2024

This work is subject to copyright. All rights are solely and exclusively licensed by the Publisher, whether the whole or part of the material is concerned, specifically the rights of reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This Springer imprint is published by the registered company Springer Nature Singapore Pte Ltd. The registered company address is: 152 Beach Road, #21-01/04 Gateway East, Singapore 189721, Singapore

Paper in this product is recyclable.

Conceptualizing the Personality

Vygotsky's dedication of this volume, the second part of his correspondence course for pre-service and in-service teachers, reads:

To the luminous, and still fresh, memory of L. S. Sakharov, who worked alongside us on the basic theme of this book—on the problem of concept formation (1931, p. 176).

Sakharov, who was several years younger than Vygotsky, had died two years earlier, suddenly, and apparently by his own hand. Just one month and one week after Sakharov's death, Vygotsky had written to his young widow to invite her to spend the summer with his family:

I still have not been able to set about Leonid Solomonovich's work; grief torments me and prevents me from working. It also compels me to reach out to you, to think about you, to be with you or near you. (2007, p. 20)

Vygotsky did not allow grief to prevent him from working for long. It was shortly after that summer that Vygotsky was, with the inspiration or perhaps compulsion of his long-distance students, able to set about the work of his beloved student and colleague.

On the one hand, the result appears to have been largely unintentional and in places completely unplanned, the serendipitous consequence of teaching a correspondence course for which no suitable materials were available. On the other, it is the longest and most exhaustive single work Vygotsky wrote and published in his lifetime, and its central chapter—Chap. 10 on the problem of concept formation—contains Vygotsky's grieving tribute to his fallen comrade.

Just half of this vast chapter formed the heart of the *magnum opus* published immediately after Vygotsky's own death, *Thinking and Speech*. In presenting, in their *Vygotsky Reader*, that portion of Chap. 10 that was not included in *Thinking and Speech*, van der Veer and Valsiner remark on the obvious fact that Vygotsky's treatment of topics is not very uniform (1994, p. 262f); they speculate that Vygotsky seized on this correspondence course as a message in a bottle: a way of disseminating his most difficult ideas as far and as widely as he could. If so, this new English

translation—the first to present the chapter as a whole—will provide additional proof that he succeeded, perhaps even beyond his own widest and wildest dreams.

There is a good reason why it has previously appeared only in a highly edited form: it's uneven stuff. The title page after Vygotsky's dedication offers long-distance students like us a short, general conclusion on the structure and dynamics of the personality preceded by two larger sections: one very large one on the psychology of the adolescent and a much shorter one on the social problems raised by pedagogy for pedagogy in this "transitional age". In this introduction, we'll suggest this lop-sided emphasis is only partly due to Vygotsky's debt to Sakharov; it is also due to a double duty of explanation: structures like concepts have to be explained by behavioral function, but behavioral function, in turn, has to be explained historically.

Vygotsky often enjoins us to summarize his chapters as homework. Let us try to do that, chapter by chapter, in ways that bring out the implicit structure in Vygotsky's own apparently chaotic "conspectus".

Why Is Vygotsky's Treatment So Very Lop-Sided?

In the very first paragraph of Chap. 9, Vygotsky says that a systemic change in interests holds the key to the whole problem of psychological development in the age of transition from child to adult. In other words, the adolescent's changing interests—e.g. from drawing to describing, from imaginary characters to real people, from cartoons to books, from siblings to school friends, and from school friends to pop stars—constitute the central answer to the whole question of how children, youths, and adults negotiate the non-coincidence of anatomical, sexual, and cultural coming of age. But if so, the reader may rightly ask, why is this chapter on interests so very much shorter than the following one on the development of concepts?

Some of the length of the chapter on concepts is due to the Kantian method of immanent critique that Vygotsky uses to explore it. As is well known, Kant doesn't "criticize" pure reason, or practical reason, or judgment in the modern sense; he explores each on its own terms to find its limits, beyond which lie contradictions. Using this method, Vygotsky finds that the key limit of the intellectualist path of concept development, which was that based on thinking alone, looks a lot like the key limit of the mechanistic one, which was a Galton photograph, where images simply get superimposed on a photographic plate until the similarities between features blot out the differences. Both the intellectualistic and the mechanistic approaches assume that a concept is just the old wine in a new bottle—a new structure performing the same elementary functions that were always present.

Vygotsky turns from Kant to an even more notoriously prolix philosopher, Hegel. Any reader who knows *Hegel's Logic* (1830/1973) will recognize a certain correspondence between the three stages of concept formation that Vygotsky and Sakharov lay out and the three stages of concept formation in Hegel's scheme. Like Hegel, Vygotsky finds that true, self-aware, concepts like "personality" must emerge from

two other kinds of more basic notion or idea. Both of these more basic ideas depend crucially on speech, but neither is reducible to speech forms alone.

One emerges when the child analyzes undifferentiated “syncretic” experience into patterns, abstracts similarities and differences from these patterns and develops, through comparison and contrast, conceptual features which are unified into a “potential concept”. Another, which Vygotsky and Sakharov study experimentally, emerges when entirely undifferentiated “heaps” of represented experience must be replaced by more general representations of experience that Vygotsky calls “complexes”. These complexes pass, by way of generalization, through four stages before they culminate in the “pseudo-concept”.

Throughout his book, Vygotsky argues that “form” and “content”—that is, structure and function—are not two separate phenomena but only two far-flung ends of a lengthy process of change and adaptation. Any process can be viewed either from the point of view of the structure that acts or the function that is being enacted. A leg, for example, is a structure that has happily evolved, over millions of years, for the function of walking on land; millions of years of walking on land have culminated in the happy structure of the human leg. Proleptically, the function creates and culminates in the structure; retroleptically, the structure realizes and is explained by the function. With legs, we are oblivious to this essential unity of function and structure because of the timescale involved in their evolution, but with conceptual thinking, and even with speech, the timescales are not so very great. Here the unity of function and structure is more evident.

Yet in studying thinking and in studying speech, we still find that the techniques for studying the structures of thinking in neurology can be entirely different from the ones we use to study the functions of thinking in education or psychology. Even the techniques for studying the structures of phonetics are quite different from the ones we use to study their function in phonology. The line with which Comte and Dilthey divided natural from human sciences seems to run right between them. So it stands to reason that the methods for studying the functions of proto-conceptual interests in Chap. 9 might be very different from the techniques that Vygotsky introduces to study the structure of pre-conceptual thinking in Chap. 10.

Vygotsky introduces two quite different empirical techniques to study concepts in Chap. 10. In Sects. 10.5–10.25, Sakharov and Vygotsky use a form of the “functional technique of dual stimulation”. This is, essentially, the same technique as the more well-known device Vygotsky used to diagnose the zone of proximal development: the child is given a task that is, at a given stage of development, beyond independent solution, but the child is offered some means (tools or signs) which can be taken up for solution of the problem.

This technique does let us see, in a laboratory, how a child without help might differentiate simple qualities from concrete objects and resynthesize them into abstract concepts. But the concepts are made up and the child is entirely removed from the real contexts that enable conceptual development: home, school, and above all conversation with others. So Vygotsky, in Sects. 10.26–10.40, supplements this with a technique he calls that of “genetic sections”.

Consider growth or even just motion as a simple kind of development. We can simulate motion as a series of genetic sections or static snapshots, and of course that's precisely what motion pictures do. But, as Zeno, Achilles, and the tortoise proved, we cannot really conceptualize motion that way; motion must be conceptualized as whatever happens between the snapshots.

On the one hand, the technique of genetic sections provides "snapshots" of development. On the other, the Sakharov-Vygotsky block test allows us to reconstruct what is happening between genetic sections. Like the differing methods of neurology and psychology, and like the differing methods of phonetics and phonology, one method helps us to study changes in structure without the distraction of functional growth and development, while the other method helps us to study changes in functional growth and development without getting too distracted by the analysis of structure.

It should not really surprise us that the process of analyzing the process of differentiating concepts using both of these two techniques may take a bit longer than Vygotsky's analysis of contemporary work on adolescent interests. The lopsidedness of Vygotsky's treatment is, in the long run, not only the product of his devotion to Sakharov's legacy, nor is it merely the outcome of Vygotsky's critical methods; some of it is doubtless due to the circumstances and pressures of writing. But much of it is, ultimately, the reflection in the text of a dialectic: the unity of evolving function and evolved structure.

The Chapter on Interests: A Drama in Five Acts

Shakespearean dramas, when they were actually written, did not have the five-act form we are familiar with today: Shakespeare simply wrote in meaningful scenes, and the division into acts was added after his death in order to help readers make sense of them in terms of the generic divisions found in classical tragedies (Kellogg, 2014, p. 327). Similarly, Vygotsky writes in meaningful scenes; the thirteen numbered sections in Chap. 9 correspond exactly to the thirteen headings given in the "Content of the Class" conspectus at the beginning of the lesson. So, as Shakespeare's friends did with his plays, we'll divide the drama of interests into five acts and thirteen scenes (the numbers in parentheses below): Dramatic Context, Problem to be Solved, Complications, Evaluations, and Resolutions.

ACT ONE: Setting the Scene and Creating the Characters. Vygotsky begins with a critical overview of others' views (Scene 1): all extant theories of interests make them, paradoxically, rather uninteresting. The attribution of interests to drives places the adolescent in a world where he is driven in circles by hunger, fear, and instinct. Equating interests with acquired habits (i.e. with conditional rather than unconditional reflexes or responses, to use the Pavlovian jargon) simply replaces the boredom of instincts with the boredom of inertia. Neither explanation accounts for the wholeness, coherence, and consistency of completely novel interests and completely new behavior that we find in adolescence—the crazes, the crushes, the fads, and the fantasies (2) The structural, or Gestalt, theory does account for them, by positing

the ability of the adolescent to create her or his own quasi-needs (3) The problem with the Gestalt theory for Vygotsky is that it cannot situate the adolescent in the cultural-historical environment that is the true ultimate source of development (4).

ACT TWO: Posing the Problem. Vygotsky then discusses what we may call the external structure of adolescent interests, i.e. how new interests develop from school age and how they develop into adulthood. Scene 5 begins with this observation, which Vygotsky has also made in Scene 1 and which he repeats many times in Chap. 10 as well: the main theories of adolescent development are largely in denial of development, because they see only the similarities between the Crisis at Three and that of Thirteen, because they look at functions like perception and speech which do not obviously change in the course of a decade, and in general because they focus on formal changes rather than on the new content which is driving new forms throughout development. To solve this problem, Vygotsky must distinguish between the line of development of behavioral mechanisms (e.g. perception and speech) and that of interests proper (e.g. profession, partner, and developing the public and private personality as a young adult). He must also distinguish between the “wave” of maturing tendencies which is already there at school age and the “wave” of constructing new interests proper on these tendencies, which continues into young adulthood (6).

ACT THREE: Complications. Each wave in turn has what we may call an internal structure. The biological wave of maturing tendencies (including sex) begins with what Vygotsky describes as a seismic wave which shakes old superstructures and exposes the foundations of the new, followed by a period of contradictions (e.g. between old interests and new, between present romance and future career prospects). In this 1931 work, Vygotsky has not yet developed any clear separation between the Crisis at Thirteen and the stable transitional period of sexual, biological, and socio-cultural maturation which follows it. That distinction between crises and stable periods will come about a year later, in 1932. But Vygotsky is already marking a clear distinction between negative and positive phases, and his stress is already on the new forms in both phases, critical and transitional in the former and stable and permanent in the latter (7). Vygotsky presents a large amount of survey data from a wide range, noting carefully that different classes of adolescent weather the crisis very differently. Even within a single individual, the negative effects of the crisis are not equally felt. For example, physical activity is typically unaffected but creative and imaginative work is more often impaired (8). Yet it is the latter which offers a way out of the crisis, especially reading fiction, which allows the adolescent to reconcile erotic fantasy with intellectual activity (9). Now this gives Vygotsky a two-phase structure for adolescence (but—recall that in the plan for the lesson he clearly spoke of three phases and that in the central chapter of *The Problem of Age*, Vygotsky stated that critical periods have a three-part structure!).

ACT FOUR: Evaluations. Vygotsky draws some general conclusions for pedagogy. In Scene 10 for example, Vygotsky summarizes the work of his colleague Zalkind. Zalkind’s views are rather puritanical and dualistic: uplifting sociological tendencies must struggle with downward-dragging biological ones; Vygotsky argues that these tendencies can and are synthesized in shared interests; the adolescent

doesn't after all struggle with biology or lift up society all alone! In Scene 11, Vygotsky presents three of Thorndike's views on the teaching ramifications of interests. First of all, education cannot consist in forming new habits without cultivating interests. Secondly, every interest implies a form of behavior and *vice versa*, so for the teacher the problem is never making sure that children learn with interest; it is always helping to decide what that interest will be and where it will go. Thirdly, however, Thorndike too is a bit of a puritan and a dualist: biology, he says, is never a reliable guide to which interests are positive and helpful to the adolescent, so the teacher's task is not to follow nature but to help the adolescent to struggle against and to subdue it.

ACT FIVE. Resolution. In Scene 12, Vygotsky argues that adolescence does indeed have a three-phase structure if we count the initial, latent, phase when new biological functions are maturing. It is surprising that Vygotsky should suddenly introduce the theories of Groos and Stern in Scene 13 to end this chapter. But Vygotsky points out that, first of all, these theories are naturalistic in the same dualistic way that Zalkind and Thorndike were anti-naturalistic. Secondly, he says, they encourage us to think of the Crisis at Three and the Crisis at Thirteen as the same in form, namely "serious play", and therefore, the same in content. If adolescence is a five-act classical drama, then it is not a tragic one; Vygotsky does not tell the story of the transformation of the schoolchild in an adolescent as if it were the fall of a noble but flawed king. Adolescence is more like Dante's *Divine Comedy*; Vygotsky tells the story of the rise of an ordinary person to the three summits of biological, sexual, and socio-cultural maturity.

In order to show that adolescence is a qualitative advance on childhood, it is not enough for Vygotsky to show that the Crisis of Three differs in form from that of thirteen. Nor is it enough for him to show that the content of high school in the succeeding stable period differs from that of preschool. Vygotsky must also demonstrate that both form (structure) and content (functions) in thinking are new, that they are inter-related genetically, and that their contribution to development is positive and lasting. Such is the task of Chap. 10—the development of the new forms of conceptual thinking and the new functions of thinking in concepts.

The Chapter on Concepts: Introduction, Method, Results, and Discussion

No wonder this chapter is nearly four times as long as the preceding one! But Vygotsky does fit this lengthy and complex content to a surprisingly simple form: the Introduction-Method-Results-and-Discussion (IMRaD) format established before him by Ebbinghaus which we still use today for most scientific papers. On the one hand, this means the chapter divides into four easily recognizable quarters with forty subsections. On the other hand—particularly as Vygotsky introduces the entirely

new method of genetic sections into his final discussion—these sections are of very unequal length!

INTRODUCTION: Vygotsky's introduction is—as usual—critical, and even polemical. Vygotsky's target is the view, now mainstream, that there are no new forms in adolescent thinking, only new content. Sensory perception, memory, intellect, and even speech, according to this view, are basically stable in their structure (1); what is new in the crisis are merely the functions—especially sexuality, rebellion, and emotionalism. Vygotsky points out that this view, still very present today, assumes that the form and content in thinking is like the relationship between liquid and vessel (2): the drinking glass is indifferent to whether we fill it with the toddler's milk or the adolescent's first taste of alcohol. Vygotsky argues that it is only lower elementary functions—e.g. unsemanticized perceptions, non-verbal memory, practical intellect, and speech sounds—which do not qualitatively change, and on these lower functions entirely new functions are built (3). The new structures which correspond to the complex new functions are abstract concepts taxonomized through logical thinking, and they are cultural and historical rather than biological in origin (4). Algebra and calculus are very obviously not simply new kinds of problems done with the same kind of numbers as arithmetic—they are very evidently a new concept of number which isn't given to the child through perception or memorization. This new concept—a relationship between quantities rather than an actual quantity—is as big a leap in abstraction as the previous leap from groups of objects to purely abstract numbers without particular objects was in elementary school. But even the emotional changes which were thought to be the central content of adolescence in the mainstream view cannot be reduced to pouring new sexual content into old relationships; at the very least, they entail a new concept of self and a new conceptualization of people in the environment. In this way, Vygotsky transcends the dualism of form and content: new structures can be explicated by new functions, but new functions in turn are only explained by their cultural-historical development. This implies that any method for researching these new structures and functions must itself be both cultural-historical and developmental. To be cultural-historical, it must use words; to be developmental, it must be able to compare children, adolescents, and adults with very different vocabularies. How can we compare them if the unit of comparison itself is changing? It's a little like trying to measure children, adolescents, and adults by measuring each one with the length of his or her own arm or leg!

METHODS: So Vygotsky's methodological section is also critical. The technique of defining words is criticized precisely because it uses ready-made words and cannot show the elementary processes by which their meanings are first construed. The technique of generalizing features of objective materials into concepts (e.g. Bühler's work with drawings and models and Piaget's later experiments with conservation) is criticized because it shows the first part of the process but it cannot include the crowning word in which it culminates (Sect. 10.5). Vygotsky settles on the technique of Ach as applied by Rimat to children and adolescents (6), which involves using nonce words to name made-up concepts (e.g. "gazun" to mean big and heavy and "fal" to mean small and light). Ach and Rimat, however, introduce the names of objects at the beginning of the experiment and then teach the qualities of each artificial concept

(rather the way the technique of defining words proceeds). Sakaharov and Vygotsky invert this, beginning with the objective qualities of the objects and asking the child to guess which objects are instances of which concept; in this way, they create a version of the functional technique of dual stimulation, where the sorting goal which was the sole purpose of the experiment with Ach and Rimat becomes only one stimulus and the words with their conceptual meanings become the second stimulus which allow the attainment of the goal (7). Vygotsky concludes this section on methodology with a pointed, polemical, explanation of the results they obtained: the basic functions of perception, attention, and judgment are all not new in adolescence, but they are also not sufficient to create anything more than pseudo-concepts—for true concepts, the adolescent must combine all of these basic functions with a new type of word meaning (8).

RESULTS: Vygotsky now lays out the results in detail. The first stage of solutions to the blocks problem involves syncretic “heaping” which does not distinguish between the child’s subjective goals and the blocks’ objective qualities. The first phase of this stage of syncretic forms is apparently undirected trial and error; the second involves spatial organization of the blocks in named heaps, but only according to the child’s own subjective perceptions; the third phase involves a double sorting—the blocks are first sorted into heaps and then a super-heap is formed by selecting from these heaps—but there is still no objective criterion that makes the experimental word mean anything more than a heap of subjective selections (9). The second stage of solutions to the blocks problem involves the creation of concrete complexes based on generalizations of the blocks’ objective qualities (e.g. color, shape, and even size) but not on abstract concepts (e.g. diameter and height). This second stage is divided into five phases. The first phase of the second stage is the associative complex, which is based on selecting a prototype and matching other blocks to it by various kinds of associations (10). The second phase of the second stage is the collection-complex, which is based on collections of differing objects involved in some practical operation (such as dressing, having a meal, stamp or coin collections, and of course collections of dolls and toys); where the associative complex was grouped by similarities, the collections are grouped by differences (11). The third phase of the second stage is the chain complex, which is based on differing associations rather than differing objects (as in casual conversation, television serials, friendship networks); unlike the associative complex, there is no central prototype, and unlike the collection there is no unifying practical operation (12). The fourth phase of the second stage is the diffuse complex, which is based on indefinitely expansive associations (as in Biblical families with innumerable descendants); unlike the chain, there isn’t a single line of development (13). The fifth, and highest, phase of the second stage is the pseudo-concept, which is externally defined by a spoken word, but which is internally defined by diffuse but still concrete thinking (14). Vygotsky emphasizes the deceptive character of this “concept-for-others-but-not-for-myself”, which is on the one hand a transitional form and on the other persists in a good deal of unsystematic adult thinking (15). But now Vygotsky recognizes the artificial character of experimental data and the necessity of “functional verification”—i.e. data from the field. However, he also points out the messy, empirical character of the latter and so insists

on their complementarity (16). Vygotsky finds functional verification of complexive thinking in child language studies (17), anthropological linguistics (18), historical linguistics (19), and defectology, the now lost Soviet science of blindness, deafness, and more generally remedial education and learning difficulties (20). Vygotsky also argues that only with the third stage of the potential concept is the link to concrete thinking broken (21), but the abstractions of the potential concept, some of which greatly predate adolescence, are still not identical with the hierarchical, systematized conceptual word meanings found in the socio-cultural environment (22). Vygotsky begins his discussion of the potential concept by pointing out that the transition from pseudo-concept to true concept is not mechanical, with one beginning precisely where the other ends; it is more tectonic, like one tectonic plate sliding under another—hence “earthquakes” like the crisis at thirteen and transitional neoformations like the pseudo-concept (23). Vygotsky even goes so far as to agree with Blonsky’s idea that different stages of development correspond to different daily activities (e.g. vegetative development with sleep, animal development with feeding, and socio-cultural development with work, school, and play). He disagrees, however, with Bühler, who says that concepts are formed by associative groupings on the one hand and judgment on the other (24). True concepts do have, according to Vygotsky, two roots, but they are not association and judgment: the two roots are complexive thinking (concrete generalizations) and potential concepts (logical abstractions). For this, however, the adolescent requires a new mode of thinking altogether, namely logical abstraction under concrete, voluntary control. To study it, the researcher will also require a new mode of research, namely the genetic cross-section (25). In the last section, Vygotsky applies this method to a meta-study, that is, a study of the research of others and their results.

DISCUSSION: In his lengthy final discussion, Vygotsky sketches the structure and mode of formation of true concepts, the changes in the content of thinking this brings about, and concludes by comparing studies of the forms of thinking in the child and in the adolescent using the technique of genetic cross-sections. Vygotsky comparisons are, once again, highly critical. He agrees with Blonsky’s critique of authors who argue that children learn their “class psychology” by imitation. For a child to learn, for example, a working class attitude to fixed roles with interchangeable individuals, or a middle class orientation to interchangeable roles performed by fixed individuals, requires first-hand experience. The wider experience of the adolescent, in comparison with the school child, is how Vygotsky explains the cross-sectional results of Groos, who demonstrated that children move decisively from questions about causality to questions about consequence and from *wh*-questions toward *yes/no* questions (26). But for Vygotsky these new forms of grammar as well as vocabulary really constitute the formation of a series of systems, with words that embrace the whole relationship of people to their environment (27). Vygotsky confirms this result using material collected using the definition technique (e.g. “What is love?”), but this material shows that while adolescents are able to define abstract concepts, they often do so in a very concrete way (e.g. “love is when somebody wants to get married and then sits with a girl and proposes that she marry him”) (28). According to formal logic, this concrete content is doomed, because the more we contain in a generalization, the

weaker the concrete details must be (28). Vygotsky agrees with Bühler's rejection of this view but rejects in turn Bühler's view, where Bühler contends that stabilized perceptions show that judgments are necessary and sufficient for concept formation; Vygotsky says that only a whole system of judgments will do (29). One reason why Vygotsky must reject these views is that they would make it possible for a very young child to create concepts; Vygotsky agrees with Meumann, who makes the case that logical thinking occurs only around age 14. (30). Genetic cross-sections by Usnadze (31), Piaget (32~33), and Leontiev (34~35) show that Meumann is essentially right: Usnadze finds that even adolescent definitions are often more like single-trait descriptions, and Piaget's work, replicated by Leontiev, shows that the transitional period seems to be characterized by a visual-illustrative logic we see in the literal interpretation of proverbs rather than by the verbal-abstract thinking we get from their metaphorical interpretation (36). A genetically cross-sectional study from Graucob shows that adolescent metaphors are often the inverse of adult ones: abstract concepts like "love" and "death" are used to lend meaning to concrete images rather than *vice versa* (37). Vygotsky illustrates this curious "vinaigrette" of concrete images and abstract thinking with the example of numbers, which for the toddler are often based on direct perceptions of more or less, for the school child on number images (e.g. "four apples"), but for the adolescent reside in how the number relates to other numbers (38). Vygotsky notes that the results of all these cross-sections (and more) do not agree very well, but they all seem to show that Bühler is wrong to assume that stabilized perceptions indicate conceptual thinking, that even three-year-olds have what is necessary and sufficient to create concepts (39). In conclusion, Vygotsky states that concept formation is the central neoformation of adolescence, but that it in turn is just one example of a much more general transition to higher psychological functioning, which is the topic of Chap. 11 (40).

The Chapter on the Higher Psychological Functions: Palindrome and Chiasmus

In our first volume of *Pedology of the Adolescent*, Vygotsky proposed a working hypothesis: adolescence is the historical byproduct of the self-development of early humans into moderns. It is a non-coincidence of general-anatomical, sexual, and socio-cultural maturation brought about by better diets, cultural control of reproduction, and expanded childhoods with extended educations. As such, adolescence is still a work in progress and, like retirement and health care, it is a benefit that is not universally enjoyed (it appears that under present social conditions it is only the viruses, and not the vaccines, that can be shared equitably and globally). Vygotsky's working hypothesis is to be tested comparatively, by contrasting data from adolescents with school children on the one hand and adults on the other. But above all the hypothesis is to be used to explain all of the new and incommensurable formations that are unique to adolescence.

Vygotsky concludes Chap. 11 with some very general philosophical remarks on the nature of development as a zig-zag path between realism and imagination. In the case of modern adolescence, it is the self-realization of an insular child-in-oneself to an adult sense of a person-for-oneself: a self-awareness and purpose that can only be achieved through the freedom of imagination in the necessity of creative activity. Along the way, the adolescent must become a person-for-others—and even, eventually, a person for another. Without the chapter on interests, we cannot understand why the adolescent would bother ever conceptualizing a personality in the first place. Concepts and interests, in turn, are both case studies in the development of higher psychological functioning in adolescence.

This explains why Vygotsky begins by giving the higher psychological functions a general-anatomical definition, using “laws” formulated by Kretschmer, yet another future Nazi. It also explains why Vygotsky then shows how the classical mental functions of perception, memory, attention, and practical action can be included as subordinate instances in higher functions so often bound up with sexual maturation in a broader sense: self-perception, world view, and personality. The historical and class unevenness of socio-cultural maturation explains why Vygotsky finds it all too easy to show us the drama of development as a tragedy: aphasia, hysteria, and schizophrenia are simply what happens on the all too frequent occasions where the development of the specifically adolescent higher psychological functions is stunted, degraded, and even destroyed. So at the end of this chapter Vygotsky introduces pathological material on aphasia, hysteria, and schizophrenia to demonstrate the process of development in reverse.

In this way, Chap. 11 on the higher psychological functions forms a kind of palindrome (“Madam I’m Adam”, or “Was it a car or a cat I saw?”) or, less trivially, a kind of chiasmus (e.g. “The first shall be last and the last shall be first”), and we can easily imagine it ending up with the degree zero of development of higher psychological functions. That is where Chap. 12 on imagination begins.

The Chapter on Imagination and Creativity: Unreal Experiences But Real Emotions

Chapter 12 commences with a visit by the philosopher Ernst Cassirer to a neurological clinic in Frankfurt and with patients who all appear to be helplessly uncreative, hopelessly unimaginative, and irreversibly post-adolescent. Yet there are three things about these patients that make them eerily recognizable, like a dim reflection of adolescent faces in a dark looking-glass of memory. First of all, the patients do find it difficult to perform simple actions such as raise a leg or take a step on command, but they can march right across the room if they are given sheets of paper to tread and told to walk on them as if on stepping stones. Secondly, in the case of choices made at the request of others, such as responding to a request by a doctor, the subject can and does exercise free choice negatively, by not carrying out the order. Thirdly,

they find it hard to begin doing a task which can be started at any given point, such as dusting a large room, stacking firewood, or putting books away (...or summarizing a complex argument made of many interdependent parts!)

By selecting this “degree zero of imagination” as his starting point, Vygotsky frames imagination not as a question of realistic versus non-realistic thinking: all forms of thinking must include both. Instead, Vygotsky considers imagination as a matter of whether thinking is under the control of immediate perceptions or under the subject’s free choice. This starting point also allows Vygotsky to consider imagination a special case of human free will. Vygotsky then discusses the characteristics attributed to imagination and thinking in adolescence by traditional and contemporary psychologists, and Wundt has a firm grasp of the obvious, but also a sense of the underlying contradiction: on the one hand, adolescent creativity is materially more productive and consequential than childhood creativity but less so than that of adults, and on the other, unproductive adolescent fantasy is bound up with very real new needs. Bühler pursues the contradiction: the adolescent is really creative only in erotic or romantic fantasies which are at bottom, not abstract but concrete. So, Vygotsky asks, how does this contradiction resolve itself in practice?

Vygotsky answers that when we note how child play turns into teenage fantasy we have essentially answered the question. Although the child’s imagination, acting out a horse pulling a cart, is intensely motivating and active, it cannot, for that very reason, be as extensive and expansive as the untethered fantasies of the adolescent which impact the environment only indirectly but actually, factually, and indeed. This leads Vygotsky to the interesting conclusion that an abstract form of imagination is richer than a concrete one, since it potentially includes far more, and even far more concrete, content.

Vygotsky demonstrates this, with some rather unusual data—a mystery novel by Jakob Wassermann, in which an adolescent must try to visualize the days, hours, and minutes of a prisoner who has been unjustly condemned. This is a particularly apt demonstration of both points Vygotsky is making. On the one hand, adolescent fantasy sets itself tasks that involve calculating and thinking in concepts. On the other, the means that the adolescent uses to resolve these tasks are still rooted in concrete imagery. Vygotsky deduces from this that it is not the case that thinking simply supplants visual imagery, the way that Piaget sees de-centration as simply supplanting egocentric thinking. On the contrary, it seems to Vygotsky that strong, concrete imagery exists at all levels of development.

Vygotsky points to the limitations of the so-called visual concept discovered by Jaensch, and he rejects once and for all the idea that true concepts can be formed visually, i.e. by lower level psychological functions. All of these images are products of a particular kind of meaning Hegel calls “sense” and not the kind of meaning Hegel calls “intellect” or “reason”. True concepts have a non-visual character: they are the condensation not of concrete images but of assessments and evaluations about what is central to the experience and what is mere detail. Visual thinking does not simply disappear, nor is it banished to a “reservoir” of fantasy. Concrete “visual-illustrative” thinking persists in fantasy, but even here it is transformed by word meanings, and for

this reason Vygotsky concludes even “wordless” visual-illustrative thinking depends, in the final analysis, upon words.

To see the dependence of fantasy on thinking, we have only to look at what happens when people significantly lose the ability to speak. Aphasics often have trouble interpreting metaphors, and, in Piaget’s studies and Leontiev’s replications thereof, we find that the same thing is true of school children. Purely literal, concrete thinking is not only non-abstract, but also less imaginative; it reduces imagination to the kind of eidetism that Ach and others believed lie at the base of imagination. For Vygotsky, this suggests not only a real, observable link between imagination and speech development but also one between speech development and concepts.

Imagination and thinking develop together, instead of one replacing the other. Although they may push against and pull on each other, they can never merge nor go entirely their own way. For this influence to continue productively, the tension between imagination and thinking must re-emerge. Accordingly, Vygotsky says, the most important feature of fantasy in adolescence is what French speakers call “*dédoublement*”—the mitosis and meiosis of fantasy into two distinct types, subjective and objective, each of which also, of necessity, has an inner aspect and an outer one.

On the one hand, fantasy serves subjective ends. Since it no longer depends on play as it did during the childhood years, it is free to become self-directed and even intensely secret. This does not, however, diminish its psychological reality; as Goethe remarks, the events of fiction are not real, but the tears they provoke are real tears. On the other hand, imagination serves objective ends. Because the emotions provoked by fiction are not in any sense fictitious emotions, the adolescent’s creative art can become a shared tool for social emotions (e.g. drama, literary expression, music, but also, Vygotsky reminds us, scientific discovery and technical innovation).

Since interests, concepts, higher psychological functions, and even imagination and creativity are so clearly colored by adolescent affect, it may seem very surprising that Vygotsky ends the first part of the book, on adolescent psychology, without any separate chapter on the emotions. Isn’t Vygotsky forgetting something?

Adolescent Emotions: A Missing Chapter?

Not likely. Emotion is not a neof ormation of adolescence; it extends from the beginning of childhood to childhood’s end. Moreover, throughout this first section of this book, as well as the contemporaneously written “Teachings about the Emotions” (1998), three accepted dogmas about the emotions become targets of Vygotsky’s criticism.

The first is the tenet, which Vygotsky repeatedly attributes to Karl and Charlotte Bühler, that all that is necessary and sufficient for adolescent interests and adolescent conceptual development is present and accounted for from early years. Since basic psychological functions such as emotion, as well as perception, attention, and even memory, are not particularly new in adolescence, the Böhlers reasoned that both

adolescent interests and adolescent conceptual development represented the simple growth of these functions and their adaptation to an expanded range of action through speech. This led to a second tenet—the chief symptom of the Crisis at Thirteen is negative emotion, the negation of environmental pressure. These two tenets, essentially nothing more than symptomatic observations of empirical circumstances, lead to a third tenet: interests find their origin either in the environment or in the child. If the former, interests must be reduced to habits; if the latter, interests are simply a matter of releasing individual drives in ways that cause no damage and therefore cannot alter the environment in any significant sense. Either way, the child's resistance is eventually overcome by the environment's persistence.

Vygotsky points out that these tenets are untenable. If the child has the wherewithal to generate true concepts even before preschool, why don't children do this and save themselves years of torture in school? If the crisis of adolescence is essentially a protracted temper tantrum, why doesn't it happen earlier, since children in preschool and earlier have such rich emotional lives and lively affects and since their own confrontation with the social environment is so much more immediate and interpersonal than that of the adolescent? And finally, if concepts are simply the inevitable result of environmental pressure on the child or the natural product of child individuality, how do we account for the completely novel mixtures of abstract and concrete thinking that we find, for example, in adolescent love poems on the one hand and in adolescent musings on the meaning of life and the blackness of death on the other? In all three cases, emotion turns out to be an explanation that explains nothing. Above all, emotion cannot explain how childish wishes become realistic plans for the choice of profession.

Spinoza defines emotion as “the affections of the body by which the body's power of activity is increased or diminished, assisted or checked, together with the ideas of these affections” (IIIId3¹, Spinoza 2002, p. 278). As the definition suggests, an emotion can be either brought about by the environment and passively undergone or else actively conceptualized “as soon as we can form a clear and distinct idea of it”. (Vp3).

Transforming an affection of the body into an action by it involves the body (the brain) forming an idea of the affection which is adequate—that is, not simply the result of the random order imposed by raw experience, but the result of understanding its place in the chain of causes and effects (Ia4, IIp7). Once we ourselves are the adequate cause of our own understanding, passions cease to be passive and become reasons, including reasons for action.

For the school child, logical thinking often takes place simply through the body's power of acting on the world. But for the adolescent, the body's power of acting involves real-world choices of great consequence—a job, a university, a sexual identity, and perhaps even a life partner. In order to think logically—to prioritize, to reverse roles, to distinguish the essential qualities from the merely important ones

¹ References to Spinoza's *Ethics* typically give the chapter as a Roman numeral, followed by “d” for definition, “p” for proposition, and “a” for axiom and Arabic numerals. We follow that convention here. See Spinoza, 2002, in the reference list.

in choosing an interest, a course of study, and eventually a life partner—what the adolescent requires is a lot more than the body’s feeble power of acting on the world or even the affect acting on the body. This is precisely why Spinoza includes, in his definition, not only the affects that increase the body’s capacity to act but also the idea of those affects.

Curiously, in his notebooks, Vygotsky seems to be saying that a passion is overcome, not just by transforming passion into reason, but also by transforming reason into a passion.

Spinoza

Most important:

Passion is only overcome by a stronger passion—reason that has become a passion.

Where does this bliss come from: i.e., the neoformation of a passion. (Vygotsky, 2018, p. 340)

It is highly unlikely that this is a misreading of Spinoza—Vygotsky received Spinoza’s *Ethics* from his father when he had his Bar Mitzvah, and he still had that copy, much thumbed, pondered, and even criticized, when he died (Vygotsky, 2018, p. 233f). Wondering whether to dedicate his yet unfinished work on Spinoza to his father or to his wife, Vygotsky writes:

The truth of the Spinozian theory of the passions is an indisputable testimony of both itself and of all the falsity of Spinoza himself and the falsity of three hundred years of psychological thought. As light reveals both itself and darkness. L. S. V. (Vygotsky, 2018, p. 214)

What seems more likely is that Vygotsky, still thinking of the adolescent, is deliberately inverting Spinoza. In order to conceptualize a personality, we cannot simply transform passions and interests into concepts. In order to conceptualize a personality, a concept has to become a passion.

Vygotsky understood—first hand—that raw grief is debilitating and even paralyzing; it cannot by itself become an active interest, a true concept, or a higher mental function, nor can fear, rage, or any simple bodily sensation. The new content of adolescence can only come about through the reorganization of these more elementary functions and emotions around new goals and new purposes—that is, new concepts that can be shared with new colleagues and new comrades. Vygotsky’s own grief—at first disabling and then enabling the writing of this book—is simply an adult instance of that critical adolescent experience, reason that has become a passion, a passion which we now hasten to share with you.

David Kellogg
Sangmyung University
Seoul, South Korea

Nikolai Veresov
Monash University
Melbourne, Australia

References

- Hegel, G.W.F. (1830/1975). *Hegel's Logic*. In W. Wallace (Trans.). Clarendon.
- Kellogg, D. (2014). *The great globe and all who it inherit*. Sense.
- Spinoza, Benedictus de (2002). *Spinoza complete works*. S. Shirley (Trans.). Hackett.
- Vygotsky, L.S. (1994). *The Vygotsky reader*. In R. van der Veer, & J. Valsiner (Eds.). Blackwell.
- Vygotsky, L.S. (1997). *Collected works, volume 4*. Plenum.
- Vygotsky, L.S. (1999). *Collected works, volume 6*. Plenum.
- Vygotsky, L. S. (2007). Letters to students and colleagues. *Journal of Russian and East European Psychology*, 45(2), 11–60.
- Vygotsky, L. S. (2018). *Vygotsky's notebooks: A selection*. In E. Zavershneva, & R. van der Veer (Eds.). Springer.
- Выготский, Л.С. (1931). *Педагогика подростка. Задание 9–16*. Москва и Ленинград: Государственное учебно-педагогическое издательство.
- Выготский, Л.С. (1982). *Собрание сочинений Т.1*. Москва: Педагогика.
- Выготский, Л.С. (1984). *Собрание сочинений Т.4*. Москва: Педагогика.

Contents

Part III The Psychology of the Adolescent

9 The Development of Interests in the Transitional Age	3
References	39
10 The Development of Thinking and the Formation of Concepts in the Adolescent	41
References	177
11 The Development of Higher Psychological Functions in the Transitional Age	181
References	276
12 Imagination and Creativity in the Adolescent	277
References	299

Part IV Social Problems in the Pedology of the Transitional Age

13 Choosing a Profession	303
Reference	311
14 The Social Behavior of the Adolescent	313
Reference	320
15 The Working Adolescent	321
Reference	331

Part V Conclusion

16 The Dynamics and Structure of the Adolescent Personality	335
References	360

Working Out a World View 361

References 375

Author Index 377

Subject Index 381

Part III
The Psychology of the Adolescent

Chapter 9

The Development of Interests in the Transitional Age



Contents of the Class

Development of drives and interests and the development of skills and functions—The problem of the acquisition of new interests—The structural theory of interests: needs and quasi-needs—A criticism of the structural theory of interests—Two lines in the development of interests—The evolution of interests in the transitional age—The study of phases in the transitional age—Characteristics of the negative phase of the transitional age from the aspect of the development of interests—The basic variants of the negative phase—The pedagogical significance of interests—The phases of cultural interest in the transitional age (Tumlirz)—The basic dominant underlying the basic interests of the transitional age—The theory of “serious play” (Stern) and its critique.

Plan of Study for This Class

1. Read Chapter 9 and construct a plan and a summary of the lesson.
2. Outline the course of the three basic phases of the transitional age in adolescents of your school and note the major characteristics of the interests for each phase.
3. Inquire with the help of a survey into the interests (in reading and other) of the adolescents in your school and compare the results with the data given in the present chapter and those in the indicated additional literature.
4. Consider how to employ in pedagogical practice—in all of the sections of this chapter (on the teachings of Thorndike)—the data on the specifics of interest in adolescents for each of the three phases of the transitional age.

1.

The key to the whole problem of the psychological development of the adolescent lies in the problem of interests in the transitional age. None of the psychological functions of a person at each step of development act in a haphazard manner, unsystematically,

or by accident, but act instead in a definite system with aims, aimed by definite aspirations, drives and strivings laid down by the personality, along with interests.

These impelling forces in our behavior change with every step in age, and their evolution lies at the base of changes in behavior itself. It would therefore be incorrect, as has often been done, to consider the development of different psychological functions and processes only from their formal aspect, as isolated forms, irrespective of their orientation, regardless of the driving forces with which these psychophysiological mechanisms are put into action. In particular, such a purely formal consideration of psychological development would be essentially anti-genetic, as it ignores the fact of the ascent to a new age level; what changes and develops is not merely the mechanisms of behavior themselves, but also their impelling forces.

Neglecting this circumstance explains the futility of much psychological research, in particular that related to the transitional age. This research often attempted in vain to establish some significant qualitative difference in the action of different behavioral mechanisms—for example, of attention or of memory—in adolescents in contrast with older and younger school children. If these differences were established, they were usually limited to a purely quantitative character which indicated an increase in function, an increase in the numerical index, but not a change in the inner structure.¹

Furthermore, as we shall see below, not a few researchers, by logical necessity, rely upon the purely formal consideration of psychological development and arrive at the conclusion that the basic elements of adolescent thinking are already present in ready-made form in a three-year-old child and that intellectual processes in the transitional age merely undergo further development and further growth, with that same orientation, presenting nothing actually new in comparison with that which is observed in early childhood. Charlotte Bühler, who arrives at this conclusion, goes on to draw a sweeping parallel between the adolescent in the period of sexual maturation and the child of three years, from this formal aspect arriving at a whole range of similar features in the psychology of the one and the other. We are inclined to see in this a manifestation of the inner insolvency of the purely formal method in pedology, its failure to grasp the process of development in all of its real complexity and to take into account all of the actual neoformations which emerge in the transition of a child from one age to another.

The key to an understanding of the psychology of ages, as has already been stated, lies in the problem of orientations, the problem of impelling forces, in the structure

¹ There are many differences between this text, which was published during Vygotsky's lifetime, and the one which appears in his collected works, English (1998) and Russian (1984). For the most part, they are minor differences to do with paraphrasing; so for the most part, we will simply obey the scholarly convention according to which the text published in the lifetime of the author is considered the authorial and authentic one and we will not bother to footnote them. Where differences have to do with actual wording, we will use the authorial text in our translation, but give the alternative wording in the footnotes.

Here the (English) *Collected Works* (Vygotsky, 1998, pp. 319–320) includes four footnotes which established the meaning of the term “antigenetic”, explained that the “transitional age” included both the crisis at thirteen and puberty, and added that Vygotsky is referring to both early and later grades of school children (and not infants or toddlers). They are not authorial, so we omit them.

of a child's drives and aspirations. These very skills, these very psychophysiological mechanisms of behavior, which do not often disclose in their formal aspect any substantial distinction between age steps, turn out to be included in completely different systems of drives and aspirations, a completely different field of forces and orientations, and from this arises a profound uniqueness in their structure, their activity, and their changes in a certain defined phase of childhood.

It is precisely because of the neglect of this situation that child psychology for many decades has been unable to discover a single substantial trait which can distinguish the perception of the child from the perception of an adult and indicate the content of the developmental process in this area. Therefore, one serious change in the history of the study of behavior in the child will consist in an awareness of the insolvency of formal study alone and the necessity of studying those basic moments of directionality, the specific configuration of which defines at each given step the structure in which all of the mechanisms of behavior find their own place and their own value.

For this reason, the point of departure for scientific research in this area lies in the recognition of the fact that not only do skills and psychological functions of the child such as attention, memory, thinking, and so on develop, but that the basic psychological of development rests above all on the evolution of the behaviors and interests of the child, the structure of the orientation of this behavior.

2.

Psychology has arrived at an awareness of this idea only in recent times. We shall not even speak of the old subjective psychology, in which interests were identified with mental activeness and considered as a purely intellectual phenomenon (Herbart), placed in the sphere of emotional *perezhivaniy*, defined as a delight in the unimpeded functioning of our powers (Jerusalem, Lipps), and derived from the nature of human will, converging with acts and constructed on the basis of desire. However, even in an objective psychology which strives to construct a study of the interests on a biological basis, the problem of interest has for a long time been kept in the dark by numerous and completely or more partially incorrect attempts to present the relationship existing between interests and the mechanisms of our behavior in their proper light.²

² Throughout these books, we have chosen to leave Vygotsky's term "*perezhivanie*" untranslated, both because it is almost untranslatable and because it is now a fairly common term in Vygotskian psychology; it refers both to an everyday experience which has been transformed into meaning in some way and to a unit of analysis for consciousness in psychology.

Johann Friedrich Herbart (1776–1841) was a German philosopher and educator who took over Kant's chair. Like Kant, he was strongly impressed by Locke and Hume; unlike Kant, he rejected the idea of innate categories. As an educator, he was a reformer, influenced by Pestalozzi, and Vygotsky champions many of his ideas, including complexes, concepts, and formal discipline for its own sake.

Wilhelm Jerusalem (1854–1923) was an Austrian philosopher and educator who took a strong interest in the education of the blind, deaf, and women. He was a great champion of Helen Keller's work.

Attending to the motivating, impelling force and to its dynamic nature, to its moment of orientation, Thorndike defines an interest as a striving. "The striving to devote thought and action to any phenomenon," says this author, "is called an interest in the phenomenon. This feeling of elation, mental arousal, and affinity for the subject may be called interest."

Nevertheless, we find, alongside a more or less definite formulation of a new view of interests, a whole range of indefinite moments, such as the sense of elation, mental arousal, orientation to an object, from the aggregation of which the author attempts to obtain his definition of interests by summary means.

"Interests," as Thorndike fuller develops this line of thinking, "may be either innate or acquired. In this regard, interests do not present an exception to the general rule according to which our behavior is composed of both innate and induced reactions that are built up upon their basis." Here, in an attempt to divide interests into inborn and acquired, objective psychology once again erases all distinctions between interests and behavioral mechanisms or psychological functioning, and it is no wonder that at this point many divergences in opinion and stance toward interests originate.

The central question for all of this study consists in this problem: are new interests acquired in the process of human development, or are these simply reducible to inborn interests that stem from biological factors? The problem may be put otherwise, as follows: should interest and drive be distinguished in psychology? In what relationship do they stand, the one to the other? As we have seen, Thorndike responds affirmatively to this question, distinguishing between innate and acquired interests. However, this relationship between drives and interests he tends to identify with the relationship that exists between innate and acquired reactions.

That this point of view in its logical development actually leads to the identification of interests and reactions can be easily seen from the conclusions which were drawn from this proposition by representatives of the new dynamic psychology in America. Woodworth,³ for example, states: "The capacity of the human psyche to acquire new mechanisms is at the same time a capacity to acquire new strivings, since every mechanism which is at that stage of development in which it has achieved a certain efficacy and yet has not become automatized is in itself a striving and may become a motive for action that lies outside of its unmediated functioning."

For these authors, these very strivings merely present a mechanism in action and in dynamic links with other mechanisms, and thus, as the very same author says, the process of development of these secondary or acquired motives is part of the general

Theodor Lipps (1851–1914) was a German philosopher. He was mostly interest in the philosophy of artworks. Jung and Freud drew on his ideas in the way they formulated the notion of the subconscious mind.

³ R. S. Woodworth (1869–1962) was a student of William James and later Charles Sherrington and a classmate of E. L. Thorndike and Walter Cannon. He wrote the most important textbook for psychology in 1921. The Stimulus-Organism-Response formula widely used to describe behavior is his invention. He also developed personality tests designed to diagnose shell shock (today called Post-Traumatic Stress Disorder, or PTSD). He worked with Thorndike to try to show that skills could not be transferred, a proposition that Vygotsky attacks in *Thinking and Speech*. "Dynamic psychology" was Woodworth's name for his own extreme version of behaviorism.

process of working out a skill. To put it another way, the authors on the basis of their research tend to conclude that alongside the formation of skills, new conditional reflexes, new mechanisms of behavior, there is the creation of new interests, new driving motives which are basically subordinate to the same laws of conditional reflexes. Each activity from this point of view by itself creates a new interest. On this basis there arise strivings for definite objects which constitute in their essence the interests.

“Life would be dull,” these authors say, “if objects did not attract us on their own, and if mere hunger, fear and other innate instinctive reactions each time could determine in their entirety our relationship to this or to that object.”

A mechanistic representation of the development of interests—in which, like a shadow, they accompany the development of skills, in which they arise as simple habits which are, in consequence, nothing more than the simple tendency to repeat actions over and over again, simple behavioral inertia—permeates this teaching about the interests, one which appears to negate the inertness and inertia of the driving forces of our behavior and, along with the innate, seems to account for the acquired orientations of our reactions.

The whole trouble with this doctrine lies in this: the mechanism of the acquisition of interests is reduced to a simple mechanism of dressage and training, at the base of which lies the simple inertia of force, the mechanical action of habitual repetition. In this way, this theory becomes caught up in a series of inner contradictions, on the one hand attempting to understand the emergence of new strivings in the process of development and, on the other hand, attempting to disperse these new strivings in a general tendency toward repetition and to reduce them to the common denominator of the formation of new skills.

From this we get the mechanistic notion that newly acquired interests are no different from congenital or instinctive drives. English,⁴ for example, claims that “dispositions reworked by habit deliver us the same authentic strivings as instinctive ones do.” With this statement, the theory under consideration comes around to denying, in essence, its own basic proposition by refusing to distinguish between instinctive striving and acquired dispositions.

The opposed point of view is defended by psychologists who do not hold it possible to identify interest or striving with any action mechanism. Thus McDougall⁵ on the basis of his own research draws the conclusion that at the foundation of every striving, every interest, in essence lies some congenital innate drive which only finds its manifestation in a skill and which is serviced by this or that behavioral mechanism.

⁴ G. English was an associative psychologist in the USA. He was particularly interested in the techniques Dickens used to associate his characters' names with certain characteristics (English, 1916: 417). It is interesting that his own name suggests this characteristic interest of his.

⁵ William McDougall (1871–1938) was a student of Charles Sherrington and G. E. Müller and a teacher of Cyril Burt. He was also a patient of C. G. Jung, who shared his views on “group minds” and “racial memory”. McDougall was an innatist and an anti-behaviorist: as Vygotsky says, he believed that drives are almost all inborn and that learned drives are then inheritable; i.e. he was anti-Darwinian and Lamarckian. Accordingly, he was a racist: he argued that the “group mind” of black people was incapable of producing any important leaders or giving rise to a nation.

“Skills,” says this author, “do not have any specific, intrinsic striving; they define how we ought to carry out our tasks, but they do not constitute the driving force of the process and they do not sustain it.”

The skill itself, as Dougall (sic—Trans.)⁶ has pointed out with a simple experimental example, does not contain in itself the interest, but always constitutes a subordinate moment in the deployment of the psychological process, a moment that should be strictly distinguished from driving force, from the inducing motive that is operating and maintaining the entire course of a given operation.

Imagine that we are reciting the alphabet, starting with the first letter and ending with the last, and that we suddenly interrupt this exercise in the middle. Naturally, there arises a striving to continue this unfinished or interrupted action. We can easily create the impression that the skill in itself gives rise to this striving, that in it there is already laid out, so to speak, an interest in saying the whole series of letters to the very end. In fact, that this is not so is not difficult to confirm: the interest which we feel in the form of a striving, wherever our exercise is interrupted, is in fact rooted in the goal for which the business was undertaken in the first place.⁷

It is easy to confirm this if we imagine pronouncing the whole alphabet again right up to the same letter on which the task was interrupted, but this time we set

⁶ The authorial version—that is, the correspondence course—uses “Dougall” as the family name and “Mack” as a given name (“Mack Dougall”). But the *Collected Works* version corrects this to McDougall.

⁷ It is easy to see why McDougall believes this is a good experiment. McDougall wants to show that interests are quite independent of the mechanisms of behavior. That way, he can argue that interests are innate, but mechanisms of behavior are not.

But why does Vygotsky think this is a good experiment? There is nothing free or creative about it: the subject does what the experimenter commands, because the experimenter commands it. Nothing seems further from the kind of creative, free-willed interest that helps the adolescent choose a profession or a partner. Here are three good reasons: a negative reason, a more general methodological reason, and a theoretical reason.

Negatively, Vygotsky is not trying to prove that McDougall is right; he is only trying to show that Thorndike is wrong. Interests are not intrinsic to skills; McDougall’s experiment is enough to show that.

Methodologically, Vygotsky argues (in the “History of the Development of the Higher Psychological Functions,” Chapter 2) that the strength of any experiment is precisely in its ability to abstract away certain conditions, just as the strength of a scientific concept is in its ability to rise above concrete conditions.

Of course, this is also the source of the weakness of any experiment, its lack of rich context and concrete circumstances—again, just like a scientific concept. But as with the “selection experiment” (1997, pp. 73–82), we can enrich the results of the experiment with data from clinic and classroom.

Finally, in his theory, Vygotsky certainly does believe that we can separate the motivation of behavior from the mechanism of behavior: without this, it would be very difficult to ask students to study abstract knowledge in classrooms for years without any practical applications. Without this, mediated behavior in general would not be possible. McDougall’s experiment does provide evidence in support.

Vygotsky (1930/1997). “The History of the Development of the Higher Psychological Functions,” In L.S. Vygotsky, (1997). *Collected Works Volume Four*. New York and London: Plenum.