

Activity, Consciousness, and Personality*

Foreword

The methodological crisis that world psychology has been trying to solve for the last 100 years destroyed the unified system of psychological knowledge. Psychologists split into several schools and directions, and their representatives argue among themselves about the subject of their science. Considering ways to resolve the crisis, A.N. Leont'ev, Active Member of the Academy of Pedagogical Sciences of the USSR and Lenin Prize Laureate, in his new book demonstrates the primacy of Marxist methodology in the resolution of fundamental problems of contemporary psychology.

The book is intended for philosophers, psychologists, and teachers, and for all who are interested in the theoretical questions of the science that concerns the origin, function, and structure of the psychological reflection of reality.

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Introduction

This small theoretical book was long in preparation, and even now I cannot consider it finished – quite a bit in it is still only noted and not explicated. Why did I decide to publish it in spite of this? I will admit at once that it was not from a love for theorizing.

Attempts to investigate methodological problems of psychology always evoke the constant need for theoretical reference points without which concrete investigation is doomed to remain shortsighted.

It is almost a hundred years since world psychology has been developing under conditions of crisis in its methodology. Having split in this time into humanistic and natural science, descriptive and explanatory, the system of psychological knowledge discloses ever new crevices into which it seems the very subject of psychology disappears. The subject is sometimes also reduced under the guise of the necessity of developing interdisciplinary research. Sometimes there even are voices heard openly inviting “Varangians” into psychology: “Come and rule over us.” The paradox consists in this that in spite of the theoretical difficulties, in the whole world there is now an exceptional impetus toward the development of psychological research under direct pressure of the requirements of life itself. As a result the contradiction between the mass of factual material that psychology has scrupulously accumulated in excellently equipped laboratories and the pitiful condition of its theoretical and methodological bases has become even sharper. Negligence and skepticism in relation to the general theory of the psyche, and the spreading of factologism and scientism characteristic for contemporary American psychology (and not only for it) have become a barrier blocking the road to investigating the principal psychological problems.

It is not difficult to see the connection between this development and the disillusionment resulting from unfounded claims of the major Western European and American trends that they would effect a long-awaited theoretical revolution in psychology. When behaviorism came into being, they spoke of it as a match about to light and set off a keg of dynamite; after that it seemed that not behaviorism but Gestalt psychology discovered a general principle capable of leading psychological science out of the blind alley into which it was led by rudimentary, “atomistic” analysis; finally, very many had their heads turned by Freudism, as if in subconsciousness he had found a fulcrum that would make it possible to turn psychology right side up and make it really alive. Other bourgeois psychological directions were admittedly less pretentious, but the same fate awaited them; they all found themselves in the general eclectic soup that is now being cooked by psychologists – each according to his own recipe – who have reputations of “broadmindedness.”

The development of Soviet psychological science, on the other hand, took an entirely different path.

Soviet scientists countered methodological pluralism with a unified Marxist-Leninist methodology that allowed a penetration into the real nature of the psyche, the consciousness of man. A persistent search for resolutions of the principal theoretical problems of psychology on the basis of Marxism began. Simultaneously, work continued on the critical interpretation based on positive achievements of foreign psychologists, and specific investigations of a wide range of problems began. New approaches were worked out, as was a new conceptual apparatus that made it possible to bring Soviet psychology to a scientific level very rapidly, a level incomparably higher than the level of that psychology that was given official recognition in pre

revolutionary Russia. New names appeared in psychology: Blonskii and Kornilova, then Vygotskii, Uznadze, Rubinshtein, and others.

The main point was that this was the way of continuous purposeful battle – a battle for the creative mastery of Marxism-Leninism, a battle against idealistic and mechanistic biologizing concepts in one guise or another. While developing these concepts, it was necessary also to avoid scientific isolationism as much as withstand being identified as a psychological school existing side-by-side with other schools. We all understood that Marxist psychology is not just a different direction or school but a new historical stage presenting in itself the beginnings of an authentically scientific, consistently materialistic psychology. We also understood something else, and that is that in the modern world psychology fulfills an ideological function and serves class interests; it is impossible not to reckon with this.

Methodological and ideological questions remained in the center of attention of Soviet psychology, particularly in the initial period of its development, which was marked by the publication of such books, fundamental in their ideas, as L. S. Vygotskii's *Thinking and Speech* and S. L. Rubinshtein's *Fundamentals of General Psychology*. It is necessary, however, to acknowledge that in the following years the attention of psychological science to methodological problems weakened somewhat. This, of course, does not mean in any way that theoretical questions became of less concern, or that less was written about them. I have something else in mind: the acknowledged carelessness in methodology of many concrete psychological investigations, including those in applied psychology.

This phenomenon may be explained by a series of circumstances. One was that there gradually came about a breakdown in internal connections between the working out of philosophical problems of psychology and the actual methodology of those conducting investigations. About the philosophical questions of psychology (and about the philosophical criticism of foreign, non-Marxist tendencies) not a few voluminous books were written, but questions pertaining to concrete means of investigating broad psychological problems have hardly been touched in them. They almost leave an impression of dichotomy: On the one hand there is the sphere of philosophical, psychological problematics, and on the other, the sphere of specific psychological, methodological questions arising in the course of concrete investigation. Of course the working out of strictly philosophical problems in one area or another of scientific knowledge is indispensable. Here, however, we are concerned with something else: with the working out on a Marxist philosophical basis of the special problems of the methodology of psychology as a concrete science. This requires penetration into the "internal economics," so to speak, of theoretical thought.

I will explain my idea using an example from one of the more difficult problems which has confronted psychological investigation for a long time, that is, the problem of the connection between psychological processes and physiological processes in the brain. It is scarcely necessary to convince psychologists now that the psyche is a function of the brain and that psychic phenomena and processes must be studied in conjunction with physiological processes. But what does it mean to study them in conjunction? For concrete psychological investigation this question is extremely complex. The fact is that no direct correlation between psychic and physiological brain processes has solved the problem. Theoretical alternatives that arise with such direct approach are well known: It is either a hypothesis of parallelism, a fatal picture leading to an understanding of the psyche as an epiphenomenon; or it is a position of naive physiological determinism with a resultant reduction of psychology to physiology; or finally, it is a dualistic hypothesis of psycho-physiological interaction which allows the nonmaterial psyche to affect material processes occurring in the brain. For

metaphysical thinking there is simply no other solution; only the terminology covering all these alternatives changes.

In addition to this, the psycho-physiological problem has an entirely concrete and a very real meaning in the highest degree for psychology because the psychologist must constantly keep in mind the work of morphophysiological mechanisms. He must not, for instance, make judgments about the processes of perception without considering the data of morphology and physiology. The form of perception as a psychological reality is, however, something altogether different from the brain processes and their constellations of which it appears to be a function. It is apparent that we have here a matter with various forms of movement, and this necessarily presents a further problem about those underlying transitions that connect these forms of movement. Although this problem appears to be more than anything a methodological problem, its resolution requires analysis penetrating, as I have said, into the results accumulated by concrete investigations at psychological and physiological levels.

On the other hand, in the sphere of special psychological problematics, attention has been focused more and more on the careful working out of separate problems, on increasing the technical arsenal of the experimental laboratory, on refining the statistical apparatus, and on using the formal languages. Without this, of course, progress in psychology would now be simply impossible. But it is evident that something is still lacking. It is imperative that specific questions should not override general questions, that methods of research should not conceal methodology.

The fact is that a psychologist-research worker involved in the study of specific questions inevitably continues to be confronted by fundamental methodological problems of psychological science. They appear before him, however, in a cryptic form so that the resolution of specific questions seems not to be dependent on them and requires only the proliferation and refinement of empirical data. An illusion of “demythologizing” of the sphere of concrete research results, which increases even more the impression of a breaking up of the internal connections between fundamental theoretical Marxist bases for psychological science and its accumulation of facts. As a result, a peculiar vacuum is formed in the system of psychological concepts into which concepts generated by views that are essentially foreign to Marxism are spontaneously drawn.

Theoretical and methodological carelessness also appears sometimes in the approach to solving certain purely applied psychological problems. Most often it appears in attempts to use methods that have no scientific basis uncritically for pragmatic purposes. Making attempts of this kind, investigators frequently speculate on the necessity of linking psychology more closely with actual problems that are disclosed by the contemporary level of development of society and the scientific-technical revolution. The most flagrant expression of such attempts is the practice of mindless use of psychological tests, most often imported from the United States. I am speaking here about this only because the growing practice of testing exposes one of the “mechanisms” that generate empty methodological directions in psychology.

Tests, as is known, are short questionnaires, the purpose of which is a disclosure (and sometimes measurement) of one or another preliminarily scientifically determined property or process. When, for example, the reaction of litmus to acid became known, then the “litmus paper” tests appeared – a change in color served as a simple indicator of acidity or alkalinity of a liquid that touched the paper; the study of specific properties of the color change led to the formation of the well-known Stilling tables, which, according to the difference of the figures shown on them, make it possible with sufficient precision to make judgments about the presence or absence of a color anomaly or its character. Tests of this nature are widely used in the most varied areas

of knowledge and may be called “well founded” in the sense that they are supported by cogent concepts of the interdependences that connect the results of the testing with the properties being tested, the conditions, or the processes. Tests are not emancipated from science and are no substitute for more thorough research.

Those tests that serve to circumvent the difficulties of acquiring truly scientific psychological knowledge have a fundamentally different character. A typical example of such tests are the tests of mental development. They are based on the following procedure: First, the existence of any kind of “psychological phlogiston,” so-called intellectual endowment, is denied; next, a series of questions- problems is devised from which are selected those that have the greatest differentiating capability, and from these a “test battery” is made up; finally, on the basis of statistical analysis of the results of a large number of trials, the number of properly solved problems included in such a battery is correlated with age, race, or social class of the persons being tested. An empirically determined fixed percentage of solutions is used as a unit, and a deviation from this unit is recorded as a fraction that expresses the “intelligence quotient” of the given individual or group.

The weakness in the methodology of such tests is obvious. The only criterion for the test problems is item validity, that is, the degree of correlation between the results of the problems being solved and one or another indirect expression of the psychological properties being tested. This brought into being a special psychological discipline, the so-called testology. It is not difficult to see that behind such a transformation of methodology into an independent discipline lurks nothing but a substitution of flagrant pragmatism for theoretical investigation.

Am I saying here that we must forgo psychological testing? No, not necessarily. I have given an example of a long since discredited test for giftedness in order to emphasize once again the need for a serious theoretical analysis even in deciding such questions, which at first glance seem narrowly methodical.

I have given consideration to those difficulties that scientific psychology is experiencing, and I have said nothing about its unquestionable and very substantial achievements. But it is particularly the recognition of these difficulties that makes up, so to speak, the critical content of this book. It is not, however, the only foundation on which the positions developed in it are based. I have also supported my positions in many cases with positive results of concrete psychological investigations, my own as well as those of other scientists. The results of these investigations I have constantly had in view even if they are mentioned directly only rarely and as passing illustrations; in most cases they were left quite outside the limits of this work. This is explained by the necessity of avoiding long digressions in order to bring out the author's general conceptions more graphically and obviously.

For this reason this book does not pretend to be a review of scientific literature covering the questions broached. Many important works that are known to the reader are not cited in it, although they are alluded to. Since this may leave an erroneous impression, I must stress that even if these psychological works are not named, it is by no means because they do not, in my opinion, deserve mention. The situation is the same for philosophical-historical sources: Without difficulty the reader will detect theoretical judgments supported cryptically by analysis of some unnamed categories of pre-Marxist classical philosophy. All of these are but losses, which can be made up only in a new, large book written in a completely different way. Unfortunately at this time I have no opportunity to do this.

Almost every theoretical work can be read in different ways, sometimes completely differently from the way it appears to the author. For this reason I want to take this opportunity to say what, in my view, is most important in the pages of this book. I

think that the most important thing in this book is the attempt to comprehend psychologically the categories that are most important for constructing an indisputable psychological system as a concrete science of the origin, function, and structure of the psychological reflection of reality that the life of the individual mediates. These are the category of subjective activity, the category of consciousness of man, and the category of personality. The first of these is not only primary but also most important. In Soviet psychology this position is expressed consistently but is demonstrated in essentially different ways. The central point, forming something of a watershed between the various comprehensions of the position of the category of activity, consists in this: Should subjective activity be considered only as a condition of psychic reflection and its expression, or should it be considered as a process containing in itself those internal, impelling contradictions, dichotomies, and transformations that give birth to the psyche, which is the indispensable moment of its own movement of activity, its development. If the first of these positions evoked an investigation of activity in its basic form – in the form of practice – beyond the limits of psychology, then the second position proposes that activity, independent of its form, enters into the subjective psychological science, although it is understood in a completely different way from the way it is understood when it enters into the subject matter of other sciences. In other words, psychological analysis of activity consists, from the point of view of the second position, not in isolating from it its internal, psychological elements for further isolated study but in bringing into psychology such units of analysis as carry in themselves psychological reflection in its inseparability from the moments that give rise to it and mediate it in human activity. This position that I am defending requires, however, a reconstruction of the whole conceptual apparatus of psychology, which in this book is only noted and, to a large degree, is a matter for the future. Even more difficult in psychology is the category of consciousness. The whole study of consciousness as a higher, specifically human form of psyche arising in the process of social interaction and presupposing the functioning of language constitutes the most important requisite for the psychology of man. The problem therefore of psychological investigation lies in not being limited by the study of phenomena and processes at the surface of consciousness but in penetrating into its internal structure. For this consciousness must be considered not as a field contemplated by the subject on which his images and conceptions are projected but as a specific internal movement generated by the movement of man's activity. The difficulty here is confronted even in isolating the category of consciousness as a psychological category, that is, in understanding those real transitions that interconnect the psyches of the specific individuals and the forms of social consciousness. This, however, cannot be done without preliminary analysis of these "formers" of individual consciousness, the movement of which characterizes its internal structure. A special chapter of this book is dedicated to an account of an experiment of such analysis, the basis of which is analysis of movement of activity. It is not up to me, of course, to judge whether or not this experiment was successful. I want only to turn the reader's attention to the fact that the psychological "secret of consciousness" remains a secret to any method, except the method revealed by Marx, which makes it possible to demonstrate the nature of supersensitive properties of social objects of which man, as an object of consciousness, is one. The view that I have developed, which holds that personality is a subject of strictly psychological study, will probably evoke great reaction. I think this because my views are definitely not in agreement with those of metaphysical, cultural, and anthropological concepts of personality (based on the theory of its dual determination, biological heredity, and social environment) that now flood world psychology. This incompatibility is particularly evident in reviewing the question of the nature of the so-called internal springs of personality and the question of the connection between the personality of man and his somatic characteristics.

Widespread is the view of the needs and appetites of man that the needs and appetites themselves determine the activity of the personality, its tendencies; correspondingly, the principal task of psychology is the study of which needs are natural to man and which experiences (appetites, wishes, feelings) they evoke. The second view, as distinct from the first, is to understand how the development of human activity itself, its motives and means, transforms man's needs and gives rise to new needs so that the hierarchy of the needs changes to the extent that the satisfaction of some of them is reduced to the status only of conditions necessary for man's activity and his existence as a personality. It must be said that the defenders of the first anthropological or, better said, naturalistic point of view bring forth many arguments, among them those that can metaphorically be called arguments "from the gut." Of course, filling the stomach with food is an indispensable condition for any subjective activity, but the psychological problem is composed of something else: What will that activity be? how will its development proceed? And, in conjunction with this there is the problem of the transformation of the needs themselves.

If I have isolated the given question here, it is because in this question opposite views confront each other in the perspective of the study of personality. One of them leads to the construction of a psychology of the personality based on the primacy, in the broad sense of the word, of needs (in the language of behaviorists, "reinforcement"); the other, toward the structure of a psychology of the primacy of activity in which man confirms his human personality.

The second question – the question of the personality of man and his physical characteristics – becomes acute in connection with the position that a psychological theory of personality cannot be constructed principally on the basis of the difference in man's constitution. In the theory of personality, how is it possible to get along without the usual references to Sheldon's constitution, Eising's factors, and finally Pavlov's types of higher nervous activity? This question also arises from the methodological misunderstandings that in many instances stem from the ambiguity of the concept of "personality." This ambiguity, however, disappears if we adopt the well-known Marxist position that personality is a particular quality that a natural individual commands in a system of social relations. The problem then inevitably changes: Anthropological properties of the individual appear not as determining personality, or as entering into its structure, but as genetically assigned conditions of formation of personality and, in addition, as that which determines not its psychological traits but only the form and means of their expression. For example, aggressiveness as a trait of personality will, of course, be manifested in a choleric in a different way from the way it is manifested in a phlegmatic, but to explain aggressiveness as a property of temperament is as scientifically absurd as to look for an explanation of wars in the instinct for pugnacity that is natural to people. Thus, the problem of temperament, properties of the nervous system, etc., is not "banished" from the theory of personality but appears in a different, nontraditional way as a question of use, if it can be so expressed by the personality of inborn, individual traits and capabilities. And this is a very important problem for concrete characterology which, like a number of other problems, has not been considered in this book.

Slips that occurred in this preface (and they might have been more numerous) are due to the fact that the author saw his problem not so much as a confirmation of one or another concrete psychological position as a search for a method of extracting them as they flow out of the historical-materialistic study of the nature of man, his activity, consciousness, and personality.

In conclusion, I must say a few words about the composition of the book. The thoughts contained in it were already expressed in earlier publications of the author, a list of

which is given in notes to the chapters. Here they are presented systematically for the first time.

In its composition the book is divided into three parts. The first part contains Chapters 1 and 2, which analyze the concept of reflection and the total contribution that Marxism has made to scientific psychology. These chapters serve as an introduction to the book's central part in which the problems of activity, consciousness, and personality are considered. The last part of the book has a completely different place: It does not seem to be a continuation of the foregoing chapters but is one of the earlier works of the author on the psychology of consciousness. Since the publication of the first edition, which has now become rare, more than 20 years have passed, and much in it has become outdated. It contains, however, certain psychological – pedagogical aspects of the problem of consciousness which are not touched on at all in other parts of this book, although these aspects remain even now close to the heart of the author. This inspired their inclusion in the book.

1.1. The General Bases of Marxist Psychology

The teachings of Karl Marx caused a revolution in social sciences: in philosophy, in political economy, in the theory of socialism. As is known, psychology remained isolated from the influence of Marxism for many years. Marxism was not admitted into the official centers of scientific psychology, and the name of Karl Marx remained almost unmentioned in the works of psychologists for more than 50 years after the publication of his basic work.

Only at the beginning of the 1920s did scientists of our country recognize for the first time the need to consciously structure psychology on the basis of Marxism. Thus it was that Soviet scientists discovered Marx for world psychological science.

Originally the task of creating Marxist psychology was understood as a task of criticizing ideological, philosophic views entertained in psychology and introducing into it certain positions of Marxist dialectics. Characteristic in this respect was the title of a new textbook of psychology by K. N. Kornilov published in 1926. It was called, *A Textbook of Psychology from the Point of View of Dialectic Materialism*. In it, as in other works of this period, many ideas and understandings of Marxism and Leninism basic for psychology, including the concept of reflection, were still undiscovered, although Kornilov and other authors of that time stressed their position on the social nature of man's psychology; it was, however, usually interpreted in the spirit of naive representations about biosocial conditioning of human behavior.

Only after the work of L. S. Vygotskii, and somewhat later, S. L. Rubinshtein, did the meaning of Marxism become more fully understood.

The historical approach to human psychology, a concrete psychological science of consciousness as a higher form of the reflection of reality, and the study of activity and its structure were developed. The process of gradually reviewing the significance of the classics of Marxism created a broad theory that disclosed the nature and general laws of psychology and consciousness, and that the contribution of Marxism to psychological science will not suffer in significance in comparison with the very greatest theoretical discoveries during the pre-Marxist period of its development as well as since Marx.

This was realized as a result of major theoretical work of many psychologists-Marxists, including those of other countries. But even now it must not be said that psychology has exhausted the treasure chest of Marxist-Leninist ideas. For this reason we turn again and again to the works of Karl Marx, which resolve even the most profound and complex theoretical problems of psychological science.

In the theory of Marxism the teaching about human activity, about its development and its forms, has decisively important significance for psychology.

As is known, Marx begins his remarkable theses on Feuerbach with the indication of the "chief defect of all hitherto existing materialism." He believes that reality was taken by Feuerbach only in the form of an object, in the form of contemplation, and not as a human activity, not subjectively.

Speaking of the contemplation of old materialism, Marx had in mind the fact that cognition was considered then only as the result of the effect of objects on the recognizing subject, on his sense organs, and not as a product of the development of his activity in an objective world. Thus, the old materialism isolated cognition from sensory activity, from the living, practical ties of man – with the world that surrounded him.

Introducing the concept of activity into the theory of cognition, Marx gave it a strictly materialistic sense: For Marx, activity in its primary and basic form was sensory, practical activity in which people enter into a practical contact with objects of the surrounding world, test their resistance, and act on them, acknowledging their objective properties. This is the radical difference of Marxist teaching about activity as distinguished from the idealistic teaching that recognizes activity only in its abstract, speculative form.

A profound revolution brought about by Marx in the theory of cognition is the idea that human practice is the basis for human cognition; practice is that process in the course of whose development cognitive problems arise, human perceptions and thought originate and develop, and which at the same time contains in itself criteria of the adequacy and truth of knowledge: Marx says that man must prove truth, activity and power, and the universality of his thought in practice.

In light of these well-known theses of Marx, it must be particularly emphasized that not one of them can be taken in isolation, apart from Marxist teaching as a whole. This refers especially to the position on the role of [practice](#) – a position that certain contemporary perverters of Marxism try to treat as if it expressed and provided a basis for the pragmatic point of view.

In reality the philosophic discovery of Marx consists not in identifying practice with cognition but in recognizing that cognition does not exist outside the life process that in its very nature is a material, practical process. The reflection of reality arises and develops in the process of the development of real ties of cognitive people with the human world surrounding them; it is defined by these ties and, in its turn, has an effect on their development.

“The prerequisites with which we begin,” we read in [German Ideology](#), “are not arbitrary, they are not dogmas; they are genuine prerequisites from which we can escape only in imagination. They are the actual individuals, their activity and the material conditions of their lives. ...” These prerequisites also make up three indispensable features, three links, dialectical ties that form a single, self-developing system.

Even the bodily organization of individuals incorporates the need that they participate in an active relationship with the external world; in order to exist they must act, produce the necessary means of life. Acting on the external world, they change it; at the same time they also change themselves. This is because what they themselves represent is determined by their activity, conditioned by the already attained level of development, by its means and the form of its organization.

Only in the course of the development of these relations does psychological reflection of reality by people also develop. “People, developing their material production and their own material contacts, change their own activity and their own thinking and the products of their own thoughts at the same time.” In other words, thought and consciousness are determined by real life, the life of people, and exist only as their consciousness as a product of the development of the system of objective relationships indicated. In its own self development this system forms various infrastructures, relations, and processes that may become the objects of study of separate sciences. The Marxist approach, however, requires that these be observed within a general system and not isolated from it. This requirement, it is understood, refers also to the psychological study of people and to psychological science.

The old metaphysical psychology knew only abstract individuals being subjected to the action of an environment that resisted them, who on their part exhibited characteristic psychic capabilities: perception, thought, will, feelings. Indifferently the

individual under these circumstances was thought of as some kind of reactive machine (if even a very complexly programmed machine), or he was ascribed innately developed spiritual strength. Like St. Sancho, who naively believed that with a blow of steel we will chop out fire that is hidden in rock and who was derided by Marx, the psychologist-metaphysician thinks that the psyche can be extracted from the subject himself, from his head. Like Sancho, he does not suspect that the fiery sparks are cast off not by the rock but by the steel, and what is most important, that the whole point is that in the white heat the sparks are the interaction of the rock and the steel. The psychologist- metaphysician also drops the main link: the processes that mediate the ties of the subject with the real world, the only processes in which their psychic reflection of reality takes place, the transition of the material into the ideal. And these are the very processes of the activity of the subject that always are external and practical first and then assume the form of internal activity, the activity of consciousness.

The analysis of activity also comprises the decisive point and principal method of scientific cognition of psychic reflection, consciousness. In the study of the forms of social consciousness it is the analysis of social life, characteristic means of production, and systems of social relationships; in the study of the individual psyche it is the analysis of the activity of individuals in given social conditions and concrete circumstances that are the lot of each of them.

1.2. The Theory of Consciousness

Karl Marx laid the foundation for a concrete psychological theory of consciousness that opened completely new perspectives for psychological science. Although the former subjective-empirical psychology readily called itself a science of consciousness, actually it was never that. The phenomena of consciousness were studied in either a plan that was purely descriptive, with epiphenomenology and parallel positions, or a plan that completely excluded scientific psychological knowledge, as was required by the most radical representatives of the so-called subjective psychology. The coherent system of psychological knowledge, however, cannot be constructed outside the concrete, scientific theory of consciousness. This is especially borne out by the theoretical crises that constantly arise in psychology in proportion to the accumulation of concrete psychological information, the volume of which increased rapidly beginning with the second half of the last century.

The central secret of the human psyche, which the scientific psychological investigation stopped short of, already comprised the existence of internal psychological phenomena, the very fact of presentability to the subject of a picture of the world. This psychological secret could not have been discovered in pre-Marxist psychology; it remains undiscovered even in contemporary psychology developing outside Marxism.

Consciousness invariably appeared in psychology as something extraneous to the principal concern, only as a condition for the taking place of psychological processes. Particularly such was the position of Wundt. Consciousness, he wrote, is whatever kind of psychic condition we find in ourselves, and for this reason we cannot experience the essence of consciousness. "All attempts to define consciousness... lead only to tautology or to defining activities which take place in consciousness, which for this reason are not really consciousness since consciousness is a prerequisite for them." The same idea is even more clearly expressed by Natorp: Consciousness does not have its own structure; it is only a condition of psychology, not its subject. Although its existence is a basic and fully credible psychological fact, it cannot be defined, and is inferred only from itself.

Consciousness is nonqualitative because it is in itself a quality – the quality of psychic phenomena and processes; this quality is expressed in their “presentability” (*predstavlenost*) to the subject (*Stout*). This quality cannot be discovered; it can only be or not be.

The idea of the nonessential nature of consciousness is included also in the well-known comparison of consciousness to a stage on which the events of a mental life are played out. A stage is necessary for these events to take place, but the stage itself does not participate in them.

Thus consciousness is somewhat extraneous to psychology, psychologically non-qualitative. Although this idea is not always expressed directly, it is always understood. It is not contradicted by a single experiment in the past, which attempted a psychological description of consciousness that was most directly expressed by Ladd: Consciousness is that which can shrink or grow, which is partially lost in sleep, and completely lost in fainting.

It is a unique “luminescence,” a shifting light reflection, or better yet, a projector, the beam of which illuminates the external or internal field. Its shifting over this field is expressed in the phenomena of attention through which alone consciousness gets its psychological character, but still it is only quantitative and spatial. “The field of consciousness” (or “the field of attention,” which is the same thing) may be narrower and more concentrated or wider and dispersed; it may be more or less stable, fluctuating, but granted all this, the description of the “field of consciousness” itself remains non-qualitative, non-structured. Accordingly, the “laws of consciousness” that had been worked out had a purely formal character; the same can be said of the laws of the relative clarity of consciousness, continuity of consciousness, and stream of consciousness.

To the laws of consciousness are sometimes also referred such laws as the law of association or the laws of wholeness and of pregnance, and so forth, developed by Gestalt psychology. These laws, however, refer to phenomena in consciousness, and not to consciousness as a separate form of the psyche, and therefore they are just as applicable to its “field” as to the phenomena that occur outside this “field” – at the human level as well as at the animal level.

The theory of consciousness leading to the French sociological school (Durkheim, De Roberti, Halbwax, et al.) holds a somewhat different position. As is known, the main idea of this school refers to the psychological problem of consciousness and holds that individual consciousness is the result of the action on man of the consciousness of society under the influence of which his psyche becomes socialized and intellectualized; this socialization and intellectualization of the psyche of man is his consciousness. But even in this conception the psychological non-qualitativeness of consciousness is still retained; only now consciousness presents itself as some kind of plane on which ideas and concepts are projected, which constitute the content of social consciousness. Thus consciousness is identified with knowledge: Consciousness is a “knowing with,” a product of contact between one consciousness and another.

Other attempts to describe consciousness psychologically consisted of representing it as a condition of unifying internal psychic life.

A unification of psychic functions, capabilities, and properties is also consciousness; for this reason, wrote Lipps, it is at one and the same time self-consciousness. More simply than anyone, James expressed this idea in a letter to K. Stumpf: Consciousness is “the general master of all psychic functions.” But precisely on the basis of James’s example it is particularly clear that this understanding of consciousness is completely absent in the teaching about its non-qualitative, indeterminable nature. It is James who

said about himself: "It is already 20 years since I have doubted the existence of a real, so-called consciousness. ... It seems to me the time has come for everybody to renounce it openly."

Neither the experimental introspection of the Würzburgians nor the phenomenology of Husserl nor existentialism was in a condition to penetrate the structure of consciousness. On the contrary, understanding its phenomenological state with its internal ideal relations as consciousness, they insist on the "depsychologizing," if that can be said, of these internal relations. The psychology of consciousness completely dissolves in phenomenology. It is interesting to note that authors who have set themselves the goal of seeing "beyond" consciousness and who are spreading teaching about the non-conscious sphere of the psyche preserve the same understanding of consciousness as a "messenger of the organization of psychic processes" (Freud). Like other representatives of depth psychology, Freud brings the problem of consciousness out of the sphere of psychology proper. Of course the principal instance representing consciousness, "superego," is essentially metapsychic.

Metaphysical positions on consciousness could not bring psychology to any other kind of understanding of consciousness. Although the idea of development penetrated even pre-Marxist psychological thought, particularly during the post-Spencerian period, it was not widely used for the solution of problems about the nature of the human psyche so that the psyche continued to be considered as something preexisting and only "being filled" with new content. These were the metaphysical positions that were also destroyed by the dialectical-materialistic view, which opened completely new perspectives before the psychology of consciousness.

The basic position of Marxism on consciousness is that it represents a quality of a special form of the psyche. Although consciousness also has its own history in the evolution of the animal world, it first appears in man in the process of the organization of work and social relations. Consciousness from the very beginning is a social product.

The Marxist position on the indispensability and the real function of consciousness completely excludes the possibility in psychology of considering the phenomena of consciousness only as epiphenomena accompanying brain processes and the activity that they realize. In addition, psychology cannot simply postulate the activity of consciousness. The task of psychological science consists in explaining scientifically the actual role of consciousness; this is possible only under the conditions of a radical change in the very approach to the problem, and more than anything, under conditions that reject the limited anthropological view of consciousness that looks for its explanation in processes taking place within the head of the individual under the influence of stimuli acting on him, views that inevitably return psychology to the parallelistic position.

The real explanation of consciousness lies not in those processes but in social conditions and modes of that activity which makes up its indispensability – in work activity. This activity is characterized by the fact that its materialization, its "extinction," according to Marx's expression, results in a product.

Marx writes in *Capital*, "That which appeared on the part of the worker in the form of activity (*Unruhe*), now appears on the part of the product in the form of a resting property (*ruhende Eigenschaft*), in the form of existence." "During the process of work," we read further, "work constantly changes from the form of activity to the form of existence, from the form of movement to the form of material."

In this process there also takes place an objectification of those ideas that evoke, direct, and regulate the activity of the subject. As a result of this activity they find a new form

of existence as external objects perceived by the senses. Now in their external, exteriorized, or exoteric form the products themselves are objects of reflections. Also correlating with initial ideas is the process of their perception by the subject – a process that results in their own reduplication, their own theoretical existence in his head.

Such a description of the process of perception appears to be incomplete, however. In order for this process to take place, the object must appear before a man precisely as registering the psychic content of activity, that is, its theoretical side. Isolated activity, however, cannot be understood apart from social ties or from the contacts that inevitably bind those participating in work. Entering into contact with each other, people also formulate a language that serves to represent the objects, the means, and the very process of work itself. The acts of signifying are in essence nothing but acts of isolating the theoretical side of objects, and the acquisition by individuals of language is the acquisition of their signification in the form of perception. “Language,” note Marx and Engels, “is practical, existing for other people as well as for me alone, a real consciousness. ...”

This position, however, can by no means be interpreted as meaning that consciousness has its origin in language. Language is not its demiurge, but a form of its existence. Moreover, words, the language signs, are not simply replacements for things, their conditional substitutes. Behind philological meanings is hidden social practice, activity transformed and crystallized in them; only in the process of this activity is objective reality revealed to man.

Of course, the development of consciousness in every individual does not repeat the social-historical process of the formation of consciousness. Neither does a conscious reflection of the world spring up in the individual as a result of a direct projection on his brain of the ideas and concepts worked out by preceding generations. His consciousness too is a product of his activity in an object world. In this activity, mediated by contact with other people, is realized the process of the individual’s acquisition (*Aneignung*) of the spiritual riches accumulated by the human race (*Menschengattung*) and embodied in an objective, sensible form. Thus, the objective existence of human activity itself (Marx says industry, explaining that up to this time work – that is, industry – was the whole of human activity) appears as “human psychology appearing sensually before us ”

Thus, this discovery of Marx, radical for psychological theory, consists in the idea that consciousness is not a manifestation of some kind of mystical capability of the human brain to generate a “light of consciousness” under the influence of things impinging on it – stimuli - but a product of those special – that is, social – relations into which people enter and which are realized only by means of their brains, their organs of feeling, and their organs of action. The processes evoked by these relations also lead to the acceptance of objects in the form of their subjective images in the head of man, in the form of consciousness.

In addition to this theory of consciousness, Marx also developed the bases for the scientific history of human consciousness. The importance of this for psychological science can hardly be exaggerated.

Notwithstanding that in psychology there is much material about the historic development of thought, memory, and other psychic processes, collected mainly by historians of culture and ethnographers, the central problem, the problem of historical stages of the formation of consciousness, remained unresolved.

Marx and Engels not only formulated a general method of historical investigation of consciousness, they disclosed also those fundamental changes that human

consciousness undergoes in the course of the development of society. We are speaking here mainly about the stage of the original formation of consciousness and of language and about the stage of transformation of consciousness into a universal form of specifically human psyche when reflection in the form of consciousness encompasses the whole range of phenomena of the world surrounding man – his own activity and man himself. Of particularly great significance is the teaching of Marx about those changes in consciousness that it undergoes during the development of division of work in society, a separation of the majority of producers from the means of production, and an isolation of theoretical activity from practical activity. Engendered by the development of private property, economic alienation leads to alienation and to disintegration of human consciousness. This disintegration is expressed in the inadequacy of that sense that gives objective significance to man, to his activity, and to its products. This disintegration of consciousness is eliminated only when the attitudes toward private property that gave rise to it are eliminated with the transition from a class society to communism. Marx wrote, “Communism already considers itself as a reintegration or a return of man to himself, as an elimination of man’s alienation. ...”

These theoretical positions of Marx have a particularly real sense in our time. They orient scientific psychology in its approach to complex problems of changing the consciousness of man in a socialistic-communistic society, in resolving those concrete psychological tasks that appear now not only in the sphere of education of the younger generation but also in the area of organization of work, human contacts, and other spheres where the human personality is evident.

1.3. The Psychology of Cognitive Processes

Marxist teaching about the nature of consciousness produced a general theory of the human psyche. At the same time it found its embodiment in the theoretical resolution of such large problems as the problem of perception and thought. In each of these areas, Marx introduced ideas that are basic for scientific psychology. These ideas anticipated by many years the principal direction of their development in the area of the psychological study of perception and thought activity of man.

Marxism considers perception, that is, direct sensual reflection of activity, as a degree, as well as a basic form of cognition, which reaches a high degree of perfection in the process of the historical development of man.

It is understood that the potentials of perception depend on the structure of the sense organs of man, his sensory capabilities, or, using the language of Marx’ early works, correspond to his essential powers. However, in order for a sensible, visual, or aural image of an object to appear in a man’s head, it is necessary that an active relationship be established between the man and this object. The adequacy and degree of completeness of the image also depend on processes in which this relationship is realized. This means that in order to explain scientifically the appearance and features of a subjective, sensual image, it is not enough to study the structure and work of sensory organs on the one hand, and the physical nature of the effect an object has on them on the other. It is necessary also to penetrate into the activity of the subject that mediates his ties with the objective world.

Altogether different is the maturation-sensualistic approach to perception that was entertained by pre-Marxist psychologists. This approach found its expression in the seemingly self-evident position that was formulated by psychologists-sensualists: In order that an image of an object be formed in the consciousness of man, it is sufficient to have that image before the eyes.

Knowing man from his morphophysiological properties on the one hand, and the world of things confronting him on the other, psychological investigation of perception was

confronted by unsolvable theoretical difficulties. In particular, it was impossible to explain the main point: the adequacy of a subjective image of objective reality. For this reason the psychology of perception appeared to be incapable in fact of escaping the limits of interpretation in the spirit of physiological idealism and hieroglyphism, and was forced to appeal to such ideas as capacity for structuring, for the formation of "Gestalts." Thus many facts in the area of perception were left entirely unexplained. Prominent among these is the absolutely fundamental fact that effects elicited in our organs through the action of external objects are perceived not as our own unique condition but as something that exists outside us – a fact that was opportunely used by Marx to explain one of the features of conversion in human consciousness of human relations into relations with things found outside.

Only under the pressure of ever newer facts, accumulated recently, especially, so to speak, during the "post-Gestalt" years, were the efforts of investigators directed to the study of that activity of the subject during which images of perception were formed. A great number of works appeared that investigated the genesis of structure and content of perceptive actions – tactile, visual, and, finally, aural. Thus a whole century was necessary for psychology to free itself from the approach that viewed perception as the result of a one sided action of external things on a passive, world-contemplating subject, and for the introduction of a new approach to the perceptive processes.

Of course, in the center of this new approach opposite philosophical lines continue to confront each other: lines of materialism and idealism. The first requires an understanding of the activity of perception as a process included in the living and practical ties of man with objective reality, as a process in which the material is only "translated," according to the expression of Marx, into the ideal. The second approach, the idealistic line, treats this activity of perception as if it were forming the world of things.

To what has been said we must add that data of contemporary individual experimental investigation of perceptive actions and operations do not in themselves give a theoretical solution to the problem of human perception. Their real significance may be understood only in the wider context of the study of the unity of the subject and object, of the social historical nature of the connections between man and the object world.

Although the activity of perception is an activity that is special in the sense that in its developed forms it is not directly connected with practical action of man on the object, and has as its product a subjective image of the object (that is, an ideal product), it is nevertheless an authentic objective activity submitting to its object as embodying in itself the entirety of human social custom. "The eye," says Marx, "became a human eye precisely when its object became a social, human object, made by man for man. For this reason the feelings directly in their working became theorists." And further, "The education of the five external senses – this is the work of all the history of the world that has passed to this time."

The positions cited have social man, man as a social being, and his social activity directly in view, that is, the social-historical process. But a separate individual does not exist as a man outside society. He becomes a man only as a result of the process of carrying out human activity. The activity of perception also is one of the forms in which this process takes place.

To all former empirical psychology similar ideas remained deeply alien. Only a few of the most perspicacious thinkers approached the understanding that behind perception there lies, as if rolled up, practice, and that the touching hand or eye is not lost in its object only because it has learned to do the perceptive actions and operations that have been formulated in practice. These ideas especially bring us close to an understanding of the actual nature of human perception.

Together with theoretical bases for the scientific psychology of perception, Marx also set down the bases for the scientific psychology of thought processes. Only Marxist teaching allows us to surmount the idealistic view of thought that places it above feeling, and the limits of metaphysical materialism that reduce thought to the elementary process of analysis and generalization of sensory impressions and the formation of associations between them. In opposition to this, Marxism, as is known, considers human thought as a product of social-historical development, as a special theoretical form of human activity that is nothing else but a derivative of practical activity. Even with this degree of development, when thought becomes relatively independent, practice remains its basis and a criterion for its truths.

As a function of the human brain, thought represents a natural process, but thought does not exist outside society, outside accumulated human knowledge and the methods of thought activity worked out by the human race. Thus, every separate person becomes a subject of thought if only controlling the language, understanding, and logic, which represent generalized reflections of the experience of social practice: Even those tasks that he sets for himself in thought originate in the social conditions of his life. In other words, human thought like human perception has a social-historical nature.

Marxism especially emphasizes the primordial tie of thought with practical activity. "The production of ideas," we read in *German Ideology*, "originally was directly incorporated into material activity and into material contacts of people in the language of real life. The formation of ideas, thought and spiritual contacts of people appear here still as a direct result of material relationships of people." Engels expressed this in a more general way he wrote, "A more real and closer basis for human thought appears to be the way man changes nature, and not nature alone as such. ..."

These positions have a fundamental significance not only for the theory of cognition but also for the psychology of thought. They not only destroy the naive, naturalistic, and idealistic views of thought that were entertained in the old psychology but formulate a basis for adequate consideration of the numerous scientific facts and concepts that appeared as a result of the psychological study of thought processes in the last decades.

Analysis of the psychological theory of thought originating in bourgeois philosophical views shows that they are not in a condition to give genuine scientific answers even to the most fundamental questions; the fact that these questions have not been answered slows further development of concrete research on this real problem.

Among such fundamental questions, foremost is the question of how, having sensory perceptions as its only source, thought penetrates the surface of phenomena that act on our sensory organs. Marxist teaching gives the only true solution to this problem of the origin and essence of human thought.

Work is the instrument that places man not only ahead of material objects but also ahead of their interaction, which he himself controls and reproduces. In this process man's cognition of the objects takes place, exceeding the possibilities of direct sensory reflection. If in direct action, "subject-object," the latter discloses its properties only within limits conditioned by the kind and degree of subtlety that the subject can sense, then in the process of interaction mediated by an instrument, cognition goes beyond these limits. Thus, in mechanical processing of an object made of one material with an object made of another, we carry out an unmistakable test of their relative hardness within limits completely inaccessible to our organs of skin-muscle sensitivity: On the basis of the change of form of one of the objects, we draw a conclusion about the greater hardness of the other. In this sense the instrument is the first real abstraction. Only by going further along this line can we isolate objective units, the use of which

makes cognition of a given property of objects possible with adequate precision, and, what is most important, independently of the fluctuating thresholds of sensitivity.

Initially, cognition of the properties of the object world that are beyond the limits of direct sensory cognition is the unpremeditated result of actions directed to a practical purpose, that is, actions included in work activity of people. Subsequently, it begins to adapt to special tasks, for example, the task of evaluating the suitability of the original material by means of preliminary practical testing, a simple experiment. Actions of this kind, serving conscious, cognitive goals, already represent in themselves real thinking, although it preserves the form of external processes. The recognizable results of these actions, generalized and fixed by means of language, differ essentially from the results of direct sensory reflection, which are generalized in respective sensory formations. They differ from the latter not only in that they include properties, connections, and relations inaccessible to direct sensory evaluation but also in that, transmitted in the process of verbal communication with other people, they form a system of knowledge that comprises the content of the consciousness of the collective, society. Owing to this the concepts, understanding, and ideas that are generated in separate people are formed, enriched, and subject to selection not only in the course of their individual use (unavoidably narrowly limited, and subject to chance) but also on the basis of the immeasurably wider experience that they attain in social use.

In addition, the expression in language of what is initially an external object form of cognitive activity formulates a condition that allows a subsequent carrying out of its separate processes on the plane of speech alone. Inasmuch as speech loses its communicative function here and fulfills only a function of cognition, then its pronouncing, sound facet is gradually reduced and corresponding processes take on all the more a character of internal processes carried out for themselves "in the mind." Between the initial conditions and the practical carrying out of the action, there is now an ever longer and longer chain of internal processes of thought, comparison, analysis, etc., which finally assume relative independence and the capacity to be separated from practical activity.

Such separation of thought from practical activity takes place historically, however, not through itself and not only through the force of its own logic of development, but is engendered by a division of labor that results in mental activity and practical, material activity being assigned to different people. When private ownership of means of production develops and society is differentiated into antagonistic social classes, the activity of thought is torn from physical work and contrasted with practical activity. It now seems completely independent from the latter, which has a different source and a different nature. Such representations of thought activity are also found in the idealistic theory of thought.

The separation of thought activity from practical activity and their opposition are not, however, permanent. With the destruction of private ownership of means of production and of antagonistic classes, the chasm between them will gradually disappear. In a developed communistic society the transition from one form of activity to the other will become a natural means of their existence and development. For this reason Marx noted that there is no need now for any kind of "complex focuses of reflection."

Of course, such union of thought activity and practical activity does not mean that the qualitative difference between them will disappear. Thought activity, losing certain traits that it assumed as a result of its separation from practical activity, still preserves its special features, but these features lose their mystification. They are determined mostly by the fact that in their developed form, the form of theoretical thought, thought activity continues without direct contact with objects of the material world. Theoretical thought of the individual man at the outset does not even require a subject-sense basis;

it may be represented in his head in a reflected, ideal form: as already accumulated knowledge and abstract ideas, For this reason, in distinction from thought that is objectified in the form of work activity or in an experiment and that is sharply limited because of this by real objective conditions, theoretical thought has essentially unlimited possibilities of entering into reality, including a reality quite inaccessible to our influence.

Inasmuch as abstract thinking takes place outside direct contacts with the objective world, then, because of its relation to it and the problem of practice as a basis and criterion for the truth of cognition, yet another problem arises. This concerns the fact that testing the truth of theoretical results of thought can seldom be realized immediately after these results are obtained. It may be separated from them by many decades and cannot always be direct, which makes it necessary that the experience of social practice should be a part of the thought activity itself. Such a requirement is met by the fact that thought is subordinated to a logical (and mathematical) system of laws, rules, and regulations. An analysis of their nature shows how the experience of social practice enters into the very course of the process of human thought.

In contrast to the views of the laws of logic as if they arise from the principles of the working of the mind (or as if they express immanent laws of a thinking spirit, or finally as if they are evoked by the development of the language of science itself), the Marxist view considers logical laws as representing a generalized reflection of those objective relations of activity that practical human activity produces and to which it is subject. "The practical activity of man," notes V. I. Lenin, "must have brought the consciousness of man a million times to the repetition of various logical figures in order that these figures might acquire the significance of axioms". Thus, practical activity, practice, is like a guiding thread for theoretical thought that prevents theoretical thought from losing the way leading to adequate knowledge.

Such, in the most general sense, are the basic positions of Marxist-Leninist teachings about thought; they decisively change not only the general theoretical representations about the nature of thought but also our understanding of concrete psychological problems. For this reason the view that Marxist teaching is important only for the general theory of thought and special experimental psychological investigation should somehow remain on purely empirical ground is a great mistake. The problem that confronts scientific psychology even today is that it not be limited by general dialectic, materialistic positions on the essence of human thought, but that it define those positions concretely in conformity with the actual questions involved in the study of the processes of development of man's thought activity, different forms of this activity, mutual transitions between them, and the influence on it of new social conditions and phenomena such as rapid scientific, technical progress, wider distribution, and changes of means and form of communication, etc.

At present great changes have taken place in the psychology of thought. Development of this area of psychological knowledge led to the fact that many Marxist ideas objectively found their concrete embodiment and development in it inasmuch as some psychologists, even those who are far removed in their own philosophical views from Marxism, have begun to cite Marx, but not without a certain coquetry.

In our time almost no one accepts the long-discredited positions of subjective-empirical psychology that portray thought as a movement in consciousness of concepts and ideas as if they were a product in individual human experience of sensory impressions and their generalization – movements that are directed by the laws of association and preservation. It became evident that an understanding of thought processes corresponding only to the accumulated facts is understanding them as

bringing about special types of goal-directed activities and operations adequate to cognitive tasks.

We have also left in the past those psychological theories that knew thinking simply in one form only – in the form of internal discursive thought. Contemporary genetic research has disclosed the incontestable fact of the existence of thought processes taking place also in the form of external activity with material objects. Moreover, it has been demonstrated that internal thought processes are nothing other than the result of interiorization and specification or transformation of external practical activity, and that stable forms of transition from one form to the other exist. Under conditions of highly developed thought these transitions appear particularly distinctly in 1 investigations of so-called technical thought – the thought of a worker-adjuster of complex technical apparatus, the thought of a scientific experimenter – in studies that were necessitated by the requirements of the contemporary level of technological development.

Together with these and other indisputable achievements of psychology of thought, however, many of its radical problems worked out apart from general Marxist theory have received a one-sided and, for this reason, distorted interpretation in contemporary psychology. Even the concept of activity introduced into the psychology of thought is treated by psychologists positivists in a sense very far from that with which Marx imbued the concept of objective human activity. In most of the foreign investigations, the activity of thought is presented from the point of view of its adaptive function, and not as one of the forms through which man comprehends reality and changes it. For this reason the operations that form its structure are put forward first. Actually this means nothing else but a return to an identification in thought of the logical and the psychological, and to a peculiar panlogism.

From this comes an “autonomization” of logical operation that is deeply alien to Marxist teaching about thought, which requires that thought be considered as a living, human activity having the same basic structure as does practical activity. Like practical activity, thought activity answers one need or motive or another and correspondingly calls forth the regulating effect of emotions. Just as practical activity does, thought activity consists of action subordinated to conscious purposes. Finally, like practical activity, thought is realized by some means, that is, with the help of determined conditions in the given instant – logical or mathematical. But any operations – regardless of whether they are outward-directed or inward, mental – represent in their genesis only the product of the development of corresponding actions in which are fixed, abstracted, and generalized the objective relationships characterizing objective conditions of action. They therefore have a relatively independent existence and are capable of being embodied in one material form or another – in the form of instruments, machines, multiplication tables, simple arithmetic, or complex calculator-computer apparatus. Nevertheless, they do not cease to be only a means of human activity and its objects. For this reason thought activity of man is no more reduced to a system of one kind or another of logical, mathematical, or other operations than production, for example, is reduced to the technological processes that realize it.

Ignoring these indisputable positions creates those illusionary representations of thought in which everything appears upside down: Symbolic thought operations resulting from the development of cognitive activity of man seem to give rise to his thought. These representations find their expression particularly in the ascribing to contemporary “thinking” machines (which like any other machines, in the words of Marx, are only “created by man’s hand as organs of man’s mind”) the properties of genuine thinking subjects. It seems that it is not they who serve the thinking of man, but quite the contrary, man serves them.

It is not difficult to see that ascribing to machines the intellectual capabilities of man expresses once again the same alienation of thinking from sensory activity only in a new form: Now the operations of thought in their exteriorized forms are separated from human activity and transferred to machines. But the operations in essence are only ways and means of thinking, and not thinking itself. For this reason the psychological consequences of the scientific-technological revolution that objectively gives rise to an intellectualization of human work, a uniting in it of mental and practical activity, are apparently dependent not on technological automation in itself but on that social system in which this technology will function. Under conditions of materialism, under conditions of alienation of the means of production, it will only move the line of fracture into the sphere of intellectual activity, separating the elitist the creators of automation – from those who serve this automation; under conditions of a socialistic-communistic society informing human thought, it will, on the other hand, ensure the development of a creative and intellectual character of work in all of its units and forms.

Of course, this is a completely separate problem, which requires special consideration. If I mention it here, it is only to stress once again the indivisibility of thought from the real conditions of its functioning in man's life. The investigation of thought processes, not in isolation from the variety and forms in which they exist in human activity but as a means of this activity, represents only one of the most important tasks confronting Soviet psychologists, confronting all Marxists psychologists.

In this chapter only certain problems were touched on; a more detailed explication will be the task of further work. More than anything we must consider the problem of understanding the psyche as a reflection of reality.

2.1. Levels of Investigation of Reflection

The concept of reflection is a fundamental philosophical concept. It also has a fundamental sense for psychological science. Introducing the concept of reflection into psychology as a basic concept laid the foundation for its development on a new Marxist- Leninist theoretical basis. Psychology has developed for 50 years since that time, and its concrete- scientific presentations have developed and changed; the main thing - the approach toward the psyche as a subjective image of objective reality - has remained and is unchangeable.

In speaking of reflection one must first of all emphasize the historical sense of this concept. Of primary importance is the fact that its content is not congealed. On the contrary, in the course of the progress of natural science, of man and society, it is developing and becoming enriched.

Secondly, also very important is the position that ideas of development and ideas of the existence of various levels and forms of reflection be included in the concept of reflection. We are speaking of various levels of those changes in reflecting bodies that arise as a result of actions experienced by them and that are adequate to them. These levels are very different. But all of these levels have a common relation that is displayed in nonliving nature, in the world of animals, and, finally, in man in qualitatively different forms.

In connection with this there arises a problem that has a primary significance for psychology: studying the features and functions of various levels of reflection, and tracing the transitions from its simpler levels and forms to more complex levels and forms.

It is known that Lenin considered reflection as a property already incorporated in the “foundation of the structure of matter,” which at a determined degree of development, namely at the level of highly organized living matter, assumes the form of sensation, perception, and in man, also the form of theoretical thought, concept. Such a historical understanding of reflection, in the broad sense of the word, precludes the possibility of treating psychic phenomena as exceptions to the general system of interaction in a world indivisible in its material aspect. The broader significance of this for science is that the psychic, for which idealism postulated a basic quality, is turned into a problem for scientific investigation; the only postulate that remains is the admission of the independence of existing, objective reality from the cognitive subject. In this lies the idea of Lenin’s requirement that we go not from sensing to the external world but from the external world toward sensing, from the external world as primary to the subjective psychological phenomena as secondary. It is self-evident that this requirement also fully covers concrete scientific study of the psyche – psychology. * (V.I. Lenin, *Collected Works*, Vol 14)

To investigate sensory phenomena coming from the external world, from things, is to investigate them objectively. As is evident in the experience of the development of psychology, there are many theoretical difficulties in this. They become apparent even in connection with the first concrete achievements in the study of the brain and sensory organs by natural science. The work of physiologists and psychologists, although it enriched scientific psychology with the knowledge of important facts and laws that condition the existence of psychic phenomena, could not, however, disclose directly the essence of these phenomena themselves; the psyche continued to be regarded in its isolation, and the problem of psychological relation to the external world was solved in

* This paragraph has been modified after comparison with the Russian original.

the spirit of the physiological idealism of I. Muller, the hieroglyphism of G. Helmholtz, the dualistic idealism of W. Wundt, etc. The widest dissemination was given to the parallelistic position that in modern psychology is masked only by a new terminology.

A larger contribution to the problem of reflection was made by the reflex theory, the teaching of I. P. Pavlov, about higher nervous activity. The main emphasis in the research was substantially confused: Reflexive, psychic functions of the brain were presented as a product and condition of real ties between the organism and the environment impinging upon it. This prompted a basically new orientation of research expressed in the approach to brain phenomena from the standpoint of the interaction generating them, manifested in the behavior of the organisms in preparation, formulation, and consolidation. It even seemed that the study of the work of the brain at this level, according to I. P. Pavlov, the "second part of physiology," completely departs in perspective from scientific, descriptive psychology.

A principal theoretical difficulty, however, remained; this was expressed in the impossibility of bringing the level of psychological analysis to the level of physiological analysis, psychological laws, to the laws of brain activity. Now, when psychology as a separate area of knowledge obtained wide acceptance and assumed a practical significance for resolving many problems presented by life, new evidence was found for the position of the non-convergence of the psychic and the physiological - in the practice of psychological research itself. A sufficiently clear-cut factual difference was formulated between psychic processes on the one hand, and the physiological mechanisms that carry out these processes on the other, a distinction without which it would of course be impossible to resolve even the problems of correlations and connections between them; in addition, a system of objective psychological methods was formulated, particularly methods for borderline psychological-physiological research. Owing to this, concrete study of the nature and mechanisms of psychic processes far exceeded the boundaries set by natural science representations of the activity of the organ of the psyche the brain. Of course this does not mean that all theoretical questions relating to the problem of the psychological and the physiological were answered. It may be said only that there was a serious movement in this direction. New complex theoretical problems also appeared. One of these was presented by the development of the cybernetic approach to the study of processes of reflection. Under the influence of cybernetics, the analysis of regulating the conditions of living systems by means of information directed by them held the center of attention. Thus a new step was taken along the path already marked to the study of the interaction of living organisms with the environment that now appeared from a different perspective, the perspective of transfer, processing, and preserving information. In addition there occurred a theoretical narrowing of the approaches to qualitative, different-directed, and self-directed objects, nonliving systems, animals, and man. The very concept of information (one that is fundamental for cybernetics), although it came from the technology of communication, appears to be from its genesis, so to speak, human, physiological, and even psychological; it all began from the study of transfer along technical canals of semantic information from person to person.

As is known, the cybernetic approach was applicable implicitly from the very beginning to psychic activity also. Very soon it appeared indispensable in psychology itself, especially in engineering psychology, investigating "man-machine" systems, which are considered a specific instance of a system of regulation. Now concepts of the type, "reversible connection," "regulation," "information," "model," etc. are widely used even in branches of psychology that have no need to apply formal languages

capable of describing processes of regulation taking place in given systems, including technological systems.

If introduction into psychology of neurophysiological concepts is based on the position of the psyche as a function of the brain, then the use in psychology of the cybernetic approach has a different scientific justification. Psychology is a concrete science dealing with the origin and development of the reflection of reality by man, which takes place in his activity and which by mediating it fulfills a real role in the activity. For its part, cybernetics, studying the processes of intrasystem and intersystem interaction in the sense of information and similarity, allows the introduction of quantitative methods into the study of processes of reflection, and thus enriches the study of reflection as a general property of matter. This was indicated in our philosophical literature many times, as was the fact that results in cybernetics have an essential significance for psychological research.

The significance of cybernetics for the study of mechanisms of sensory reflection taken from this aspect appears indisputable. We must not forget, however, that general cybernetics, giving a description of the processes of regulation, turns away from their concrete nature. For this reason in almost every special field there arises a question of the proper application of cybernetics. It is known, for instance, how complicated the question is when social processes are considered. It is also complicated for psychology. The cybernetic approach to psychology, of course, does not consist simply of exchanging psychological terms for cybernetic terms; such an exchange would be as fruitless as the attempt made in its time to replace psychological terms with physiological terms. Incorporating the separate positions and theorems of cybernetics mechanically into psychology is even less allowable.

The concrete-scientific and methodological significance of the problem of the sensory image and models is especially important among the problems that arise in psychology in connection with the development of the cybernetic approach. Notwithstanding that not a few works of philosophers, physiologists, psychologists, and cyberneticists have been dedicated to this problem, it merits further theoretical analysis in the light of the study of the sensory image as a subject of reflection of the world in the consciousness of man.

As is known, the concept of the model has received very wide acceptance and use in very different meanings. For further consideration of our problem, however, we may use the simplest and least refined, that is to say, its definition. We will call such a system (multitude) a model, the elements of which are found to be similar (homomorphic, isomorphic) to elements of another system (the modeled). It is absolutely evident that under such a broad definition of model the sensory image is, of course, also included. The problem, however, is not whether one can approach the psychological image as a model, but whether this approach encompasses its essential specific features, its nature.

The Lenin theory of reflection considers sensory images in human consciousness as prints, photographs of an independently existing reality. This is also what brings psychic reflections close to "related" forms of reflection peculiar also to matter that does not have a "clearly expressed capability of sensing" (V.I. Lenin, Collected Works, Vol 14). But this forms only one side of the characterization of psychic reflections; the other side consists of the fact that psychic reflection, as distinct from mirror and other forms of passive reflection, is subjective, and this means that it is not passive, not dead, but active, that into its definition enters human life and practice, and that it is characterized by the movement of a constant flow, objective into subjective.

These positions, having primarily a gnosiological sense, are also basic for concrete-scientific psychological investigations. Especially on the psychological level there

arises the problem of the specific features of those forms of reflection that are expressed by the presence in man of subjective - sensory and thought - images of reality.

The position that the psychic reflection of reality is its subjective image means that the image belongs to the real subject of life. But the concept of subjectivity of the image in the sense of its belonging to the subject of life includes in itself an indication of its being active. A connection of the image with what is reflected is not a connection of two objects (systems, multitudes) in mutual similar relations one to another - their relationship reproduces a polarization of any living process at one pole of which stands the active ("partial") subject, and at the other, the object "indifferent" to the subject. It is this feature of relation of the subjective image to reflected reality that is not included in the relationship "model- modeled." The latter relationship has the property of symmetry, and accordingly the terms model and modeled have relative senses, depending on which of two objects the subject that recognizes them believes theoretically or practically to be the model and which the modeled. The process of modeling (that is, the building by the subject of models of whatever types, or even the recognition by the subject of connections defining such a change of the object that imparts to him characteristics of the model of a certain object) is an altogether different question.

Even so the concept of subjectivity of the image includes the concept of partiality of the subject. Psychology has for a long time described and studied the dependence of perception, representation, and thought on "what is necessary to man" - on his needs, motives, settings, emotions. It is very important here to stress that such partiality is itself objectively determined and is expressed not in the inadequacies of the image (although it may be expressed in this) but in that it allows an active penetration into reality. In other words, subjectivity at the level of sensory reflection must be understood not as its subjectivism but rather as its "subjectness," that is, its belonging to an acting subject.

The psychic image is the product of living, practical ties and relations of the subject with the object world; these are incomparably wider and richer than any model relationship. For this reason the description of the image reproduced in the language of sensory modalities (in a sensory "code"), the parameters of the object acting on the sense organs of the subject, represents in essence the result of analysis on the physical level. It is exactly on this level that the sensory image discloses itself as poorer in comparison with the possible mathematical or physical model of the object; The situation is different when we consider the image on the psychological level - as a psychic reflection. In this capacity it appears, on the contrary, in all its riches, as taking into itself that system of objective relations in which only the content reflected by them actually exists. All the more does what has been said refer to the conscious sensory image, to the image at the level of a conscious reflection of the world.

2.2. The Activity of Psychic Reflection

In psychology two approaches have been devised, two views of the process of generating the sensory image. One of these reproduces the old sensualistic concept of perception, according to which the image is a direct result of a one- sided act of the objects on the sensory organs.

The second understanding of the .process of image formation is different in principle and is attributed to Descartes. In his remarkable "Dioptrics," comparing seeing with the perception of objects by the blind who "see as if with their hands," Descartes wrote: "If you consider that the difference between trees, rocks, water, and other similar objects as seen by a blind person with the help of his cane does not seem smaller to

him than that which exists between red, yellow, green and any other colors, then whatever the nonconformity between bodies, it appears to be nothing more than just a different way of using a cane or resisting its movement.“ ’ Subsequently, the ideas about the basic common origins of tactile and visual images were developed, as is known, by Diderot, and particularly by Sechenov.

In modern psychology the position is widely accepted that perception represents an active process that necessarily includes the efferent links. Although the detection and registration of efferent processes presents significant methodical difficulties, so much so that some phenomena seem better evidence for the passive “screen” theory of perception, nevertheless their obligatory participation must be considered established.

Particularly important data were obtained in ontogenetic investigations of perception. These investigations have the advantage in that they allow the study of active processes of perception in their, so to speak, unfolded, open, that is, outward- moving, not yet interiorized, unreduced forms. The data obtained are well known and I will not quote but will simply note that it is in just these investigations that the concept of perceptive action was introduced.

The role of efferent processes was also studied in the investigation of aural perception, the organ receptor of which is, as distinct from the touching hand and the apparatus of vision, completely without exterior activity. For the hearing of speech it was experimentally demonstrated that “articulation imitation” was necessary, and for hearing sound, a cryptic activity of the voice apparatus.

Now it is almost trite to repeat that for the appearance of an image it is not sufficient to have a one- sided action of the object on the sensory organs of the subject, but that it is necessary to have an active “anticipating” process on the part of the subject also. It is natural that the main direction in the investigation of perception was the study of active perceptive processes, their genesis and structure. Despite all the differences in concrete hypotheses with which researchers approached the study of perceptive activity, they are united in the admission that it is indispensable and in the conviction that particularly in it is realized the process of “translation” of the sensing of external objects acting on the organs into the psychic image. And this means that it is not the sensory organs that receive the image, but man with the help of the sensory organs. Every psychologist knows that the retinal image (the retinal “model”) of the object is not the same as its apparent (psychic) image, just as, for example, the so- called afterimages can be called images only by convention since they do not have any constancy, follow the movement of the eye, and are subject to Emmert’s law.

There is no need, of course, to discuss the fact that processes of perception are included in the living, practical ties of man with the world, with material objects, and for this reason they are necessarily subjected, directly or indirectly, to the properties of the objects themselves. This also determines the adequacy of the subjective product of perception, the psychic image. Whatever form perceptive activity might assume, whatever degree of reduction or automation it might be subjected to in the course of its formation and development, essentially it is formed in the same way as the activity of the touching hand “photographs” the contours of objects. Like the activity of the touching hand, all perceptive activity finds the object there where it really is - in the external world, in objective space and time. It is this that constitutes that most important psychological feature of the subjective image that is called its objectivity or, much less fortuitously, its objectivization.

This feature of the sensory psychological image, in its simplest and most elegant form, emerges in conformity with extrceptive, subjective images. An important psychological fact is that in the image we are given not our subjective condition but the object’s condition alone. For example, the light effect of a thing on the eye is received

exactly like the thing that is outside the eye. In the act of perception, the subject does not correlate his own image of the thing with the thing itself. For the subject, the image is as if imposed on the thing. Thus the directness of the ties that exist between sensory consciousness and the external world, which Lenin stressed, is expressed psychologically. (V.I. Lenin, Collected Works, Vol 14)

Copying an object in a picture, we must, of course, compare the portrayal (model) of the object with the portrayed (modeled) object, perceiving them as two different things; but we do not determine such a correlation between our subjective image of the object and the object itself, between our own perception of the picture and the picture itself. If the problem of such correlation arises, then it is only secondary - from the reflection of the experience of perception.

For this reason it is not necessary to agree with the conviction that is sometimes expressed that subjectivity of perception is the result of "objectification" of the psychic image, that is, that the effect of the thing at first elicits its sensory image, and then this image is related by the subject to the 'world, "is projected on the original." Psychologically such a special act of "reverse projection" simply does not exist under ordinary circumstances. The eye affected at the periphery of the retina by an unexpected appearance of a light point on the screen instantly moves to it and the experimental subject at once sees this point localized in objective space; what he does not perceive at all is his confusion with respect to the retina at the moment of the movement of the eye, and changes in the neurodynamic condition of his receptor system. In other words, for the subject there is no structure that might be in turn correlated by him with the external object in the same way in which, for instance, he can compare his own drawing with the original

The fact that objectivity (objectivization) of sensations and perceptions is not something secondary is borne out by many remarkable facts well known to psychology. One of these is the so-called problem of probing. The fact is that to a surgeon probing a wound, the end of the probe with which he touches the bullet appears to be "sensitive" - that is, his sensing seems to be paradoxically mixed in with the world of external things and not localized at the boundary "probe-hand" but at the boundary "probe-perceived object" (the bullet). The same thing happens in any other analogical situation, for instance, when we perceive the roughness of the paper with the tip of a sharp pen, find a road in the dark with the help of a cane, etc.

The main interest of these facts lies in the fact that in them are "prospected" and often exteriorized relations usually hidden to investigation. One of these is the relation "hand-probe." The effect which the probe has on the receptor apparatus of the hand evokes sensations that are integrated into a complex visual-tactile image of it, and that further fulfill a leading role in the regulation process of holding the probe in the hand. The second relation is the relation "probe-object." This is established as soon as the action of the surgeon brings the probe into contact with the object. But even in this first instant the object, being still undetermined - as "something," as the first point on the line of a future "picture"-image - appears to be related to the external world localized in objective space. In other words, the sensory psychic image exhibits the property of objective relationships already at the moment of its formation. But to carry the analysis of the relation "probe-object" a little further, the localization of the object in space expresses its separateness from the subject; this is "outlining the boundaries" of its existence independent from the subject. These boundaries appear only as the activity of the subject forced to subordinate itself to the object, and this takes place even in that case when the activity leads to the object's division or even destruction. The remarkable feature of the relationship considered consists of the fact that this boundary passes as a boundary between two physical bodies: One of them, the tip of the probe, realizes a cognitive, perceptive activity of the subject, the other is the object

of this activity. At the boundary between these two material things are localized the sensations that form the “tissue” of the subjective image of the object: They appear as fitting on the touching point of the probe, the artificial distant receptor that forms an extension of the hand of the acting subject.

If under the conditions of perception described, the guide for the action of the subject is a material object that moves, then in really distant perception the process of spatial localization of the object is reconstructed and extremely complicated. In the case of perception by means of a probe, the hand does not actually move, but in visual perception the eye is movable, “selecting” the light rays that the object reflects and that reach its retina. In this case, however, in order that a subjective image might result, it is necessary to observe the conditions that transfer the boundary “subject- object” to the surface of the object itself. These are the same conditions that create the so-called invariance of the visual object, and particularly the presence of such displacement by the retina of the relatively reflected light stream that creates, as it were, an uninterrupted, subject- controlled “change of feelers,” which would appear to be the equivalent of their movement over the surface of the object. Now the sensations of the subject also are fit to the external boundaries of the object, not with an instrument (probe), but along light rays; the subject sees not the retinal, continuously and rapidly changing projection of the object, but an external object in its relative invariance, stability.

It is just this ignoring of the principal characteristic of the sensory image - the relation of our sensations to the external world - that led to the major misunderstanding that prepared the way for the subjective-idealistic conclusions on the principle of specific energy of the sense organs. This misunderstanding consists of the idea that subjectively experienced reactions of sense organs elicited by the action of stimuli were identified by I. Muller with sensations included in the image of the external world. In actuality, of course, nobody takes luminescence resulting from electrical excitation of the eye for real light, and only Munchausen could conceive of the idea of igniting powder on the pan of a gun with sparks from the eye. Usually we say completely correctly: “It’s dark to the eye,” “It rang in the ears” - to the eyes, in the ears, and not in the room or on the street, etc. In defense of the secondary nature of the subjective picture, we might refer to Zenden, Hebb, and other authors who describe instances of restoration of sight in adults after removal of congenital cataracts: At first they see only the chaos of subjective visual phenomena, which subsequently becomes correlated with objects of the external world, becomes its images. But these are people who have a formulated object perception in another modality, which now simply receives new input from the aspect of sight; for this reason, strictly speaking, we have here not a secondary relation of the image to the external world but an incorporation of a new modality into the external world of elements.

Of course distant perception (visual, aural) represents a process of unusual complexity, and its investigation comes upon many facts that seem to be contradictory and sometimes inexplicable. But psychology, like every other science, cannot develop only as a sum of empirical facts. It cannot escape theory, and the whole problem lies in what kind of theory will guide it.

In the light of the theory of reflection, the scholastic “classical” scheme *candle > its projection onto the retina of the eye > image of this projection in the brain emitting some kind of “metaphysical light”* is no more than a superficial, grossly one- sided (and consequently not true) presentation of psychic reflection. This formula leads directly to the admission that our sensory organs, having “specific energies” (which is a fact), are a barrier between the subjective image and the external objective reality. It is understandable that no description of this formula of the process of perception in

terms of distribution of nerve excitation, information, model construction, etc., will be able to change its essence.

Another aspect of the problem of the sensory subjective image is the question of the role of practice in its formation. It is common knowledge that introducing the category of practice into the theory of cognition constitutes the main point of difference between Marxist understanding of cognition and the understanding of cognition in pre-Marxist materialism on the one hand, and in idealistic philosophy on the other. "The point of view of life, of practice, must be the first and basic point of view of the theory of cognition," says Lenin (V.I. Lenin, Collected Works, Vol 14). As first and basic his point of view is preserved also in the psychology of sensory cognitive processes.

It has already been said here that perception is active, that the subjective image of the external world is the product of the activity of the subject in that world. But this activity cannot be understood as anything other than a realizing of the life of a physical subject, which is principally a practical process. Of course, in psychology it would be a serious mistake to consider all perceptive activity of an individual as taking place directly in the form of practical activity or resulting directly from it. The processes of active visual or aural perception are separated from direct practice to the extent that the human eye and the human ear, according to an expression of Marx, are organ theorists (K. Marx and F. Engels, *On Freedom of the Press*). Touch alone sustains direct, practical contact of the individual with the external material-objective world. This circumstance is extremely important from the point of view of the problem under consideration, but even this does not settle it completely. The fact of the matter is that the basis for cognitive processes is not the individual practice of the subject, but "the totality of human practice." For this reason not only thought but also man's perception, to a very large degree, surpass in their riches the relative poverty of his personal experience.

In psychology a proper statement of the question of the role that practice plays as a basis and criterion for truth requires investigation of just how practice enters into the perceptive activity of man. It must be said that psychology has already accumulated much concrete-scientific data, which lead directly to the solution of this problem.

As has already been said, psychological investigations make it ever more obvious to us that the efferent links play a decisive role in the processes of perception. In certain cases, particularly when these links have their expression in the motor systems or the micromotor systems, they appear quite distinct. In other cases they appear "hidden," expressed in the dynamics of ongoing internal conditions of the receiving system. But they always exist. Their function appears to be "assimilated" not only in the narrow sense of the word but also in the broader sense. This also covers the function of including the common experience of the subjective activity of man in the process of producing the image. The fact is that such inclusion cannot be accomplished as a result of simple repetition of combinations of sensory elements and actualization of temporary ties between them. It is understood that we are not speaking here about the associative reproduction of lacking elements of sensory complexes but about the adequacy of subjective images produced by the general properties of the real world in which man lives and acts, In other words, we are speaking about the subordination of the process of producing an image to the principle of plausibility.

To illustrate this principle we will turn once again to the old and well known psychological fact, to the effect of "pseudoscopic" visual perception, the study of which we now have once again begun. As is known, the pseudoscopic effect is produced by looking at objects through binoculars composed of two Dove prisms, which produce an irregular distortion of perception: The closer points of the object seem farther away and vice versa. As a result, for example, a concave plaster mask of a

face appears under certain kind of illumination as a convex relief representation, and a relief representation, on the other hand, appears like a mask. But the main interest in pseudoscopic experiments is that the apparent pseudoscopic image results only when it is plausible (the plaster mask of the face is as “plausible” from the point of view of reality as its plaster convex sculptured presentation), or when it is possible by some means to block the inclusion of the apparent pseudoscopic image in the picture of the real world being formed by the subject.

It is known that if the plaster head is replaced by the head of a real man then the pseudoscopic effect completely disappears. Particularly effective are the experiments in which a subject with a pseudoscope sees two objects appear simultaneously in one and the same visual field, both the real head and its convex plaster representation; then the head of the man is seen as usual, and the plaster head is seen pseudoscopically, that is, like a concave mask. Such phenomena are observed only when the pseudoscopic image is plausible. The second feature of the pseudoscopic effect is that it appears more readily if an object is placed against an abstract nonobjective background, that is, outside the system of concrete-objective ties. Finally, this same principle of plausibility is expressed in the completely striking effect of the appearance of such “additions” to the apparent pseudoscopic image as make its existence objectively possible. Thus, if before a surface we place a screen with openings through which parts of the surface may be seen, in pseudoscopic perception we get this picture: The portions of the surface that lie behind the screen seen through its openings are seen by the subject as being closer to him than the screen, that is, as if they were freely hanging before the screen. The situation actually is quite different. Under suitable conditions, just as in pseudoscopic perception, the subject sees parts of the surface that are behind the screen in front of it; they do not, however, “hang” in the air (which is improbable) but are perceived as some kind of three-dimensional physical bodies coming out through the openings in the screen. In the apparent image side surfaces appear to be added to form boundaries of these physical bodies. And finally, the following: As systematic experiments demonstrated, the processes of emergence of the pseudoscopic image as well as the elimination of its pseudoscopic quality, although they take place instantly, are by no means automatic or self-directed. They appear as the result of perceptive operations carried out by the subject. This is borne out by the fact that the subject may learn to direct both of these processes.

It is not the purpose of the experiments with the pseudoscope to show with the help of special optics that by producing a distorted projection on the retina of the eye it is possible, under given conditions, to obtain a spurious subjective visual image. The actual purpose lies (as in the analogous, classical, “chronic” experiments of Stratton, I. Koler, and others) in the promise these experiments hold for investigating the process of transformation of information such as takes place at the sensory “entry” and is subject to the general properties, connections, and rules of real activity. It is a different, fuller expression of the objectivity of the subjective image that appears now not only in its initial relationship to the object reflected but also in its relationship to the objective world as a whole.

It is understood that man must already have a picture of this world. This picture, however, is accumulated not only directly at the sensory level but also at higher cognitive levels - as a result of the individual’s experience with social practice reflected in the form of language in the system of knowledge. In other words, the “operator” of perception is not simply the previously accumulated associations of sensation, and not apperception in the Kantian sense, but social practice.

Early psychology, developed along metaphysical lines, moved in the analysis of perception invariably on a plane of two kinds of abstraction: the abstraction of man from society and the abstraction of the perceived object from its ties with objective

reality. A subjective sensory image and its object were treated as two things opposed to each other. But the psychic image is not a thing. In spite of the physicalistic representation, it does not exist in the matter of the brain in the form of a thing, just as there does not exist any kind of a “discoverer” of this thing that may be only a soul, only a spiritual “I.” The truth is that the actual and acting man with the help of his brain and his organs perceives external objects; their appearance to him is their sensory image. We will emphasize once more: the appearance of the objects, and not physiological states evoked by them.

In perception there is always an active process of “extracting” from real activity its properties, relationships, etc., their fixation in short-term or long term states of the receiving systems, and reproduction of these properties in the acts of forming new images, in the acts of recognizing and remembering objects.

Here we again must interrupt our account with a description of a psychological fact that illustrates what we have just said. Everyone knows what puzzle pictures are. In such a picture it is necessary to find a representation of a hidden object indicated in the puzzle (for example, “Where is the hunter?” etc.). A trivial explanation of the process of perception (recognition) in the picture of the hidden object is that it takes place as a result of successive comparisons of the visual image of the given object that the subject has with the separate combinations of elements of the picture; a correspondence of this image to one of the elements in the picture leads to its being “guessed.” In other words, this explanation is derived from the idea that there are two comparable things: the image in the head of the subject and its representation in the picture. The difficulty here is an insufficient separability and completeness of the representation of the hidden object in the picture; this requires multiple “comparisons” of the image to it. The psychological implausibility of such an explanation suggested to the author the idea of a simple experiment consisting in no indication being given to the subject of the object hidden in the picture. The subject was told: “Before you are ordinary puzzle pictures for children; try to find the object that is hidden in each of them.” Under these conditions the process could not proceed on the basis of comparison of the image of the object that the subject had with its representation contained in the elements of the pictures. Nevertheless, the puzzle pictures were solved by the subjects. They “extracted” the representation of the image from the picture, and the image of an object that was familiar to them became apparent.

We have come now to a new aspect of the problem of the sensory image to the problem of representation. In psychology, representation is usually the generalized image that is “registered” in the memory. The old substantive understanding of the image as some kind of a thing led also to a substantive understanding of the representation. This is a generalization resulting from a superimposition of one sensory impression on another - in the manner of Galton photography - to which word designations were attached associatively. Although within the limits of such understanding there was the possibility of transformation of representations, just the same, they were thought of as some kind of “ready” representations, stored on the shelves of our memories. It is easy to see that such an understanding of representation agrees well with the formal- logical teaching about concrete ideas but is scandalously contradictory with respect to the dialectical- materialistic understanding of generalization.

Our sensory, generalized images, like our understanding, contain in themselves movement and, it seems, contradiction; they reflect the object in its various connections and its indirectness. This means that no sensory knowledge is a set impression. Although it is preserved in the head of a man, yet it is not a “ready” thing, but only virtual - in the form of formulated, physiological brain constellations, which are capable of realizing subjective images of the object as it becomes apparent to man

in one system or another of objective connections. The representation about the object includes not only similarity in objects but also its various facets, among them some that cannot be “superimposed” one on another and are not found in relationships of structural or functional similarity.

Not only concepts but also our sensory representations are dialectical. For this reason they are capable of fulfilling a function that cannot be reduced to the role of set standard models corresponding to the effects received by receptors from isolated objects. Like the psychic image, representations exist inseparable from the subject’s activity, and they fill it with the riches accumulated in them and make it alive and creative.

The problem of sensory images and representations confronted psychology from the first steps of its development. The question of the nature of our sensations and perceptions could not be bypassed by any psychological trend no matter what its philosophical basis. It is not surprising therefore that a great number of papers, theoretical and experimental, were devoted to this problem. Their number continues to grow rapidly in our time as well. As a result, a series of separate questions seems to have been worked out in unusual detail, and almost unlimited factual material has been collected. Notwithstanding, modern psychology is still far from the possibility of presenting a whole, not an eclectic, concept of perception that would include its various levels and mechanisms. This is particularly applicable to the level of conscious perception.

In relation to this the introduction into psychology of the category of psychic reflection has opened new perspectives. The scientific productivity of the category of psychic reflection no longer requires proof. This category, however, cannot be taken outside its internal connection with other basic Marxist categories. For this reason introducing the category of reflection into scientific psychology inevitably requires a reconstruction of the whole system of categories. More immediate problems that come up here are, in essence, problems of activity, problems of the psychology of consciousness, and the psychology of personality. Further exposition is dedicated to the theoretical analysis of these problems.

3.1. Two Approaches in Psychology - Two Plans of Analysis

In recent years in Soviet psychology there has been an accelerated development of its separate branches and of applied research. At the same time theoretical problems of general psychology received less attention. In addition to this, Soviet psychology, formulated on a Marxist-Leninist philosophical basis, suggested a basically new approach to the psyche and was the first to introduce into psychology a series of important categories that need further development.

Among these categories, the category of activity is of greatest significance. Let us remember the famous theses of Karl Marx about Feuerbach, which state that the main inadequacy of former metaphysical materialism was that it considered sensitivity only in the form of contemplation, and not as human activity or practice; in contrast to materialism, idealism understood activity abstractly, and not as actual sensory activity of man.

This is how the matter stood in all of pre-Marxist psychology. Moreover, in modern psychology that is being developed outside Marxism, the situation remains unchanged. In it activity is interpreted either within the framework of idealistic concepts or along the lines of materialistic and natural science tendencies – as a response to external actions of a passive subject conditioned by his innate organization and training. But it is just this that divides psychology into a natural science on the one hand, and psychology as a science of the spirit, into behavioral and “mentalist” psychology on the other. The crises that this caused in psychology continue even now; they only “retreated into the depths” and began to be expressed in less open forms.

Characteristic for our time is the intensive development of interdisciplinary research connecting psychology with neurophysiology, with cybernetics, and logical-mathematical disciplines, and with sociology and cultural history; this in itself cannot lead to the resolution of the fundamental, methodological problems of psychological science. Leaving them unresolved only increases the tendency toward a dangerous physiological, cybernetic, logical, or sociological reductionism and threatens psychology with a loss of its subject, its specificity. Neither is the circumstance that the conflict of various psychological trends has lost its former sharpness evidence of theoretical progress; militant behaviorism has yielded to compromising neobehaviorism (or some authors say, “subjective behaviorism”), Gestaltism, neo-Gestaltism, Freudism, neo-Freudism, and cultural anthropology. Although the term eclectic has assumed a meaning of almost the highest praise among American authors, eclectic positions have never yet led to success. It is understood that synthesis of heterogeneous combinations of psychological facts and generalizations that have been made cannot be achieved by means of their simple combinations and common intertwining. It requires further development of the conceptual system of psychology, the search for new scientific theories capable of drawing together the loosened laces of the structure of psychological science.

With all the diversity of the trends about which we are speaking, what they have in common from the methodological point of view is that they are derived from a binomial plan of analysis: action on receptor systems of the *subject* → *resulting response* → *phenomena (subjective and objective)* evoked by the given action.

This plan appeared with classical clarity in psychophysics and in physiological psychology even during the last century. The main problem that presented itself at that time was studying the dependence of the elements of consciousness on the parameters of the stimuli eliciting them. Later in behaviorism, that is, in conformity with the study

of behavior, this binomial plan found its first direct expression in the famous formula $S \rightarrow R$.

The inadequacy of this scheme is that it excludes from the field of research the cogent process in which real connections of the subject with the object world, his objective activity, are made (in German, *Tätigkeit*, as distinct from *Aktivität*). Such abstraction from the activity of the subject is justified only within the narrow bounds of the laboratory experiment, which is designed to disclose elementary psychophysiological mechanisms. It is necessary only to go beyond these boundaries in order to uncover the insupportability of such an abstraction. This made it necessary for earlier investigators, in explaining psychological facts, to admit intervention of special forces such as active apperception, internal intention, etc., that is, to appeal everything to the activity of the subject, but only in its mystified, idealistic form.

The principal difficulties in psychology posed by the binomial plan of analysis and by the “postulate of directness,” which hides behind it, gave rise to persistent attempts to overcome it. One of the lines along which these attempts were made stressed the fact that the effects of external action depend on their interpretation by the subject, on those psychological “intervening variables” (Tolman et al.) that characterize his internal state. In his time S. L. Rubinshtein expressed this in the formula that says that “external motives act through internal conditions.” This formula, of course, seems to be incontrovertible. If, however, we understand as internal conditions the on-going condition of the subject exposed to the effect, then it will contribute nothing essentially new to the formula $S \rightarrow R$. Even non-living objects, when their condition is changed, reveal themselves in various ways in interaction with other objects. On damp, softened soil, tracks will be sharply imprinted, but on dry, hardened soil they will not. Even more clearly is this apparent in animals and in man: The reaction of a hungry animal to a food stimulus will be different from that of a well-fed animal, and information about a football match will evoke an entirely different reaction in a man who is interested in football than in a man who is completely indifferent to it.

The introduction of the concept of intervening variables undoubtedly enriches the analysis of behavior, but it does not remove the postulate of directness that was mentioned. The important thing is that even if the variables about which we are speaking are intervening, it is only in the sense of internal conditions of the subject himself. What has been said refers also to “motivating factors,” needs, and desires. The working out of the role of these factors proceeded, as is known, along very different lines – in behaviorism, in the school of K. Lewin, and particularly in depth psychology. In all of these schools, however, as different as their directions might be, and as different as they might be in the understanding of motivation itself and its role, the principal thing remained unchanged: the opposition of motivation to objective conditions of activity, to the external world.

The attempts to resolve the problem on the part of so-called culturology must be mentioned specifically. The acknowledged founder of this trend, L. White, develops the idea of “cultural determination” of phenomena in society and in the behavior of individuals. The rise of man and human society leads to the following: Connections between the organism and the environment that were formerly direct and natural become mediated by culture developing on the base of material productivity. Thus, culture appears, for individuals, in the form of meaning imparted by speech signs-symbols. Based on this, L. White proposed a three-member formula for the behavior of man: *organism of man + cultural stimuli* \rightarrow *behavior*.

This formula creates the illusion of overcoming the postulate of directness and the formula resulting from it, $S \rightarrow R$. However, introducing culture communicated by sign systems into this formula as a mediating link unavoidably traps psychological research

in a circle of the phenomena of consciousness, social and individual. A simple substitution results: The world of objects is now replaced by a world of signs and meanings developed by society. Thus, we again stand before the binomial formula, $S \rightarrow R$, but now the stimulus is interpreted as a “cultural stimulus.” This is also expressed by the later formula of White through which he explains the difference in the determination of psychic reactions (minding) of animals and man. He writes these formulas thus:

$Vm = f(Vb)$ in animals,

$Vm = f(Vc)$ in man,

where V is the variable, m is the mind, b is the body condition, and c is culture.

As distinct from the sociological concept and psychology derived from Durkheim, which in one way or another preserves the idea of the primacy of interaction of man with the object world, contemporary American culturology knows only the effect on man of “extrasomatic objects,” which form a continuum developing according to its own “suprapsychological,” “suprasociological” laws (which also makes the special science, culturology, indispensable). From this culturological point of view, human individuals appear as only “catalytic agents” and “means of expression” of the cultural process. Nothing more.

An altogether different line that emerged from the postulate of directness and along which complication of the analysis proceeded was the result of the discovery of regulating behavior by means of reverse connections, evidently formulated some time earlier by N. N. Lange.

Even the first investigations of the structure of complex motion processes in man made it possible to understand the mechanism of a wide circle of phenomena in a new light. Here the work of N. A. Bernshtein, which showed the role of the reflex ring with reverse connection, must be mentioned.

During the time that separates us from the early works carried out in the 1930s, theories of regulation and information assumed general scientific significance and encompassed processes in living systems as well as in nonliving systems.

It is interesting that the concepts of cybernetics during these years were later accepted by the majority of psychologists as completely new. They had something of a second birth in psychology – a circumstance that caused certain enthusiasts for the cybernetic approach to think that at last new methodological bases were found for an all-encompassing psychological theory. Very soon, however, it developed that the cybernetic approach to psychology also had its limits, which could be breached only at the price of replacing scientific cybernetics with some kind of “cybernetic mythology”; it is true that psychological realities such as the psychic image, consciousness, motivation, and purpose actually seemed lost. In this sense there even came about a well known renunciation of early works in which were developed the principle of activity and ideas about levels of regulation among which the level of object effect and higher cognitive levels may be specially mentioned.

Ideas of contemporary theoretical cybernetics form a very important plane of abstraction, which allows a description of the features of structure and motion of a wider class of processes that could not have been described with the help of earlier ideational apparatus. But investigations taking place in this plane of abstraction, notwithstanding their indisputable productivity, in themselves were not capable of resolving the fundamental methodological problem of one or another special area of knowledge. For this reason there is nothing paradoxical in the fact that in psychology

the introduction of concepts on regulation, informational processes, and self-regulating systems still does not change the postulate of directness mentioned above.

The conclusion is that evidently no complicating of the original formula coming from this postulate, so to speak, “from within,” can eliminate those methodological difficulties that it produces in psychology. In order to remove them, it is necessary to exchange the binomial formula of analysis for a basically different formula, and this cannot be done without giving up the postulate of directness.

The main thesis, the substantiation of which will be presented in a subsequent work, is that the real way to overcome this postulate, which, according to D. K. Uznadze, is “cancerous” for psychology, is through the introduction into psychology of the category of object activity.

Bringing forth this proposal, it is necessary at once to specify it: The question is one of activity and not one of behavior, and not one of neurophysiological processes that produce activity. The fact is that the “units” isolated by analysis and language, with the help of which behavioral, cerebral, or logical processes are described on the one hand, and objective activity on the other, do not agree with one another.

Thus, in psychology the following alternative was devised: either to keep the basic binomial formula: action of the object \rightarrow change in ongoing condition of the subject (or which is essentially the same thing, the formula $S \rightarrow R$), or to devise a trinomial formula including a middle link (“middle term”) the activity of the subject and, correspondingly, conditions, goals, and means of that activity – a link that mediates the ties between them.

From the point of view of the problem of determining the psyche, this alternative may be formulated thus: We will take either the position that consciousness is determined by the surrounding objects and phenomena, or the position that consciousness is determined by the social existence of people, which, in the determination of Marx and Engels, is nothing more than the real process of their life.

But what is human life? It is that totality, more precisely, that system of activities replacing one another. In activity there does take place a transfer of an object into its subjective form, into an image; also in activity a transfer of activity into its objective results, into its products, is brought about. Taken from this point of view, activity appears as a process in which mutual transfers between the poles “subject-object” are accomplished. “In production the personality is objectivized; in need the thing is subjectivized,” noted Marx.

3.2. The Category of Objective Activity

Activity is a molar, not an additive unit of the life of the physical, material subject. In a narrower sense, that is, at the psychological level, it is a unit of life, mediated by psychic reflection, the real function of which is that it orients the subject in the objective world. In other words, activity is not a reaction and not a totality of reactions but a system that has structure, its own internal transitions and transformations, its own development.

Introducing the category of activity into psychology changes the whole conceptual system of psychological knowledge. But for this it is necessary to take this category as a whole with its most important dependences and determinations: from the aspect of its structure and in its specific dynamics, in its various aspects and forms. In other words, what we are concerned with here is answering the question of how exactly the category of activity enters into psychology. This question presents a series of theoretical problems that are far from being resolved. It is self-evident that I can touch on only certain of these problems.

Human psychology is concerned with the activity of concrete individuals that takes place either in conditions of open association, in the midst of people, or eye to eye with the surrounding object world – before the potter’s wheel or behind the writing desk. Under whatever kind of conditions and forms human activity takes place, whatever kind of structure it assumes, it must not be considered as isolated from social relations, from the life of society. In all of its distinctness, the activity of the human individual represents a system included in the system of relationships of society. Outside these relationships human activity simply does not exist. Just how it exists is determined by those forms and material and spiritual means (*Verkehr*) that result from the development of production and that cannot be realized otherwise than in the concrete activity of people.

It is self-evident that the activity of every individual man depends on his place in society, on the conditions that are his lot, and on how this lot is worked out in unique, individual circumstances.

It is particularly important to guard against understanding human activity as a relationship that exists between man and an opposing society. This must be stressed because psychology is now being flooded with positivist conceptions that are in every way imposing the idea of opposition of the human individual to society. For man society constitutes only that external environment to which he is forced to accommodate, in order not to appear “nonadapted,” and to survive in exactly the same way as an animal is forced to adapt to an external, natural environment. From this point of view human activity is formed as a result of its reinforcement, even if not direct reinforcement (for example, through evaluation expressed by a “reviewer” group). In this the main point is lost – the fact that in society a man finds not simply external conditions to which he must accommodate his activity, but that these same social conditions carry in themselves motives and goals of his activity, his means and methods; in a word, society produces the activity of the individuals forming it. Of course, this does not mean at all that their activity only personifies the relationships of society and its culture. There are complex transformations and transitions that connect them so that no direct transformation of one to the other is possible. For a psychology that is limited by the concept “socialization” of the psyche of the individual without its further analysis, these transformations remain a genuine secret. This psychological secret is revealed only in the investigations of the genesis of human activity and its internal structure.

A basic or, as is sometimes said, a constituting characteristic of activity is its objectivity. Properly, the concept of its object (*Gegenstand*) is already implicitly contained in the very concept of activity. The expression “objectless activity” is devoid of any meaning. Activity may seem objectless, but scientific investigation of activity necessarily requires discovering its object. Thus, the object of activity is twofold: first, in its independent existence as subordinating to itself and transforming the activity of the subject; second, as an image of the object, as a product of its property of psychological reflection that is realized as an activity of the subject and cannot exist otherwise.

In the very beginning of activity and psychological reflection their objective nature is disclosed. Thus it was shown that the life of organisms in a homogeneous, even though changing, medium may develop only in the form of complication of that system of elementary functions that sustain their existence. Only in a transition to life in a discrete medium – that is, to life in a world of objects that affect processes, that have a direct biotic significance are processes built up resulting from activities that may be neutral and abiotic in themselves but that orient it in relation to activity of the first kind. The formation of these processes that facilitate fundamental vital functions takes place because biotic properties of the object (for instance, its nutritional properties) are

as if hidden behind other “superficial” properties. These properties are superficial in the sense that before the effects of biotic activity can be tested, it is necessary, figuratively speaking, to pass through these properties (for example, mechanical properties of a hard body in relation to its chemical properties).

Of course, I am omitting here any statement of the concrete, scientific basis for the theoretical positions referred to, just as I have in the evaluation of the problem of their internal connections with the teaching of I. P. Pavlov about the signal function of conditional stimuli and about orientating reflexes; I have explained both of these points in other papers.

Thus the prehistory of human activity begins when the life processes acquire objectivity. This implies also the appearance of elementary forms of psychic reflection – the transformation of irritability (*irribilitas*) into sensitivity (*sensibilitas*), into the “capacity for sensation.”

Further evolution of behavior and the psyche of animals may be adequately understood specifically as a history of the development of the objective content of activity. At every new stage there appeared an ever more complete subordination of effect or processes of activity to objective connections and relations of the properties of the objects with which the animals interacted. The objective world seemed all the more to “intrude” into activity. Thus the movement of an animal along a fence is subordinated to the “geometry,” becomes assimilated by it, and carries it within itself; the movement of a jump is subordinated to the objective metrics of the environment and the selection of a way around, to interobject relationships.

The development of the objective content of activity finds its expression in subsequent development of psychic reflection, which regulates the activity in the objective environment.

All activity has a circular structure: *initial afferentation* → *effector processes regulating contacts with the objective environment* → *correction and enrichment by means of reverse connections of the original afferent image*. Now the circular character of the processes that realize the interaction of the organism with the environment appears to be universally recognized and sufficiently well described in the literature. The main point, however, is not the circular structure in itself but that the psychic reflection of the object world is generated directly not by external forces (including among these “reverse” forces) but by those processes through which the subject enters into practical contact with the object world, and which, for this reason, are necessarily subordinated to his independent properties, connections, and relations. This means that the “afferentator” that directs the processes of activity initially is the object itself and only secondarily its image as a subjective product of activity that fixes, stabilizes, and carries in itself its objective content. In other words, a double transfer is realized: the transfer *object* → *process of activity*, and the transfer *activity* → *its subjective product*. But the transfer of the process into the form of the product does not take place only at the pole of the subject. Even more clearly it takes place at the pole of the object transformed by human activity; in this case the activity of the subject controlling the psychic image is transferred into an “extinction property” (*ruhende Eigenschaft*) of its objective product.

At first glance it seems that the representation about the objective nature of the psyche refers only to the sphere of proper cognitive processes; this concept seems not to be applied to the sphere of needs and emotions. This, however, is not so.

The views of the emotional-need sphere as a sphere of states and processes, the nature of which lies in the subject himself and which only change their appearances under the

pressure of external conditions, are based on a merging in essence of various categories, a merging that makes itself evident especially in the problem of needs.

In the psychology of needs it is necessary from the very beginning to proceed from the following fundamental distinction: the distinction of need as an internal condition, as one of the necessary precursors of activity, and need as that which directs and regulates concrete activity of the subject in an objective environment. "Hunger is capable of raising an animal up on its feet, capable of giving the hunt a more or less fervent character, but there is no element in hunger that would direct the hunt one way or another or modify it to make it conform to the requirements of the location or of chance meetings," wrote Sechenov. Need is an object of psychological cognition especially in its directing function. In the first place, need appears only as a condition of the need of the organism and is in itself not capable of evoking any kind of positively directed activity; its function is limited to the activation of appropriate biological function and general excitation of the motor sphere apparent in nondirected seeking movements. Only as a result of its "meeting" with an object that answers it does it first become capable of directing and regulating activity.

The meeting of need with object is an extraordinary act. Charles Darwin noted it in his time; certain data of I. P. Pavlov support it; D. N. Uznadze speaks about it as a condition for the beginning of purpose; and contemporary etiologists give it a brilliant description. This extraordinary act is an act objectifying need, "filling" it with content derived from the surrounding world. This is what brings need to a truly psychological level.

The development of needs at this level takes place in the form of development of their objective content. Incidentally, it may be said that this condition makes it possible to understand the appearance in man of new needs, including those that have no analogues in animals, are not "connected" to biological needs of the organism, and, in this sense, appear "automatic". Their formation is explained by the fact that in human society needed objects are produced and owing to this the needs themselves are produced.

Thus needs direct activity on the part of the subject, but they are capable of fulfilling this function only under conditions that they are objects. From this arises the possibility of the reversal of terms that allowed K. Lewin to speak about the motivating force of objects themselves (*Aufforderungscharakter*).

No different is the situation with emotion and feelings. Here too it is necessary to distinguish, on the one hand, nonobjective, aesthetic, authentic conditions and other proper emotions and feelings aroused by the relationship between the objective activity of the subject and his needs and motives. But it is necessary to speak about this separately. In connection with the analysis of activity, it is sufficient to indicate that objectivity of activity is responsible not only for the objective character of images but also for the objectivity of needs, emotions, and feelings.

Of course, the process of development of objective content of needs is not one-sided. Its other side consists of the fact that the object of activity in itself appears to the subject as fulfilling one of his needs or another. Thus needs arouse activity and direct it on the part of the subject, but they are incapable of fulfilling those functions in such a way that they appear objective.

3.3. Objective Activity and Psychology

External activity, sensually practical, is a genetically original and basic form of human activity and has a special meaning for psychologists. Psychology has of course always studied activity – for example, thought activity, the activity of the imagination, the

memory, and so forth. Only such internal activity as falls under the Cartesian category of cogito was properly considered psychological, belonging solely to the field of psychologists. Psychology thus withdrew from the study of practical sensual activity.

If external activity did figure in the old psychology, then it did so only as it expressed internal activity, the activity of consciousness. The rebellion of the behaviorists against this mentalistic psychology, which took place at the beginning of this century, did more to deepen than to eliminate the break between consciousness and external activity, only now the situation was reversed: External activity was removed from consciousness.

The question that had been prepared by the objective course of the development of psychological knowledge now arose in all urgency: Is the study of external practical activity a problem of psychology? Nowhere was activity marked as to which science it belongs to. Besides, scientific experiments show that isolating activity as an object of someone's specific sphere of knowledge, "praxiology," cannot be justified. Just like all empirically given reality, activity is studied by various sciences; it is possible to study the physiology of activity, but just as proper is it to study it in political economics or in sociology, for example. Neither can external, practical activity be isolated from proper psychological investigation. This situation may, however, be understood in essentially different ways.

Even in the 1930s S. L. Rubinshtein indicated the important theoretical significance for psychology of the thinking of Marx about the fact that in ordinary material work we have before us an open book of human essential strengths, and that a psychology for which this book remains closed cannot become a substantial and real science: Psychology cannot ignore the riches of human activity.

In addition, in his subsequent publications, S. L. Rubinshtein stressed that although practical activity by means of which people change nature and society also enters into the sphere of psychology, the object of psychological study "is only their specifically psychological content, their motivation and regulation, by means of which actions are brought into conformity with reflected sensations, perceptions, and consciousness by the objective conditions in which they are performed.

Thus practical activity, according to the author, is a subject of study for psychology, but only that specific content that appears in the form of sensation, perception, thinking, and in general in the form of internal psychic processes and conditions of the subject. But this conviction is, to some degree, one sided inasmuch as it is abstracted from the major fact that activity – in one form or another – is part of the very process of psychic reflection, part of the content of this process, and its beginning.

Let us consider the most simple case: the process of perceiving the resilience of an object. This is an external motor process by means of which the subject makes a practical contact, a practical connection with an external object; the process may be directed toward accomplishing even a non-cognitive but very practical task, for example, the deformation of the object. The subjective image that arises here is, of course, psychic and, correspondingly, indisputably a subject for psychological study. In order to understand the nature of the given image, however, I must study the process that gives rise to it, and this, in the case under consideration, is an external practical process. – Whether I want this or not, whether it agrees with my theoretical views or not, I am all the same obliged to include in the subject of my psychological investigation the external, objective action of the subject.

This means that it is incorrect to think that although the external, objective activity presents itself for psychological investigation, it does so only to the extent that it

includes internal psychic processes and that psychological investigation advances without studying external activity itself or its structure.

One may agree with this only if one can accept a one-sided dependence of external activity on a psychic image representation of goals or a mental plan directing the activity. But this is not so. Activity necessarily enters into practical contact with objects that confront man, that divert it, change it, or enrich it. In other words, especially in external activity there occurs an opening up of the circle of internal psychic processes as if to meet the objective world of objects imperiously intruding into this circle.

Thus activity enters into the subject matter of psychology, not in its own special 'place' or 'element' but through its special function. This is the function of entrusting the subject to an objective reality and transforming this reality into a form of subjectivity.

Let us return, however, to the case of initiating psychic reflection of an elementary property of a material object under conditions of practical contact with it. This case was cited only as an illustrative, much oversimplified example. It has, however, a real genetic sense. It is hardly necessary now to prove that at initial stages of its development, activity necessarily has the form of external processes and that, correspondingly, the psychic image is a product of these processes connecting the subject in a practical way with objective reality. It is evident that at various genetic stages the scientific explanation of the nature and specific features of psychic reflection is impossible except on the basis of the study of these external processes. At the same time this does not mean replacing the study of the psyche with the study of behavior but only a demystification of the nature of the psyche. Otherwise we will be left with nothing more than having to acknowledge the existence of a secret "psychic faculty," which consists in this: that under the influence of external stimuli falling on the receptors of the subject, in his brain – in the order of a phenomenon parallel to physiological processes – there arises some kind of internal light that illuminates the world for man, that something like an irradiation of images takes place that subsequently is localized or "objectivized" by the subject in the surrounding space.

It is evident that reality with which the psychologist deals is incontrovertibly more complex and rich than it is portrayed to be by the crude outline given here of the production of an image as a result of practical contact with an object. However, no matter how far psychological reality should depart from this crude outline, no matter how deep the metamorphosis of activity should be, under all conditions it will remain as a factor that realizes life for a physical subject, and this, in its essence, is itself a sensory, practical process.

Complication of activity and, correspondingly, complication of its psychic regulation presents an extraordinarily wide circle of scientific psychological problems from whose number it is necessary first of all to isolate the question of the forms of human activity and their interconnections.

3.4. The Relationship of Internal and External Activity

The old psychology had to do only with internal processes, with the movement of representations, their associations in consciousness, with their generalizations, and the movement of their substitute – words. These processes, and non-cognitive internal experiences as well, were considered as exclusively constituting the subject matter for psychological study.

A reorientation of the old psychology began with the posing of the problem of the origin of internal psychic processes. A decisive step in this regard was taken by I. M.

Sechenov, who indicated 100 years ago that psychology unlawfully extracts from the total process links that were forged by nature itself, its center, the “psychic,” and contrasts it with the “material.” Just as psychology was born from this (according to Sechenov) unnatural operation, then afterwards “no device could glue together these broken links.” Such an approach to the matter, wrote Sechenov, must be changed. “Scientific psychology and all its contents cannot be anything else than a series of teachings about the origin of psychic activity.

It is a matter for the historian to trace the stages of the development of this idea. I will only note that the thorough study of the phylogenesis and ontogenesis of thought that had begun has in fact extended the limits of psychological investigation. Into psychology entered such paradoxical concepts, from the subjective-empirical point of view, as the concept about the practical intellect or manual thinking. The position that internal intellectual action is genetically preceded by external action became almost universally accepted. On the other hand, that is, starting from the study of behavior, a hypothesis was developed on the direct mechanically comprehensible transition of external processes to cryptic internal processes; we may remember, for example, the formula of Watson: *speech behavior* → *whisper* → *completely soundless speech*.

The main role in the development of concrete psychological views on the origin of internal thought operations, however, was played by the introduction into psychology of the concept of interiorization.

Interiorization is, as is known, a transition that results in processes external in form, with external material objects, being transformed into processes that take place on the mental plane, on the plane of consciousness; here they undergo a specific transformation – they are generalized, verbalized, condensed, and most important, they become capable of further development which exceeds the boundaries of the possibilities of external activity. This is a transition, if we may make use of the short formula of J. Piaget, “leading from the sensory motor plane to thought.”

The process of interiorization is now being studied in detail in the context of many problems, ontogenetic, psychological-pedagogical, and in general psychology. Here serious differences are appearing in the theoretical bases of investigation of this process as well as in its theoretical interpretation. For J. Piaget the most important basis for investigation of the origin of internal thought operation from sensory motor acts consists apparently in the impossibility of introducing operative schemes of thought directly from perception. Such operations as unification, ordering, and centering originate initially in the course of carrying out external actions with external objects and subsequently continue to develop in the plan of internal mental activity according to its own logical-genetic laws. Other original positions on the transition from action to thought were determined by the views of P. Janet, A. Vallon, and J. Bruner.

In Soviet psychology the concept of interiorization (“turning”) is usually connected with the name of L. S. Vygotskii and his followers, who have done important research on this process. In recent years successive stages and conditions of purposeful, “nonspontaneous” transformation of external (materialized) actions into internal (mental) actions have been studied especially carefully by P. Ya. Gal’perin.

The original ideas that brought Vygotskii to the problem of the origin of internal psychic activity in external activity differ principally from theoretical concepts of other authors who were his contemporaries. These ideas came from an analysis of the features of specifically human activity – work activity, productive activity carried on with tools, activity that is indigenously social, that is, develops only under conditions of cooperation and sharing by people. Correspondingly, Vygotskii isolated two principal interrelated features that must be considered basic to psychological science.

These are the equipped (“instrumented”) structure of human activity and its incorporation into the system of interrelationships with other people. It is these features that determine the characteristics of psychological processes in man. Equipment mediates activity connecting man not only with the world of things but also with other people. Owing to this, his activity draws into itself the experience of humanity. This is also the basis for the fact that psychological processes in man (his “higher psychological functions”) assume a structure that has as its obligatory link socially-historically formed means and methods transmitted to him by the people around him in the process of cooperative work in common with them. But to transmit a means or a method of carrying out one process or another is impossible except in an external form – in a form of action or in the form of external speech. In other words the higher, specifically human, psychological processes may originate only in the interaction of man with man, that is, as interpsychological actions and only subsequently do they begin to be finished by the individual independently. In this process certain of them continue to lose their original external form, and turn into intrapsychological processes.

To the proposition that internal psychological activities originate from practical activity, historically accumulated as a result of the education of man based on work in society, and that in separate individuals of every new generation they are formed in the course of ontogenetic development is attached yet one more very important proposition. It consists of this that simultaneously there takes place a change in the very form of the psychological reflection of reality: Consciousness appears as a reflection by the subject of reality, his own activity, and himself. But what is consciousness?

Consciousness is co-knowing, but only in that sense that individual consciousness may exist only in the presence of social consciousness and of language that is its real substrate. In the process of material production, people also produce language, and this serves not only as a means of information but also as a carrier of the socially developed meanings fixed in it.

The older psychology considered consciousness as some kind of metapsychological plane of movement of psychic processes. But consciousness is not granted initially and is not originated by nature. Consciousness is originated by society; it is produced. For this reason consciousness is not a postulate and is not a condition of psychology but its problem, a subject for concrete scientific psychological investigation.

Thus the process of interiorization is not external action transferred into a preexisting internal “plan of consciousness”; it is the process in which this internal plan is formed.

As is known, as a result of the first cycle of works dedicated to the study of the role of external means and their “turning,” L. S. Vygotskii turned to the study of consciousness, its “cells” – verbal meanings, their formation and structure. Although in these investigations meaning appeared in its, so to speak, reverse movement and, for this reason, as if it were something that lies behind life and directs activity, for Vygotskii an opposite thesis remained unshakable: Not meaning, not consciousness lies behind life, but life lies behind consciousness.

An investigation of the formation of mental processes and meanings (ideas) may express only one part of the total movement of activity, but this may be a very important part: the assimilation by the individual of methods of thought worked out by humanity. But this does not cover only cognitive activity, its formation, or its function. Psychological thought (and individual consciousness as a whole) is wider than those logical operations and those meanings in whose structures they are encased. Meanings in themselves do not give rise to thought but mediate it – just as tools do not generate activity.

At a later stage of his research L. S. Vygotskii stated that major important proposition many times in various forms. He saw the last remaining “secret” plan of oral thinking in its motivation, in the affective-volitional sphere. The deterministic view of psychic life, he wrote, excludes “ascribing to thought a magical power of determining the behavior of man through one specific system.” The positive program resulting from this, having preserved the active function of meaning and thought, requires that the problem be considered once again. And for this it was necessary to turn to the category of objective activity, applying it also to internal processes, the processes of consciousness.

It is exactly in the course of the movement of theoretical thought along this line that the principal community of external and internal activity is uncovered as mediating the interrelations of man with the world in which his real life is realized.

Corresponding to this, the principal distinction lying in the basis of classical Cartesian-Lockean psychology – the distinction, on the one hand, of the external world, the world of space to which external physical activity also belongs, and on the other hand, the world of internal phenomena and processes of consciousness – must yield its place to another distinction: on the one hand, objective reality and its idealized, transformed forms (*verwandelte Formen*), and on the other hand, activity of the subject, including both external and internal processes. This means that splitting activity into two parts or sides as if they belonged to two completely different spheres is eliminated. Also this presents a new problem, the problem of investigating the concrete relationship and connection between the various forms of human activity.

This problem existed even in the past. Only in our time, however, did it assume a completely concrete meaning. Now before our eyes there is an ever tighter intertwining and intimacy between external and internal activity: Physical work accomplishing a practical transformation of material objects, ever more “intellectualized,” incorporates into itself the carrying out of more complex mental acts; at the same time the work of the contemporary researcher, activity that is specially cognitive, intellectual par excellence, is ever more filled with processes that in their form are external actions. Such unification of processes of activity, which vary according to their form, even now cannot be interpreted as a result only of those transitions that are described by the term interiorization of external activity. It necessarily presupposes the existence of regularly occurring transitions in the opposite direction also, from internal to external activity.

In social conditions that ensure a well-rounded development of people, intellectual activity is not separated from practical activity. Their thinking becomes reproducible to the extent of the need of the moment in the integral life of the individuals.

Moving ahead somewhat, we must say at once that the mutual transitions about which we are speaking form a most important movement of objective human activity in its historical and ontogenetic development. These transitions are possible because external and internal activity have a similar general structure. The disclosure of the common features of their structure seems to me to be one of the more important discoveries of contemporary psychological science. Thus activity that is internal in its form, originating from external practical activity, is not separated from it and does not stand above it but continues to preserve an essential, twofold connection with it.

3.5. The General Structure of Activity

The community of the macrostructure of external practical activity and internal activity theoretically allows analyzing it, abstracting it initially from the form in which it occurs.

The idea of analyzing activity as a method of scientific human psychology was proposed, as I have already said, in the early works of L. S. Vygotskii. The concept of tooling (“instrumental”) operations, the concept of purposes, and later the concept of motive (“motivational sphere of consciousness”) were introduced. Years passed, however, before it was possible to describe, in a first approach, the common structure of human activity and individual consciousness. This first description now, after a quarter century, appears in many ways unsatisfactory and too abstract. But it is exactly owing to its abstractness that it can be taken as an initial departure point for further investigation.

Up to this point we were talking about activity in the general collective meaning of that concept. Actually, however, we always must deal with specific activities, each of which answers a definite need of the subject, is directed toward an object of this need, is extinguished as a result of its satisfaction, and is produced again, perhaps in other, altogether changed conditions.

Separate concrete types of activity may differ among themselves according to various characteristics: according to their form, according to the methods of carrying them out, according to their emotional intensity, according to their time and space requirements, according to their physiological mechanisms, etc. The main thing that distinguishes one activity from another, however, is the difference of their objects. It is exactly the object of an activity that gives it a determined direction. According to the terminology I have proposed, the object of an activity is its true motive. (Such restricted understanding of motive as that object (material or ideal) that evokes and directs activity toward itself differs from the generally accepted understanding; but this is not the place to enter into polemics on the question.) It is understood that the motive may be either material or ideal, either present in perception or exclusively in the imagination or in thought. The main thing is that behind activity there should always be a need, that it should always answer one need or another.

Thus the concept of activity is necessarily connected with the concept of motive. Activity does not exist without a motive; ‘non-motivated’ activity is not activity without a motive but activity with a subjectively and objectively hidden motive. Basic and “formulating” appear to be the actions that realize separate human activities. We call a process an action if it is subordinated to the representation of the result that must be attained, that is, if it is subordinated to a conscious purpose. Similarly, just as the concept of motive is related to the concept of activity, the concept of purpose is related to the concept of action.

The appearance of goal-directed processes or actions in activity came about historically as the result of the transition of man to life in society. The activity of participators in common work is evoked by its product, which initially directly answers the need of each of them. The development, however, of even the simplest technical division of work necessarily leads to isolation of, as it were, intermediate partial results, which are achieved by separate participators of collective work activity, but which in themselves cannot satisfy the workers’ needs. Their needs are satisfied not by these “intermediate” results but by a share of the product of their collective activity, obtained by each of them through forms of the relationships binding them one to another, which develop in the process of work, that is, social relationships.

It is easy to understand that the “intermediate” result to which the work processes of man are subordinated must also be isolated for him subjectively, in the form of representations. This is also an isolation of the goal that according to the expression of Marx, “determines like a law the method and character of his action”

Isolating the purposes and formulating actions subordinate to them leads to a seeming splitting of functions that were formerly merged with each other in motive. The

function of excitation is, of course, fully preserved in the motive. The function of direction is another matter: The actions that realize activity are aroused by its motive but appear to be directed toward a goal. Let us suppose that the activity of man is aroused by food; this also constitutes its motive. For satisfying the need for food, however, he must carry out actions that are not aimed directly at getting food. For example, the purpose of a given individual may be preparing equipment for fishing; regardless of whether he himself will use the equipment he has prepared in the future or give it to others and obtain part of the total catch, that which aroused his activity and that to which his actions were directed are not identical; their coincidence represents a special personal case, the result of a specific process, which we shall discuss.

Isolation of goal-directed actions constituting of content of concrete activity naturally presents a question about the internal relationships that unites them. As has already been said it is not an additive process. Correspondingly, actions are not special “units” that are included in the structure of activity. Human activity does not exist except in the form of action or a chain of actions. For example, work activity exists in work actions, school activity in school actions, social activity in actions (acts) of society, etc. If the actions that constitute activity are mentally subtracted from it, then absolutely nothing will be left of activity. This can be expressed in another way: When a concrete process is taking place before us, external or internal, then from the point of view of its relation to motive, it appears as human activity, but when it is subordinated to purpose, then it appears as an action or accumulation of a chain of actions.

In addition, activity and action represent genuine and non-coinciding reality. One and the same action may accomplish various activities and may transfer from one activity to another, showing its relative independence in this way. Let us turn again to a clumsy illustration. Let us suppose that I have a goal – to arrive at point *N* – and I do this. It is understood that the given action may have completely different motives, that is, to realize completely different activities. The opposite is also obvious, specifically, that one or another motive may be given concrete expression in various purposes and correspondingly may elicit various actions.

In connection with isolating the concept of action as major and “formulating” human activity (its moment), it is necessary to take into consideration that scarcely initiated activity presupposes the achievement of a series of concrete purposes among which some are interconnected by a strict sequence. In other words, activity usually is accomplished by a certain complex of actions subordinated to particular goals that may be isolated from the general goal; under these circumstances, what happens that is characteristic for a higher degree of development is that the role of the general purpose is fulfilled by a perceived motive, which is transformed owing to its being perceived as a motive-goal.

One of the questions that arises from this is the question of goal formation. This is a very important psychological problem. The fact is that only the area of objectively adequate purposes depends on the motive of the activity. This subjective isolation of goals, however (that is, perception of immediate result, the achievement of which realizes a given activity which is capable of satisfying a need objectivized in its motive), presents in itself a special process that has almost never been studied. Under laboratory conditions or in pedagogical experiments we always place before the subject a, so to speak, “ready” goal; for this reason the process of goal formation itself usually escapes investigation. It is only in experiments that coincide in method with the well-known experiments of F. Hoppe that this process is disclosed even if this is a one-sided but adequately distinct presentation from its qualitative dynamic side. It is another matter in real life where goal formation applies as an important instance of one activity or another of the subject. In this respect let us compare the development of the scientific activity of Darwin and Pasteur, for instance. This comparison is instructional

not only from the point of view of the existence of great differences in the way that isolation of purposes is subjectively realized but also from the point of view of the psychological content of the process of their isolation.

First of all, in both cases it is very clear that purposes are not contrived, are not posed by the subject arbitrarily. They are given in objective circumstances. Besides, isolation and perception of goals by no means occurs automatically, nor is it an instantaneous act but a relatively long process of approbation of the goals by action and by their objective filing, if this can be expressed in such a way. The individual, justly notes Hegel, “cannot determine the goal of his acting as long as he has not acted. ...”

Another important aspect of the process of goal formation consists in the concretization of the goal, in isolating the conditions of its achievement. But this must be considered separately.

Every purpose, even one like the “reaching of point N ,” is objectively accomplished in a certain objective situation. Of course, for the consciousness of the subject, the goal may appear in the abstraction of this situation, but his action cannot be abstracted from it. For this reason, in spite of its intentional aspect (what must be achieved), the action also has its operational aspect (how, by what means this can be achieved), which is determined not by the goal in itself but by the objective-object conditions of its achievement. In other words, the action being carried out is adequate to the task; the task then is a goal assigned in specific circumstances. For this reason the action has a specific quality that “formulates” it specifically, and particularly methods by which it is accomplished. I call the methods for accomplishing actions, operations.

There is frequently no difference between the terms action and operation. In the context of psychological analysis of activity, however, distinguishing between them is absolutely necessary. Actions, as has already been said, are related to goals, operations to conditions. Let us assume that the goal remains the same; conditions in which it is assigned, however, change. Then it is specifically and only the operational content of the action that changes.

In especially visual form, the non coincidence of action and operation appears in actions with tools. Obviously, a tool is a material object in which are crystallized methods and operations, and not actions or goals. For example, a material object may be physically taken apart by means of various tools each of which determines the method of carrying out the given action. Under certain conditions, let us say, an operation of cutting will be more adequate, in others, an operation of sawing; it is assumed here that man knows how to handle the corresponding tools, the knife, the saw, etc. The matter is essentially the same in more complex cases. Let us assume that a man was confronted with the goal of graphically representing some kind of dependences that he had discovered. In order to do this, he must apply one method or another of constructing graphs – he must realize specific operation, and for this he must know how to do them. In this case it makes no difference how or under what circumstances or using which material he learned how to do these operations; something else is important – specifically, that the formulation of the operation proceeds entirely differently from the formulation of the goal, that is, the initiation of action.

Actions and operations have various origins, various dynamics, and various fates. Their genesis lies in the relationships of exchange of activities; every operation, however, is the result of a transformation of action that takes place as a result of its inclusion in another action and its subsequent “technization.” A simpler illustration of this process may be the formation of an operation, the performance of which, for example, requires driving a car. Initially every operation, such as shifting gears, is formed as an action subordinated specifically to this goal and has its own conscious

“orientational basis” (P. Ya. Gal’perin). Subsequently this action is included in another action, which has a complex operational composition in the action, for example, changing the speed of the car. Now shifting gears becomes one of the methods of attaining the goal, the operation that effects the change in speed, and shifting gears now ceases to be accomplished as a specific goal-oriented process: Its goal is not isolated. For the consciousness of the driver, shifting gears in normal circumstances is as if it did not exist. He does something else: He moves the car from a place, climbs steep grades, drives the car fast, stops at a given place, etc. Actually this operation may, as is known, be removed entirely from the activity of the driver and be carried out automatically. Generally, the fate of the operation sooner or later becomes the function of the machine.

Nonetheless, an operation does not in any way constitute any kind of “separateness,” in relation to action, just as is the case with action in relation to activity. Even when an operation is carried out by a machine, it still realizes the action of the subject. In a man who solves a problem with a calculator, the action is not interrupted at this extracerebral link; it finds in it its realization just as it does in its other links. Only a “crazy” machine that has escaped from man’s domination can carry out operations that do not realize any kind of goal-directed action of the subject.

Thus in the total flow of activity that forms human life, in its higher manifestations mediated by psychic reflection, analysis isolates separate (specific) activities in the first place according to the criterion of motives that elicit them. Then actions are isolated – processes that are subordinated to conscious goals, finally, operations that directly depend on the conditions of attaining concrete goals.

The “units” of human activity also form its macrostructure. The special feature of the analysis that serves to isolate them is that it does so not by means of breaking human activity up into elements but by disclosing its characteristic internal relations. These are the relations that conceal transformations that occur as activity develops. Objects themselves can become stimuli, goals, or tools only in a system of human activity; deprived of connections within this system they lose their existence as stimuli, goals, or tools. For example, a tool considered apart from a goal becomes the same kind of abstraction as an operation considered apart from the action that it realizes.

Investigation of activity requires an analysis specifically of its internal systemic connections. Otherwise we will not be in a position to decide even the simplest problems – such as making a judgment about whether or not we have an action or an operation in a given case. In this respect activity represents a process that is characterized by continuously proceeding transformations. Activity may lose the motive that elicited it, whereupon it is converted into an action realizing perhaps an entirely different relation to the world, a different activity; conversely, an action may turn into an independent stimulating force and may become a separate activity; finally, an action may be transformed into a means of achieving a goal, into an operation capable of realizing various actions.

The mobility of separate “forming” systems of activity is expressed, on the other hand, in the fact that each of them may become a smaller fraction or, conversely, may incorporate in itself units that were formerly relatively independent. Thus, in the course of achieving an isolated general goal there may occur a separation of intermediate goals as a result of which the whole action is divided into a series of separate sequential actions; this is especially characteristic for cases where the action takes place under conditions that inhibit its being carried out by means of already formulated operations. The opposite process consists of consolidating isolated units of activity. This is the case when objectively attained intermediate results flow one into another and the subject loses conscious awareness of them.

In a corresponding manner there is a fractionation or, conversely, a consolidation also of “units” of psychic images: A text copied by the inexperienced hand of a child breaks up in his perception into separate letters and even into their graphic elements; later in this process the units of perception become for him whole words or even sentences.

Before the naked eye the process of fractionation or consolidation of units of activity and psychic reflection – in external observation as well as introspectively – is hardly distinguishable. This process can be investigated only by means of special analysis and objective indicators. Among these indicators is, for example, the so-called ontokinetic nystagmus, the changing cycles of which, as investigations have shown, make it possible to determine the amount of movement “units” entering into the composition of graphic actions. For example, writing words in a foreign language is divided into significantly smaller units than writing ordinary words of the native language. It may be considered that such a separation, distinctly appearing on oculograms, corresponds to the division of action into the operations that make it up, which are evidently simpler and more primary.

Isolating the “units” that form activity has a paramount significance for resolving a series of major problems. One of these problems, on which I have already touched, is the problem of uniting processes of activity that are internal and external in their form. The principle or law of this uniting is that it always takes place precisely along the “seams” of the structure described.

There are separate activities, all links of which appear to be essentially internal; for example, cognitive activity may be such an activity. More commonly, internal activity that serves a cognitive motive is carried out by processes that are essentially external; this may be through either external actions or external motor operations but never through their separate elements. The same thing applies also to external activity: Some of the actions and operations that realize external activity may have an internal form, as mental processes, but again specifically only as actions or as operations, in their integrity and indivisibility. The basis for such a primarily factual position of things lies in the very nature of the processes of interiorization and exteriorization: No type of transformation of separate “splinters” of activity is possible in general since this would mean not a transformation of activity but its destruction.

Separating actions and operations in activity does not exhaust its analysis. Behind activity and regulating its psychic images there is the grandiose physiological work of the brain. This situation in itself does not require proof. The problem is something else: to find those actual relationships that connect the subject’s activity, mediated by the psychic image, and the physiological brain processes.

The relationship of the psychic and the physiological is considered in many psychological works. In connection with the study of higher nervous activity it is theoretically explained in greatest detail by S. L. Rubinshtein, who developed the idea that the physiological and the psychic are one and the same and specifically a reflexive, reflecting activity, but considered from various angles, and that its psychological investigation is a logical continuation of its physiological investigation. Consideration of these positions as well as the positions of other authors leads us away, however, from the intended plane of analysis. For this reason, in recalling some of the stated positions I will limit myself here only to questions about the place of physiological function in the structure of objective activity of man.

I will note that the former subjective-empirical psychology was limited by the conviction of the parallelism of psychic and physiological phenomena. On this basis there arose that strange theory of “psychic shadows” that in any of its variants in essence signified a renunciation of resolving the problem. With the well-known reservation, this refers also to subsequent theoretical attempts to describe the

connection of the psychological and the physiological based on ideas of their morphology and interpretation of psychic and physiological structures by means of logical models.

Another alternative is to forgo a direct confrontation between the psychic and the physiological and to continue the analysis of activity on the physiological level. Here, however, it is necessary to overcome the ordinary opposition of psychology and physiology as studying different “things.”

Although brain functions and mechanisms constitute an indisputable subject of physiology, it does not follow from this that these functions and mechanisms should remain outside the sphere for psychological investigations, that “what is Caesar’s must be rendered unto Caesar.”

This convenient formula, while it saves from physiological reductionism, leads into a greater sin, the sin of isolating the psyche from the work of the brain. Actual relations connecting psychology and physiology are more like the relations between physiology and biochemistry; progress in physiology necessarily leads to a deeper physiological analysis to the level of biochemical processes; on the other hand, only the development of physiology (in a wider sense, biology) gives rise to those special problematics that make up the specific sphere of biochemistry.

Continuing this analogy, which is completely conditional, it may be said that psychophysiological (higher physiological) problematics has its origin in the development of psychological science, that even such fundamental concept for physiology as the concept of the conditional reflex had its origin in “psychic” experiments, as I. P. Pavlov originally called them. Subsequently, as is known, on this subject I. P. Pavlov said that psychology in its phase of approximations explains “the general constructions of psychic formations, and physiology on its part attempts to carry the problem further, to understand these formations as a special interaction of physiological phenomena. Thus the investigation continues not from physiology to psychology but from psychology to physiology. “First of all,” wrote Pavlov, “it is important to understand psychologically and then to translate to physiological language.”

Most important is that the transition from analysis of activity to analysis of its psychophysiological mechanisms reflect real transitions between them. Now we can no longer approach the brain mechanisms (psychophysiological) otherwise than as a product of the development of objective activity. It is necessary to keep in mind that these mechanisms are formed variously in phylogenesis and under conditions of ontogenetic (particularly functional) development and therefore do not always appear in the same way.

Mechanisms made up phylogenetically are ready prerequisites for activity and psychic reflection. For example, the processes of visual perception are as if inscribed in the features of the structure of the visual system of man, but only in a virtual form, as their possibility. The latter, however, does not free psychological investigation of perception from penetrating into these specific features. The fact is that we generally can say nothing about perception without referring to these specific features. The other question is, should we make these morphophysiological features an independent subject of study or should we observe their functioning within the structure of actions and operations? The difference in these approaches is apparent as soon as we compare data of the investigations of, let us say, the duration of visual afterimages and the data of investigations of postexpositional integration of sensory visual elements in solving various perceptive tasks.

The situation is somewhat different when the formation of the brain mechanisms takes place during functional development. Under these conditions the given mechanisms appear as new “mobile physiological organs” (A. A. Ukhtomskii), new “functional systems” (P. K. Anokhin), taking shape, so to speak, before our eyes.

In man the formation of functional systems that are specific to him takes place as a result of his mastering of tools (means) and operations. These systems represent nothing other than exterior motor and mental – for example, logical – operations deposited, materialized in the brain. This is not a simple “calque” of them but rather their physiological allegory. In order to read this allegory, it is necessary to use another language, other units. These units are the brain functions, their ensembles – functional systems.

Including in the investigation activity at the level of the brain functions (psychophysiological) makes it possible to encompass very important realities from which the study of experimental psychology actually began its development. It is true that the first works dedicated, as was then said, to “psychological functions” – sensory, mnemonic, elective, tonic – were theoretically hopeless regardless of the significance of the concrete contribution they made. This was the case because these functions were investigated in isolation from the subject’s objective activity that they realized, that is, as phenomena of certain faculties – faculties of the spirit or the brain. The essence of the matter lies in that in both cases they were considered not as elicited by activity but as eliciting it.

The fact of the changeability of the concrete expression of psychophysiological functions depending on content of the activity of the subject became apparent very quickly. The scientific problem, however, was not to ascertain this dependence (it had long ago been ascertained in countless works of psychologists and physiologists) but to investigate those transformations of activity that lead to a reconstruction of the ensemble of brain psychophysiological functions.

The significance of psychophysiological investigations is that they disclose those conditions and consequences of the formation of processes of activity that require a reconstruction or formation of new ensembles of psychophysiological functions, new functional brain systems, for their accomplishment. A simple example is the formation and consolidation of operations. The initiation of one operation or another is of course determined by the presence of conditions, means, and methods of action that are made up or assimilated from outside; the joining, however, of one elementary link to another forming the composition of the operation, their “compression” and their transfer to lower neurological levels, takes place in subordination to physiological laws with which psychology cannot but reckon. Even for the study, for example, of exterior motor or mental habits we always intuitively depend on empirically compounded representations about the mnemonic function of the brain (“repetition is the mother of learning”), and it only seems to us that the normal brain is psychologically mute.

It is another matter when investigation requires precise qualification of the activity processes studied, particularly activity that occurs under deficit time conditions, increased demands, and precision, selection, etc. Here psychological investigation of activity cannot but include as a special problem analysis of the activity at the psychophysiological level.

In engineering psychology the problem of separating activity into its elements, determining their time characteristics and the carrying capacity of separate receiving and “exit” apparatuses, becomes most urgent. The concept of elementary operations was introduced, but in an entirely different sense, not in a psychological, but in a, so to speak, logical-technical sense, which dictated the necessity of extending the method of analysis of machine processes to human processes participating in the work of the

machine. This kind of fractionation of activity for the purposes of describing it formally and applying theoretical-informational measures, however, was confronted by the fact that it resulted in a complete disappearance of the main forming activities from the field of investigation; its main determining factors and activities were, in a manner of speaking, dehumanized. Besides, it was wrong to give up that study of activity that would have gone beyond the limits of the analysis of its general structure. Thus a peculiar controversy arose: On the one hand, while their various connections with the world serve as a basis for isolating the “units” of activity, an individual entering into social relations in this world could initiate activity with its goals and objective conditions before the units could be divided further within the limits of the given system of analysis; on the other hand, the problem of studying intracerebral processes, which requires further division of these units, still persisted.

In this respect in recent years there was developed the idea of “microstructural” analysis of activity, a problem that consists in uniting genetic (psychological) and quantitative (informational) approaches to activity. It was necessary to introduce concepts of “functional blocks,” of direct and reverse connections between them forming the structure of processes that realize activity physiologically. Here it is assumed that this structure wholly corresponds to the macrostructure of activity and that isolating separate “functional blocks” allows a more penetrating analysis continuing in smaller units. Here, however, we are confronted with a complex theoretical problem: understanding those relationships that connect among them the intracerebral structures and the structure of the activity that they realize. Further development of microanalysis of activity will necessarily bring this problem forward. The very procedure, for example, of investigating reverse connections of excited elements of the retina of the eye and brain structures responsible for constructing primary visual images is based on the registration of phenomena that take place only because of a subsequent treatment of these primary images in such hypothetical “semantic blocks,” the function of which is determined by a system of relations that in their very nature appear to be extracerebral – and this means nonphysiological.

According to the character of their mediation, the transfers about which we are speaking are comparable to the transfers that connect the technology of production and production itself. Of course production is realized with the help of tools and machines, and in this sense production appears to be a consequence of their functioning; however, tools and machines originate in production, which is already a category not technical but social-economic.

I allowed myself to introduce this comparison with only one thing in mind: to single out the idea that analysis of activity at the psychophysiological level, although it proves the possibility of adequate use of precise indicators, the language of cybernetics and theoretical-informational measures, still unavoidably abstracts itself from the consideration of activity as a system initiated by live relations. Speaking more simply, objective activity, just like psychic images, is not produced by the brain but is its function, which consists in the images being realized by means of the physical organs of the subject.

As was already said, an analysis of the structure of cerebral processes, their blocks or constellations, presents a further division of activity, its moments. Such a division is not only possible but often unavoidable. It is necessary only to be clearly aware of the fact that it transfers the investigation of activity to a special level, to the level of the study of a transition from units of activity (actions, operations) to units of brain processes that realize them. I want especially to emphasize that I am speaking particularly about the study of transitions. This distinguishes the so-called microstructural analysis of objective activity from the study of higher nervous activity

in concepts of physiological brain processes and the neural mechanisms, the data of which can only be compared with corresponding psychological phenomena.

On the other hand, investigation of cerebral processes that realize activity leads to a demystification of the concept of “psychic functions” in its former classic meaning – that of a bundle of faculties. It becomes apparent that this is a manifestation of common functional physiological (psychophysiological) properties that generally do not exist as separate units. One must not think, for example, about the mnemonic function as separated from the sensory, or vice versa. In other words, only physiological systems of function realize perceptive, mnemonic, motor, and other operations. But let me repeat, operations cannot be reduced to these physiological systems. Operations always are subject to objective-subjective, that is, extracerebral, relations.

As noted by L. S. Vygotskii, the neuropsychological and pathopsychological are another very important way of penetrating into the structure of activity of the brain. Their general psychological significance is that they allow the observation of activity in its degeneration, depending on exclusion of separate portions of the brain or on the character of those more general disturbances of its function that are expressed in mental illness.

I will note only certain data obtained from neuropsychology. As distinct from naive psychomorphology that localizes outwardly distinct psychological processes by uniquely associating them with the functioning of separate brain centers (centers of speech, writing, thinking in concepts, etc.), neuropsychological investigations indicated that these complex processes of social-historical origin, formed in the course of life, have a dynamic and systemic localization. As a result of comparative analysis of extensive data collected in experiments with individuals ill with various disturbances of localized centers of the brain, a picture appears of how various “components” of human activity are specifically “deposited” in its morphology. *

Thus neuropsychology on its part – that is, from the standpoint of brain structures – allows a penetration into the “performing mechanisms” of activity.

The failure of separate parts of the brain, which leads to a disturbance of one process or another, presents another possibility: to investigate in these absolutely perfect conditions the functional development of these parts, which appear here in the form of their reestablishment. More precisely, this relates to the reestablishment of external and mental actions, the carrying out of which became impossible for the patient as a result of the fact that the central disturbance excluded one of the links of one operation or another that these actions carried out. In order to bypass a preliminarily carefully diagnosed defect of the patient, the investigator projects a new composition of operations capable of carrying out the given action and then actively formulates in the patient the new composition in which the damaged link does not participate but which includes instead a link that, under normal conditions, is redundant or even nonparticipating.

There is no need to speak of the general psychological significance of this direction of the investigation; it is self-evident.

Of course, neuropsychological investigations, just like investigations of psychophysiology, necessarily present the problem of transition from extracerebral relations to intracerebral. As I have already said, this problem cannot be solved by means of direct comparisons. Its resolution lies in the analysis of the working of the system of objective activity as a whole in which is also included the functioning of the physical subject – his brain, his organs of perception and movement. The laws that

* This paragraph has been modified after comparison with original Russian.

control the processes of this functioning are, of course, apparent only as long as we do not proceed to the investigation of the objective actions that are realized by these processes or of images that can be analyzed only by investigating human activity at the psychological level. No different is the situation in a transition from the psychological level of investigation to the wholly social: Only here the transition to the new, that is, the social laws, takes place as a transition from investigating processes that realize relationships of individuals to an investigation of relationships that are realized by the common activity of individuals in society, the development of which is subordinated to objective-historical laws.

Thus a systemic study of human activity must also be an analysis according to levels. It is just such an analysis that will make it possible to overcome the opposition of the physiological, the psychological, and the sociological, as well as the reduction of any one of these to another.

4.1. The Genesis of Consciousness

The activity of the subject, external and internal, is mediated and regulated by a psychic reflection of reality. What the subject sees in the object world are motives and goals, and conditions of his activity must be received by him in one way or another, presented, understood, retained, and reproduced in his memory; this applies also to processes of his activity and to the subject himself - to his condition, characteristics, and idiosyncrasies. Thus the analysis of activity leads us to the traditional themes of psychology. Now, however, the logic of the investigation is turned around: The problem of the appearance of psychic processes is turned into the problem of their origin, their elicitation by those social connections into which man enters in the object world.

The psychic reality that is revealed to us directly is the subjective world of consciousness. A century was required for us to free ourselves of the identification of the psychic with the conscious. What was surprising was the variety of paths in philosophy, psychology, and physiology that led to the distinction being made between the conscious and the psychic: It is sufficient to name Leibniz, Fechner, Freud, Sechenov, and Pavlov.

The decisive step was a confirmation of the idea of various levels of psychic reflection. From the historical, genetic point of view this indicated an admission of the existence of a preconscious psyche of animals and the appearance in man of its qualitatively new form - consciousness. Thus new questions arose: about that objective indispensability that is served by emerging consciousness, about that which gives rise to it, and about its internal structure.

Consciousness in its directness is a picture of the world, opening up before the subject, in which he himself, his actions, and his conditions are included. Before the unsophisticated man, of course, this subjective picture does not present any kind of theoretical problem; before him is the world, and not the world and a picture of the world. In this elemental realism is incorporated a real, although a naive, truth. Identifying psychic reflection and consciousness is another matter; it is nothing more than an illusion of our introspection.

It follows from the seemingly unlimited broadness of consciousness. If we ask ourselves whether we are conscious of one or another phenomenon we are posing a problem of perception, and of course we resolve it practically instantly. It may be necessary to devise a tachistoscopic methodology in order to divide "the field of perception" from "the field of consciousness" experimentally.

On the other hand, the facts that indicate that man is capable of realizing complex adaptive processes to accommodate pieces of furniture, hardly taking their image into consideration, are well known and easily tested under laboratory conditions; he circumvents obstacles and even manipulates things as if he did not "see" them.

It is another matter if it is necessary to make or change something according to a model or to portray a certain objective content. When I bend out of wire or draw, let us say, a pentagon, then I necessarily compare the representation I have with objective conditions, with stages of its being realized in the product, and internally measure one against the other. Such a comparison requires that my representation should appear for me as if it were on the same plane with the objective world but not, however, merging with it. This is particularly clear in problems whose solution requires a preliminary visualization "in the mind" of the mutual spatial relations that the images of the objects

have one to the other; such a problem, for example, might require a mental turning of a figure drawn into another figure.

Historically, the necessity of such a “prospect” (presentability) of a psychic image to the subject occurs only in a transition from adaptive activity of animals to productive work activity specific to man. The product toward which activity is directed does not yet exist. For this reason it can direct activity only if it is presented to the subject in a form that allows it to be compared with the original material (the object of work) and its intermediate transformations. Moreover, the psychic image of the product as a goal must exist for the subject in order that he might work with this image, i. e., modify it in relation to present conditions. Such images are in essence conscious images, conscious representations - in a word, the essence of the phenomena of consciousness.

In itself, the inevitability of the development in man of the phenomena of consciousness, it is understood, still says nothing about the processes of their generation. This inevitability, however, clearly poses the problem of investigating this process, a problem that simply did not appear in early psychology. The fact is that within the framework of the traditional dyadic scheme object + subject, the phenomenon of consciousness in the subject was accepted with no explanations, if one does not consider the interpretations that assume the existence under the roof of our skull of some kind of observer contemplating pictures that neurophysiological processes weave in our brains.

The method of scientific analysis of the origin and function of human consciousness, both social and individual, was discovered, in the first place, by Marx. As a result, as a modern author emphasized, the subject of investigation of consciousness shifted from the subjective individual to social systems of activity in such a way that “the method of internal observation and understanding introspection which for a long time had monopolized the investigation of consciousness began to creak at the seams.” In a few pages it is impossible, of course, to treat to any great extent even the principal questions of the Marxist theory of consciousness. Not pretending to do this, I will limit myself only to certain positions that indicate the way to resolving the problem of activity and consciousness in psychology.

It is evident that an explanation of the nature of consciousness lies in the same features of human activity as those that make consciousness inevitable: in its objective--subjective productive character.

Work activity imprints itself on its product. There takes place, in the words of Marx, a transition of activity into a fulfilling quality. This transition represents a process of material embodiment of the objective content of activity that now presents itself to the subject, that is, stands before him in the form of an image of the perceived object.

In other words, in the very first approach the origin of consciousness appears thus: A representation directing activity embodied in an object gets its secondary “objectivized” existence, which is accessible to sensory perception; as a result it is as if the subject sees his own representation in the external world; having been duplicated, it is perceived. This scheme, however, is untenable. It takes us back to the former subjective-empirical and, in essence, idealistic point of view that precisely singles out, first of all, the condition that the indicated transition has consciousness as its indispensable prerequisite - the presence in the subject of representations, intentions, ideational plans, schemes, or “models,” that these psychic phenomena are objectified in activity and in its products. As far as the activity of the subject himself is concerned, activity directed by consciousness carries out, in relation to the content of consciousness, only a transmission function and a function of “confirmation-nonconfirmation.”

The main thing, however, is not that the active directing role of consciousness should be indicated. The main problem is to understand consciousness as a subjective product, as a transformed form of a manifestation of those relations, social in their nature, that are realized by the activity of man in an object world.

Activity is not by any means simply an expresser and transmitter of the psychic image objectivized in its product. It is not an image that is impressed on the product, but specifically activity, the objective content that it carries objectively in itself.

Transitions subject > activity > object form a kind of circular movement, and for that reason it may seem to make no difference which of its links or moments is taken as the initial one. However, this is not in any way a movement in a magic circle. This circle can be broken and is broken precisely in sensory- practical activity itself.

Appearing in direct contiguity with objective reality and subordinate to it, activity is modified and enriched, and in that enrichment it is crystallized in a product. The realized activity is richer and truer than the consciousness that precedes it. Thus, for the consciousness of the subject, contributions that are introduced by his activity remain cryptic; from this it follows that consciousness may seem a basis of activity.

Let us express this another way. The reflection of products of objective activity that realizes connections and relations of social individuals appears to them as phenomena of their consciousness. In reality, however, behind these phenomena lie the mentioned objective connections and relations, although not in their open form, but hidden from the subject. At the same time the phenomena of consciousness constitute a real moment in the movement of activity. This is their significance, not their "epiphenomenology." As V. P. Kuz'min rightly noted, the conscious image appears as an ideal standard, which is materialized in activity.

The approach to consciousness of which we are speaking radically changes the statement of the problem that is of greatest significance for physiology - the problem of the relation between the subjective image and the external object. It destroys that mystification of the problem that the postulate of directness, which I have mentioned many times, creates in psychology. If we are to proceed from the assumption that external activities directly evoke in us - in our brains - a subjective image, then the question arises as to how it happens that this image appears as if existing outside us, outside our subjectivity - in the coordinates of the external world.

Within the framework of the postulate of directness it is possible to answer this question only by accepting the process of, so to speak, secondary projection of the psychic image outside. The theoretical unsoundness of such an assumption is obvious; it is in clear opposition to the facts that indicate that the psychic image even from the very beginning "is related" to a reality that is external with respect to the brain of the subject and is not projected into the external world but more likely is extracted from it. Of course, when I speak of "extracting," this is only a metaphor. It expresses, however, a real process accessible to scientific investigation - a process of assimilation by the subject of the object world in its ideal form, in the form of conscious reflection.

This process initially appears in that system of objective relations in which a transition of the objective content of activity into its product takes place. In order that this process might be realized, however, it is not sufficient for the product of activity, having absorbed activity into itself, to appear before the subject with its material properties; it must be transformed in such a way as to appear recognizable to the subject, that is, ideally. This transformation takes place through the functioning of language, which is a product and means of communication among the participators in production. Language carries in its meanings (concepts) one or another objective content, but a content fully liberated from its materiality. Thus food, of course, appears as a material object; the meaning of the word food, however, does not contain in itself

even a gram of nutritional substance. Here even language itself has its material existence, its material; but language, taken in relationship to the signified reality, is only a form of its being, just as are those material brain processes of individuals that realize its perception.

Thus individual consciousness as a specifically human form of subjective reflection of objective reality may be understood only as a product of those relations and mediations that arise in the course of the establishment and development of society. Outside the systems of these relationships (and outside social consciousness) the existence of the individual psyche and the form of conscious reflection, conscious images, is not possible.

A clear understanding of this is all the more important for psychology since up to this time psychology has not conclusively given up explaining the phenomena of consciousness from the standpoint of naive anthropologism. Even the activity approach to the psychological study of the phenomena of consciousness permits an understanding of it only under the indispensable condition that human activity itself be considered as a process included in the system of relationships that realize its social being, which is its method of existence also as a natural and physical essence.

Of course, the indicated conditions and relationships, which give rise to human consciousness, characterize only its earliest stages. Subsequently, in connections with the development of material production and social contact, a distinguishing of and then an isolation of spiritual production and the resulting technization of language, people's consciousness is freed from the direct connection with their direct practical work activity. The circle of awareness becomes ever wider so that consciousness in man becomes a universal, although not the only form of psychic reflection. In the process it undergoes a series of radical changes.

At first, consciousness exists only in the form of the psychic image, which discloses for the subject the world surrounding him, but activity remains, as formerly, practical, external. At a much later stage activity also becomes a subject of consciousness: Actions of other people are perceived and through them also the actions of the subject himself. Now they are communicated, signified by means of gestures or oral speech. This is a prerequisite for the genesis of internal actions and operations that take place in the mind, on the "plane of consciousness." The consciousness- image becomes also consciousness- activity. It is in just this fullness that consciousness begins to appear to be emancipated from external sensory- practical activity and, more than that, seems to direct it.

Another major change that consciousness undergoes in the course of historical development is a breaking up of the initial merging of the consciousness of the work collective and the consciousness of the individuals forming it. This takes place because a wide circle of phenomena is perceived that includes in itself phenomena belonging to the sphere of such relations of individuals as compose the personal in the life of every one of them. Under these circumstances class stratification of society leads to people finding themselves in disparate, opposing relations, opposing one another with respect to means of production and the common product; their consciousness brings upon itself also a corresponding effect of this disparity, this opposition. In addition, ideological representations of their real life relationships are worked out by concrete individuals and included in the process of consciousness.

The result is a more complex picture of internal connections, intertwinings, and interconnections generated by the development of internal contradictions, which in their abstract aspect appear even in the analysis of the simplest relationships that characterize the system of human activity. At first glance immersing investigation in this more complex picture may seem to be a diversion from the problems of the

concrete- psychological study of consciousness to a substitution of sociology for psychology. But this is just not so. On the contrary, psychological characteristics of individual consciousness can only be understood through their connections with those social relationships into which the individual is drawn.

4. 2. The Sensory Fabric of Consciousness

The development of the consciousness of individuals is characterized by psychological multiplicity.

In the phenomena of consciousness we discover first of all its sensory fabric. This fabric forms the sensory composition of concrete images of reality actually perceived or arising in memory, relating to the future, or even just imagined. These images differ according to their modality, sensory tone, degree of clarity, greater or lesser stability, etc. Many thousands of pages have been written about this. Empirical psychology, however, consistently avoided the most important question from the standpoint of the problem of consciousness: the question of that special function that sensory elements serve in consciousness. More precisely, this question was broached indirectly in problems such as the problem of sensibility of perception or the problem of the role of speech (language) in communication of sensory data.

The special function of sensory images of consciousness is that they impart reality to the conscious picture of the world that opens up before the subject. In other words, owing especially to the sensory content of consciousness, the world appears to the subject as existing not in consciousness but outside his consciousness - as an objective "field" and the object of his activity.

This conviction may appear paradoxical because investigation of sensory phenomena has for a long time stemmed from positions that lead in the opposite direction, to the idea of their "pure subjectivity," their "hieroglyphicity." Correspondingly, the sensory content of the images was presented not as realizing a direct connection of consciousness with the external world but rather as partitioning it off.

In the post-Helmholtz period experimental study of the process of perception was marked by great successes so that psychology of perception is now flooded with a great multitude of various facts and private hypotheses. What is surprising is this that, notwithstanding these successes, the theoretical position of Helmholtz remained unshakable.

It is true that in the majority of psychological works its presence is invisible, in the wings, unless you use it seriously and openly, as does, for example, R. Gregory, the author of some most persuasive contemporary books about visual perception. '

The strength of the position of Helmholtz is that in studying the physiology of vision he understood the impossibility of deriving images of objects directly from sensations, of identifying them with those "patterns" that light rays draw on the retina of the eye. Within the framework of the ideational system of the natural science of that time, the resolution of the problem suggested by Helmholtz (specifically, that to the work of the sensory organs the work of the brain is necessarily joined and this forms a hypothesis about objective reality on the basis of sensory hints) was the only one possible.

The fact is that objective images of consciousness were thought of as some kind of psychic things depending on other things making up their external cause. In other words, the analysis went along a plane of double extraction, which was expressed, on the one hand, in the withdrawal of sensory processes from the system of activity of the subject and, on the other, in the withdrawal of sensory images from the system of human consciousness. The idea itself of systemics of the object of scientific cognition remained unexploited.

Distinct from the approach that considered phenomena in their isolation, systemic analysis of consciousness requires investigation of the forms of consciousness in their internal relationships elicited by the development of forms of connection between the subject and reality; this means investigation first of all from the aspect of that function that every "form" fulfills in the processes of presenting (representation) to the subject a picture of the world.

Sensory contents taken in the system of consciousness do not directly disclose their function; subjectively it is expressed only indirectly - in an instinctive experiencing of a "feeling of reality." It reveals itself, however, whenever a disturbance or distortion of reception of external effects takes place. Because the facts that bear this out have an important significance for psychology, I will cite some of them.

We found a very clear manifestation of the function of sensory images in the consciousness of the real world in investigations of the reestablishment of objective actions in wounded miners who were completely blinded and had simultaneously lost both hands. Because they underwent a rehabilitating surgical operation that included massive displacement of the soft tissue of the forearms, they also lost tactile ability to perceive objects with their hands (the phenomena of dyssymbolia). It developed that since visual control was impossible this function could not be reestablished for them; correspondingly, objective hand movement could not be established either. As a result, several months after the accident, the patients had unusual complaints: Regardless of the fact that oral communication with those around them was not inhibited in any way and their intellectual processes were not damaged, the external, objective world gradually became "disappearing" for them. Although verbal ideas (the meaning of words) retained their logical connections for them, they gradually lost their objective attributions. Indeed, there developed a tragic picture of damage to the patients' feeling of reality. "It was as if I were reading about everything and not seeing it . . . everything seemed farther away from me," thus one of the blind amputees described his condition. He complained that when people greeted him, it was "as if there wasn't any man there."

A similar phenomenon of loss of the feeling of reality was found also in normal subjects under conditions of artificial inversion of visual impressions. As early as at the end of the last century, Stratton in his classical experiments with special eyeglasses that inverted the image on the retina remarked that under these conditions there is a feeling of unreality of the perceived world.

It was necessary to understand the essence of these qualitative reconstructions of the visual image, which appeared to the subject as experiencing an unreality of the visual picture. Later there were disclosed such peculiarities of inverted vision as difficulty in identifying familiar objects, particularly human faces," visual constancy," etc.

The absence of directly relating the inverted visual image to the objective object world is evidence that at the level of reflecting consciousness, the subject is able to differentiate between perceptions of the real world and his internal phenomenal field. The first was presented by perceptible "signifying" images, the second by the actual sensual material. In other words, the sensual material of the image may be represented in consciousness in two ways: either as something that has an objective content for the subject (and this is the usual, "normal" phenomenon) or as itself. As distinct from normal cases when the sensual material and the objective content merge, their nonconformity is disclosed either as a result of specially directed introspection" or under special experimental conditions - particularly noticeably in experiments with a long adaptation to inverted vision. Immediately after putting on inverting prisms, the subject sees only the sensual material of the visual image with no objective content. The fact is that in perceiving the world through optical fittings that change the

projection, the apparent images are transformed in the direction of their greatest plausibility; in other words, in adapting to optical distortion what takes place is not simply a different “decoding” of the projected image but a complex process of structuring the perceived objective content, which has a determined objective logic different from the “projected logic” of the retinal image. For this reason the impossibility of perceiving the objective content at the beginning of a long-term experiment with inversions is linked to the fact that in the consciousness of the subject the image is presented only in its sensual material. Later, perceptive adaptation takes place as a unique process of reestablishing the objective content of the visual image in its inverted sensual material.

The possibility of differentiating between the phenomenal field and objective, “meaningful” images evidently is a property only of human consciousness; owing to it, man is liberated from the slavery of sensory impressions when they are distorted by incidental conditions of perception. In this connection experiments with monkeys fitted with glasses inverting the retinal image are interesting; it developed that as distinct from man, in the monkeys this completely disrupted their behavior, and they entered a long period of inactivity.

I could append considerable data here pertaining to the particular contribution that sensitivity adds to individual consciousness; some important facts obtained under conditions of lengthy sensory deprivation, for instance, were completely omitted.” But what has been said is a sufficient basis for posing the question that is central to further analysis of the problem we are considering.

The deep nature of the psychic sensory images lies in their objectivity, in that they have their origin in processes of activity connecting the subject in a practical way with the external objective world. Regardless of how complicated these connections and the forms of activity that realize them are, sensual images retain their original objective relation.

Of course, when we compare the vast richness of the cognitive results of human mental activity with those contributions that our sensitivity introduces directly into it, then these contributions are almost insignificant and their extreme limitations are most obvious; to this is added the fact that sensory impressions constantly contradict the more complete meaning. From this comes the idea that sensory impressions serve only as a stimulus bringing into action our cognitive capabilities, and that images of objects are engendered by internal mental operations - conscious or unconscious - that, in other words, we would not perceive the object world if we did not think it. But how could we think this world if it did not initially disclose itself to us specifically, in its objectivity, sensually perceived?

4.3. Meaning as a Problem of Psychological Consciousness

Sensory images represent a universal form of psychic reflection having its origin in the objective activity of the subject. In man, however, sensory images assume a new quality, specifically, their signification. Meanings are the most important “formers” of human consciousness.

As is known, a loss in man of even the most important sensory systems vision and hearing - does not destroy consciousness. Even in blind, deaf-mute children who have mastered specifically human operations involving objective actions and language (which, of course, can only take place under conditions of special education) a normal consciousness is formed different from the consciousness of sighted and hearing people only in its extremely poor sensory fabric. It is another matter when because of these or other circumstances a “humanization” of activity and social contact does not take place. In this case, regardless of how complete the preservation of sensory motor

spheres is, consciousness does not develop. This phenomenon (we will call it “the phenomenon of Kaspar Gauzer”) is now widely known.

Thus meanings interpret the world in the consciousness of man. Although language appears to be the carrier of meaning, yet language is not its demiurge. Behind linguistic meanings hide socially developed methods of action (operations) in the process of which people change and perceive objective reality. In other words, meanings represent an ideal form of the existence of the objective world, its properties, connections, and relationships, disclosed by cooperative social practice, transformed and hidden in the material of language. For this reason meanings in themselves, that is, in abstraction from their functioning in individual consciousness, are not so “psychological” as the socially recognized reality that lies behind them.

Meanings constitute the subject matter for study in linguistics, semiotics, and logic. Also, as one of the “formers” of individual consciousness, meanings necessarily enter into the circle of problems of psychology. The main difficulty of the psychological problem of meaning is that in meaning arise all of those contradictions that confront the broader problem of the relationship of the logical and the psychological in thought, in logic, and in the psychology of comprehension.

Within the framework of subjective-empirical psychology this problem was resolved in the sense that concepts (resp., literal meanings) appear to be a psychological product - a product of association and generalization, of impressions in the consciousness of the individual subject, the results of which are fixed in words. This point of view found its expression, as is known, not only in psychology but also in the concepts of those who psychologize logic.

Another alternative is acknowledging that concepts and operations with concepts are directed by objective, logical laws, and that psychology has to do only with deviations from these laws that are found in primitive thinking, under conditions of pathology or strong emotions, and finally, that the problem of psychology includes the study of the ontogenetic development of concepts and thought. Investigation of this process did occupy the main place in the psychology of thought. It is enough to indicate the work of Piaget and Vygotskii and the large number of Soviet and foreign papers on the psychology of learning.

Research on the formation in children of concepts and logical (mental) operations contributed significantly to science. It was shown that concepts are by no means formed in the head of a child in the same way that sensory generic images are formed, but that they represent the result of a process of appropriating “ready,” historically developed meaning, and that this process takes place in the activity of the child under conditions of communication with people around him. In learning how to carry out one action or another he masters corresponding operations, which in their compressed, idealized form are also present in meaning.

It is understood that at first the process of mastering meanings takes place in external activity of the child with material objects and in sympraxic contacts. At early stages the child acquires concrete meanings directly related to objects; later the child also masters purely logical operations, but these are also in the external, exteriorized form - because, of course, otherwise they simply cannot be communized. Being interiorized, they form abstract meanings and concepts, and their movement constitutes an internal mental activity, an activity in the “plane of consciousness.”

This process was studied in detail in recent years by P. Ya. Gal’perin, ‘who developed an elegant theory that he called “the theory of formation of mental actions and concepts by levels”; at the same time he was developing a concept about the

orientational basis of actions, the characteristics of this basis, and suitable types of training.

The practical and theoretical productivity of these and subsequent numerous investigations is indisputable. At the same time the problem under investigation was, from the very beginning, strictly limited; it is the problem of goal directed, “nonspontaneous” formation of mental processes on externally imposed “matrices” or “parameters.” Correspondingly, the analysis concentrated on carrying out assigned actions; as far as their origins were concerned, that is the process of goal formation and motivation of activity that they realized (in the given case, training), that remained beyond the limits of direct investigation. It is understood that under these conditions there is no need to distinguish precisely in the system of activity between actions and means of carrying them out; there is no need for systemic analysis of the individual consciousness.

Consciousness as a form of psychic reflection, however, cannot be reduced to the functioning of meanings learned from outside which, unfolding, direct the external and internal activity of the subject. Meanings and the operations contained within them in themselves, that is, in their abstraction from internal relations of the system of activity and consciousness, are not at all the subject of psychology. They become its subject only if they are taken in those relationships, in the movement of the system of relationships.

This follows from the very nature of the psyche. As has already been said, psychic reflection comes about as the result of the splitting of life processes of the subject into processes that carry out his direct biotic relations and “signal” processes that mediate them. The development of internal relations, elicited by this splitting, finds its expression in the development of the structure of activity and, on this basis, also in the development of the forms of psychic reflection. Further, at the level of the individual there takes place such transformation of these forms that, having been fixed in language (languages), they assume a quasi-independent existence as an objective, ideal phenomenon. And they are constantly repeated by processes taking place in the heads of concrete individuals. This constitutes the internal “mechanism” of their transmission from generation to generation and the condition of their enrichment by means of individual contributions.

Here we approach in earnest the problem that is a real stumbling block for the psychological analysis of consciousness. This is the problem of the characteristics of functioning of knowledge, concepts, and mental models, on the one hand, in the system of social relations in social consciousness, and on the other hand, in the activity of the individual realizing his social connections, in his consciousness.

As has already been said, consciousness is bound by its genesis to the isolation of actions that takes place in work, the cognitive results of which are abstracted from real purposeful human activity and are idealized in the form of language meanings. Communized, they become the property of the consciousness of individuals. Here they do not in the least lose their abstractness; they carry in themselves methods, objective conditions, and results of actions regardless of the subjective motivation of the human activity in which they are formed. At early stages when there is still a commonness of motives of activity among the participators in collective work, meanings as a phenomenon of individual consciousness are found in relations of direct adequacy. This relation, however, is not preserved. It decomposes together with the decomposition of initial relations of individuals to material conditions of work and means of production, the development of social division of work and personal property. As a result, socially developed meanings begin to live in the consciousness

of individuals as if with a double life. Still another internal relation develops, still another movement of meanings in the system of individual consciousness.

This unique internal relation is evident in the simplest psychological facts. Thus, for example, everyone who studied some time ago knows very well the significance of examination marks and the results that followed them. Nonetheless, for the consciousness of each individual the mark may have an essentially different meaning: let us say, as a step (or obstacle) on the way toward the chosen profession, or as a means of winning approval in the eyes of those around him, or perhaps in some other way. It is this circumstance that makes it necessary for psychology to distinguish the recognized objective significance from its significance for the subject. In order to avoid duplication of terms I prefer to speak in the latter case about the personal sense. Then the example given may be expressed thus: The significance of the mark can acquire a different personal sense in the consciousness of the learners.

Although the understanding proposed by me of the relation of the concepts of significance and sense was explained more than once, it is still not infrequently interpreted completely erroneously. Obviously, it is necessary to return once more to the analysis of the concept of personal sense.

First, let us say a few words about the objective conditions that lead to a differentiation in individual consciousness of significance and sense. In his well-known paper, a criticism of A. Wagner, Marx noted that objects of the external world assimilated by people appeared to them initially as means of satisfying their needs, as something that appeared to them as "blessings." "They ascribe to an object a positive character as if it belonged to the object itself," wrote Marx. This idea sets off a very important characteristic of consciousness at various stages of development, specifically that objects are reflected in language and consciousness merged with the human needs concretized (objectified) in them. This merging, however, later is destroyed. The inevitability of its destruction lies in the objective contradictions of the production of goods, which gives rise to the opposition of concrete to abstract work and leads to the alienation of human activity.

This problem inevitably confronts analysis, which understands the limitation of the representation that significance in individual consciousness is only a more or less full and complete projection of the "supraindividual" significance existing in the given society. It is not at all eliminated by references to the fact that meanings are interpreted by concrete features of the individual, by his former experience, by the uniqueness of his circumstances, temperament, etc.

The problem about which we are speaking arises from the real duality of existence of meanings for the subject. This duality consists of the fact that meanings appear before the subject both in their independent existence, as objects of his consciousness, and at the same time as means and "mechanisms" of perception, that is, functioning in processes that present an objective activity. In this functioning, meanings necessarily enter into internal relations that connect them with other forms of individual consciousness; it is only in these internal relations that they form their psychological characteristics.

We will express this another way. When into the individual subject's psychic reflection of the world enter products of social-historical practice idealized in their meanings, then these meanings assume new systemic qualities. The disclosure of these qualities constitutes one of the tasks of psychological science.

The most difficult point here is that meanings lead a double life. They are produced by society and have their history in the development of language, in the development of forms of social consciousness; meanings express the movement of human knowledge

and its cognitive means as well as an ideological representation of society - religious, philosophical, political. In this, their objective existence, they are subordinated to social- historical laws and also to the internal logic of their development.

In all its inexhaustible riches, in all the multifaceted nature of this life of meaning (just think: all science is concerned with it!) meaning has a completely hidden other life, another movement: its functioning in the process of activity and consciousness of concrete individuals, although it is only through these processes that meanings can exist.

In this their second life, meanings are individualized and subjectivized but only in the sense that indirectly their movement in the system of relations of society is no longer contained in them; they enter into another system of relations, into another movement. But this is what is remarkable: They do not in any way lose their social- historical nature, their objectivity.

One of the facets of movement of meanings in consciousness of concrete individuals is their "return" to the sensory object world about which we were speaking earlier. While in their abstractness, in their "supraindividuality," meanings are indifferent to the sensory forms in which the world is disclosed to the concrete subject (it can be said that in themselves meanings are devoid of sensuality), their functioning in establishing real life connections necessarily presupposes their relatedness to sensory impressions.

Of course, the sensory-object relatedness of meanings in the consciousness of the subject may be indirect, it may be realized through quite complex chains of thought operations, intertwined in them, particularly when meanings reflect activity that appears only in its distant oblique forms. But in normal circumstances this relativity always exists and disappears only in the products of their movement, in their exteriorization.

Another facet of the movement of meanings in the system of individual consciousness lies in their special subjectivity, which is expressed in the partiality that they acquire. This facet, however, is disclosed only in the analysis of internal relations that connect meanings with still another "former" of consciousness - personal sense.

4.4. Personal Sense

Psychology has for a long time been describing the subjectivity, the partiality of human consciousness. Its manifestations were seen in the selectivity of attention, in the emotional coloring of representations, in the dependence of cognitive processes on needs and inclinations. In his time Leibniz expressed this dependence in the well-known aphorism: ". . . , if geometry were to contradict our passions and our interests as morals do, then we would argue against it and we would violate it in spite of all the evidence of Euclid and Archimedes. . . ."

The difficulty lies in the psychological explanation of the partiality of consciousness. The phenomena of consciousness seemed to have a dual determination, external and internal. Correspondingly, they were treated as if belonging to two different spheres of the psyche: the sphere of cognitive processes and the sphere of needs and affectiveness. The problem of relating these spheres - resolved in the spirit of rationalistic conceptions or in the spirit of the psychology of deep experience - was invariably interpreted from an anthropological point of view, from the point of view of an interaction of various factors - forces different in their nature.

The real nature of the duality of the phenomena of individual consciousness, however, does not lie in their subordination to these independent factors.

We will not enter here into those features that distinguish the various social- economic formations in this respect. For the general theory of individual consciousness, the main thing is that activity of concrete individuals always remains “squeezed into” (*inséré*) the available forms of the manifestations of these objective opposites, which find their oblique, phenomenal expression in consciousness, in its specific internal movement.

The activity of man historically does not change its general structure, its “macrostructure.” At all stages of historical development it is realized by conscious actions in which a transition of goals into objective products is accomplished and which is subordinated to the motives that elicit it. What is radically changed is the character of the relationships that connect goals and motives of activity.

These relationships are also psychologically decisive. The fact is that for the subject himself, perception and achievement by him of concrete goals, mastery of means and operations, of action is a method of conforming his life, satisfying and developing his material and spiritual needs, which are objectified and transformed in the motives of his activity. No matter whether these motives are or are not perceived by the subject, they signal themselves in the form of his experiencing an interest, a desire, or a passion; their function, taken from the aspect of consciousness, is that they “evaluate” the life significance for the subject of objective circumstances and his actions in these circumstances, giving them personal sense that does not directly correspond to their understood objective meaning. In given circumstances the lack of correspondence of sense and meaning in individual consciousness may take on the character of a real alienation between them, even their opposition.

In a manufacturing society this alienation appears inevitably, and in people at both social poles. A hired worker accounts for himself, of course, in the product he produces; in other words, the product appears before him in the objective meaning (*Bedeutung*) for the most part within limits necessary to enable him to carry on his work functions sensibly. But the sense (*Sinn*) of his work for him himself lies not in that but in the payment for which he works. “The sense of a twelve- hour period of work does not lie in that he weaves, spins, drills, etc., but in that it is a means of earning which gives him the possibility of eating, going to the tavern, sleeping,“ This alienation appears also in the opposite pole of society: For dealers in minerals, notes Marx, minerals do not have the sense of minerals.

Destroying the relations of personal property destroys this opposition of meanings and sense in the consciousness of individuals; their nonconformity, however, is preserved.

The necessity of their nonconformity was laid down in ancient prehistory of human consciousness, in the existence in animals of two types of sensitivity that mediate their behavior in the object world. As is known, perception of animals is limited by influences signally connected with satisfaction of their needs, although only eventually, potentially. But needs may realize a function of psychic regulation appearing only in the form of stimulating objects (and correspondingly, of means of mastering them or defending against them). In other words, in the sensitivity of animals, external properties of objects and their ability to satisfy one need or another are not separated one from the other. Let us remember, a dog in response to the action of a conditioned food stimulus strains toward it and licks it. The inseparability of the perception by animals of the external appearance of objects from its needs does not mean, however, that these coincide. On the contrary, in the course of evolution their connections became more and more mobile and remarkably complicated, preserving only the impossibility of their being isolated. They can be distinguished only at the human level when verbal meanings are forced into the internal connections of both of these forms of sensuality.

I say that the meanings are forced in (although perhaps it would have been better to say “enter in” or “are immersed in”), only in order to stress the problem. Actually, as you know, in their objectivity, that is, as phenomena of social consciousness, meanings for the individual interpret objects independently of their relations to his life, to his needs and motives. Even for the consciousness of a drowning man, the straw he grasps still preserves its meaning as a straw. It would be another matter if that straw if only in illusion - would turn at that moment into a lifesaver.

Although at the beginning stages of the formation of consciousness meanings appear merged with personal sense, in this merging their nonconformity is already implicitly contained; later it unavoidably assumes its obvious explicit forms. This makes it necessary in analysis to isolate the personal sense as still another forming system of individual consciousness. These are the things that constitute that “cryptic,” according to an expression of L. S. Vygotskii, plane of consciousness that quite often is interpreted in psychology not as being formed during activity of the subject, during the development of motivation, but as if indirectly expressing internal moving forces that are from the very beginning incorporated in the very nature of man.

In individual consciousness the meanings assimilated from without actually seem to separate and simultaneously unite between them both types of sensitivity, sensory impressions of external reality in which the individual’s activity takes place and forms of sensory experiencing of the motives of the activity, satisfaction or lack of satisfaction of the needs hidden behind it.

As distinct from meaning, personal sense, like the sensory fabric of consciousness, does not have its own “supraindividual,” “nonpsychological” existence. If in the consciousness of the subject external sensitivity connects meanings with the reality of the objective world, then the personal sense connects them with the reality of his own life in this world, with its motives. Personal sense also creates the partiality of human consciousness.

It was mentioned above that in individual consciousness meanings are “psychologized,” returning to the reality of the world sensorily presented to man. Another decisive circumstance converting meanings into a psychological category is that functioning in the system of individual consciousness, meanings realize not themselves but a movement embodying in them the personal sense of the meanings - that being- for- himself concrete subject.

Psychologically, that is, in the system of the consciousness of the subject and not as its object or product, meanings generally do not exist except in realizing one sense or another, just as the subject’s actions and operations do not exist except as realizing one or another of his activities aroused by a motive or a need. Another aspect is that the personal sense is always a sense of something: “Pure,” nonobjective sense is the same kind of absurdity as a nonobjective creature.

Embodying sense in meanings is a deeply intimate, psychologically meaningful process not in the least automatic or momentary. In the creation of literary works of art, in the practice of moral and political education, this process appears in all its fullness. Scientific psychology knows this process only in its partial expression: in the phenomena of “rationalization” by people of their actual motives, in experiencing the torment of transition from the thought to the word (L. S. Vygotskii quotes Tyutchev: “I forgot the word which I wanted to say, and the thought, lacking material form, will return to the chamber of shadows.”)

In its most naked forms the process about which we are speaking appears in conditions of class society and struggle for ideology. Under these conditions personal meanings reflecting motives engendered by actions of life relationships of man may not

adequately embody their objective meanings, and then they begin to live as if in someone else's garments. It is necessary to imagine the major contradiction that gives rise to this phenomenon. As is known, as distinct from the life of society, the life of the individual does not "speak for itself," that is, the individual does not have his own language with meanings developed within it; perception by him of phenomena of reality may take place only through his assimilation of externally "ready" meanings - meanings, perceptions, views that he obtains from contact with one or another form of individual or mass communication. This makes it possible to introduce into the individual's consciousness and impose on him distorted or fantastic representations and ideas, including such as have no basis in his real practical life experience. Deprived of this basis they find their real weakness in the consciousness of man; and turning into stereotypes, like any stereotypes, they are so resistant that only serious real life confrontations can dispel them. But even dispelling them does not lead to averting disintegration of consciousness or its inadequacy; in itself it creates only a devastation capable of turning into a psychological catastrophe. It is necessary in addition that in the consciousness of the individual there take place a reshaping of subjective personal meanings into other more adequate meanings.

A more intense analysis of such reshaping of personal meanings into adequate (more adequate) meanings indicates that it takes place under conditions of the struggle in society for the consciousness of people. Here I want to say that the individual does not simply "stand" before a certain "window" displaying meanings among which he has but to make a choice, that these meanings - representations, concepts, ideas - do not passively wait for his choice but energetically dig themselves into his connections with people forming the circle of his real contacts. If the individual in given life circumstances is forced to make a choice, then that choice is not between meanings but between colliding social positions that are expressed and recognized through these meanings.

In the sphere of ideological representations this process is unavoidable and has a universal character only in a class society. It persists, however, also in conditions of a socialistic, communistic society to the extent that here also appear features of individual man, features comprising his personal relations and social and life situations; this process is preserved also because of his own unique features, those of a physical being, and because of concrete external circumstances, which cannot be identical for all.

What does not disappear and cannot disappear is the constantly recurring nonconformity of personal meanings that carry within them the intentionality and partiality of the consciousness of the subject, and meanings that are "indifferent" to him through which personal meanings can be expressed. For this reason the internal movement of a developed system of individual consciousness is also full of dramatic effect. It is created by senses that cannot "express themselves in adequate meanings, senses that have lost their real life basis and for this reason sometimes agonizingly discredit themselves in the consciousness of the subject; it is created finally by the existence of motives- goals conflicting with one another.

There is no need to repeat that this internal movement of individual consciousness has its origin in the movement of objective activity of man, that behind its dramatic effects hide the dramatic effects of his real life, that for this reason scientific psychology of consciousness is not possible outside the investigation of the activity of the subject, the forms of its direct existence.

In conclusion, I cannot but touch on the problem of so-called life psychology, the psychology of experience, which has recently again been evaluated in our literature. From what has been said, it directly follows that although scientific psychology must

not exclude from the field of its consideration the internal world of man, yet its study cannot be separated from the investigation of activity and does not constitute any kind of special direction of scientific psychological investigation. That which we call internal experiences is the essence of the phenomenon, taking place on the surface of the system of consciousness, and it is in this form that consciousness appears directly for the subject. For this reason, the experiences, interests, boredom, inclinations, or remorse do not disclose their nature to the subject; although they seem to be internal forces moving through his activity, their real function is only leading the subject to their real source in that they signal the personal sense of events taking place in his life, they make him seem to stop the flow of his activity for an instant to contemplate the life values he has constructed in order to find himself in them, or perhaps to review them.

Thus man's consciousness, like activity itself, is not additive. It is not a plane, nor even a volume, filled with images and processes. It is not connections of his separate "units" but an internal movement of his formers, activities included in total movement realizing the real life of the individual in society. The activity of man makes up the substance of his consciousness.

Psychological analysis of activity and consciousness discloses only their general systemic qualities and understandably abstracts itself from the features of special psychic processes - processes of perception and thought, memory and learning, oral communication. But these processes exist in themselves only in the described relations of the system at one level or another. For this reason, although investigations of these processes constitute a specific problem, in no way do they appear independent of how problems of activity and consciousness are resolved, for this determines the methodology

And finally, the principal thing. The analysis of activity and individual consciousness is, of course, derived from the existence of a real physical subject. Initially, however, that is, before and within this analysis, the subject appears only as some kind of abstraction, a psychologically "unfulfilled" whole. Only as a result of the steps taken by research does the subject disclose himself, concretely- psychologically, as a person. In addition, it develops that analysis of the individual consciousness in its turn must resort to the category of personality. For this reason it was necessary to introduce into this analysis such concepts as the concept of "partiality of consciousness" and "personal sense," behind which categories there lies a problem that has not yet been touched on - the problem of systemic psychological investigation of personality.

5.1. Personality as a Subject of Psychological Investigation

In order to overcome the dyadic scheme that dominated psychology, it was necessary first of all to isolate that “middle link” mediating connections of the subject with the real world. For this reason we began with the analysis of activity and its general structure. Immediately, however, we found that a concept of its subject necessarily enters into a determination of activity, that activity because of its very nature is subjective.

The concept of the subject of activity is another matter. In the first place, that is, before the more important moments that form the process of activity are explained, the subject remains as if beyond the limits of investigation. He appears only as a prerequisite for activity, one of its conditions. Only further analysis of the movement of activity and the forms of psychic reflection elicited by it makes it necessary to introduce the concept of the concrete subject, of the personality as of an internal moment of activity. The category of activity is now disclosed in all of its actual fullness as encompassing both poles, the pole of the object and the pole of the subject.

A study of personality as a moment of activity and its product constitutes a special, although not isolated psychological problem. This problem is one of the most complex. Serious difficulties arise even in the attempt to explain what kind of reality is described in scientific psychology by the term personality.

Personality appears to be not only a subject of psychology but also a subject for philosophical, social-historical cognition; finally, at a given level of analysis, personality appears from the aspect of its natural biological features as a subject of anthropology, somatology, and human genetics. Intuitively we know very well where the differences lie. Nonetheless, in psychological theories of personality serious misunderstandings and unwarranted oppositions to these approaches to the study of personality constantly arise.

Only a few general positions on personality, with certain reservations, are accepted by all authors. One of these positions is that personality represents some kind of a unique unity, some kind of wholeness. Another position recognizes as personality the role of the higher integrating powers that direct the psychological processes (James called personality a “manager” of psychic functions; G. Allport, “a determiner of behavior and thought”). However, attempts of further interpretation of these positions lead to a series of false ideas and a mystification of the problem of personality in psychology.

First of all, this is an idea that places in opposition the “psychology of personality” and the psychology that studies concrete processes (the psychology of function). One attempt to avoid this opposition was expressed in the desire to make personality a “departure point for explaining any psychic phenomena,” “the center, and only by beginning from it is it possible to resolve all problems of psychology,” so that the necessity of a special division in psychology – psychology of personality – no longer exists. It is possible to agree with this desire, but only if it is possible to see in it only an expression of some kind of highly general thought that is diverted from concrete problems and methods of psychological investigation. Notwithstanding all the persuasiveness of the old aphorism that it is “man who thinks, not thought,” this desire appears to be methodologically naive for the simple reason that the subject unavoidably appears before the analytical study of his higher life manifestations either as an abstraction, as an “unfulfilled” whole, or as a metapsychological “I” (persona), possessing dispositions or goals deposited in him from the beginning. This, as is known, is postulated by personalistic theories. Thus it does not matter whether

personality is considered from the biologizing organic positions or as a purely spiritual beginning or, finally, as some kind of “psychophysiological neutrality.” In addition, the requirement of the “personality approach” to psychology sometimes is understood in the sense that in studying separate psychological processes the attention of the investigator must first of all be concentrated on individual characteristics. But this does not in any way solve the problem inasmuch as a priori we are able to judge which of these traits characterize personality and which do not. For example, does the speed of a man’s reaction, the extent of his memory, or knowing how to type enter into the psychological characterization of personality?

One of the methods of bypassing this major question of psychological theory is by understanding the concept of personality as man in his empirical totality. The psychology of personality thus turns into a special type of anthropology that includes everything in itself – from the investigation of features of metabolic processes to the investigation of individual differences in separate psychic functions.

Of course, a complex approach to man is not only possible but necessary as well. A complex study of man (“the human factor”) has now assumed a first-rank significance, but it is just this circumstance that makes the psychological problem of personality a special problem. It is known that no system of knowledge about a whole subject gives us its actual understanding if one of the essential specifications of its characteristics is missing. This is how the matter stands with the study of man: Psychological investigation of man as a personality cannot in any way be replaced by a complex of comparisons of morphological, physiological, or isolated functional-scientific data. Dissolved in them, it will in the final account be reduced either to biological or to abstract sociological, culturological representations about man.

Up to this time a real stumbling block in the investigation of personality has been the problem of relations of general and differential psychology. The majority of the authors select the differential-psychological direction. Taking its beginning from Galton and Spearman, this direction initially limited itself to an investigation of mental capacities and subsequently understood the study of personality as a whole. Spearman had already disseminated the idea of factors in the features of will and afference, isolating side-by-side with the general factor “g,” the factor “s.” Further steps were taken by Cattell, who proposed a multiple measure and hierarchic model of factors (traits) of personality, which included consideration of such factors as emotional stability, expansiveness, and self-confidence.

The method of research developed by this trend consists, as is known, in studying statistical connections between separate traits of personality (its properties, potentials, or behaviors) disclosed by tests. The correlations established between them serve as a basis for isolating hypothetical factors and “superfactors,” which cause these connections. Such, for example, are the factors of introversion and neuroticism forming, according to Eysenck, the apex of the factorial, hierarchic structure that is identified by him with a psychological type of personality. Thus behind the concept of personality appears something “general,” which is isolated by means of one set of procedures or another of the statistical analysis of quantitative expressions of characteristics selected according to statistical criteria. For this reason, notwithstanding that empirical data are a basis of the characterization of this “something general,” still it remains in essence metapsychological, not requiring psychological explanation. If attempts to explain it are undertaken, then they follow the line of a search for corresponding morphophysiological correlates (types of higher nervous activity of Pavlov, the constitution of Kretschmer-Sheldon, the variables of Eysenck), and this returns us to the organistic theories.

The empiricism that is characteristic for this direction actually cannot give more. The study of correlations and factorial analysis deals with variations of characteristics that are isolated only to the extent that they are expressed in individual or group differences capable of being measured. The corresponding quantitative data, whether they relate to reaction time, to skeletal structure, to the features of the vegetative sphere, or to the number and character of images produced by the subjects in studying inkblots, are all subjected to processing without regard for the relation the measured traits have toward the features that actually characterize human personality.

Of course, what has been said does not in the least mean that it is generally impossible to apply the method of correlation in the psychology of personality. We are speaking of something else: of the fact that in itself the method of correlation of an empirical collection of individual traits is insufficient for psychological disclosure of personality inasmuch as isolating these traits requires bases that cannot be derived from these traits themselves.

The task of finding these bases arises as soon as we reject the concept of personality as some kind of a whole that incorporates the totality of all features of man – “from political views to the digestion of food.” From the fact of multiplicity of traits and characteristics of man it simply does not follow that the psychological theory of personality must seek a global inclusion of them. As is known, man as an empirical whole exhibits his properties in all forms of interaction into which he is drawn. Falling from the window of a multistoried house, he of course exhibits properties belonging to him as a physical body having mass, volume, etc.; it is possible that, striking the pavement, he will be maimed or killed, and in this also his properties will be revealed, specifically properties of his morphology. No one, however, will think to include similar properties in a characterization of personality since no statistically reliable connections would be established between the weight of the body or the individual characteristics of the skeleton and, let us say, memory for figures.

When in everyday life we give a description of the personality of a man, we include without any special hesitation such traits as, for example, strength of will (“a strong personality,” “a weak character”), relations with people (“benevolent,” “indifferent”), etc., but usually we do not include such traits in describing personality as, for example, shape of eyes or ability to use an abacus; we do this without using any kind of perceptible criterion for differentiating between “personality” and “nonpersonality” characteristics. If we should go the way of selecting and comparing separate psychological and other characteristics, then such a criterion simply could not be found. The fact is that the very same characteristics of man can be related to his personality variously. In one case they appear as indifferent and in another case the same characteristics enter essentially into the characterization.

The last circumstance makes it especially apparent that contrary to widely held views, no empirical differentiating investigation can resolve the psychological problem of personality; that, on the contrary, the differentiating investigation itself is possible only on the basis of a general psychological theory of personality. Factually, this is how the matter stands: Behind any differential-psychological investigation of personality – testological or clinical – there always lies one or another clearly or not clearly expressed general theoretical conception.

Notwithstanding the seeming motley and even the mutual irreconcilability of contemporary psychological theories of personality, the majority of them preserve the dyadic scheme of analysis that was characteristic for pre-Marxist and extra-Marxist psychology, and I have already spoken about the insupportability of this. Now this scheme is being put forth in a new guise: as a two-factor theory of the formation of personality: heredity and environment. Whatever characteristic of man we might take,

it is explained according to this theory, on the one hand, by the action of heredity (instincts deposited in the genotype, inclinations, potentials or even a priori categories) and, on the other hand, by the influence of external environment (natural and social, language, culture, training, etc.). From the point of view of common sense no other explanation can properly be made. However, ordinary common sense, according to the perspicacious note of [Engels](#), is an altogether respected companion in everyday practice, surviving the most remarkable adventures if only it dares to go out into the expanse of investigation.

The seeming insurmountability of the theory of the two factors leads to the fact that arguments are carried on mainly around the questions of the meaning of each of these factors: Some insist that the main determinant is heredity and that external environment and social actions serve only as possibilities and forms for the appearance of that program with which a man was born; others extract the more important features of personality directly from the specific social environment, from “sociocultural matrices.” With all the differences in the ideational and political sense of the views expressed, however, they all maintain the position of a dual determination of personality inasmuch as simply to ignore one of the factors about which we are speaking would mean to go against the empirically substantiated effects of both.

The views of the relations between the biological and sociological factors as simply combining or dividing man’s psyche into coexisting endospheres and exospheres yielded to more complex representations. These arose because the movement of analysis seemed to turn around: The problem of internal structure of personality itself, the levels forming it, and their relationships became the major problem. Thus, in particular, there appeared a representation developed by Freud of the relations of the conscious and the unconscious that characterize personality. The “libido” isolated by him represents not only a bioenergetic source of activity but a special instance in personality – “it” (id), an opposing “I” (ego), and a “super I” (superego); genetic and functional connections between these instances, realized by means of special mechanisms (displacements, censorings, symbolization, sublimation), also form the structure of personality.

Here there is no need to enter into a criticism of Freudism, the views of Adler, Jung, and their modern followers. It is absolutely apparent that these views not only do not surmount but, on the contrary, sharpen the theory of two factors turning around the idea of their convergence, in the sense of V. Stern or J. Dewey, into an idea of confrontation between them.

Another direction in which the approach to personality from the aspect of its internal construction developed was represented by the cultural anthropological conception. Ethnological data showing that essential psychological features are determined by the differences not of human nature but of human culture served as a point of departure for this. According to this conception, the system of personality is nothing other than an individualization of the system of culture in which man is included in the process of his “aculturization.” It must be said that in this connection many observations are cited, beginning with the well-known works of Margaret Mead, who showed, for example, that even such a stable phenomenon as psychological crisis in adolescence cannot be explained by the onset of sexual maturity since in certain cultures this crisis does not exist. Arguments are also drawn from studying persons unexpectedly moved into cultural surroundings, and finally, from experimental investigations of such special phenomena as the effect of objects predominant in a given culture on the resolution of conflict in visual fields.

For psychology the significance of the cultural-anthropological interpretation of personality is, however, illusory: These interpretations inevitably lead to anti-

psychologism. As early as in the 1940s Linton indicated the difficulty arising here, which is that culture really exists only in its conceptualized form as a generalized “construct.” Its carriers are, of course, concrete people, each of whom partially assimilated it; in them it is personified and individualized, but at the same time it forms not that which is personality in man but, on the contrary, that which appears to be without personality as, for example, a common language, knowledge, prejudices that are common to the given social environment, vogues, etc. For this reason for the psychology of personality the significance of a generalized concept (construct) of culture is, according to the expression of Allport, “deceptive.” The psychologist is interested in the individual as a personality, and personality is not simply a copy of a partial personification of one culture or another. Culture, although it does exist in its personifications, is a subject for history and sociology, and not for psychology.

In this connection culturological theories introduce a distinction between personality proper as a product of individual adaptation to external situations and its general “base” or archetype, which is apparent in man from childhood under the influence of traits peculiar to the given race, ethnic group, nationality, or social class. Introducing this distinction, however, does not resolve anything because the formation of the archetype itself still needs to be explained further and allows various interpretations, particularly psychoanalytical. Thus the general “two-factor” scheme remains, although in a somewhat transformed aspect. The concept of genotype (heredity) now is complicated by the introduction of the concept of a basic personality, an archetype, or primary settings, and the concept of external environment by the introduction of the concepts of situation and role. The latter have now almost become central in the social psychology of personality.

According to a widespread determination, the “role” is a program that responds to the expected behavior of man who occupies a determined place in the structure of one or another social group; it is a structured method of his participation in the life of society. Personality represents nothing else than a system of assimilated (internalized) “roles.” In a social group that forms a family, this is the role of a son, a father, etc.; at work it is the role, let us say, of a doctor or a teacher. In indefinite situations a role also appears, but in this case the traits of the archetypes and individually acquired experience are much more sharply drawn in the role. Each of us, it is understood, assumes one set or another of social (for example, professional) functions and, in this sense, roles. The idea, however, of a direct reduction of personality to a collection of roles that a person fills is – notwithstanding every possible reservation of followers of this idea – one of the most monstrous. Of course, a child learns, let us say, how he is supposed to behave with his mother, that it is necessary to listen to her, and he listens, but can it be said that in this way the child plays the role of a son or a daughter? It is just as absurd to speak, for example, about the “role” of the polar explorer “accepted” by Nansen: For him it was not a role, but a mission. Sometimes a man actually plays one role or another, but nevertheless it remains for him only a role regardless of the extent to which it is internalized. A role is not a personality but rather a representation behind which it hides. If we are to use the terminology of P. Janet, the concept of a role corresponds not to the concept of personality (*personnalité*) but to the concept of personage (*personnage*).

The most important objections to “role” theories are not those that pursue the line of criticism of one or another understanding of the place given to roles in the structures of personality but those that are directed against the idea itself, which connects personality with its preprogrammed behavior (Gunderson) even if the program of behavior foresees its self redirection and formation of new programs and sub-programs. What would you say, asks the author cited, if you were to find out that “she” was only artfully playing a role before you?

The fate of the concept of role is the same as that of other “sociological,” cultural-anthropological concepts that are subject to the two-factor theory: In order to save the psychological in personality, it is forced to appeal to temperament and potentials contained in the genotype of the individual, and we again return to the spurious question about what is the main thing, the genotypic features of the man or the influence of the social environment. Moreover, we are warned about the danger of either kind of one-sidedness. It is best, we are told, to preserve a “reasonable equilibrium” in resolving this problem.

Thus, in fact, the methodological wisdom of these concepts leads to the formula of vulgar eclecticism: “both one and the other,” “on the one hand, and on the other.” From the position of this wisdom inevitably comes a judgment also on psychologists-Marxists: It was they who were guilty (together with the defenders of culturology) of the underestimation of the internal in personality, its “internal structure.” It is understood that statements of this kind may arise only as a result of thoughtless attempts to place the views of Marxism on personality into a conceptual scheme that is deeply alien to them.

The problem is not to ascertain that man is both a natural and a social being. This indisputable position indicates only the various systemic qualities evident in man, and nothing has yet been said about the essence of his personality, about that which gives rise to it. This is exactly where the scientific problem lies. This problem requires understanding of personality as a psychological neof ormation that is formed in the life relations of the individual as a result of a transformation of his activity. But for this it is necessary at the very outset to reject the representation about personality as the product of the collective action of various forces, one of which is hidden as if in a sack, “under the surface of the skin” of man (and anything could be placed in this sack), and the other of which lies in the external environment (as if we did not consider this force as a force of the influence of stimulating situations, cultural matrices, or social “expectations”). Of course, no development directly comes from what comprises only the prerequisites necessary for it, no matter in what detail we might describe it. The method of Marxist dialectics requires that we go further and investigate the development as a process of “self-movement,” that is, investigate its internal moving relations, contradictions, and mutual transitions so that its prerequisites appear in it as its own changing moments.

Such an approach necessarily leads to a position on the social-historical essence of personality. This position means that personality originally arises in society, that man enters into history (and a child enters into life) only as an individual given determined natural properties and potentials, and that he becomes a personality only as a subject of social relations. In other words, as distinct from the individual, the personality of a man is in no sense preexisting in relation to his activity; just as with his consciousness, activity gives rise to personality. Investigation of the process of the engendering and transformation of the personality of man and of his activity, taking place in concrete social conditions, is also the key to its genuine scientific psychological understanding.

5.2. The Individual and Personality

Studying the separate classes of life processes scientific psychology necessarily considers them as manifestations of the life of a material subject. In these conditions when a separate subject is under consideration (not a type, not an association, not society), we say, persons, or if we want to stress also his differences from other representatives of the species, individual.

The concept “individual” expresses indivisibility, wholeness, and special features of a concrete subject evident already at early stages of the development of life. An

individual as a whole is a product of biological evolution in the course of which there takes place not only the process of differentiation of organs and functions but also their integration, their mutual “coordination.” The process of such internal coordination is very well known; it was noted by Darwin and described in terms of correlative adaptation by Cuvier, Platte, Osborn, and others. The function of secondary correlative changes of organisms that create a wholeness in their organization was particularly stressed by A. N. Severtsov in his “hypothesis of correlation.”

The individual is first of all a genotypic formation. But the individual is not just a genotypic formation; his formation continues, as is known, also in ontogenesis as he lives. For this reason properties and their integration coming together ontogenetically also enter into the characterization of an individual. We are speaking about the resulting “alloys” of innate and acquired reactions, about the changes of objective content of needs, about the forming dominants of behavior. The most general rule here is that the higher we ascend the ladder of biological evolution, the more complex become the life manifestations of individuals, and the more their organization expresses the differences in their innate and acquired characteristics, the more, if this can be said, the individuals are individualized.

Thus, as a basis for understanding of the individual, there lies the fact of indivisibility and wholeness of the subject and the presence of characteristics peculiar to him. Presenting in himself the product of phylogenetic and ontogenetic development in given external circumstances, the individual, however, is not in any way a simple “calque” of these conditions; he is specifically a product of the development of life interacting with an environment and not environment taken by itself.

All of this is known well enough, and if I begin with the concept of the individual, it is only because in psychology it is used in a very wide sense, which leads to a non differentiation of the characteristics of man as an individual and his characteristics as a personality. It is exactly here that their sharp distinction, and correspondingly also the distinction of the concepts “individual” and “personality” that are its basis, is an indispensable prerequisite for psychological analysis of personality.

Our language reflects very well the nonconformity of these concepts: the word personality is used by us only in relation to a person and then beginning only from a certain stage of his development. We do not say, “the personality of the animal” or “the personality of the newborn.” No one, however, finds difficulty in speaking about an animal or about a newborn as individuals, of their individual features (excitable, calm, aggressive animal; the same, of course, is said about the newborn). We don’t seriously speak of the personality even of a two-year-old child, although the child exhibits not only his genotypic features but also a great number of features acquired under the influence of social surroundings; incidentally, it may be said that this circumstance is another piece of evidence for understanding personality as a product of a cross between the biological and the social factors. It is curious, finally, that in psychology cases of split personality are described, and that this is not in any way only a figurative expression; but no pathological process can lead to a splitting of the individual: a duplicated, “split” individual is an absurdity, a contradiction in terms.

The concept of personality, just like the concept of the individual, is expressed by the wholeness of the subject’s life; personality does not consist of little pieces, it is not a “cluster of polyps”; personality represents a whole formation of a special type. Personality is not a whole, conditioned genotypically: one is not born a personality, one becomes a personality. For this reason we do not speak either of a personality of a newborn or of a personality of an infant although traits of individuality appear at early stages of ontogenesis no less sharply than at much later stages of growth. Personality is

a relatively late product of social-historical and ontogenetic development of man. S. L. Rubinstein wrote about this in detail.

This position, however, may be interpreted variously. One of the possible interpretations is the following: The innate, if it can be expressed this way, individual is not yet a fully “ready” individual, and initially many of his traits are only virtual, a possibility; the process of his formation continues in the course of ontogenetic development until all of his characteristics are extended, forming a relatively stable structure; personality appears as if it were the result of the process of ripening of genotypic traits under the influence of the social environment. It is just this interpretation that is peculiar in one form or another to the majority of modern conceptions.

Another conception is that the formation of personality is a process *sui generis*, which does not correspond directly with the process of the vital change of the individual’s natural characteristics in the course of his adaptation to external environment. Man as a natural being is an individual with one or another physical constitution, type of nervous system, temperament, dynamic forces of biological needs, effectiveness, and many other characteristics that in the course of ontogenetic development either unfold and become obvious or are suppressed, in a word, change in many ways. The innate characteristics that do not change are those that determine man’s personality.

Personality is a special human formation that cannot be elicited from his adaptive activity just as his consciousness or his human needs cannot be elicited from it. Just like human consciousness, just like man’s needs (Marx says: the production of consciousness, the production of needs), the personality of man also is “produced” – it is created by social relationships into which the individual enters in his activity. The fact that in the course of this, certain of his characteristics as an individual are transformed or changed constitutes not a reason, but a consequence of the formation of his personality.

We will express this in another way: Traits characterizing one unity (individual) do not simply enter into the characteristics of another unity, another formation (personality) so that the first is eliminated; the traits are preserved but precisely as characteristics of an individual. Thus the characteristics of the higher nervous activity of the individual do not comprise the characteristics of his personality and do not determine it. Although the functioning of the nervous system is, of course, an indispensable prerequisite for the development of personality, yet its type does not all appear to be this “skeleton” on which personality is “constructed.” The strength or weakness of nervous processes and their balance are evident only at the level of the mechanisms through which the system realizes relationships of the individual with the world. This also governs the non-identity of their role in the formation of personality.

In order to emphasize what has been said, I will allow myself a certain digression. When we are speaking about personality, we usually associate its psychological characterization with the nearest, so to speak, substrate of psyche – the central nervous processes. Let us imagine the following case: A child is born with a dislocated hip, which condemns him to lameness. Such a gross anatomical exception is very far from that class of characteristics included in the list of features of personality that enter into its so-called structure; nonetheless, its significance for the formation of personality is incomparably greater than, let us say, a weak type. Just imagine, when his peers chase a ball in the yard, the lame child stands by; then when he becomes older and the time comes for dancing, he can do nothing more than “hold up the wall.” How will his personality develop under these conditions? This cannot be foretold; it cannot be foretold especially because in spite of the very severe exceptionality of the individual, the formation of personality is not determined identically. In itself it cannot generate,

let us say, an inferiority complex, reticence, or, on the contrary, a cordial attentiveness to people, or in general any kind of genuinely psychological features of man as a personality. The paradox lies in that the requisites for development of personality in their very essence are innumerable.

The personality, like the individual, is a product of the integration of processes that realize the life relationships of the subject. There exists, however, a fundamental difference of this special formation, which we call personality. It is determined by the nature of the very relationships that form it: the social relations specific for man into which he enters in his objective activity. As we have already seen, in the variety of its kinds and forms they are all characterized by a commonality of their internal structure and presuppose their conscious regulation, that is, the presence of consciousness and, at known stages, the development also of the self-consciousness of the subject.

Like these activities themselves, the process of their unification – origin, development, and disintegration of the connections between them – is a process of a special type, subject to special laws.

The study of the process of unification connecting the activities of the subject as a result of which his personality is formed represents a major problem for psychological investigation. Its resolution, however, is not possible either within the framework of subjective-empirical psychology or within the framework of behavioral or “depth” psychology, including its newer variants. This problem requires an analysis of the object activity of the subject, always, of course, mediated by processes of consciousness, which “stitch together” the separate activities. For this reason the demystification of the representations of personality is possible only in a psychology, the basis of which is a study of activity, its construction, its development, and its transformations, a study of its various types and forms. Only under these conditions will the contradiction of the “psychology of personality” and the “psychology of function” that we have mentioned be eliminated inasmuch as it is not possible to entertain the contradiction of a personality giving rise to its own activity. Also completely eliminated will be the fetishism that dominates psychology: ascribing the properties of “being a personality” to the very nature of the individual so that under the influence of external environment alone the manifestations of this mystical property change.

The fetishism about which we are speaking is the result of ignoring that most important position that the subject, entering into society in a new system of relationships, also acquires new - systemic – qualities that alone form the real character of the personality: psychological when the subject is considered within the system of activities realizing his life in society, social when we consider him in the system of objective relationships in society as their “personification.” (K. Marx and F. Engels, Works, Vol 23. p. 244: Vol 46, Part 1, p. 505.)

Here we approach the principal methodological problem, which is hidden behind the distinction between the concept “individual” and “personality.” We are speaking about the problem of duality of qualities of social objects, which is engendered by the duality of the objective relationships in which they exist. As is known, the discovery of this duality belongs to Marx, who showed the duality of the character of work, of the product produced, and finally, the duality of man himself as a “subject of nature” and a “subject of society.” For the scientific psychology of personality this fundamental methodological discovery has a decisive significance. It radically changes the understanding of its subject and destroys the schemes that have taken root in it in which are included such various traits or “substructures” as, for example, moral qualities, knowledge, habits and customs, forms of psychological reflection, and temperament. The source of similar “schemes of personality” is the representation of

the development of personality as a result of adding layers of life acquisitions to some kind of preexisting metapsychological base. But personality as a specifically human formation cannot be understood from this point of view at all.

The true way to investigate personality lies in the study of those transformations of the subject (or, using the words of L. Sève, “fundamental revolutions”) which are the result of the self-movement of his activity in the system of social relations. On this road, however, we meet with the necessity of rethinking certain general theoretical positions at the very start.

One of these, a position on which the initial formulation of the problem of personality depends, turn us toward a theory that has already been mentioned, that external circumstances act through the internal. “The position that external effects are connected with their psychic effect mediated through personality is that center which serves as a basis for the theoretical approach to all problems of the psychology of personality. ... The fact that the external acts through the internal is true, and it is indisputably true also in cases where we consider the effect of one influence or another. It is another matter if we see this position as the key to understanding the internal as personality. The author explains that this internal in itself depends on previous internal influences. But in this, the appearance of personality as a special whole, not coinciding directly with the whole of the individual, has not yet been disclosed, and for this reason the possibility of understanding personality only as being enriched by the previous experience of the individual still remains as before.

It seems to me that in order to find an approach to the problem one must from the very start reverse the initial thesis: The internal (subject) acts through the external and this in itself changes him. This position has completely real sense. After all, in the first place the subject of life generally appears only as having, if we can use the expression of Engels, “an independent power of reaction,” but this power can act only through the external and in this external its transition from the potential to the actual takes place: its concretization, its development and enrichment – in a word, its transformation, which is essentially a transformation also of its carrier, the subject himself. Now, as a transformed subject, he appears as interpreting external influences in his passing conditions.

Of course, what has been said represents only a theoretical abstraction. But the general movement that has been described is preserved at all levels of the development of the subject, and I will repeat once more: After all, no matter what kind of morphophysiological organization, what kind of needs and instincts an individual might have from birth, they appear only as prerequisites of his development that immediately stop being that which they were virtually “in themselves” as soon as the individual begins to act. Understanding this metamorphosis is especially important when we move to man and the problem of his personality.

5.3. Activity as a Basis of Personality

The main problem is to disclose the actual “formers” of personality this higher unit of man, changeable as his very life is changeable, but preserving within itself a stability, his autoidentity. After all, regardless of the experience, man accumulates the events that change his life situation, and finally, regardless of physical changes he undergoes as a personality, he remains the same in the eyes of other people and in his own as well. He is identified not only by his name; even the law identifies him at least to the limits of his responsibility for his acts.

Thus there exists an obvious contradiction between the apparent physical, psychophysiological changeability of man and his stability as a personality. This gave rise to the problem of the “I” as a special problem of the psychology of personality. It

arises because the traits that are included in the psychological characterization of personality expressed clearly the changeable and “intermittent” in man, that is, that to which stability and continuity of his “I” are exactly contrasted. What forms this stability and continuity? Personalism in all its variants answers this question postulating the existence of some kind of special beginning, which forms the nucleus of the personality. This then is overgrown by numerous life acquisitions, which are capable of changing but not of essentially affecting this nucleus.

In another approach to personality its basis is the category of objective human activity, the analysis of its integral structure, its mediation and the forms of psychic reflection that it generates.

Such an approach from the very beginning allows a preliminary resolution of the question of what forms a stable base for personality; just what enters and what does not enter into the characterization of man especially as a personality also depends on this. This decision is made on the position that the real basis for human personality is the aggregate of his relationships to the world that are social in their nature, but relationships that are realized, and they are realized by his activity, or more precisely, by the aggregate of his multifaceted activities.

Here we have in mind especially the activities of the subject that are original “units” of psychological analysis of personality, and not actions, not operations, not psychophysiological functions or blocks of these functions; the latter characterize activity and not personality directly. At first glance this position seems contradictory to the empirical representations of personality and, moreover, seems to impoverish them. Nonetheless, it alone discloses the way to understanding personality in its true psychological concreteness.

More than anything this way eliminates the principal difficulty: determining which processes and features of man are those that characterize his personality psychologically and that are neutral in this sense. The fact is that taken in themselves, in an abstraction from the system of activity, they generally disclose nothing about their relations to personality. For example, operations of writing or the ability to do calligraphy can hardly be considered sensibly as “personality.” But here we have before us the picture of the hero of Gogol’s story, “The Overcoat,” Akaki Akikievich Bashmachkin. He was serving in some department as a functionary copying official papers, and he saw in this operation the whole diverse and fascinating world. Finishing work, Akaki Akikievich immediately went home. As soon as he ate, he took out an inkwell and began to copy papers that he had brought home with him, and if there were notes to be copied, he made copies for himself, as recreation, for his personal satisfaction. “Having written to his heart’s content,” Gogol tells us, “he went to sleep smiling in anticipation of the next day: whatever God would send to be copied tomorrow.”

How did it come about, how did it happen that copying official papers occupied a central place in his personality, became the sense of his life? We do not know the concrete circumstances, but in one way or another, these circumstances led to this: that there occurred a displacement of one of the main motives for what are usually completely indifferent operations, which were turned into an independent activity because of this, and in this form they appeared as characterizing personality.

It is possible, of course, to make a different, simple judgment: that in this development was disclosed some kind of “calligraphic potential,” with which nature had graced Bashmachkin. But this judgment is exactly in the spirit of the superiors of Akaki Akikievich who constantly saw in him the most diligent functionary for writing, “so that afterwards they became convinced that he apparently had been born this way. ...”

Sometimes the case is somewhat different, what seem from the outside to be actions that have their own meaning for man are disclosed by psychological analysis to be something else, and specifically that they are only means of achieving goals, the real motive of which lies as if in a completely different plane of life. In this case, behind the appearance of one activity there hides another activity. And it is specifically that activity that enters directly into the psychological aspect of personality no matter what the aggregate of concrete actions that realize it is. The latter constitutes as if only an envelope of this other activity that realizes one or another real relationship of man to the world – an envelope that depends on conditions that are sometimes incidental. This is the reason, for example, that the fact that a given man works as a technician in itself may still say nothing about his personality; its features are disclosed not in this but in those relationships into which he inevitably enters perhaps in the process of his work and perhaps outside this process. All of these things are almost truisms, and I am speaking about this only to emphasize once more that starting from a collection of separate psychological or social-psychological features of man, it is impossible to arrive at any kind of “structure of personality,” that the real basis for human personality lies not in genetic programs deposited in him, nor in the depths of his natural disposition and inclinations, nor even in the habits, knowledge, and wisdom acquired by him, including professional learning, but in that system of activities that is realized through this knowledge and wisdom.

The general conclusion from what has been said is that investigation of personality must not be limited to an explanation of prerequisites but must proceed from a development of activity, its concrete types and forms and those connections into which they enter with each other inasmuch as their development radically changes the significance of the prerequisites themselves. Thus the direction of investigation turns not from acquired habits, skills, and knowledge to activity characterized by them but from the content and connections of activities to which and what kind of processes realize them and make them possible.

Even the first steps in the indicated direction lead to the possibility of isolating a very important fact. This is that in the course of the development of the subject, his separate activities appear among themselves in a hierarchical relationship. At the level of personality they in no way form a simple cluster, the rays of which have their beginning and center in the subject. A representation of the connections between activities as rooted in the individuality and wholeness of their subject is confirmed only at the level of the individual. At this level (in animals and in infants) the range of activities and their intra-connections are directly determined by the properties of the subject – general and individual, innate and acquired. For example, a change in selectivity and change in activity are directly dependent on the current composition of needs of the organism and on a change of his biological dominant.

The hierarchical relationships of activity that characterize personality are another matter. Their feature is their “looseness” with respect to the condition of the organism. These hierarchies of activity are engendered by their own development, and it is they that form the nucleus of the personality.

In other words, “knots” that connect separate activities are tied not by the action of biological or spiritual forces of the subject which lie within him but by that system of relationships into which the subject enters.

Observation easily discloses those first “knots” from the formation of which starts the very earliest stage of the formation of personality in the child. In a very well expressed form this phenomenon at one time was observed in experiments with preschool children. The experimenter who was conducting the tests presented a child with a problem: to get an object that was out of reach without leaving his place. As soon as

the child began to solve the problem the experimenter went into an adjoining room from which he continued the observation, using the optical apparatus that is usually used for such observations. After a series of unsuccessful attempts the child got up, approached the object, took it, and quietly returned to his place. The experimenter immediately came to the child, praised him for success, and offered him a piece of chocolate as a reward. The child, however, refused it and when the experimenter began to question him the youngster quietly began to cry.

What lies behind this phenomenon? In the process that we observed it is possible to isolate three moments: one, the conversation of the child with the experimenter who explains the problem; two, the solution of the problem; and three, the conversation with the experimenter after the child had taken the object. The child's actions were a response thus to two different motives; that is, they accomplished two kinds of activity: one in relation to the experimenter, the other in relation to the object (reward). As observation indicates, at the time when the child was getting the object he did not experience the situation as conflict, as a situation of "collision." The hierarchical connection between the two activities was evident only at the moment of renewal of conversation with the experimenter, so to speak, post factum: The candy appeared bitter, bitter in its subjective personal sense.

The phenomenon described belongs to a very early transitional stage. In spite of all the naivete of these first coordinations of the various life relationships of a child, it is precisely these relationships that are evidence of the beginning process of forming this specific formation that we call personality. Similar coordinations are never observed at an earlier stage of growth but they constantly reveal themselves in further development in their incomparably more complex and "intertwined" forms. Does not such a phenomenon of personality as pangs of conscience develop analogically?

The development and multiplication of an individual's types of activity do not lead simply to an expansion of their "catalogue." Simultaneously, there occurs a centering of them around several major activities to which the others are subordinated. This complex and long process of development of personality has its stages and its stops. We will not separate this process from the development of consciousness and self-consciousness, but consciousness does not constitute its beginning: it only mediates it and is, so, to speak, a resume of it.

Thus as a basis of personality there are relationships coordinating human activity generated by the process of their development. But how is this subordination, this hierarchy of activity, expressed psychologically? According to the definition we have accepted, we call activity a process that is elicited and directed by a motive – that in which one or another need is objectivized. In other words, behind the relationship of activities there is a relationship of motives. Thus we come to the necessity of turning to an analysis of motives and considering their development, their transformation, the potential for splitting their function, and such of their displacements as take place within the system of processes that form the life of an individual as a personality.

5.4. Motives, Emotions, and Personality

In contemporary psychology the term motive (motivation, motivating factors) can represent completely different phenomena. Those instinctive impulses, biological inclinations, and appetites, as well as experiencing emotion, interests, and wishes, are all called motives; in this mixed enumeration of motives may be found such things as life goals and ideals, but also such things as an electric shock. There is no need to investigate all of these confused concepts and terms that characterize the present condition of the problem of motives. The problem of psychological analysis of personality requires consideration of only the major questions.

Primarily this is a question of the relationships of motives and needs. I have already said that actual need is always a need of something, that at the psychological level needs are mediated by psychic reflection and in two ways. On the one hand, objects answering the needs of the subject appear before him in their objective signal characteristics. On the other hand, the conditions of need in simpler cases signal themselves and are sensorily reflected by the subject as a result of the actions of internal receptor stimuli. Here the most important change characterizing the transition to the psychological level consists in the beginning of the active connection of needs with the objects that satisfy them.

The fact is that in the subject's needy condition itself the object that is capable of satisfying the need is not sharply delineated. Up to the time of its first satisfaction the need "does not know" its object; it must still be disclosed. Only as a result of such disclosure does need acquire its objectivity and the perceived (represented, imagined) object, its arousing and directing activity of function; that is, it becomes a motive.

This kind of understanding of motives seems to some extent to be one sided, and needs seem to be eliminated from psychology. But this is not so. It is not needs that disappear from psychology but only their abstractions "naked" not objectively satisfied needs of the subject. These abstracts appear on the stage as a result of isolating needs from the objective activity of the subject in which alone they acquire their psychological concreteness.

It is understood that the subject as an individual is born with an allotment of needs. But let me repeat once more, needs as an internal force may be realized only in activity. In other words, need appears in the first place only as a condition, as a prerequisite for activity, but as soon as the subject begins to act, there immediately occurs its transformation, and need stops being that which it was virtually, "in itself." The further the development of activity proceeds, the more this prerequisite is converted into its result.

The transformation of needs appears distinctly even at the level of evolution of animals: As a result of change taking place and a broadening of the circle of objects that answer needs and methods of their satisfaction, the needs themselves develop. This happens because needs are capable of being concretized in a potentially very wide range of objects, which become stimuli of activity for an animal, giving the activity a determined direction. For example, when new types of food appear in the environment and old types are eliminated, the need for food continues to be satisfied, and, in addition, it has incorporated into itself a new content, that is, it has become different. Thus development of needs of animals occurs by means of the development of their activities in relation to an ever-widening circle of objects; it is understood that changing the concrete-objective content of needs leads to a change in methods of their satisfaction as well.

Of course, this general position requires many stipulations and many explanations, particularly in connection with questions about the so-called functional needs. But now we are not speaking of this. The main thing here is the isolation of the fact of transformation of needs through objects into the process of their consumption. And this has a key significance for the understanding of the nature of human needs.

As distinct from the development of needs in animals, which depends on a widening circle of natural objects that they consume, human needs are generated by the development of production. After all, production is directly also consumption, which creates need. In other words, consumption is mediated by a need of an object, its perception or its mental presentation. In this, its reflected form, the object appears as the ideal, internally generated motive.

In psychology, however, needs are most often considered abstracted from the main thing, which is the duality of consumer production that generates them; this leads to the one-sided explanation of human actions based directly on human needs. Here very frequently the saying of Engels is quoted as a substantiation, but it is abstracted from the general context, which deals only with the role of work in the formation of man, including also his needs, of course. Marxist understanding is far from considering needs as the initial and principal point. Here is what Marx writes in this connection: "As a necessity, as a need, the need itself is the internal moment of the productive activity. But productive activity (author's emphasis) is the initial point of realization and therefore also its dominant moment, the act in which the whole process recurs again. The individual produces an object and through its consumption returns it again to himself... ."

Thus we have before us two major schemes expressing the connection between need and activity. The first produces the idea that the initial point is need and for this reason the process as a whole is expressed in the cycle: need → activity → need. In it, as L. Sève notes, is realized the "materialism of needs," which corresponds to the pre-Marxist representation of the sphere of consumption as basic. The other scheme which contradicts the first is a cyclic scheme: activity → need → activity. This scheme, which corresponds to the Marxist concept of needs, is also fundamental for psychology, in which "no conception based on the idea of a single mover, in essence preceding activity itself, can play an initiating role capable of serving as an adequate basis for the scientific theory of human personality."

The position that human needs are produced has, of course, a historical materialistic sense. In addition, it is extremely important for psychology. This must be emphasized because sometimes, especially for psychology, the approach to the problem is just considered in explanations originating from needs themselves, more precisely emotional experiences that needs evoke, which seem to explain why man places goals before himself and creates new objects. Of course there is some truth in this, and it would be possible to agree with it if not for one condition: After all, as determinants of concrete activity, needs may appear only in their objective content, and this content is not directly incorporated in them, and consequently cannot be isolated from them.

Another major difficulty arises as the result of a partial acceptance of the social-historical nature of human needs, which is expressed in some of the needs being considered as social in their origins and others as being purely biological and common to man and animals. It does not, of course, require any particular coarseness of thought to notice the commonality of certain needs in man and animals. After all man, like animals, has a stomach and experiences hunger – a need he must satisfy in order to support his existence. But man has other needs as well, which are determined not biologically, but socially. They are "functionally automatic" or "anastatic." The sphere of human needs thus appears to be split in two. This is an unavoidable result of considering "needs themselves" in their isolation from objective conditions and means of their being satisfied, and correspondingly in isolation from activity in which their transformation occurs. But transforming needs at the human level involves also (and most of all) needs that appear in man to be homologues of animal needs. "hunger," notes Marx, "is hunger, but hunger which is appeased by cooked meat eaten with a knife and fork is a different hunger from that in which raw meat is eaten with the hands, nails, and teeth"

Positivist thought, of course, sees nothing more in this than a superficial difference. After all, a starving man is a sufficient example to disclose "deep" commonality of need of food in man and in animal. But this is nothing more than a sophism. For a starving man, food in reality stops existing in its human form and correspondingly the need for food is "dehumanized"; but if this shows anything, then it is only that man

can be reduced by starvation to an animal condition, and it says exactly nothing about the nature of his human needs.

Although the human needs, the satisfaction of which constitutes a necessary condition for maintaining physical existence, differ from man's needs, which do not have a homologue in animals, this development does not appear absolute, and historical transformation encompasses the whole sphere of needs.

In addition to the change and enrichment of objective content of human needs, there also occurs a change in the form of their psychic reflection as a result of which they are capable of acquiring an ideational character, and owing to this they become psychologically invariant; thus food remains food for the person who is hungry as well as for him who is not. In addition, the development of mental production generates such needs as can exist only in the presence of a "plane of consciousness." Finally, there is formed a special type of needs – needs that are objective-functional, such as the need to work, artistic creation, etc. The main thing is that in man needs enter into new relationships one with another. Although satisfaction of vital needs remains a matter of "first importance" for man and an undeniable condition of his life, higher, specifically human needs do not at all form only superficial formations layered on top of these vital needs. For this reason it may happen that when on one pan of the scales are placed the fundamental vital needs of man and on the other, his higher needs, then the higher needs may well outweigh the vital needs. This is generally known and does not require evidence.

It is true, of course, that the general course that the development of human needs takes begins from man's acting to satisfy his elementary vital needs; but later this changes, and man satisfies his vital needs in order to act. This is the principal way of development of human needs. This way, however, cannot be directly deduced from the movement of needs themselves because behind this movement hides the development of their object content, that is, concrete motives for the activity of man.

Thus psychological analysis of needs necessarily becomes an analysis of motives. For this, however, it is necessary to overcome the traditional subjective understanding of motives that leads to a confusion of completely different phenomena and completely different levels of the regulation of activity. Here we meet with a genuine contradiction: Is it not clear, they say, that man acts because he wants to? But subjective experiences, wishes, desires, etc., do not constitute motives because in themselves they are not capable of generating directed activity and, consequently, the principal psychological problem is to understand what the object of the given desire, wish, or passion is.

Still less, of course, is there a basis for calling such factors as tendencies to produce behavior stereotypes, the tendency to conclude a started action, etc., motives for action. In the course of realizing activity there arise, of course, a multitude of "dynamic forces." These forces, however, may be relegated to the category of motives with no greater a basis than, for example, the inertia of movement of the human body, the action of which makes itself known immediately when, for example, a rapidly running man comes upon an unexpectedly appearing obstacle.

A special place in theory of motives of activity belongs to the openly hedonistic conceptions, the essence of which is that all activity of man is in some way subordinated to the principle of maximizing positive and minimizing negative emotions. From this the achievement of satisfaction and freedom from suffering comprise underlying motives that move man. Specifically, in the hedonistic conception, as in the focus of a lens, are collected all ideologically perverted representations about the sense of existence of man and about his personality. Like all great lies, these conceptions are based on truth that they have falsified. This truth is

that man actually strives to be happy. But psychological hedonism at once enters into a contradiction with this real great truth, exchanging it for the small currency of “reinforcement” and “self- reinforcement” in the spirit of Skinner behaviorism.

Human activity is in no way generated and is not directed, like the behavior of laboratory rats, with electrodes implanted in the “centers of satisfaction” in the brain. When rats have been trained to turn on the power and stimulate these centers, they continue endlessly in this activity. It is possible, of course, to cite similar phenomena in man also, such as the need for narcotics or hyperbolization of sex, for example; however, these phenomena say absolutely nothing about the real nature of motives, about human life confirming itself. On the contrary, these actions ruin life.

The insupportability of hedonistic conceptions of motivation lies, it is understood, not in that they exaggerate the role of emotional experiences in regulating activity but in that they reduce and pervert real relationships. Emotions are not subordinated to activity but appear to be its result and the “mechanism” of its movement.

In his time John Stuart Mill wrote: “I understood that in order to be happy man must place before himself some kind of goal; then striving toward it, he will experience happiness without worrying about it.” Such is the “cunning” strategy of happiness. That, he said, is the psychological law.

Emotions fulfill the functions of internal signals, internal in the sense that they do not appear directly as psychic reflection of objective activity itself. The special feature of emotions is that they reflect relationships between motives (needs) and success, or the possibility of success, of realizing the action of the subject that responds to these motives. Here we are speaking not about the reflection of those relationships but about a direct sensory reflection of them, about experiencing. Thus they appear as a result of actualization of a motive (need), and before a rational evaluation by the subject of his activity.

I cannot stop here for an analysis of the various hypotheses that in one way or another express the fact of dependence of emotions on interrelationships between “objective reality and that which must be.” I will note only that the fact to be considered first of all is that emotions are relevant to activity and not to actions or operations that realize it. For this reason one and the same processes accomplishing various activities may acquire, various and even contradictory emotional coloring. In other words, the role of a positive or negative “sanctioning” is carried out by emotions in relation to affects ascribed to motives. Even a successful accomplishment of one action or another does not always lead to positive emotions; it may engender sharply negative experience signaling that as far as the principal motive is concerned, the success attained is psychologically a defeat for the personality. This is true also of the level of simpler adaptive reactions. The act of sneezing in itself, that is, aside from any kind of relationship that might exist, evokes satisfaction, they tell us; however, an entirely different feeling is the experience of one of Chekov’s heroes, who sneezed in the theater: This evoked in him emotion of horror and he carried out a series of actions that resulted in his death.

The variety and complexity of emotional states is the result of the breaking down of the primary sensitivity in which cognitive and affective moments merge. This breaking down must not, of course, be thought of in such a way that emotional states acquire an existence independent of the objective world. Arising in objective conditions, they “mark” in their own ascribing emotional marks to things themselves or to individual people to form so-called affective complexes, etc. Here we are speaking about something else, specifically, about the differentiation that results in the form of objective content and emotional coloring. The conditions of complex mediation of human activity and the affectiveness of objects is capable of changing (an unexpected

meeting with a bear usually evokes fright, but if a special motive obtains, for example in a situation of hunting, the meeting may evoke joy). The main thing is that emotional processes and states have their own special positive development in man. This must be especially emphasized in as much as the classical conceptions of human emotions as "rudiments" coming from Darwin, consider their transformation in man as their involution, which generates a false ideal of education, leading to the requirement to "subordinate feelings to cold reason."

The emotions have their own history and their own development. This leads to a change of levels and classes. These are affects that take place suddenly and involuntarily (we say, "anger overcame me, but I was glad"); further emotions are properly those states – predominantly ideational and situational and the objective feelings connected with them, that is, firm and "crystallized", according to the figurative expression of Stendahl, in the object of emotional experience; finally, they are attitudes – very important subject phenomena in their "personality" function. Not going into an analysis of these various classes of emotional states, I will note only that they enter into complex relationships among themselves: The younger Rostov is afraid before the battle (and this is an emotion) that he will be overcome by fright (affect); a mother may be really angry with her mischievous child without for a minute failing to love him (feeling).

The variety of emotional phenomena and the complexity of their interrelations and sources is well enough understood subjectively. However, as soon as psychology leaves the plane of phenomenology, then it seems that it is allowed to investigate only the most obvious states. This is the way the matter stood in the peripheral theories (James said directly that his theory did not concern the higher emotions); this is the way the matter remains also in contemporary psychophysiological conceptions.

Another approach to the problem of emotion is to investigate the "intermotivational" relationships that taken together characterize the structure of personality and, together with it, the sphere of emotional experiences that reflect and mediate its functioning.

Genetically, the point of departure for human activity is the noncoincidence of motives and goals. Their coincidence is a secondary phenomenon: either the result of acquiring a goal of independent stimulating force or the result of recognizing motives and converting them into motive-goals. As distinct from goals, motives actually are not recognized by the subject: When we carry out one action or another, at the moment we usually do not give ourselves an accounting of motives that evoke the action. It is true that it is not difficult for us to ascribe motivation to them, but motivation does not always contain in itself an indication of their actual motive.

Motives, however, are not separated from consciousness. Even when motives are not recognized, that is, when man does not account to himself for what makes him carry out one action or another, they still find their psychic reflection, but in a special form – in the form of the emotional coloring of the action. This emotional coloring (its intensity, its mark, and its qualitative character) fulfills a specific function, which also requires distinguishing the concept of emotion from the concept of personal sense. Their non coincidence is not, however, indigenous; evidently at lower levels the objects of need are exactly and directly "marked" by emotion. The nonconformity appears only as a result of the breaking down of the function of motives that takes place in the course of the development of human activity.

Such breaking down is the result of the fact that activity necessarily becomes multi-motivational, that is, it responds simultaneously to two or more motives. After all, the actions of man objectively always realize a certain collectiveness of relationships: toward society, and toward the person himself. Thus work activity is socially motivated but is directed also toward such motives as, let us say, material reward. Both

of these motives, although they coexist, lie as if on different planes. Under conditions of socialist relationships the sense of work is engendered for the worker by social motives; as far as material reward is concerned, this motive, of course, also exists for him, but only as a function of stimulating activity, although it also induces it, making it “dynamic,” but material reward as a motive is deprived of its principal function, the function of sense formation.

Thus certain motives inducing activity also give it personal sense; we will call these sense-forming motives. Others, coexisting with them, fulfilling a role of stimulating factors (positive or negative), sometimes sharply emotional and affective, have no sense-forming function; we will call these motives literally motives-stimuli.

Characteristically, when an activity, important in its own personal sense for man, encounters in the course of its realization a negative stimulus eliciting even a strong emotional experience, then its personal sense is not changed because of this; most often something else happens; specifically, a unique, rapidly growing psychological discreditation of the elicited emotion occurs. This well-known phenomenon makes us think once again of the problem of the relationships of emotional experiences and the personal sense.

A division of the function of sense formation and simple stimulation between motives of one and the same activity makes it possible to understand the principal relationships characterizing the motivational sphere of personality: the relationships of the hierarchy of motives. This hierarchy is not in the least constructed on a scale of their proximity to the vital (biological) needs in a way similar to that which Maslow, for example, imagines: The necessity for maintaining physiological homeostasis is the basis for the hierarchy; the motives for self-preservation are higher, next, confidence and prestige; finally, at the top of the hierarchy, motives of cognition and aesthetics. The principal problem that arises here is not to what extent the given scale (or another similar to it) is right but how proper the principle of such scaling is in itself. The fact is that neither the degree of proximity to biological needs nor the degree of capacity to stimulate nor the affectiveness of one motive or another determines the hierarchical relationship between them. These relationships are determined by the connections that the activity of the subject brings about, by their mediations, and for this reason, they are relative. This refers also to the principal correlation – to the correlation between sense-forming motives and motive-stimuli. In the structure of one activity a given motive may fulfill the function of sense formation, in another, the function of supplementary stimulation. Sense-forming motives, however, always occupy a higher hierarchical place even if they do not govern direct affectogenesis. Appearing to be dominant in the life of personality, for the subject himself they may remain “in the wings” with respect to both consciousness and direct affectiveness.

The fact of the existence of actually unconscious motives does not in itself express a special beginning hidden in the depths of the psyche. Unconscious motives have the same determination as all psychic reflection: a real existence, activity of man in an objective world. Unconscious and conscious do not oppose one another; they are only different forms and levels of psychic reflection found in strict relation to the place that that which is reflected occupies in the structure of activity, in the movement of its system. If the goals and actions responding to them are of necessity recognized, then the matter is something else with respect to recognizing their motives, that to which the selection and achievement of given goals is due. Objective content of motives always, of course, in one way or another, presents itself and is perceived. In this respect the object that stimulates action and the object that acts as an implement or obstacle are, so to speak, equivalent. It is a different matter if the object is recognized as a motive. The paradox lies in that motives are revealed to consciousness only objectively by means of analysis of activity and its dynamics. Subjectively, they

appear only in their oblique expression, in the form of experiencing wishes, desires, or striving toward a goal. When one or another goal appears before me, then I not only recognize it, present its objective conditionality to myself, the means of its achievement and the eventual results to which it leads, but I want to achieve it (or on the contrary, it may repel me). These direct experiences fulfill the role of internal signals by means of which processes are regulated in the course of being realized. Subjectively, expressing itself in these internal signals, the motive is not directly contained in them. This creates the impression that they arise endogenously and that they are the forces that move behavior.

Recognition of motives is a secondary phenomenon arising only at the level of personality and continuously being produced during the course of its development. For very small children this problem simply does not exist. Even at the stage of transition to school age when a desire to go to school appears in the child, the underlying motive behind this desire is hidden from him, although he has no difficulty with motivations that usually bring out something familiar to him. It is possible to explain this underlying motive only objectively (obliquely) studying, for example, games of children playing at “going to school,” so that in the role play it is easy to see the personal sense of the play actions and, correspondingly, their motive. To recognize : the real motives of his activity, the subject must also proceed along a “round about way,” with this difference, however, that along this way he will be oriented by signals-experiences, emotional “marks” of living.

A day filled with a multitude of actions, seemingly completely successful, may nonetheless spoil a person’s mood, leaving him with some kind of unpleasant emotional residue. Against the background of the concerns of the day this residue is hardly noticed. But then comes a minute when the person looks back and mentally sorts out the day he has lived through; at this moment there surfaces in his memory a given experience, and his mood acquires the objective reference: There arises an affective signal indicating that specifically this experience left him with the emotional residue. It may happen, for example, that this is his negative reaction to somebody’s success in achieving a common goal solely because it seemed to him to be his alone; and here it seems that this was not exactly so, and that really the principal motive for him was achieving the success for himself. He is confronted with a “problem of personal sense” but it is not resolved of itself because now it has become a problem of correlating motives that characterize him as a personality.

Specific internal work is necessary to resolve such a problem and perhaps to eradicate what has become exposed. After all, it is too bad, said Pirogov, if you do not notice this in time and do not stop it. Herzen also wrote about this, and Tolstoy’s whole life is a great example of such internal work.

The process of penetrating into the personality appears here from the side of the subject, phenomenally. But even in this, its phenomenal appearance, it is apparent that it consists in a clarification of hierarchical relations of motives. Subjectively, they seem to express a psychological “valency” belonging to the motives themselves. Scientific analysis, however, must go further because the formation of these relations necessarily presupposes a transformation of the motives themselves, which takes place in the movement of this whole system of activity of the subject in which his personality is formed.

5.5. Formation of Personality

The situation of the development of the human individual discloses its special features even at the very first stages. The principle of these is the mediated character of the connections of the child with the surrounding world. At the beginning direct biological

connections, child-mother, are very soon mediated by objects: Mother feeds the child from a cup, dresses him in clothing, and, amusing him, manipulates toys. In addition, the connections of the child with things are mediated by the people surrounding him: Mother places the child close to things that are attractive to him, brings them close to him, or perhaps removes them from him. In a word, the activity of the child appears more and more as realizing his connections with man through things and connections with things through man.

The result of this development is that things appear to the child not only in their physical properties but also in that special quality that they acquire in human activity – in their functional meaning (a cup is something from which one drinks, a stool is something on which one sits, a watch is something that people wear on their wrists, etc.) – and people appear to be “in charge” of the things on which his relationships with people depend. Objective activity of the child acquires an implemented structure and communication becomes oral, mediated by language.

In this initial situation of the child’s development there is also the kernel of those relationships, the further unfolding of which constitutes a chain of experiences leading to his formation as a personality. In the first place, the relationships to the world of things and to surrounding people merge for the child, but later they separate and form various, although interconnected, lines of development merging one with another.

In ontogenesis these transitions are expressed in alternating phases: the phase of predominance of the development of objective (practical and cognitive) activity with phases of the development of interrelationships with people, with society. The same kind of transitions characterize the movement of motives within each phase. As a result, there appear those hierarchical connections of motives that form the “knots” of personality.

The tying of these knots represents a hidden process that is expressed in different ways at different stages of development. I have described above one of the phenomena that characterize the mechanism of this process at the stage when combining the objective action of a child and his relation to an adult who is absent at the given moment; although it changes the sense of the result achieved, yet it leaves the action itself still completely a “field” action. How do further changes occur? Facts obtained in the investigation of preschool children of various ages indicate that these changes are subject to definite rules.

One of these is that in a situation where motivation in various directions obtains, there is first a subordination of action to the requirements of the man and then an objective subordination of interobject connections. Another rule discovered in the course of experiments appears somewhat paradoxical: It seems that under conditions of doubly motivated activity the object-material motive can fulfill a function, having earlier subordinated another motive, when it is given to a child in the form of only a representation, mentally, and only later appears in the actual field of perception.

Although these rules express genetic heredity, they also have a general significance. The fact is that in making a situation such as that described more precise, the phenomenon of displacement (decalage) appears as a result of which these more simple directing relationships are disclosed; it is known, for example, that it is easier to attack after a direct command from the commander than when one is self-directed. As far as the form in which the motives appear is concerned, in complex circumstances of voluntary activity it is very clearly disclosed that only an ideal motive, that is, a motive lying within the vectors of the internal field, is capable of subordinating to itself actions from external motives directed in the opposite direction. Speaking figuratively, the psychological mechanism of life feats must be found in the human imagination.

From the point of view of changes about which we are speaking, the process of formation of personality may be represented as a development of will, and this is not incidental. Involuntary impulsive action is action that is impersonal, although one may speak about the loss of will only with relation to personality (after all it isn't possible to lose what one doesn't have). For this reason authors who consider will as a most important trait of personality from the empirical point of view are right.

Will, however, does not appear to be either the beginning or even the "pivot" of personality, it is only one of its expressions. The real basis of personality is that special structure of the entire activity of the subject that occurs at a given stage of the development of his human connections with the world.

Man lives as if in an ever-widening circle of activity for him. In the beginning it is a small circle of people and objects that directly surround him, interaction with them, a sensory perception of them, and a learning of what can be known about them, a learning of their significance. But further, before him there begins to open activity that lies far beyond the limits of his practical activity and direct contact: the widening limits of what he can know presented to him by the world. The real "field" that now determines his actions is not that which is simply present but that which exists for him, exists objectively or sometimes only as an illusion.

Knowledge of the subject of that which exists always outstrips his converting it into something that determines his activity. Such knowledge fulfills a very important role in the formation of motives. At a known level of development motives at first appear as only "known," as possible, but not yet really stimulating any kind of action. To understand the process of formation of personality, it is necessary to consider this without fail, although in itself the extension of knowledge does not appear as determining for personality; for this reason, incidentally, the cultivation of personality cannot be reduced to training, to accumulating knowledge.

The formation of personality presupposes a development of the process of goal formation and, correspondingly, the development of actions of the subject. Actions, becoming ever richer, outgrow that circle of activity that they realize, and enter into a contradiction with the motives that engender them. The phenomena of such an outgrowing are very well known and repeatedly described in literature on the psychology of growth, although in different terms; these phenomena form the so-called crises of development, the crises of three years, seven years, adolescence, and the much less frequently studied crises of maturity. As a result there occurs a displacement of motives to goals, a change in their hierarchy, and the engendering of new motives, new kinds of activity; former goals are psychologically discredited and the actions that responded to them either completely cease to exist or are converted into impersonal operations.

Internally moving forces of this process lie in the original dual connection of subject with the world and in their dual mediation, object activity, and social contact. Its development engenders not only a duality of motivation of actions but, owing to this, also their subordination depending on the objective relationships opening up before the subject into which he enters. The development and multiplication of these subordinations, which are special in their nature, appearing only in life conditions of man in society, occupies a long period that may be called the spontaneous stage of development of personality, not directed by self-consciousness. At this stage, which continues almost up to the beginning of adolescence, the process of forming personality, however, is not concluded; it is only a preparation for the coming of the self-conscious personality.

In pedagogical and psychological literature either the early preschool or the preadolescent period is indicated as a turning point in this respect. The personality

actually is born twice; the first time when there appear in a child in clear forms poly-motivation and subordination of his actions (we will remember the phenomenon of the “bitter sweets” and others similar to that) and a second time when his conscious personality appears. In the latter case we have in mind some kind of a special reconstruction of consciousness. The problem arises with respect to understanding the necessity for this reconstruction and of what it specifically consists.

This necessity is created by the circumstance that the wider the connections of the subject with the world, the more they are intertwined with each other. His actions, realizing one of his activities, one relationship, objectively seem to realize also some other kind of relationship of his also. A possible nonconformity or contradiction of these does not, however, create alternatives that are simply resolved through an “arithmetic of motives.” A real psychological situation engendered by a crossing of ties of the subject with the world into which, independently of him, each of his actions and each of his acts of contact with other people are drawn, requires from him an orientation in the system of these connections. In other words, psychic reflection or consciousness cannot at this point become orienting for only some actions of a subject; it must also actively reflect the hierarchy of their connections, the process of developing subordination and cross-subordination of their motives. And this requires a special internal movement of consciousness.

In the movements of individual consciousness, described earlier as a process of mutual transition of directly sensory content and meanings acquiring one sense or another, depending on the motives of activity, there is now disclosed also a movement in one dimension. If the movement described earlier is presented figuratively as a movement in the horizontal plane, then the new movement takes place as if vertically. It consists of correlating motives one with another: Some occupy a place subordinating others to themselves and, as if elevating themselves, others, on the contrary, drop to a position of subordination or even completely lose their sense-forming function. The making of this movement expresses in itself the making of a connective system of personal senses, the making of personality.

Of course, the formation of personality represents in itself a continuous process consisting of a series of sequentially changing stages, the qualitative features of which depend on the concrete conditions and circumstances. For this reason, observing its sequential course, we note only separate displacements. But if we were to look at it from a certain distance, then the transition marking the genuine birth of personality would appear as an event changing the course of the whole subsequent psychic development.

Many phenomena exist that mark this passage. Primarily it is a reconstruction of the sphere of relations with other people and with society. If at earlier stages society is discovered in widening contacts with those around the person and for this reason predominantly in its personified forms, then at this time this situation reverses: The people around begin evermore to act through objective social relations. The transition about which we are speaking also initiates changes that determine the main thing in the development of personality, in its fate.

The necessity for the subject to orient himself in the widening system of his connections with the world is now disclosed in its new meaning: as that which gives rise to the process of the unfolding of the social essence of the subject. In all its fullness this unfolding constitutes a perspective of historical process. In conformity with the formation of personality at one or another stage of the development of society and depending on the place the individual occupies in the system of present social relations, this perspective appears only as eventually containing within itself the ideal “terminal point.”

One of the changes behind which the new reconstruction of the hierarchy of motives hides shows itself in a loss of the intrinsic value for the adolescent of relations in the intimate circle of his contacts. Thus requests coming from even the very closest adults now preserve their sense-forming functions only if they are included in a wider social motivational sphere; in other circumstances they evoke "psychological rebellion." This entrance of the adolescent into a wider circle of contacts does not at all mean, however, that the intimate and the personal now are relegated to a second plane. On the contrary, it is in just this period and for just this reason that there occurs an intensive development of internal life: Side-by-side with casual friendship there develops true friendship nurtured by mutual confidence; the content of letters changes, they lose their stereotypic and descriptive character, and accounts of experiences appear in them; attempts are made to keep intimate journals and first love appears.

Still deeper changes mark the subsequent levels of development up to the level at which the system of objective social relations and its expression acquires a personal sense itself. Of course, phenomena occurring at this level are still more complex and may be truly tragic, but even here the same thing takes place: The more society discloses itself to the personality, the fuller becomes its internal world.

The process of development of personality always remains deeply individual, unique. It produces major displacements along the abscissa of growth and sometimes evokes social degradation of the personality. The main thing is that it proceeds completely individually and depends on the concrete-historical conditions, on the belonging of the individual to one or another social environment. It is particularly dramatic under conditions of a class society with its unavoidable alienation and partialization of personality, with its alternatives between labor and management. It is understood that concrete life circumstances leave their mark on the process of development of personality even in a socialistic society. Eliminating the objective conditions that form a barrier for returning his true essence to man, for a well-rounded and harmonious development of his personality, makes this a real prospect for the first time but does not automatically reconstruct a personality. Fundamental change lies in something else, in the appearance of a new movement: a struggle of society for human personality. When we say, "In the name of man, for man," this means not simply for his use but for his personality, although here it is understood, of course, that man must be assured material good and mental nourishment.

If we return once more to the phenomena marking the transition from the period of preparation of personality to the period of its development, then we must indicate yet another transitional transformation. This is the transformation of expression of class characteristics of personality and, speaking more broadly, characteristics depending on the social differentiation of society. The subject's belonging to a class conditions even at the outset the development of his connections with the surrounding world, a greater or smaller segment of his practical activity, his contacts, his knowledge, and his acquiring norms of behavior. All of these are acquisitions from which personality is made up at the stage of its initial formation. Is it possible and is it necessary according to this to speak about the class character of personality? Yes, if we keep in mind that which the child assimilates from the environment; no, because at this stage he is only an object, if it may be expressed in this way, of his class, of his social group. Later the situation is turned around and he becomes the subject of class and group. Then and only then does his personality begin to be formed as a class personality in a different, true meaning of the word: At the beginning perhaps unconsciously, then consciously, but sooner or later he will take his position – more or less active, decisive or vacillating. For this reason, under conditions of class confrontation he does not simply "show himself" but takes his place on one side or the other of the barricade. Something else becomes evident, specifically, that at every turn of his life's way he must free

himself of something, confirm something in himself, and he must do all this and not simply “submit to the effect of the environment.”

Finally, along this line there takes place still another change, which also changes the very “mechanism” that forms personality. Earlier I spoke about the ever-widening activity that actually exists for the subject. But it exists also within time – in the form of his past and in the form of the future he sees before him. Of course, primarily we have in mind the first thing – the subject’s individual experience, the function of which appears to be, as it were, his personality. And this again resurrects the formula about personality as a product of innate properties and acquisition of experience. At earlier stages of development this formula can still seem credible, especially if it is not simplified and if all the complexity of the mechanisms that go into forming experience are considered. Under conditions of the hierarchization of motives, however, it continuously loses its meaning and at the level of personality it seems to topple.

The fact is that at this level past impressions, experiences, and actual actions of the subject do not in any way appear to him as dormant layers of his experience. They are the subject of his relations and his actions and for that reason their contribution is changed into personality. One thing in the past dies, loses its sense, and is converted into a simple condition and means of his activity: the developed aptitudes, skills, and stereotypes of behavior; everything else appears to the subject in a completely new light and acquires a new meaning, which he had not perceived before; finally, something from the past may be actively rejected by the subject and psychologically ceases to exist for him although it remains in the compendium of his memory. These changes take place gradually, but they may be concentrated and may comprise moral breaks. The resulting reevaluation of the past that is established in life leads to man’s casting off from himself the burden of his biography. Does this not in itself indicate that the contributions of past experience to personality were dependent on personality itself and became its function?

This seems to be possible because of the new internal movement that has arisen in the system of individual consciousness, which I have figuratively called a movement “along the vertical.” But one must not think that major changes in personality in the past were produced by consciousness; consciousness does not produce them but simply mediates them; they are produced by the actions of the subject, sometimes even external actions breaks of former contacts, a change in profession, a practical entering into new circumstances. This was beautifully described by Makarenko: Old clothing worn by orphans in an orphanage is publicly burned by them on a bonfire.

Despite its prevalence, the consideration of personality as a product of the biography of man is unsatisfactory, confirming as it does the fatalistic understanding of his fate (A citizen thinks thus: The child stole; therefore he will be a thief!). This view, of course, allows the possibility of changing something in man, but only at the price of external interference, the force of which outweighs the accumulation of his experience. This is a conception of the primacy of punishment and not repentance, reward and not action that it rewards. The main psychological fact is overlooked, specifically, that man enters into relations with his past, which enters variously into his present – into the memory of his personality. Tolstoy advised: Notice what you remember and what you do not remember; by these signs you will recognize yourself.

This view is incorrect also because an expansion of activity for man takes place not only in the direction of the past but also in the direction of the future. Just like the past, the future is also present in the personality. The life perspective opening before man is not simply a product of a “reflection left behind” but also its property. In this lies the strength and the truth of what Makarenko wrote about the developmental nurturing significance of close perspectives and of more distant perspectives. This is true also for

adults. The following is a parable that I heard at one time from an old stableman in the Urals: When a horse on a difficult road begins to stumble, then it is necessary not to whip it but to raise its head higher so that it might see farther ahead.

A personality is created by objective circumstances but in no other way than through the whole aggregate of the activity that realizes its relations with the world. The features of the activity also form that which determines the type of personality. Although questions of differential psychology are not a part of the problem here, the analysis of forming a personality nonetheless leads to the problem of a general approach to investigating these questions.

The first basis of personality that no differential- psychological conception can ignore is the riches of the connections of the individual with the world. These riches also distinguish a man whose life encompasses a wide circle of various activities from that Berlin teacher whose "world stretches from Moabit to Köpenick and who is locked fast behind the Hamburg Gate, his relationships to that world being reduced to a minimum by his pitiable position in life." It is understood that we are speaking about real relationships and not about relationships alienated from man, which resist him or subordinate him to themselves. Psychologically, we express these real relationships through an understanding of activity, its sense-forming motives, and not in the language of stimuli and completed operations. It must be added here that activities forming the basis of personality include in themselves theoretical activities also, and that in the course of development their circle can not only expand but also contract; in empirical psychology this is called "a contraction of interests." Some people do not notice this contraction; others, like Darwin, complain about it as a misfortune.

The differences that exist here are not just quantitative, expressing the measure of the extent to which the world opens before man in space and time, in his future. Behind them lie the differences in content of these objective and social relationships that are mandated by the objective conditions of the epoch, nation, and class. For this reason the approach to the typology of personalities, even if it considers only one such parameter, in current terminology, cannot but be concrete-historical. But psychological analysis does not stop at this, for the connections of personality with the world either may be poorer than those that set the objective conditions or may substantially surpass them.

A second and more important parameter of personality is the degree to which activities and their motives are arranged hierarchically. This degree may be very different regardless of whether the personality base forming the subject's connections with the environment is narrow or broad. The hierarchies of motives exist always at all levels of development. It is these motives that form relatively independent units of the life of the personality, and they may be smaller or larger, split one from another or within a single motivational sphere. Splitting of these units of life that are hierarchically arranged within themselves creates the psychological makeup of a person living fragmentarily, first in one "field," then in another. On the other hand, a higher degree of hierarchization of motives is expressed in the fact that man seems to measure his actions against his main motives, goals and then finds that some of these are in direct contradiction to a given motive, and others directly respond to it, and still others lead away from it.

When the principal motive that stimulates man is under consideration, then usually we are speaking about life goal. Is this motive, however, always adequately disclosed to consciousness? This question cannot be answered lightly because its perception in the form of understanding the idea occurs not of itself but in that movement of individual perception through which alone the subject is capable of interpreting what is internal to

him through a system of assimilated meanings or concepts. We have already talked about this and about the struggle that is waged in society for the consciousness of man.

Units of meaning of life may gather as if into one stream, but this is a figurative characterization. The question that remains most important is which place is occupied by that point in extensive space that constitutes the real, although not always apparent to the individual, genuine reality. The whole life of the Covetous Knight was directed to one goal: acquiring the “power of gold.” This purpose was attained (“ Who knows how many bitter abstentions, restrained passions, heavy thoughts, days of worry, sleepless nights all of this cost?”), but life ended in nothing and the goal seemed senseless. Pushkin ends the tragedy of the Covetous Knight with the words, “A dreadful age ! dreadful hearts!”

A different personality with a different fate is created when the principal motive-goal is elevated to a truly human level and does not weaken man but merges his life with the life of people, with their good. Depending on the circumstances that are the fate of man, such life motives may acquire very different content and different objective significance, but only they are capable of creating an internal psychological justification for his existence, which comprises the sense and happiness of life. The summit on this road is man having become, in the words of Gorki, a man of Man.

Here we approach the most complex parameter of personality: the general type of its structure. The motivational sphere of man, even in its highest development, never resembles a stiff pyramid. It may be displaced, eccentric with respect to the actual space of historical reality, and then we describe it as a one-sided personality. It may, on the other hand, develop as a many sided personality including a wide circle of relationships. But in the one case as well as in the other it necessarily reflects objective nonconformity of these relationships, the contradictions between them, and the shift of the place they occupy in it.

The structure of personality represents in itself a relatively stable configuration of principal motivational lines arranged hierarchically within itself. We are speaking here about the fact that “direction of personality” is incompletely described, incompletely because even in the presence of a distinct predominant line of life in a man, it still cannot be the only line. Serving the select goal or ideal does not at all exclude nor extinguish other life relationships of man, which in their turn form sense-forming motives. Figuratively speaking, the motivational sphere of personality always appears multistoried, just like that objective system of axiological concepts that characterizes the ideology of a given society, a given class or social stratum that is communized and assimilated (or rejected) by man.

Internal relationships of main motivational lines in the aggregate activity of man form as if a general “psychological profile” of personality. Sometimes it takes on the configuration of a flatness devoid of real summits; then what is small in life man takes for something large, and the large things he does not see at all. Such poverty of personality may under certain social conditions be combined with a satisfaction of a fairly wide circle of everyday needs. In this, incidentally, lies that psychological threat that modern consumer society poses to the personality of man.

A different structure of psychological profile of personality is created by parallelism of life motives, often combined with the rise of imaginary peaks formed only by “familiar motives” - stereotypes of ideals, devoid of personal sense. Such a structure, however, is transient: From the beginning the parallelism of lines of various life relationships enters subsequently into internal connections. This occurs inevitably, but not of itself; it is a result of the internal work about which I spoke earlier and which appears in the form of a specific movement of consciousness.

Multifaceted relationships into which man enters with reality are objectively contradictory. Their contradictions engender conflicts that under certain circumstances are fixed and enter into the structure of personality. Thus a historically arising separation of internal theoretical activity not only gives rise to a one-sided development of personality but may lead to psychological disorders, to splitting of personality into two spheres strange to each other – the sphere of its appearance in real life and the sphere of its appearance in the life that exists only as an illusion, only in autistic thought. It is impossible to describe such a psychological disturbance more penetratingly than did Dostoyevsky; from a wretched existence filled with senseless matters, his hero escapes into a life of the imagination, into dreams; before us there are as if two personalities, one, the personality of a man who is humiliatingly cowardly, an eccentric who shuts himself off in his den, the other, a romantic and even a heroic personality open to all the joys of life. And this is the life of one and the same man; for that reason inevitably there comes a moment when the dreams are dissipated and years of gloomy solitude, melancholy, and despondency follow.

The personality of the hero of “White Nights” is also a special, even unique phenomenon. But through this uniqueness there is evident a general psychological truth. This truth is that the structure of personality devolves neither to the riches of connections between man and the world nor to the degree to which they are arranged in hierarchies, that their characterization lies rather in the correlation of the various systems developed by the life relationships that engender conflict among them. Sometimes this conflict takes place in externally imperceptible, ordinarily dramatic forms so to speak, and does not disturb the harmony of the personality or its development; after all, a harmonious personality is not at all a personality that does not know any kind of an internal struggle. Sometimes, however, this internal struggle becomes the main thing that determines the whole makeup of the man; such is the structure of the tragic personality.

Thus theoretical analysis allows an isolation of at least three basic parameters of personality: the extent of the connections of man with the world, the degree to which they are arranged in hierarchies, and their general structure. Of course, these parameters do not give the differential psychological typology; they can only serve as a skeletal plan, which must still be filled with a living concrete-historical content. But this is a problem for special investigation. Will there not occur, however, under these circumstances a substitution of sociological psychology, will not the “psychological” in personality be lost?

This question arises because the approach about which we are speaking differs from the usual anthropologist (or cultural- anthropologistic) approach to the psychology of personality, which considers personality as an individual having psychophysiological and psychological traits that are changed in the process of his adaptation to the social environment. Our analysis, on the contrary, requires consideration of personality as a new quality engendered by the movement of the systems of objective social relations into which his activity is drawn. Personality thus no longer seems to be the result of a direct layering of external influences; it appears as something that man makes of himself, confirming his human life. He confirms it in everyday affairs and contacts, as well as in people to whom he gives some part of himself on the barricades of class struggles, as well as on the fields of battle for his country, and at times he consciously confirms it even at the price of his physical life.

As far as such psychological “substructures of personality” as temperament, needs and inclinations, emotional experiences and interests, aims, habits and customs, moral traits, etc., are concerned, it is understood that they do not in the least disappear. They are only evident in different ways: either as conditions or in their origins and

transformations, in changes of their place in personality, which take place in the process of their development.

Thus the characteristics of the nervous system undoubtedly represent individual and at the same time quite stable traits; these traits, however, do not in any way form human personality. In his actions man consciously or unconsciously deals with the traits of his constitution just as he deals with external conditions of his actions and with the means he has for accomplishing them. Characterizing man as a natural being, the traits, however, cannot play the role of forces that determine the motivation of activity and goal formation that are forming in him. The only real problem – although it arises secondarily here – the problem of the psychology of personality, is a problem of the formation of actions of the subject directed toward his own innate or acquired characteristics, which do not directly enter into the psychological characterization of his personality sphere.

Even less can the factors or “modes” of personality such as needs and purposes be considered as substructures. They appear only as abstracted from the activity of the subject in which their metamorphoses take place; but it is not these metamorphoses that create personality; on the contrary, they themselves are engendered by the movement of the development of personality. This movement is subject to the same formula that describes the transformation of human needs. It begins from the subject’s acting in order to sustain his existence; it leads to the subject’s sustaining his existence in order to act, to carry out the business of his life, to accomplish his human purpose. This reversal, concluding the stage of establishing of personality, also discloses the unlimited perspectives for its development.

Object-material “needs for oneself” having been satisfied, their satisfaction leads to their being reduced to the level of conditions of life, which are noticed the less by man the more habitual they become. For this reason *personality cannot develop within the framework of need; its development necessarily presupposes a displacement of needs by creation, which alone does not know limits.*

Must this be emphasized? Of course it must, because the naive and, in essence, vestigial sense sometimes represents a transition to the principle, “according to need,” almost as a transition to the superprosperous consumer society. Lost from view here is the fact that it is necessary also to go through a transformation of material consumption, that the possibility for everyone to satisfy these needs does away with the intrinsic value of things that satisfy them and eliminates that unnatural function that they fulfill in private ownership society – a function of confirming through them man himself, his own “prestige.”

The last theoretical question I will consider is the question of perceiving oneself as a personality. In psychology it is posed as a question of self-consciousness, a question of the process of its development. There are a great number of works dedicated to an investigation of this process. They contain detailed data characterizing the stages of formation in the ontogenesis of representations about oneself. We are speaking about the formation of the so-called body plan, the potentials for localizing one’s interior receptive sensations, about the development of cognition of one’s external aspect recognizing oneself in a mirror or in a photograph. Carefully observed is the process of the development in children of the evaluation of others and of themselves in which physical characteristics are isolated first and then psychological and moral characteristics are added to these. A change that proceeds parallel to this is that partial characterization of others and oneself yields to characterization that is more complete, one that encompasses man as a whole and his essential distinguishing traits. Such is the empirical picture of the development of self-recognition, of the recognition of one’s own individual traits, properties, and potentials. Does this picture, however,

answer the question about the development of self-consciousness, of the perception of the “I?”

Yes, if we understand self-perception only as knowing about oneself. Like all cognition, self-cognition begins with isolating external superficial properties and is the result of comparison, analysis, and generalization, of isolating the essential. But individual consciousness is not only knowing, it is not only a system of acquired knowledge or concepts. Its property is an internal movement that reflects the movement of the real life of the subject itself, which it mediates; we have already seen that only in this movement does knowledge find its relevance to the objective world and its efficacy. The matter is also the same when the object of consciousness is the traits, features, and actions or conditions of the subject himself; in this case it is also necessary to distinguish between knowledge about oneself and knowing oneself.

Knowledge, representations about oneself, begins to accumulate even in early childhood; in imperceptible forms it evidently exists also in higher animals. Self-knowledge, perception of one’s “I,” is another matter. It is the result, the product, of the formation of man as a personality. Representing in itself the phenomenological conversion of forms of actual relationships of the personality and its directness, it appears as their cause and subject.

The psychological problem of the “I” arises as soon as we pose the question: To what kind of reality is everything that we know about ourselves related, and does everything that we know about ourselves relate to this reality.? How is it that in one reality I find my “I” and in another I lose it (we even say, “I am not myself...”)?. The non-correspondence of “I” and that which the subject represents as an object of his own knowledge of himself is psychologically evident. In addition, psychology originating from an organistic position cannot give a scientific explanation of this non-coincidence. If the problem of “I” is proposed in it, then it is only in the form of a statement of existence of a special instance within personality – a small man within the heart who at the proper moment “pulls on the strings.” It is understood that rejecting the possibility of ascribing substantially to this special instance, psychology ends in evading the problem, in dissipating the “I” in the structure of personality, and its interactions with the surrounding world. Nevertheless, it still remains, showing itself now in the form of a drive to penetrate into the world, into the need to “actualize oneself” that is within the individual.

Thus the problem of self-consciousness of the personality, perception of the “I,” remains unresolved in psychology. And this is not in any way an imaginary problem; on the contrary, it is a problem of great vital significance crowning the psychology of personality.

V. I. Lenin wrote about what distinguishes “simply a slave” from a slave who is reconciled to his position and from a slave who has rebelled. This difference lies not in knowing one’s own individual traits but in perceiving oneself in a system of social relations. Perceiving one’s “I” does not mean anything else.

We have become accustomed to thinking that man represents a center in which are focused external influences and from which spread lines of his connections, his interactions with the external world, that this center, given consciousness, is really this “I.” But this is not at all the way the matter stands. We have seen that multifaceted activities of the subject are intertwined one with another and connected in knots by objective relationships, social in their nature, into which he necessarily enters. These knots, their hierarchies, also form that secret “center of personality,” which we call the “I”; in other words, this center lies not in the individual, not under the surface of his skin, but in his being.

Thus the analysis of activity and consciousness unavoidably leads to a rejection of the traditional, for empirical psychology, egocentric, "Ptolemaic" understanding of man in favor of the "Copernican," which considers the human "I" as incorporated into a general system of interconnections of people in society. It is only necessary to emphasize here that inclusion in the system does not at all mean being dissolved in it but, on the contrary, means finding and disclosing in it the force of one's action.

In our psychological literature the words of Marx are often quoted: "Man is not born a Fichtean philosopher, man looks at another man as if into a mirror and only by behaving toward him as he would behave toward himself does he begin to behave toward himself as to a man." These words are often understood only in the sense that man forms his image according to the image of another man. But in these words is expressed a much deeper meaning. In order to understand this, it is sufficient to reestablish their context.

"In certain relations," begins Marx in the comment cited, "man resembles a commodity." What are these relationships? Evidently they are those relationships discussed in the text that accompanies the quoted comment. These are the cost relations of commodities. These relationships are based on the fact that the natural body of one commodity becomes the form and reflects the cost of another commodity, i. e., they are the relationships of such superficial quality that the body of the commodity is never penetrated. Marx ends this note thus: "In addition even Paul as such, in all of his Pauline physicality, becomes for him a form of disclosure of the genus 'man'." But, for Marx, man as a generic being is not the biological species *Homo sapiens* but a human society. In him, in his personified forms, man also sees himself as a man.

The problem of the human "I" belongs to a number of problems that have been overlooked by scientific psychological analysis. Access to it is closed by many false representations compiled in psychology at the empirical level of the investigation of personality. At this level personality inevitably appears as an individual complicated but not transformed by society, that is, finding in it new systemic properties. But exactly in these, his "preternatural" properties, he embodies a subject for psychological science.

Conclusion

Although I call these pages the conclusion, the task here is not to sum up the work but rather to note future perspectives. In my view they appear as an investigation of those transitions that may be called inter-level transitions.

With no difficulty we isolate various levels of the study of man: the biological level on which he appears as a physical, natural being, the psychological level on which he appears as a subject of life activity, and finally, the social level on which he appears as realizing objective social relations, the social-historical process. The existence of these levels poses a problem about internal relationships that connect the psychological level with the biological and the social.

Although this problem has confronted psychology for a long time, even now it cannot be considered resolved. The difficulty is that for a scientific solution a preliminary abstraction is required of those specific interactions and connections of the subject that engender the psychic reflection of reality in the human brain. The category of activity actually contains this abstraction, and this, it is understood, not only does not destroy the wholeness of the concrete subject as we see him at work, in his family, or even in our laboratories, but, on the contrary, returns him to psychology.

Returning the whole man to psychology, however, may be accomplished only on the basis of a special investigation of the intertransitions of certain levels into others, which occurs in the course of development. Such investigation must reject the idea of considering these levels as superimposed one on another, and even more strongly that of reducing one level to another. The obviousness of this is particularly evident in the study of ontogenesis. If, in the initial steps of the child's psychological development, his biological adaptations (which make a decisive contribution to establishing his perceptions and emotions) appear at the first plane, then subsequently these adaptations are transformed. This of course does not mean that they simply stop functioning; it means something else, specifically that they begin to realize another higher level of activity on which the amount they contribute at each given stage of development depends. Our dual task consists, therefore, of investigating the possibility (or limitation) that they embody. In ontogenetic development this problem recurs constantly, sometimes in a very sharp form as it does, let us say, in the puberty period when biological changes occur, which from the very beginning have an already transformed expression psychologically, and when the whole question is what kind of expressions these will be.

But let us put aside the question of development psychology. The whole principle on which interlevel relations depend consists of the fact that the available higher level always becomes dominant, but it cannot be realized except with the help of lower-lying levels and is thus dependent on them.

The problem of interlevel investigations, then, is studying the multifaceted forms of these realizations due to which the processes of the higher level are not only concretized but also individualized.

The main thing that must not be lost from view is that in inter-level investigations we have to do not with something that is only one-sided but with something that is two-sided and that has a movement with a spiral form: with the formation of higher levels and the "weaving" or alternation of lower levels, which in their turn serve the possibility of the further development of the system as a whole. Thus inter-level investigations, being interdisciplinary, also exclude understanding them as reducing one level to another or attempting to find their correlative connections and coordinations. I especially emphasize this because in his time N. N. Lange spoke

about psychophysiological parallelism as about a “terrible” thought, then at this time reductionism has become a truly terrible thought for psychology. A recognition of this is penetrating ever more into western science. The general conclusion from an analysis of reductionism was most sharply formulated by English authors in the latest (1974) issue of the international journal *Cognition*: The only alternative to reductionism is dialectic materialism (S. Rose and H. Rose, Vol. 2, No. 4). This is actually so. Scientific resolution of the problem, biological and psychological, psychological and social, is simply impossible outside the Marxist system of analysis. For this reason even the positivist program “United Science” (with capital letters!), pretending to unite knowledge by means of universal cybernetics and multi-mathematical (model) schemes, suffered a clear failure.

Although these schemes are actually capable of comparing the different phenomena qualitatively among themselves, yet only on a certain plane of abstraction at which the specifics of these phenomena and their intertransformations disappear. As far as psychology is concerned, there it definitively breaks with the concreteness of man.*

Of course, having said all this, I had in mind most of all the relations between psychological and morphophysiological levels of investigation. One must think, however, that the matter also is the same in the connection that exists between the social and psychological levels.

Unfortunately, specifically those social-psychological problems remain the least researched in our science that are the most overgrown with conceptions and methods drawn from foreign research, that is, from research subordinated to the problem of finding a psychological basis for justifying and immortalizing inter-human relations engendered by bourgeois society. But a reconstruction of social-psychological science from the Marxist point of view cannot take place independently from one or another social-psychological understanding of man, and the role in his formulation of vital connections of man with the world engendered by these social relations in which he acts.

For this reason, thinking about the perspectives of psychological science as centering in itself multifaceted approaches to man, one must not be distracted from that fact that this centering takes place on the social level – just as it is at this level that human fate is decided.

* This paragraph has been modified after comparison with the Russian original.